



Reference Manual

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E-MU World Headquarters

E-MU / ENSONIQ

P.O. Box 660015

Scotts Valley, CA USA

95067-0015

Telephone: 831-438-1921

Fax: 831-438-8612

Internet: www.emu.com

www.emuparis.com

Europe, Africa, Middle East

E-MU / ENSONIQ

Suite 6, Adam Ferguson House

Eskmills Industrial Park

Musselburgh, East Lothian

Scotland, EH21 7PQ

Tel: +44 (0) 131-653-6556

Fax: +44 (0) 131-665-0473

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Important Safety Instructions

Use in countries other than the U.S.A. may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer all servicing to qualified service personnel. Do not expose this product to rain or moisture. There are no user serviceable parts or adjustments inside the unit.

Grounding Instructions

This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current, reducing the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet properly installed and grounded in accordance with all local codes and ordinances.

Danger!

Improper connection of the equipment's grounding conductor can result in the risk of electric shock. Check with a qualified electrician or service personnel if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with this product. If it will not fit the outlet, have a proper outlet installed by a qualified technician.

Caution!

If your PARIS MEC is rack mounted, you must use a standard 19 inch open frame rack. Screw-on rack mount ears are provided for this purpose.

User Maintenance Instructions

1. The PARIS should be kept clean and dust free. Periodically wipe the unit with a clean, lint free cloth. Do not use solvents or cleaners.
2. There are no user lubrication or adjustment requirements.

Caution -. *These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in these operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.*

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

READ THESE INSTRUCTIONS: When using electric products, basic precautions should always be adhered to, including the following:

1. Read all instructions before using PARIS.
2. To reduce the risk of injury, close supervision is necessary when using PARIS near children.
3. Do not use PARIS near water — for example near a bathtub, washbowl, kitchen sink, in a wet basement, on a wet bar, or near or in a swimming pool. Do not expose the unit to drips or splashes.

Important Safety Instructions

Radio and Television Interference

4. The PARIS should be situated so that its location or position does not interfere with its proper ventilation.
5. The PARIS should be located away from heat sources such as radiators, heat registers, fireplaces, stoves, or ovens.
6. The PARIS should be connected only to a power supply of the type described in the operating instructions and marked on the product.
7. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure of PARIS through openings.
8. This PARIS may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert this plug into the outlet, do not defeat the safety purpose of the plug. Contact an electrician to replace your obsolete outlet.
9. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the unit.
10. Unplug the PARIS from the power outlet during lightning storms or when left unused for a long period of time.
11. This product, in combination with an amplifier and headphones and speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, consult an audiologist.
12. Only use attachments and accessories specified by E-MU Systems.
13. The PARIS should be serviced by qualified service personnel when:
 - A. The power supply cord has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the unit; or
 - C. The unit has been exposed to rain; or
 - D. The unit has been dropped or the enclosure damaged; or
 - E. The PARIS does not operate normally or exhibits a marked change in performance.
14. All servicing should be referred to qualified service personnel.

SAVE THESE INSTRUCTIONS

Radio and Television Interference

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with our instructions—it may cause interference with radio and television reception.

This equipment has been tested and complies with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of the FCC rules. These rules are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation, especially if a “rabbit ear” TV antenna is used.

If PARIS does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move PARIS to one side or the other of the television or radio.
- Move PARIS farther away from the television or radio.
- Plug PARIS into an outlet on a different circuit than the television or radio.
- Consider installing a rooftop antenna with a coaxial lead-in between the antenna and television set.

Foreign Language Warnings - German

Wichtige Sicherheitsvorschriften

In Ländern ausserhalb den U.S.A. können andere Kabel oder Stecker notwendig werden. Zur Verminderung des Risikos von Feuer oder eines elektrischen Schlages übergebe man den Service an qualifizierte Fachleute. Das Gerät niemals Regen oder Nässe aussetzen.

Erdungsinstruktionen

Das Gerät muss geerdet sein. Bei einem Defekt oder Ausfall bietet Erdung dem elektrischen Strom den Weg des geringsten Widerstandes und reduziert das Risiko eines Schlages. Dieses Gerät ist mit einem geerdeten Kabel und Stecker ausgerüstet. Der Stecker muss in eine passende, einwandfrei montierte und geerdete Steckdose in Übereinstimmung mit den örtlichen Vorschriften eingeführt werden.

Gefahr

Unvorschriftsgemässer Anschluss des Gerätes kann zum Risiko eines elektrischen Schlages führen. Im Zweifelsfalle über die ordnungsgemässe Erdung soll ein qualifizierter Elektriker oder eine Serviceestelle beigezogen werden. Ändern Sie den mitgelieferten Stecker nicht. Sollte er nicht in die Steckdose passen, soll die einwandfreie Installation durch einen qualifizierten Techniker erfolgen.

Vorsicht

Wird der PARIS MEC in einem Rackgestell montiert, muss ein offener 19-Zollrahmen verwendet werden.

Unterhaltsinstruktionen für anwender

1. PARIS soll sauber und staubfrei gehalten werden. Das Gerät mit einem sauberen und säurefreien Tuch periodisch abreiben. Keine Lösungs- oder Reinigungsmittel anwenden.
2. Schmierer und Justieren sind nicht notwendig.
3. Bei weiteren Servicefragen wende man sich an eine qualifizierte Servicestelle.

Vorsicht

Diese Gebrauchsanweisungen sind nur für qualifizierte Techniker beabsichtigt. Um die Gefahr eines elektrischen Schlages zu vermeiden, sollen Sie keine Arbeit unternehmen, die nicht in diesen Instruktionen vorgeschrieben ist. Wenden Sie Sich bei weiteren Servicefragen an eine qualifizierte Servicestelle.

INSTRUKTIONEN BETR. FEUERRISIKO, ELEKTROSHOCK ODER VERLETZUNG VON PERSONEN

WARNUNG; Beim Einsatz elektrischer Geräte sollten folgende Vorsichtsmassregeln stets beachtet werden:

1. Lesen Sie vor dem Einschalten des PARIS alle Instruktionen.
2. Zur Vermeidung von Verletzungsrisiken müssen Kinder bei eingeschaltetem PARIS sorgfältig überwacht werden.
3. PARIS nicht in der Nähe von Wasser in Betrieb nehmen -- z.B. in der Nähe von Badewannen, Waschschüsseln, auf nassen Gestellen oder am Swimmingpool.
4. PARIS stets so aufstellen, dass seine Belüftung nicht beeinträchtigt wird.
5. PARIS nicht in der Nähe von Hitze aufstellen, wie Heizkörper, offenem Feuer, Öfen oder von Backöfen.
6. PARIS ausschliesslich mit einem Netzgerät gemäss Bedienungsanleitung und Gerätemarkierung verwenden.
7. Dieses Gerät kann bei Verwendung von Kopfhörern und Verstärkern hohe Lautpegel erzeugen, welche zu bleibenden Gehörschäden führen. Arbeiten Sie nicht während längerer Zeit mit voller Lautstärke oder hohem Lautpegel. Stellen Sie Hörverlust oder Ohrenläuten fest, wenden Sie sich an einen Ohrenarzt.
8. PARIS kann mit einem polarisierten Kabelstecker (mit ungleichen Stiften) ausgerüstet sein. Das geschieht für Ihre Sicherheit. Können Sie den Stecker nicht in die Steckdose einführen, ändern Sie nicht den Stecker ab, sondern wenden Sie sich an einen Elektriker.
9. Das Netzkabel des PARIS bei längerem Nichtgebrauch aus der Steckdose ziehen.
10. Vermeiden Sie sorgfältig das Eindringen von Gegenständen oder Flüssigkeiten durch die Gehäuseöffnungen.
11. Das Gerät soll durch qualifizierte Serviceleute gewartet werden, falls:
 - A. das Netzkabel beschädigt wurde, oder
 - B. Gegenstände oder Flüssigkeit in das Gerät gelangten,
 - C. das Gerät Regen ausgesetzt war, oder
 - D. das Gerät nicht normal oder einwandfrei arbeitet, oder
 - E. das Gerät stürzte oder sein Gehäuse beschädigt wurde.
12. Servicearbeiten sollten nur qualifizierten Fachleuten anvertraut werden.

DIESE INSTRUKTIONEN AUFBEWAHREN

Foreign Language Warnings - French

Instructions de Sécurité Importantes

Une utilisation dans des pays autres que les U.S.A. peut nécessiter l'usage d'un cordon d'alimentation différent. Afin de réduire les risques d'incendie ou d'électrocution, référez-vous à un personnel de service qualifié, et n'exposez pas cet appareil à la pluie ou à l'humidité.

Instructions de Mise à la Terre

Cet appareil doit être relié à la terre. Dans le cas d'une malfonction éventuelle, la terre fournit un passage de moindre résistance pour le courant électrique, réduisant ainsi les risques d'électrocution. Le PARIS est équipé d'un cordon muni d'un conducteur et d'une fiche devant être branchée dans une prise appropriée et reliée à la terre en conformité avec les normes locales.

Danger

Une connexion incorrecte peut résulter en des risques d'électrocution. Vérifiez avec un technicien qualifié si vous avez des doutes quant à la connexion. Ne modifiez pas vous-même le cordon d'alimentation livré avec cet appareil; s'il ne rentre pas dans la prise, faites-en installer un autre par un technicien qualifié.

Attention

Si le PARIS MEC est installé dans un rack, utilisez un rack standard ouvert de 48.25cm.

Instructions de Maintenance

1. le PARIS doit être maintenu propre et sans poussière. Nettoyez-le périodiquement à l'aide d'un chiffon propre et non-pelucheux. N'utilisez pas de solvants, ou d'autres produits de nettoyage.
2. Aucune lubrification et aucun réglage ne sont nécessaires de votre part.
3. Pour tout autre service, référez-vous à un personnel qualifié.

Instructions Concernant les Risques d'Incendie, d'Electrocution, ou de Blessures Corporelles.

ATTENTION: Lorsque vous utilisez des appareils électriques, certaines précautions élémentaires doivent toujours être prises, incluant les suivantes:

Ces instructions de dépanage sont destinées uniquement aux personnes qualifiées. Afin d'éviter les risques d'électrocution, n'effectuez que les opérations décrites dans ce manuel, à moins que vous ne soyez qualifié pour cela. Faites effectuer toute réparation par une personne qualifiée.

1. Lisez bien toutes les instructions avant d'utiliser le PARIS.
2. Afin de réduire les risques de blessures, une attention particulière est nécessaire en la présence d'enfants en bas âge.
3. N'utilisez pas le PARIS dans ou près d'endroits humides - par exemple près d'une baignoire, d'un lavabo, dans les toilettes, dans une cave humide, sur un bar fréquenté, en présence d'un bull-dog en rut, ou dans une piscine pleine. Protégez cet appareil de tout liquide, éclaboussure ou fuite.

Important Safety Instructions

Interférences Radio et Télévision

4. Le PARIS doit être placé de façon à ce que sa position n'interfère pas avec sa propre ventilation.
5. Le PARIS doit être placé loin de sources de chaleur telles que des radiateurs, cheminées, fours, ou groupies en chaleur.
6. Le PARIS doit uniquement être connecté à une alimentation du type décrit dans les instructions d'opération et tel qu'indiqué sur l'appareil.
7. Une attention particulière doit être observée quant aux objets pouvant tomber et aux liquides pouvant être versés sur et à l'intérieur de le PARIS.
8. Le PARIS peut être équipé d'une fiche secteur polarisée (avec une broche plus large que l'autre). C'est une mesure de sécurité. Si vous ne pouvez pas brancher cette fiche dans une prise, ne neutralisez pas cette sécurité. Contactez plutôt un électricien pour remplacer la prise obsolète.
9. Evitez de marcher sur le cordon d'alimentation ou de le coincer, particulièrement près des prises de courant, des boîtiers 'electriques dt du point de sortie de l'appareil.
10. Le cordon d'alimentation de le PARIS doit être débranché lorsque ce dernier n'est pas utilisé pendant une longue période.
11. Cet appareil, combiné avec un amplificateur, des haut-parleurs, et/ou un casque, est capable de générer des niveaux sonores pouvant occasionner une perte de l'ouïe permanente. Ne travaillez pas trop longtemps à un volume trop élevé ou même inconfortable. Si vous observez une perte de l'audition ou un bourdonnement dans les oreilles, consultez un O.R.L.
12. N'utilisez que les accessoires spécifiés par E-MU Systems.
13. Cet appareil doit être examiné par un personnel qualifié lorsque:
 - A. Le cordon d'alimentation a été endommagé, ou
 - B. Des objets sont tombés, ou du liquide a été versé sur/à l'intérieur de l'appareil, ou
 - C. Le PARIS a été exposé à la pluie, ou
 - D. Le PARIS est tombé, ou
 - E. Le PARIS ne fonctionne pas normalement, ou affiche un changement radical de performance.
14. Tout service doit être effectué par un personnel qualifié.

SAUVEGARDEZ CES INSTRUCTIONS

Interférences Radio et Télévision

L'appareil décrit dans cette notice génère et utilise une énergie de fréquence-radio. S'il n'est pas installé et utilisé correctement - c'est à dire en suivant strictement nos instructions - il peut occasionner des interférences avec la réception d'une radio ou d'une télévision.

Cet appareil a été testé et est conforme aux normes de Classe A en accord avec les spécifications du paragraphe J de la section 15 des lois FCC. Ces lois sont désignées pour fournir une protection raisonnable contre de telles interférences dans une installation résidentielle. Toutefois, il n'est pas garanti qu'aucune interférence n'apparaisse dans des installations particulières, et plus spécialement lorsqu'une antenne de télévision en «oreilles de lapin» est utilisée.

Si le PARIS occasionne des interférences, vous pouvez essayer de les corriger en utilisant une ou plusieurs des mesures suivantes:

- Tournez l'antenne de la télé ou de la radio jusqu'à ce que les interférences disparaissent.
- Déplacez le PARIS d'un côté ou de l'autre de la télé ou de la radio.
- Eloignez le PARIS de la télé ou de la radio.
- Branchez le PARIS sur une prise différente que la télé ou la radio.
- Installez une antenne sur le toit munie d'une connexion coaxiale entre elle et le poste de télévision.

Welcome to PARIS!

Congratulations on your purchase of E-MU's PARIS, the Professional Audio Recording Integrated System. PARIS was developed in partnership with Intelligent Devices.

PARIS turns your computer into a complete recording studio thanks to the combination of the powerful resources of your computer and the advances in professional recording hardware and software brought to you by PARIS. Your PARIS system is designed to be logical, intuitive and lightning-fast. The combination of extremely powerful software and a hardware control surface—the PARIS C16 PRO—designed specifically for PARIS, provides you the sophistication of computer technology married to the tactile experience of working with physical faders, knobs, buttons and a jog/shuttle wheel.

As the PARIS universe expands, you'll want to keep up with its latest software and new options for your PARIS system. You can find all of this—plus other helpful information—at the PARIS Website: <http://www.emuparis.com>. Visit often. For additional technical support, call E-MU Customer Service at 831-438-1921.

About the PARIS Documentation

The standard PARIS documentation is presented in two publications:

- The PARIS Introduction provides a step-by-step tutorial that leads you through many of PARIS' major features, giving you an overall feel for the way that PARIS works. If you're anxious to begin recording, this is the place to start.
- The PARIS Reference provides detailed information about the PARIS software and hardware, features, functions, settings, windows, and tools.

Notes, Tips and Warnings

Items of special interest are presented in the PARIS documentation as notes, tips and warnings.

- Notes provide additional information related to the topic being discussed. Often, notes describe the interaction between the topic and some other aspect of PARIS.
- Tips describe applications for the topic under discussion.
- Warnings are especially important, since they help you avoid activities that can cause damage to your files, your computer or yourself.

The C16 Pro Symbol

Many of the activities you'll be performing in PARIS can be accomplished using the on-screen controls and your mouse or keyboard, or by using PARIS' C16 Pro control surface. In the PARIS Reference, whenever an operation can be performed using the C16 Pro, a C16 Pro symbol will be shown in the right-hand margin of the page describing the procedure. This symbol will help you quickly locate opportunities for using the C16 Pro. Appendix 1 of the PARIS Reference provides comprehensive descriptions of C16 Pro operations.



Note: The original PARIS control surface was called the "Control 16" and was very similar to the C16 Pro except for a few features. When a particular operation is implemented differently on the Control 16, both control surfaces will be described.

Keyboard Shortcuts

PARIS offers shortcuts that allow you to perform many of its functions without lifting your hands from the computer keyboard. These shortcuts are shown alongside each function's name throughout the PARIS Reference. In addition, you can find a comprehensive listing of PARIS keyboard shortcuts in Appendix 3.

In software version 2.00 and above, keyboard shortcuts are shown alongside their corresponding menu items. PARIS shows the shortcuts' modifier keys in a manner appropriate to each platform:

- **On a Mac:** SHIFT is shown as "⇧" COMMAND as "⌘" OPTION as "⌥" and CONTROL as "⌞"
- **On a Windows PC:** the modifier keys are shown as "Ctrl," "Alt" and "Shift."

Tip: Commonly-used commands—Save, Open, Cut, Copy, Paste, etc.—in PARIS' windows have been assigned special shortcuts that allow you to use the same physical fingerings when you move between Mac OS or Windows platforms. When using these common commands, Mac OS users will find that the Windows ALT key acts like the Mac OS COMMAND key; Windows users will find that the Mac OS CONTROL key often acts like the Windows CONTROL key.

Chapter 1—Installing PARIS

Setting Up PARIS: Four Steps

There are four basic steps to installing your PARIS system:

1. Install your EDS-1000 PCI cards in your computer.
2. Attach your PARIS interfaces to your EDS-1000 cards.
3. Install the PARIS software onto your computer's hard drive.
4. Connect audio and synchronization cables to PARIS.

Note: PARIS sends and receives MIDI data using your computer's MIDI set-up. See Chapter 2 for more information.

This chapter describes all of these procedures, as well as an explanation of the Interface 442's front-panel LEDs. Please carefully read the following sections as they apply to your system as you install PARIS, paying special attention to the various warnings they include.

Note: Prior to installing your PARIS hardware, take a few moments to enter the serial numbers of each PARIS component—EDS-1000, interface, C16 Pro, expander modules. These numbers can help EMU Customer Service troubleshoot any problems you may encounter—by writing the numbers down now, you'll avoid having to open your computer, rack or Interface MEC to find them later on.

Note: If you're updating your version of PARIS, use the installation procedures described on page 7.

Safety First!

As you install PARIS' hardware components, observe the following general precautions to avoid damage to your equipment and yourself.

- To avoid possible permanent damage to your hardware, make sure that all connections are made to EDS-1000 cards with the host computer's power off. This includes connections to an EDS-1000 card from an Interface 2, Interface 442, Interface MEC and the C16 Pro control surface.
- Take care to avoid static damage to any components of your system. Internal computer surfaces, PCI boards and the PARIS interfaces are susceptible to electrostatic discharge, commonly known as "static." Electrostatic discharge can damage or destroy electronic devices. Here are some procedures you can follow when handling electronic devices in order to minimize the possibility of causing electrostatic damage:
 - Avoid any unnecessary movement, such as scuffing your feet when handling electronic devices, since most movement can generate additional charges of static electricity.
 - Minimize the handling of each EDS-1000 board. Keep it in its static-free package until needed. Transport or store the board only in its protective package.
 - When handling an EDS-1000 board, avoid touching its connector pins. Try to handle the board by its edges only.
 - Before installing an EDS-1000 board into your computer, you should be grounded. Use a ground strap to discharge any static electric charge built up on your body. The ground strap attaches to your wrist and any unpainted metal surface within your computer.
 - Before connecting a cable to your interface or between EDS-1000 cards, touch the connector sleeve of the cable to the sleeve of the jack to which you'll be connecting the cable in order to discharge any static build-up.

Connector Types

These connector types are used to connect the PARIS hardware components. They will be referred to by the name shown in the first column of the following chart:

Name	Description	Connects	Typical other uses
DIN8	Circular mini-DIN 8-pin connector	Interface 2	Mac serial ports
RJ45	Rectangular RJ45 modular telephone connector	C16 Pro	10BaseT Ethernet ports
MD50	High density 50-pin miniature D-type connector	Interfaces 442 & MEC	SCSI-2 interfaces

Warning: Warning: PARIS has been designed to use readily available and inexpensive standard computer system cables to make it easy for you to find replacement cables if your original cables become damaged or lost. However, because these standard cables types are used for other purposes, you must use caution to avoid connecting the cables incorrectly. Please verify that all PARIS cables are connected only to PARIS components before powering up your system.

Installing EDS-1000 Cards

Warning: If you are not familiar with the installation of computer peripherals and add-in boards, please contact your authorized E-MU Systems dealer or an approved computer service center to arrange for the installation.

A PARIS system can utilize anywhere from one to eight EDS-1000 cards. Each additional card adds the following functionality to your PARIS system:

- You can connect an Interface 442 or Interface MEC to each EDS-1000 card, providing additional simultaneous inputs and outputs to your PARIS system.
- Each EDS-1000 card provides 16 Channels of mixing and its own Effect-processing power, allowing you to have more live, or “Card” SubMixes in a Project and therefore—with fast hard disk support and a sufficient number of inputs—to record more simultaneous Tracks or FlexTracks. To learn about Projects and SubMixes, see Chapters 2 and 16.
- Each EDS-1000 card’s Channels can be controlled by its own C16 Pro, as described on page 209.

Installing the First EDS-1000 Card

Each PARIS system begins with the installation of an EDS-1000 card. To install the EDS-1000 card:

1. Make sure that the power switch on your computer is off.
2. Following the computer manufacturer’s recommended procedure for opening the case and installing a PCI card, install the EDS-1000 card into the lowest-numbered unoccupied slot.
3. Observe the electrostatic discharge precautions described in “Safety First!” on page 3.
4. After all EDS-1000 cards have been installed and securely fastened, close the computer case.

Note: EDS-1000 cards are equipped with insulating “bumpers” to maintain minimum spacing between adjacent PCI cards, preventing accidental contact that might cause faulty operation or even damage. This is especially important where the card is mounted horizontally and where sagging of the cards under their own weight may be a concern.

Installing Additional EDS-1000 Cards

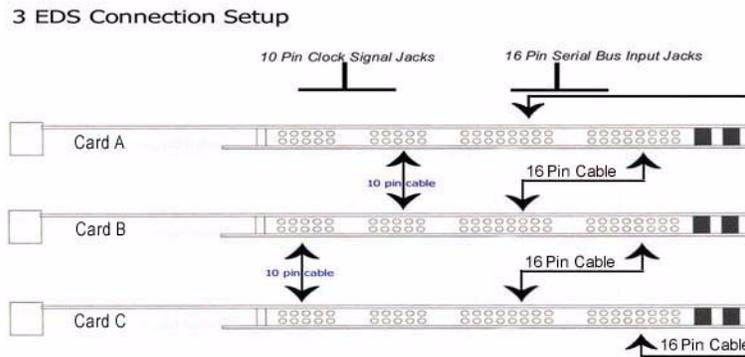
Additional EDS-1000 cards should be installed according to your computer manufacturer’s instructions for installing a PCI card. Be sure to heed all of the provided warnings.

One card in each system is designated as the master card—see page 17. When installing multiple EDS-1000 cards, you need to determine the priority for each slot. Unfortunately, the physical locations of your computer’s PCI slots may not be related to their actual slot number.

 *To identify each EDS-1000 card in a multi-card system:*

1. Install all your EDS cards. It’s recommended that you install all of your EDS-1000 cards in adjacent PCI slots to facilitate their inter-connection. See “Interconnecting EDS-1000 Cards” below.
2. Plug the MEC into one of the cards, apply power, then launch PARIS. If the MEC card is Card A, then PARIS will launch, otherwise you will get an error message.

3. If PARIS didn't launch, turn off power. Repeat step 2 with the MEC plugged into another card until PARIS launches. Use a written label to identify this card as "A".
4. If you have more than two cards, it's a good idea to label all your cards for future reference. In the Project, Settings, Configuration menu, select Card B as the Master Card, then quit PARIS.
5. Repeat step 2 above to find Card B. Card A is already identified and so can be eliminated from the list.
6. When you have all your EDS-1000 cards labelled, you're finished.

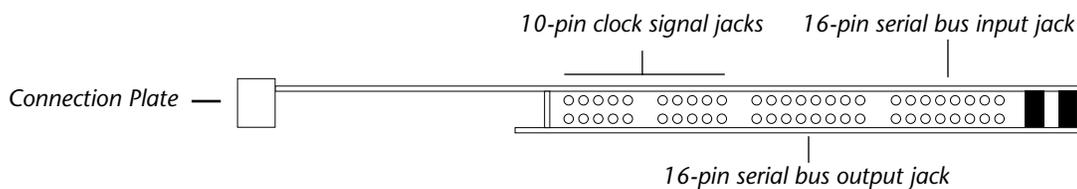


Example Cable Connection for 3 EDS-1000 Cards

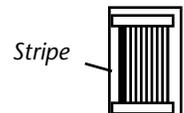
Interconnecting EDS-1000 Cards

Once you've installed your EDS-1000 cards, you must interconnect them using the supplied 10-pin and 16-pin ribbon connectors. Two types of connections must be made:

- Clock signal must pass from Card A to each successive card in a daisy-chain, flowing from one card to another. This provides synchronization for all audio in a Project.
 - A serial bus loop including all installed EDS-1000 cards must be created to provide inter-card serial communication.
1. Orient your view so that the back of your computer—the side containing its connection jacks—is to your left. The following illustration shows the jacks you'll be using on each installed EDS-1000 card.



2. Connect one end of the 10-pin ribbon cable to either clock signal jack on Card A so that the cable's stripe is to your left.
3. Connect the other end of the ribbon connector to either clock signal jack of Card B, making sure that the cable's stripe is again to the left.
4. Repeat Steps 1 and 2 for each additional card, connecting a clock signal jack from each card to the next-higher card.
5. Connect one end of a 16-pin ribbon connector to the serial bus output jack on Card A with the cable's stripe to the left.
6. Connect the other end of the ribbon connector to the serial bus input jack on Card B, making sure that the cable's stripe is again to the left.



Chapter 1 - Installing PARIS

Installing PARIS Interfaces

7. Connect one end of the other supplied 16-pin ribbon connector to the serial bus output jack on Card B so that the cable's stripe is to your left.
8. Connect the other end of the ribbon connector to the serial bus input jack on the next-highest card, making sure that the cable's stripe is again to the left. If there are no higher-positioned cards, connect the cable to Card A's Serial Bus Input Connector—in a two-card system, the 16-pin ribbon cables will cross in an "X" shape.

Synchronizing Multiple EDS-1000 Cards

To keep the Tracks/Instruments recorded and played by multiple EDS-1000 cards in perfect synchronization, you must:

1. Connect a standard BNC cable from the External Clock Out jack on your master EDS-1000 card's interface to the External Clock In jack of the interface attached to your next-highest EDS-1000 card.
Note: Note: You can designate a master card from the Project Window's Configuration... menu item (See page 17).
2. Repeat Step 1, connecting the interface connected to the second EDS-1000 card to the third card, and so on.

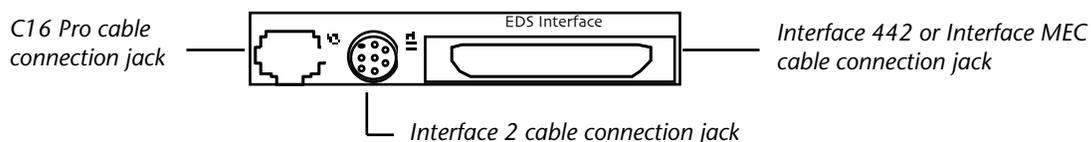
Verifying the Proper Installation of Additional EDS-1000 Cards

After installing additional EDS-1000 cards in your computer and closing its case, you can re-boot and launch PARIS. Go to the Project Window and open the Version Information Window. Directly under the PARIS version information, you'll see the number of EDS cards currently installed and recognized by PARIS.

Warning: EACH EDS-1000 CARD MUST BE ASSIGNED TO ONE SUBMIX (that is not virtual). Before you switch any Submix to Native, you must add another Submixer and assign it to the card you are about to switch out.

Installing PARIS Interfaces

The EDS-1000 Card Interface Connectors



Each EDS-1000 card provides connection jacks for the various PARIS interfaces.

Note: Your up/down/left/right view of the EDS-1000 card's connectors depends on the orientation of your computer.

Note: In a multi-card PARIS system, you can only connect an Interface 442 or MEC to each EDS-1000 card. You can, if you like, attach an Interface 2 to an Interface 442 or Interface MEC.

Warning: If you're using an Interface 442 or Interface MEC with an Interface 2, follow the instructions in "Using an Interface 2 with an Interface 442 or Interface MEC" below. Failing to do so could cause damage to your equipment.

Connecting an Interface 2

Warning: In a multi-card PARIS system, the Interface 2 cannot be attached directly to an EDS-1000 card—it can only be connected to an Interface 442 or Interface MEC.

Using the Interface 2 as Your Only Interface

Connect the cable from the Interface 2 to the DIN8 connector labeled "IF2" on the EDS-1000 PCI card using the cable that is attached to the Interface 2.

Warning: Do NOT connect the Interface 2 cable to the serial port connector on your computer. Doing so may result in permanent damage to either your computer or the Interface 2, or both.

Using the Interface 2 with an Interface 442 or Interface MEC

If you have connected an Interface 442 or Interface MEC to an EDS-1000 card, the cable from the Interface 2 must be connected to the DIN8 connector on the rear of the 442 or MEC instead of the DIN8 connector on the EDS-1000 card. Do not connect the Interface 2 directly to an EDS-1000 when an Interface 442 or Interface MEC is connected. Your system will not function correctly in this configuration.

Connecting an Interface 442 or Interface MEC

Connect one end of the supplied EDS-SC6 cable to the jack labeled “EDS Computer Interface” on the Interface 442 or Interface MEC, and the other end of the cable to the MD50 connector labeled “EDS Interface” on the desired EDS card.

Tip: If you need to replace the supplied cable, use a cable with 50 conductors, and a total length of no greater than ten feet.

Warning: Do not connect the EDS Interface cable to the SCSI interface connector on your computer. Doing so may result in permanent damage to your computer and/or the Interface 442 or Interface MEC.

Connecting the C16 Pro

Connect the supplied EDS-CS10 network-type cable from the RJ45 jack on the C16 Pro labeled “To EDS Card” to the matching RJ45 connector labeled “CS” on the desired EDS-1000 card.

You may use longer cable than the one supplied for this connection. The recommended maximum cable length is fifty feet. The cable type is a standard 10BaseT network cable.

Warning: Do not connect the C16 Pro cable to the Ethernet or network connector on your computer. Doing so may result in permanent damage to either your computer, the C16 Pro or both.

Tip: For additional functionality (see Appendix 1), connect a dual foot switch—such as E-MU’s SW332—to the C16 Pro’s rear-panel Foot Switch jack

Software Installation

Macintosh

Installing or Updating the PARIS Software

1. De-activate any virus-detection programs and reboot your Macintosh.
2. Insert the CD-ROM labeled “E-MU PARIS Installer Version X.XX” into your computer’s CD-ROM drive.
3. When it appears on your desktop, double-click the CD-ROM’s icon.
4. Double-click the “PARIS Installer” icon to begin the installation.
5. By default, the PARIS folder containing the PARIS application and related files will be installed in the root of your startup hard drive. If you want to install PARIS in a different place (in your Applications folder, for instance) use the “Select Folder...” item in the installer’s pop-up menu to select the folder in which the PARIS folder will be created.
6. Click the “Install” button to install the PARIS application and related files.
7. After the installation is complete, click “OK” to restart your computer.
8. If you’re updating from a version of PARIS earlier than 1.10, remove the file named “err.txt” from your PARIS folder.
9. When your computer has restarted, the PARIS folder will be on your desktop. The Important Info folder contains late-breaking information and other important documents that will help ensure you get the most out of your PARIS system.

Tip: You can download the latest update to the PARIS software from <http://www.emuparis.com>. When installing a downloaded update, follow the steps above, skipping Steps 2 and 3.

Windows

Installing the PARIS Drivers

The first time you restart your PC after installing the EDS-1000 board, you will need to install the PARIS Windows drivers.

Note: The PARIS drivers may be updated from time to time. To learn if updated drivers are required by a new version of PARIS, read the PARIS folder's Important Info documentation before running the newly installed version.

In addition to Windows 98, there are two versions of the Windows 95 operating system currently in use. The driver installation instructions you'll need depend on the version you have. To learn which version of Windows is on your PC:

1. From the Windows desktop, locate the "My Computer" icon (usually in the upper left corner of the screen).
2. Right-click on the "My Computer" icon, and select "Properties" from the menu.
3. Below the text "Microsoft Windows XX" you will see a version number.
4. Follow the instructions below that pertain to the version of Windows on your computer.

If You Have Windows 95 Rev. A:

1. Turn on your computer. After Windows 95 has started, you will see a message that reads, "Windows has found new hardware and is installing the software for it." This will be followed by a prompt to insert your installation disk.
2. Insert the CD-ROM labeled "E-MU PARIS Installer Version X.XX" into your computer's CD-ROM (d:) drive.
3. Make sure the item labeled "Driver from disk provided by manufacturer" is selected.
4. Click "OK."
5. Type "d:\\" in the dialog box.
6. Click "OK."
7. You will now see a "Copying Files" window. When the drivers are done copying, Windows will finish starting up, leaving you ready to proceed to "Installing or Updating the PARIS Application" below.

If You Have Windows 95 Rev. B:

1. Turn on your computer. After Windows 95 has started, you will see a message that reads, "Windows has found new hardware and is installing the software for it." This will be followed by an "Update Device Driver Wizard" window.
2. Insert the disk labeled "E-MU PARIS Installer Version X.XX" into your computer's CD-ROM (d:) drive, and click "Next."
3. Click "Finish."
4. An "Insert Disk" message will appear.
5. Click "OK."
6. Type "d:\\" (without the quotes) in the dialog box.
7. Click "OK."
8. You will now see a "Copying Files" window. When the drivers are done copying, Windows will finish starting up, leaving you ready to proceed to "Installing or Updating the PARIS Application" below.

If you have Windows 98 or Windows Millennium Edition:

1. Turn on your computer. After Windows 98 has started, Windows will inform you it has found new hardware and will open the Add New Hardware wizard dialog box. Windows 98 will tell you it has found a new PCI Multi-media Audio Device.
2. Click "Next."
3. Select "Search for the best driver for your device (Recommended)."
4. Click "Next."
5. Select your computer's CD-ROM drive from the choice of storage devices that appears, and insert the CD-ROM labeled "E-MU PARIS Installer Version X.XX" into the CD-ROM drive.

6. Click "Next."
7. When Windows 98 tells you the new driver has been found, click "Next."
8. After Windows 98 finishes copying the drivers to your hard drive, click "Finish." Windows will finish starting up, leaving you ready to proceed to "Installing or Updating the PARIS Application" on the next page.

Tip: You can download the latest version of the PARIS drivers from <http://www.emuparis.com>. To install downloaded drivers, follow the instructions in their accompanying instruction document.

Installing or Updating the PARIS Application

Note: Each version of the PARIS software is designed to work with a specific version of the PARIS driver. Whenever you update the PARIS software, make sure that the appropriate driver version is installed on your PC. You can find this information in the "What's New in PARIS X.XX" document in the Important Info folder within your PARIS folder.

1. Insert the "E-MU PARIS Installer Version X.XX" CD-ROM into your CD-ROM drive.
2. Locate and double-click your CD-ROM drive's icon.
3. Locate and double-click the PARIS Installer icon—the installer will de-compress the PARIS files, and present a PARIS Welcome dialog.
4. Click the Next button—the installer will display the first of two information windows.
5. Read the displayed information and, when you're done, click the Next button.
6. Read the displayed information and click the Next button again.
7. Enter your name and your company (the company name is optional) and click Next.
8. We recommend installing PARIS in the default location to help ensure that the installation of future updates and additional PARIS-related files will proceed smoothly. Click Next to accept the default install location.
9. You will see a summary of your installation settings—click Next to begin installing PARIS.
10. When the installation is complete, you will be prompted to restart your computer.
11. Click the Finish button.
12. Read "PARIS Notes & FAQ," located in the Important Info folder to make sure that the currently installed PARIS driver is compatible with your new software, and for late-breaking information.
13. After your computer has rebooted, you can run the PARIS application by selecting "PARIS" from the "E-MU" folder in the "Programs" folder of the Start Menu.

Tip: You can download the latest version of PARIS from <http://www.emuparis.com>. When installing a downloaded update, follow the steps above, skipping Steps 1 and 2.

Optimizing Your PARIS System

Screen Resolution

Since PARIS can display so much helpful information at any time, a screen resolution of 1024 x 780 is recommended—see your computer's documentation to learn how to set its screen resolution.

SCSI and IDE Drive Tips and Considerations

- When considering the purchase of a new SCSI or IDE drive for use with PARIS, make sure that the new drive supports a sustained data transfer rate of at least 1.6 megabytes per second to ensure playback of 16 simultaneous channels of audio. While it is impossible to reliably calculate the needs of your computer's operating system—which must be considered in addition to PARIS' requirements—you can get an approximate idea of the necessary speed of your hard disk drive based on the bit depth and number of tracks you plan to use.

If you're using PARIS at: your hard disk drive must be able to transfer at least:

16 bits	44.1 k sample rate	86.2 k per Channel per second
	48 k sample rate	93.8 k per Channel per second
24 bits	44.1 k sample rate	138 k per Channel per second
	48 k sample rate	150 k per Channel per second

- When formatting a hard drive for use with PARIS, turn “write verify” off for best performance.
- Regular check your hard drive for fragmentation and de-fragment the drive when necessary. Your drive will operate most efficiently when it’s not fragmented.
- If possible, use a two-drive system: one for audio, one for your system.

Optimizing Your Computer for PARIS

Mac OS: Improper System Disk Cache and Virtual Memory settings can cause the Mac OS to read audio data from your hard disk at the same time PARIS is accessing the data, unnecessarily increasing demand on the drive—this can result in “Disk too slow” error messages. To prevent this, launch the Memory control panel in your System Folder and:

- Set the Disk Cache to 128. If you’re concerned that this will unsatisfactorily slow down the Finder, you can experiment with higher settings—if your drive has trouble playing audio with a higher setting, return to 128 k.
- Disable Virtual Memory.
- Set the memory requirement parameter (Select the application icon, then Get Info from the File menu) higher, depending on the amount of RAM you have installed. Higher memory settings improve performance, allow more simultaneous tracks to be recorded, faster punch-ins, etc.

Windows: The following suggestions can help you configure your windows machine for optimal PARIS performance. Since systems vary, we recommend that you note the original settings of any system parameters you alter so that you can restore them in the event that unexpected problems occur as you seek to optimize your system for PARIS:

- In the PC BIOS, make sure that your PCI settings are set to Level.
- If your computer has more than 64 Mb of RAM, you may find system stability improved by setting the System.ini file’s VCACHE minimum and maximum to 8192.
- Re-configure your virtual memory settings. Start by disabling any applications that launch at boot-up by temporarily removing their shortcuts from your Windows/Start Menu/Programs/StartUp folder. You’ll have best results when you de-fragment the drive prior to setting up virtual memory. Right-click your computer’s desktop icon, select Properties and click the Performance tab and Virtual Memory... Select Let me specify my own virtual memory settings. If you have a separate audio drive, select it from the pop-up—if you have two audio drives, select the fastest one. Set virtual memory to 2 times the amount of installed RAM, up to a maximum setting of 150 Mb.
- Format your audio drive—not your system drive—from a DOS prompt using the /Z:64 option. This sets the default block size on the disk to 64 KB.
- Make sure the hard drive hardware cache is turned on for the data drive. Refer to your SCSI card manual for more information if you’re using a SCSI drive. (Do not to confuse this with the software cache in Windows.)
- Insert your SCSI card in PCI slot zero so it will be checked for activity before other cards on the system.
- If you’re using an IDE drive, take advantage of Windows’ option for adding a buffer of up to 64K to its DMA channels. Right-click your computer’s desktop icon, select Device Manager. Expand system devices, select Direct Memory Access Controller and click Properties. Click the Settings tab. Use the up arrow to increase the Reserve DMA buffer—try a setting of 32 k.
- If possible, avoid assigning slower devices to the IDE controller used by your audio drive.
- Disable Read Ahead Optimization and Write Behind Caching. Right-click your computer’s desktop icon, select Properties click the Performance tab and click the File System... button. Drag the Read-ahead optimization slider to None. Click the Troubleshooting tab and check Disable write-behind caching for all drives.

- On some computers, performance can be improved by using the network server performance profile, which reduces time-consuming disk operations by aggressively buffering data in memory. Experiment to see if this helps the performance of your PARIS system if you have a stable configuration with some form of backup power. To use the profile, right-click your computer's desktop icon, select Properties, click the Performance tab and click the File System... button. Set Typical role of this machine to Network Server.
- Turn off Auto Insert Notification on your CD-ROM drives to prevent the system from scanning every couple of seconds to see if the CD-ROM is on. Right-click your computer's desktop icon, select Device Manager. Expand CDROM and select your CD-ROM drives. For each one, click Properties, the Settings tab and un-check Auto insert notification.
- Turn off the Taskbar clock so that the system doesn't interrupt PARIS operations. Right-click the taskbar, select Properties and un-check Show Clock on the Taskbar Options tab.
- Disable your network card if you have one. Sending and receiving data over the network can interrupt the system, even if you aren't actively doing anything over the network.
- If you installed Windows 95 over Windows 3.1, put the line "verify=off" in your Autoexec.bat file. This will prevent DOS from slowing down the writing of data by verifying the writing operation.
- If you've installed Microsoft Office, go to the Windows/Start Menu/Programs/StartUp folder and delete Find-Fast.exe, which interrupts system operations periodically.
- Disable any software—including virus software—that auto-scans files. Re-enable the software when you're not using PARIS.

Configuring PARIS for Optimal Performance

To optimize PARIS for your computer, see "Configuration" on page 17.

Installing VST and DirectX Effect Plug-Ins for Use with PARIS

When mixing in PARIS, you can incorporate any real-time third-party Effect or signal processing Plug-Ins as Insert Effects (see Page 88). On a Macintosh, VST Plug-Ins can be used; on a Windows computer, VST and Direct X Plug-Ins can be used. Install any Plug-In you intend to use according to its manufacturer's instructions. As is customary, all VST Plug-Ins should be installed in the same folder/directory. The Project Window's Set VST Path setting (page 19) allows you to tell PARIS where the Plug-Ins reside.

Mac OS: VST Plug-Ins require additional PARIS memory. When using VST Plug-Ins, add 4 Mb to PARIS memory allocation (see above). If you have any problems running the Plug-Ins, add another 4 Mb.

Windows: DirectX Plug-Ins require the current version of Microsoft's Media Player. You can download a free copy of Media Player installer from Microsoft's Web site: <http://www.microsoft.com>.

Note: VST and DirectX Plug-ins can only be used as Insert Effects on Card submixes, but can be used as Insert effects *or* Return Effects on Native submixes. See "SubMix Mode Buttons" on page 174.

Note: PARIS takes more time to boot up, the more Plug-ins you have installed. This is because Plug-ins are initialized at boot up time.

Connecting Audio Cables to PARIS

Audio is routed in or out of a PARIS interface according to the virtual connections made in PARIS' Patch Bay Window. The default connections—or "normals"—for the Interface 2 and Interface 442 are:

- Interface 2—The Left and Right inputs are normalled, respectively, to odd- and even-numbered pairs of Channels/Tracks. The stereo Monitor outputs are normalled to the Interface 2's Left and Right Output jacks.
- Interface 442 and Interface MEC Master)—Input jacks 1-4 are normalled, in sets of four, to Channels 1-4, 5-8, 9-12 and 13-16. PARIS' left and right Main Outs are normalled to Output jacks 1 and 2, as well as the S/PDIF digital output. The left and right Monitor outputs are normalled to Output 3 and 4.

To learn more about using the Patch Bay Window to route audio in and out of interfaces, see Chapter 4.

The Interface 2, Interface 442 and Interface MEC can operate at either +4dBu or -10dBV. These are the two most common standard reference levels for audio equipment. Most professional equipment operates at the higher +4dBu level while most semi-professional and consumer equipment—and many instruments—use the lower -10dBV level. When a PARIS interface is set to +4dBu, its inputs are optimized for a higher input level, and its output level will be louder—it may overload the inputs of equipment to which it's connected. If you're not sure of the proper setting for your studio, try the -10dBV setting. If the input and output levels are too low, try the higher +4 dBu setting. Please refer to the documentation for your other equipment to determine the correct setting to use.

- The level-matching switch on the top of the Interface 2 is used to set the operating level of its inputs and outputs. When the switch is out, the Interface 2 is set to +4 dBu; when the switch is depressed, the Interface 2 is set to -10 dBV.
- The Interface 442 and Interface MEC utilize a software level-matching switch found in the PARIS application's Patch Bay Window. To learn how to configure the Interface 442 and Interface MEC, see Chapter 4.

The analog audio inputs and outputs of the PARIS interfaces are 1/4" TRS phone jack connectors. The PARIS interface inputs are electronically balanced.

- When an interface is set to +4dBu, the input jacks will accept balanced signals from cables using TRS plugs. Unbalanced cables with 2-conductor (TS) plugs may also be used.
- When an interface is set to -10dBV, the jacks will accept unbalanced, 2-conductor cables.

Grounding

In order to obtain best results and lowest noise levels, make sure that your computer and the other device are both grounded to the same reference. This usually means that you should be using grounded AC cables on both systems and make sure that both systems are connected to the same grounded outlet.

The PARIS interface provide mechanisms for lifting their input grounds, as well as for changing the ground compensated/balanced status of their outputs.

- When an interface's input ground is lifted, the connection is broken between the chassis and the sleeve of the input jacks. It will usually be necessary to leave the ground connected in countries without an AC ground, such as Japan.
- An interface's outputs should be compensated when an AC ground is present and 2-conductor cables are used. The outputs should be balanced whenever 3-conductor cables are used, or when 2-conductor cables are used in countries where there is no AC ground (such as Japan).

Interface 2

The Interface 2 contains four internal jumpers that can be re-positioned to remedy grounding problems that may occur. These jumpers are located inside the case of the Interface 2 and are accessible only with the cover removed. To avoid damaging your equipment, follow these directions carefully if you decide to change the default settings.

1. Make sure that the power to the computer is off.
2. Disconnect the audio connections from the Interface 2.
3. Remove the four hex socket head screws using a 2mm hex wrench.
4. Gently lift the rear of the top of the enclosure and slide the lid forward clear of the connectors on the front side.
5. Observe the pairs of labeled jumper blocks located between the two pairs of black audio connectors. The two pairs of jumper blocks are labeled:

Label	Location
Input Ground Lift	between the Input jacks
Output Ground Compensation Override	between the Output jacks

Removing the Input Ground Lift jumper(s) disconnects the ground (or sleeve) connection at the input jack. These jumpers are in the on position by default.

Installing the Output Ground Compensation Override jumper(s) disables the ground compensation feature and effectively makes the outputs 2-conductor unbalanced. These jumpers are in the off position by default.

6. Install or remove the jumpers on the pins of the jumper blocks to make the necessary changes. Note that if you want to change the setting for each jack separately, change the jumper closest to the jack.
7. Line up the four large holes on the front of the lid with the audio connectors and gently slide the lid back over the connectors and then gently press it down at the rear, being careful to make sure that the level switch on the top and the screw holes on the sides are lined up properly.
8. Reinstall the four case screws and tighten firmly but gently with the 2mm hex wrench.
9. Reconnect the audio connections to the Interface 2.
10. Power on your computer and test the new settings.

Interface 442 and Interface MEC Ground Switches

The Interface 442 and Interface MEC Master provide two rear-panel switches to aid in solving grounding problems:

- The Ground Lifted/Connected switch controls the grounding for all four inputs. When the switch is out, the ground is connected.
- The Ground Balanced/Compensated switch controls the balanced/compensated status of the interface's outputs. When the switch is out, the outputs are ground-compensated.

Digital Audio Input and Output on the Interface 442 and Interface MEC

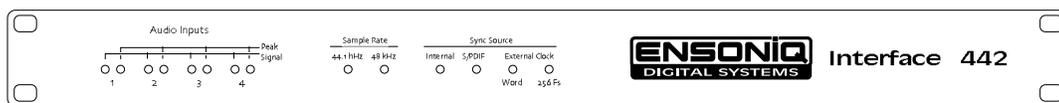
The digital input and output connectors—the digital I/O—on the Interface 442 and Interface MEC Master are a pair of RCA phono jacks, the standard connector used for S/PDIF (Sony/Philips Digital InterFace) connections. Each supports two channels of audio.

The Interface 442 receives digital audio data with word lengths of up to 20 bits—the Interface MEC can receive data at up to 24 bits. PARIS digital I/O can be used for the reception and/or transmission of digital data from any external digital device such as a DAT machine, an external analog-to-digital converter or an external signal processor equipped with digital inputs and outputs. The digital inputs and outputs appear in the Patch Bay window in the PARIS application.

Connecting Synchronization Cables to PARIS

The Interface 442 and Interface MEC have rear-panel inputs and outputs for clock signals used in a studio where a common sample rate reference is required to keep multiple pieces of digital equipment running together. This is referred to as “house clock” or “house sync,” and can be the desired sample rate, or 256 times the sample rate. Using a cable with BNC connectors, connect incoming clock signals to the External Clock In jack on the Interface 442 or Interface MEC. Connect a cable to the External Clock Out jack to pass incoming clock signals to other devices in the chain.

The Interface 442 Front Panel LEDs



Audio Inputs LEDs

There are two input level LED indicators on each of the four analog inputs of the Interface 442. The green LED indicates presence of signal and comes on at -40 dB below clipping. The red LED indicates that the signal is clipping (with a +4 setting, clipping occurs at +18 dBu; at -10, it occurs at +4 dBV). These LEDs monitor the signal directly at the analog-to-digital converters and before any processing by the rest of the system.

Tip: When setting the levels for signals being sent into PARIS, the 442's red level indicators should flash only occasionally.

The Sync Source and Sample Rate LEDs

There are two sets of LED indicators on the front panel of the Interface 442 that show both the current timing synchronization and sample rate for PARIS. These indicators reflect the current settings in the Project Window and the Interface 442 configuration in the Patch Bay Window.

The Sync Source LEDs

The Sync Source LEDs indicate the source of the master clock that's currently driving PARIS.

LED	Sync Source
Internal	Internal timing generator of the Interface 442
S/PDIF	S/PDIF digital receiver
External Clock—Word	External clock input signal at the sample rate ("word clock")
External Clock—256 Fs	External clock input signal at 256 times the sample rate

When the system is running from an external or digital clock source, the Interface 442 will continually check that the incoming clock source is valid. If the clock source changes or becomes invalid in any way, the currently lit Sync Source LED will start to blink to indicate an error condition. If sync has been lost, the audio outputs will also be muted. Audio will remain muted until the error condition is resolved and sync is re-established.

Typical causes of loss of digital or external sync include:

- Removing the S/PDIF or external clock cables
- Loss of power to the device providing the clock source
- Sudden changes in S/PDIF sample rate (as would happen if a DAT tape had data recorded at multiple rates)

The Sample Rate LEDs

The Sample Rate LEDs indicate the current sample rate at which the system is running. The LEDs will light solidly or blink to indicate different sample rates. These LED states apply to internal, external and digital sync with one exception: the 32 kHz rate is only available when the clock source is Digital. This allows the transfer of data from DAT machines and other equipment that can record at the 32 kHz rate (to record additional material or properly play back such data, PARIS' sample rate must be derived from an external 32 kHz S/PDIF source).

LED	State	Sample Rate
44.1 kHz	On	Sample rate is exactly 44.1 kHz
44.1 kHz	Blinking	Sample rate is approximately 40 kHz to 46079 kHz
48 kHz	On	Sample rate is exactly 48 kHz
48 kHz	Blinking	Sample rate is approximately 46080 to 50 kHz
Both	Off	Sample rate is 32 kHz

When synced to an external source running at exactly 44.1 or 48 kHz, any deviations in the sample rate will cause the associated sample rate LED to blink.

When changing the clock source settings from the Project Window, the IF-442 will check for the presence of external clock signals and set its front panel LEDs accordingly. If the external signals requested are not present, the clock source will remain set to Internal.

Chapter 2—The Project Window

What Is a Project?

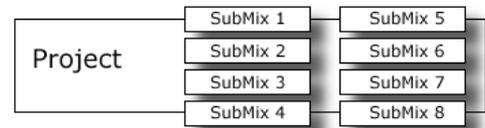
Everything you do in PARIS occurs within a structure called a “Project.” A Project keeps track of all of the recording, editing and mixing details relating to a song, re-mix, post-production job or anything else you want to create using PARIS.

How a Project is Organized

Up to Eight SubMixes

Each Project can have up to 256 Tracks or Instruments through the use of Intelligent SubMixing (the difference between Tracks and Instruments is explained on page 54). These Tracks/Instruments are organized into as many as sixteen “SubMixes,” each of which can contain up to 16 Tracks/Instruments.

To learn about Intelligent SubMixing, see Chapter 16.



Each SubMix can contain up to 16 Tracks or Instruments.

Project Windows and SubMix Windows

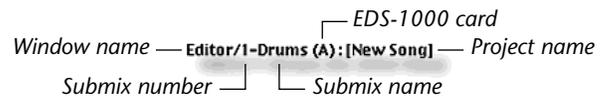
The many features of PARIS are organized into a collection of windows, with each providing all the tools you need for its particular task. Some of the windows relate to the management of the entire current Project. These are the:

- Project Window
- Transport Window
- Locator Window
- Instrument Window
- Patch Bay Window
- Audio Window
- Big Display Window
- Master Mixer Window
- Markers Window

Each SubMix has its own:

- Editor Window
- Mixer Window
- Automation Editor Window
- Mini Mixer Window
- MIDI Editor Window
- Wave Editor Windows

In the title bar of each of the SubMix windows, you'll see the name of the SubMix to which the window belongs and the EDS-1000 card with which it's associated. PARIS window management and control is described in Chapter 3.



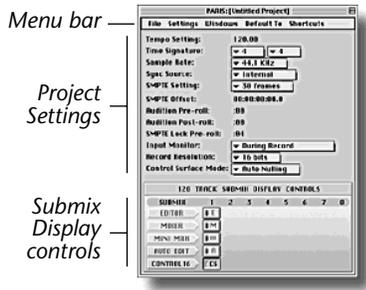
Project Disk Files

Projects are saved to disk as files that contain:

- The directory path to all Audio Files used in the Project
- Edited Objects and Segments you've created
- Markers
- Local Views
- Patch Bay connections and configurations
- Mixer and Automation settings and data
- Project Window settings
- Effects settings
- The status and location of all windows

PARIS saves Project files with the file extension “.ppj.” so that they can be opened on a Mac OS or Windows computer.

Note: When working with PARIS or any computer-based program, frequent saving of your work is very important to minimize the amount of work that needs to be re-done in the event of a loss of power or other unplanned occurrence.



The Project Window

The Project Window is the central control area for the current Project, and is always open (though it may be covered by other open windows). From the Project Window, you can access all of the Project and SubMix windows using the Windows and Shortcuts menus, and the SubMix Display control buttons in the lower area of the Project Window. These are described on Pages 21, 23 and 26, respectively. In addition, the main area of the window provides access to a number of important Project-wide settings, as well as a set of buttons with which you can open, bring to the front or close any windows belonging to the Project's SubMixes.

The Project Window Menus

The File Menu



The File Menu contains the commands for creating, opening, saving and maintaining Projects.

New Project

COMMAND-N (Mac OS); CONTROL-N (Windows)

The New Project command creates a new, empty default Project. Once a Project is open, you have access to all of PARIS' windows and functions.

Note: When you launch PARIS, a new, unsaved Project is automatically created.

Tip: You can create and save your own default Project... See "Save As..." below to learn how.

Open Project...

COMMAND-O (Mac OS); CONTROL-O (Windows)

This dialog allows you to navigate through the available disk drives in your computer system or network to find and open a stored PARIS Project. When opening a new Project file, the current Project file will be closed. You will be prompted to save or discard any unsaved changes in the current Project before the new Project is opened.

Close

SHIFT-COMMAND-W (Mac OS); CONTROL-SHIFT-W (Windows)

This command will close the current Project. If there are unsaved changes, you will be prompted to save them at this point.

Save

COMMAND-S (Mac OS); CONTROL-S (Windows)

Once you've saved a Project for the first time, use the Save command to write your current work to disk—this overwrites the previously saved version of the Project.

Note: If you use the Save command for a Project that hasn't yet been saved, the Save As... dialog will appear (see below).

Save As...

SHIFT-COMMAND-S (Mac OS); CONTROL-SHIFT-S (Windows)

Use the Save As command when saving a Project for the first time or when you wish to save an alternate version of the current Project while keeping the last-saved version of the Project intact on disk. To use the Save As... command:

1. When the standard Save dialog for your computer appears, navigate to the desired directory.
2. Type in a name for the new file.
3. Click the Save button—the file extension ".ppj" will be added automatically to the Project's name as it's saved.

Tip: Use the Save As... command to make a backup of your edits prior to making additional changes—this provides a way to retrace your steps through the many phases of a Project.

Tip: You can save your own default Project that PARIS will open whenever you launch the program, or when you select New Project from the File Menu. This Project can contain your most-used Patch Bay connections, views with which you like to work, your favorite tool arrangements and so on. To do this, create a Project with your favorite settings and save it with the name “Default Project” at the root level of your PARIS folder (that is, not inside folders within the PARIS folder).

Save a Copy As...

Use the Save a Copy As... command to save a copy of the current Project under a different name. Navigate to the directory where you'd like to save the copy, type in a new name and click Save. This differs from Save As... in that it doesn't save the open Project—and if you continue to edit, you'll be making changes to the original version of the Project, not the copy.

Revert

SHIFT-COMMAND-R (Mac OS); CONTROL-SHIFT-R (Windows)

Use the Revert command to open the last saved version of a Project from disk, wiping away any edits you've not yet saved to disk. You can protect those edits by saving an alternate version of the Project with a different name with the “Save As...” or “Save A Copy As...” command before using the Revert command.

Import OMF...

OMF is Avid's Open Media Framework File Interchange format which allows cross compatibility of your PARIS Pro project with other OMF compatible systems such as Pro Tools™. OMF files include all audio files, edits, fader and pan setups.

Use the Import OMF... command to import Open Media Format files. Pro Tools™ files can be translated into OMF using a Digidesign application called “DigiTranslator”, then imported into PARIS.

Export OMF...

Use the Export OMF... command to export PARIS files as Open Media Format files. Export begins immediately after selecting Export OMF.... The export process can be aborted by pressing, Command-. (Command-period).

Quit

COMMAND-Q (Mac OS); CONTROL-Q (Windows)

Select the Quit command to exit PARIS. You'll be prompted to save any unsaved changes in the current Project.

The Settings Menu



The Settings menu allows you to configure PARIS for optimal performance, MIDI operations, use of VST Plug-In Effects, and recording.

Configuration...

SHIFT-COMMAND-N (Mac OS); CONTROL-SHIFT-N (Windows)

The Configuration window allows you to select a master card in a multi-card PARIS system and to configure the system for optimal performance. After altering any Configuration settings, you must quit and re-launch PARIS before the new settings will take effect.

In a multi-card PARIS system, one EDS-1000 card is designated as the master card.

This card and its interface play two important roles:

- The outputs of all Project SubMixes (See page 172) are summed together in the interface's outputs. Therefore, to route all audio from a Project to a mixer, DAT machine or other device, connect the device to the output jacks of the interface attached to the master card. The master card's outputs appear on its Mixer object in the Patch Bay Window.
- The Digital and External Clock inputs—and expander sync inputs when using an Interface MEC—of the interface connected to the master card accept synchronization data when slaving your PARIS system to an external device.

 *To designate a master card in a multi-card system, click its Select Master Card button.*

Before audio can be played back—or before a Waveform Overview can be displayed—it must be read from disk. The most efficient way to ensure that data is ready in time for playback or display is to read it from disk in advance. A cache is a chunk of data that's read from disk and held in memory until it's needed. The Configuration window allows you to set the size of PARIS' audio caches:

- Disk I/O Size sets the size of the chunks of audio data PARIS will read from disk.
- Disk Cache Size allocates a portion of PARIS' memory for the holding of cached data.

In general, there's a balance to be struck when seeking to achieve optimal performance from a hard drive and PARIS:

- Disk drives transfer data more quickly when working with larger caches, since the drive's mechanism has to physically move around the disk less frequently.
- PARIS (or any audio program) is most responsive when working with smaller caches, since they require less time to read from disk—level metering and display updating is smoother, and playback starts more quickly.

The Disk I/O Size and Disk Cache Size settings interact—as you adjust either setting, the text beneath Disk Cache Size predicts the number of Channels of audio that can be expected with the displayed settings.

Tip: If you're getting "Disk too slow" errors from PARIS, consider raising your Disk I/O Size setting. If your Project contains a large number of crossfaded Objects, consider increasing the Disk Cache Size setting.

Warning: Don't set the Disk Cache too high. If you set it higher than the available amount of memory in your computer, PARIS won't boot! (The .cfg file will most likely need to be replaced if you do this.)

Mac OS: When raising the Disk Cache Size setting from its default of 10 Mb, you must increase PARIS' size:

1. Quit PARIS, open the PARIS Folder and click once on the PARIS application to select it. (It will highlight.)
2. In the File menu of the Mac Finder, choose Get Info.
3. Increase the Minimum Size and Recommended Size values by 1200 for each Mb added to the default Disk Cache Size.
4. Close the Get Info window and re-launch the PARIS application.

Tip: Don't worry about setting Disk Cache to too high a setting as long as you have enough RAM in your computer.

Overview Cache Size: The Configuration window also lets you set the Overview Cache Size: the size of the chunks of Waveform Overview data PARIS will read from disk. If you're not having problems playing audio, but your display is having trouble keeping up with playback in the Editor or Automation Editor windows, you try increasing the Overview Cache Size value in steps of 128k.

Punch Crossfade Length: PARIS provides a crossfade when punching in or out to help ensure seamless transitions between the punched audio and the previously recorded material. The default length of the crossfade is 20 ms (milliseconds)—you can set this to any value you wish.

 *To change the Punch Crossfade length:*

1. Select Configuration... from the Project Window's Settings Menu.
2. In the PARIS Configuration dialog, type the desired number of milliseconds in the Record Crossfade Length box, and click OK.

Note: When you close the PARIS Configuration dialog, a message will appear telling you that you must re-launch PARIS in order for your new settings to take effect. This message refers to the dialog's other settings—the new Record Crossfade Length setting takes effect immediately.

Manual Punch Delay: This is a delay setting which allows your computer time to prepare for recording. Short-Medium-Long times are provided. "Short" is the preferable choice, but this may cause errors if the computer is too slow or under heavy load from other applications.

Record Crossfade Length: A short crossfade is performed at the beginning of a new segment to avoid audible clicks from occurring. This parameter allows you to specify the crossfade length. The default length is 20 milliseconds.

MIDI Time Code Setup...

COMMAND-M (Mac OS); CONTROL-M (Windows)

PARIS can be synchronized with other MIDI devices and applications using MIDI Time Code (MTC). MTC is SMPTE Time Code that has been converted from standard Linear Time Code audio into data in the MIDI stream. The source for incoming MTC and the target for outgoing MTC are assigned in the MIDI Devices Window. This menu item calls the MIDI Devices window (which can also be accessed by typing: 14-period). See page 180.

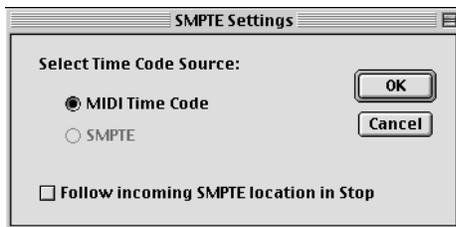
Tip: When working with PARIS and a sequencer, we recommend that you use PARIS as the master timing source. When performing other MTC operations, such as syncing PARIS with a tape deck, either device can be the master. (When PARIS is synchronized to another device, the Transport Lock button must be engaged—see Chapter 5).

The options available in the pop-ups depend on your computer platform:

- On a Macintosh, PARIS uses Opcode's OMS to provide synchronization to other MIDI devices and applications—OMS can be downloaded free from Opcode's Web site: <http://www.opcode.com>. When OMS has been installed and configured, the MIDI Setup... dialog's pop-ups offer you a choice of external MIDI devices, IAC ("Inter-Application Communication") busses accessible by OMS-compliant software sequencers, and No Input or Output.
 - If you're syncing PARIS to an external device, select the device from the MIDI Devices Window (type: 14-period). See page 180.
 - If you're syncing an external MIDI device to PARIS, select the device from the MIDI Devices Window (type: 14-period). If you're syncing a sequencer to PARIS, select an IAC bus (your sequencer will need to be set to receive MTC from the same IAC bus).
- On a Windows PC, PARIS uses its own MIDI drivers to synchronize with other applications. The MIDI Setup... dialog's pop-ups offer you a choice of your active MIDI interface, PARIS' MIDI In or Out, and No Input or Output.
 - If you're syncing to an external device, select your MIDI interface from the MIDI Devices Window (type: 14-period). See page 180.
 - If you're syncing an external MIDI device to PARIS, select the desired MIDI Device from the MIDI Devices Window (type: 14-period). If you're syncing a Windows sequencer to PARIS, select Paris MIDI Out. Consult the documentation for your MIDI devices/applications to learn how to set them up for MTC synchronization.

Tip: For step-by-step instructions on synchronizing PARIS to other devices or applications, see Appendix 2.

SMPTE Setup...



The SMPTE Setup menu provides two settings:

- If an EDS-STi-01 SMPTE Interface expander module is installed in your MEC, this menu item allows you to select MTC or SMPTE as a synchronization source when PARIS is slaved to some other application or device, as described in the EDS-STi-01 manual. When no EDS-STi-01 module is installed, only MTC can be selected—MTC is routed to PARIS via the Select MIDI Time Code Input in the Project Window's MIDI Setup... dialog (see page 19).
- With either form of synchronization, checking the "Follow Incoming SMPTE location in Stop" checkbox causes Editor and Automation Editor window Now Lines—as well as the counters in the Transport, Locator and Big Display windows—to follow incoming time code.

Set VST Path...

COMMAND-T (Mac OS); CONTROL-T (Windows)

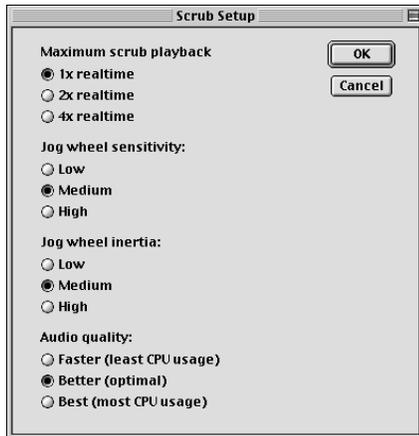
Before you can use VST Plug-Ins, PARIS must be told where on your hard drive they reside.

 To do this:

1. Select the Set VST Path... menu item and navigate into the folder containing your VST Plug-Ins.
2. Select any Plug-In and click Open.
3. Quit PARIS. When you re-launch PARIS, it will be ready to use your VST Plug-Ins.



Scrub Setup...



The audio scrub function allows you to hear the audio tracks when you move the Jog Wheel (in Jog mode). This window controls the action of the Scrub Wheel. Set the Scrub settings according to your personal preference.

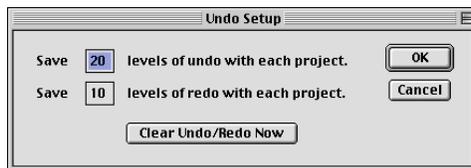
To access the Scrub Wheel controls:

1. Select the Project Window by pressing “P” on the keyboard. The project window appears.
2. From the “Settings” menu, select “Scrub Settings”. The window shown at the left appears.

- **Maximum Scrub Playback:** allows you to set speed limits on the scrub wheel. 1x allows a maximum of realtime speed; 4x allows up to four times normal speed depending on how fast you spin the wheel.
- **Jog Wheel Sensitivity:** Low, Medium, High — High is the most sensitive for precision editing; Low is least sensitive for fast scrubbing.
- **Jog Wheel Inertia:** Low, Medium, High — High provides the smoothest scrub with slow response to speed change; Low responds quickly to speed changes but has the roughest audio quality.
- **Audio Quality:** Determines the amount of CPU resources allocated to the Scrub Wheel.

Note: Make sure you are not moving the Scrub Wheel when selecting tracks (you may even have to wait a moment if Inertia is enabled). Otherwise the previously selected track may be scrubbed instead of the one you intended.

Undo Setup...



The Undo Setup screen allows you to set the number of Undo and Redo levels that will be saved to disk when you save your project. It does not affect the number of Undo/Redos you can perform while working on the project. You can save up to 99 levels of Undo and 99 levels of Redo. In most cases you will probably set the number of Undo/Redo levels to the same number, but depending on the project, you may want to save a different number for each.

The Undo Setup screen also allows you to clear the Undo/Redo memories in RAM for the current project. This allows you to save the Project with no Undo/Redo levels. Clearing the Undo/Redo levels and then Saving the project, permanently erases your Undo/Redos.

To access the Undo Setup screen:

1. Select the Project Window by pressing “P” on the keyboard. The project window appears.
2. From the “Settings” menu, select “Undo Setup...”. The window shown above appears.
3. Select the number of Undo levels from 0-99.
4. Select the number of Redo levels from 0-99.
5. If you want to clear the Undo/Redo memories for the current Project press “Clear Undo/Redo Now”.

C16 Setup...

You can use the new C16 Pro control surface (blue) or the classic Ensoniq Control 16 (black) with PARIS 2.20 and above. Each EDS-1000 PCI card can be assigned to use either type of control surface. Select the checkbox if you want to use the new C16 control surface for each EDS-1000 card in your system. Changes do not take effect until you restart PARIS.

The older Ensoniq Control 16 can be used in either of the two modes, although you may want to re-label several of the button labels when using it in C16 mode since their functions are changed (see the chart on page 221).

Set Record Path...

COMMAND-R (Mac OS); CONTROL-R (Windows)

When recording with PARIS, use this command to select a hard drive and specific directory in which to store newly recorded Audio Files. Before you can record, you must set a record path.

 To set a record path:

1. Select Set Record Path... and navigate a location on your hard drive in which to store your Audio File.
2. PARIS can record and play Audio Files in its own native format (identified with a “.paf” file extension), Sound Designer II format (“.sd2”) or WAV format (“.wav”). By default, Audio Files are PARIS .paf files. If you’d like yours to be a Sound Designer II or WAV file—useful when using an external waveform editor to edit an Audio File—click the Save as Type pop-up to select the desired format. PARIS currently supports 24-bit recording only with .paf files.
3. Type a name for your Audio File. PARIS will automatically add the appropriate file extension to the name you type.
4. Click the Save button.

Note: PARIS will use the name set in the Set Record Path dialog for each new Audio File you record until a new record path is set. As each new file is created, PARIS will append a version number to the name. This allows you to designate a record path name such as “Lead Vocal” and have PARIS auto-number the overdubs that you do in a session.

The Windows Menu



The Windows Menu allows you to view any Project-related window, as well as any window in the current default SubMix (See page 172) by selecting the window’s name. In addition, if a window is open but hidden by another window, selecting it from this menu will bring it to the front. To learn more about working with PARIS windows, see Chapter 3.

Tip: You can access a Project-related or default SubMix window at any time—and from any window—by typing the letter shown to the right of the window’s name in the Windows Menu, or by typing a number followed by a “.” on the numeric keypad of your keyboard or the keypad on your C16 Pro when you’re in View mode (see Chapter 3 and Appendix 1).

Editor

to open this window, type “E” or “2.” in View mode

This command will open or bring the default SubMix’s (page 172) Editor Window to the front. The Editor Window provides tools and commands for editing the Tracks and/or Instruments of the default SubMix. See Chapter 6 for an Editor Window overview.

Mixer

to open this window, type “M” or “3.” in View mode

Open the default SubMix’s (page 172) Mixer Window or bring it to the front by selecting this menu item. This window provides a mixing console on which all mix-related tasks for the default SubMix occur. See Chapter 12.

Transport

to open this window, type “T” or “4.” in View mode

Select this item to show an on-screen version of the Transport section of your C16 Pro—these controls allow you to play, record and navigate through a Project. You can use the on-screen Transport buttons or the C16 Pro hardware Transport buttons in any combination. See Chapter 5.

Locator

to open this window, type “L” or “5.” in View mode

This menu item will open an on-screen version of the Locator section of the C16 Pro. Here you will find two counters, the numeric entry keypad, loop tools, and the punch in/out tools for the Project. This window also contains the tools for adding Markers, as well as the Marker navigation buttons found in the Transport Window and on the C16 Pro. You can use the on-screen Locator buttons or the C16 Pro hardware Locator buttons in any combination. See Chapter 10.

Instruments

to open this window, type "I" or "6." in View mode

Select this item to open or bring to the front the Project's Instruments Window. The Instruments Window is used in the PARIS' unique Free Form mode, described on page 54. The Instruments Window is detailed in Chapter 11.

Patch Bay

to open this window, type "B" or "7." in View mode

Select this menu item to open PARIS' Patch Bay Window, in which you can set up the current Project's audio routing utilizing your PARIS interface(s). See Chapter 4.

Audio

to open this window, type "A" or "8." in View mode

This menu selection opens the Project's Audio Window, in which the Project's Audio Files and Segments (page 45) are stored. The Audio Window also provides DSP functions, file-management tools and commands to perform file format conversions, import/export Files and other Audio File- and Segment-related processes. See Chapter 15.

Mini Mixer

to open this window, type "SHIFT-M" or "9." in View mode

This item opens a scaled-down view of the default SubMix's (page 172) Mixer showing all 16 Channels. See Chapter 12.

Automation Editor

to open this window, type "SHIFT-E" or "10." in View mode

Select the Automation Editor from the Windows Menu to open a window in which automation data relating to the default SubMix (page 172) and Global Master Fader can be created, edited or deleted. See Chapter 14.

Big Display

to open this window, type "SHIFT-T" or "11." in View mode

The Big Display is an easy-to-view version of the Transport and Locator windows' Current Time display (See Chapters 5 or 10).

Master Mixer

to open this window, type "G" or "12." in View mode

The Master Mixer menu item opens or brings forward the Master Mixer Window in which you can update the Project's SubMixes, adjust their relative levels and panning or mute any SubMix. The window also provides control of the Project's overall volume and panning using the Global Master Fader. To learn about the Master Mixer Window, see Chapter 16.

Markers

to open this window, type "K" or "13." in View mode

The Markers Window provides control of a Project's Markers, allowing you to name, re-number or navigate among them. To learn about the Markers Window, see Chapter 9.

MIDI Devices

The MIDI Devices Window provides a listing of all MIDI Devices available to PARIS. See Chapter 18.

MIDI Instruments

The MIDI Instruments Window is where you create, name and assign MIDI Instruments to MIDI channels and outputs. See Chapter 18.

MIDI Chunks

The MIDI Chunks bin is analogous to the Audio Bin, except that it holds MIDI data instead of audio data. The MIDI Chunks bin contains ALL the MIDI data used in a Project. See Chapter 18.

Background Tasks

to open this window, type "20." in View mode

The Background Tasks Window is an information-only display that show activities PARIS is performing behind the scenes. Tasks that PARIS performs in the background include creating waveform overview files for Audio Files, as well as Audio Window Audio File management and DSP functions.

Tip: You can cancel any background task shown in the Background Tasks Window by OPTION-clicking (Mac OS) or right-clicking (Windows) on the task's name. If you'd like to cancel the calculation of a Waveform Overview (page 45), de-activate the Audio button in the Editor and Automation Editor windows before aborting the task.

Version Information

Select this menu item to open a window in which you can view information about the version of PARIS installed in your computer. This window also displays the number of EDS-1000 cards in use in your PARIS system.

The Default To Menu

The Default Menu allows you to designate one of the Project's SubMixes as the default SubMix, described on page 172.

The Shortcuts Menu

The Shortcuts Menu—present only when MEC expansion modules are installed—provides access to windows used with expansion modules. The menu also allows you to open the Patch Bay Window's MEC Modules Object Configuration window (Chapter 4). The documentation for PARIS expansion modules lists the keyboard shortcut(s) for opening their window(s). They can also be opened—in View mode—by typing “30.” on the keypad of your keyboard or C16 Pro for the first item listed in the Shortcuts Menu, “31.” for the second item, and so on. The letter after each item shows the EDS-1000 with which it's associated. Each module window is also numbered in the event that you have multiple modules of the same kind.

Project Settings

Tempo Setting

If you intend to use the Bars & Beats Ruler in the Editor Window or the MIDI Sequencer, you'll need to establish the tempo for the current Project—this tempo is reflected in the Bars & Beats Ruler, MIDI Chunks and the metronome. Changing the Tempo mid-project affects the length of recorded MIDI Chunks since their timing is based on this Master Tempo setting. The metronome is used as a timing reference when recording both audio and MIDI tracks. See page 191 to learn about the metronome.

 *To set the tempo for a Project:*

1. Click anywhere in the current Tempo Setting value—the value will highlight.
2. Type in a new number from the computer keyboard and hit RETURN on the keyboard. You must type in the decimal point when entering a fractional tempo (such as “97.25”). The decimal point is not necessary if you are working with whole-number units. It will be added by default, followed by two zeroes.
3. A pop-up menu dialog box appears reading, “Really change MIDI event tempo (select no to only move barlines)?”. Selecting “Yes” changes the length and timing of recorded MIDI Chunks as well as the spacing of Bar/Beats rulers. Selecting “No” only changes the spacing of Bars?beats rulers without affecting the timing of prerecorded MIDI Chunks.

Time Signature

If you intend to use the Bars & Beats Ruler in the Editor Window, you must establish the Project's time signature. Use the Time Signature pop-up menus to select a time signature for the Project. The first pop-up sets the numerator (beats per measure) and the second sets the denominator (metric unit getting one beat).

 *To set the time signature for a Project:*

1. Click on the numerator pop-up and drag your cursor to select the desired value.
2. Click on the denominator pop-up and drag your cursor to select the desired value, and release the mouse.

Sample Rate

Use this menu item to set the sample rate of the current Project before you begin to record. All Audio Files in a Project use the same sample rate. The sample rate sets the number of samples that are recorded per second of audio. Two choices are available, 44.1kHz (44,100 samples per second, the rate also used for CD audio) and 48kHz (48,000 samples per second).

Chapter 2 - The Project Window

Project Settings

To set the Sample Rate, select the desired rate from the pop-up box and release your mouse. A check mark in the menu shows the currently active rate. If you have an Interface 442 or MEC, the Sample Rate LED for the selected rate will light.

Note: If you change the sample rate after recording, the playback speed and pitch of the recorded audio will be altered. For example, if you recorded a track at 44.1 kHz, then changed the sample rate to 48 kHz, the pitch would be raised by 1.1707 or about 2 semitones.

Sync Source

The Sync Source setting for a Project determines the timing source that will be used to control the Project's playback and recording. The menu will only show choices that are available for the currently installed interface. The possible choices are:

Sync Source	When to Use It
Internal	When recording and playing back a PARIS Project free of external timing control
Digital	When recording audio from a digital device or when playing back a Project recorded from a digital device at a non-44.1 kHz or non-48 kHz sample rate
Word Clock, 256 Fs	When syncing PARIS to studio-wide house clock or house sync

Select the desired option from the Sync Source pop-up menu—the corresponding 442 or MEC Sync Source LED will light.

Tip: When a digital device is patched to an input in the Patch Bay (Chapter 4), PARIS will set Sync Source to Digital.

Tip: PARIS can be synchronized to SMPTE using MIDI Time Code by selecting the appropriate input device in the Project Window's MIDI Setup dialog and by clicking the Lock button in PARIS' Transport Window (described in Chapter 5).

SMPTE Setting

The SMPTE setting for a Project determines how many frames occur in one second. This setting is reflected in the SMPTE Ruler and the counters found in the Transport Window and the Locator Window. To determine the SMPTE Setting, select the desired value from the pop-up menu and release the mouse. A check mark in the menu shows the current frame rate.

SMPTE Offset

The SMPTE Offset allows you to adjust a Project's SMPTE time location. Use this parameter to shift an entire Project to a different SMPTE time reference.

 *To set the SMPTE Offset value:*

1. Click anywhere in the current SMPTE Offset value—the value will highlight.
2. Type in a new 9-digit number (any separator can be used between values as you type) and hit RETURN/ENTER.

Audition Pre-roll

The Audition pre-roll amount determines where playback will begin when clicking on an Object with the Audition tool in the Editor Window, or OPTION-clicking (Mac OS) or right-mouse-clicking (Windows) its Play Selection button. The Pre-roll value sets a time interval ahead of the selected Object's start so that the Audition tool begins playback before the Object to give you a better sense of its context. To reset the Pre-roll value, click on the current value to open the Pre-roll window., select a convenient unit of measurement and type in a new Pre-roll value. Click the OK button when you're done.

Audition Post-roll

The Audition Post-roll settings determines how long it will take for audio to stop playing after you've released the Audition tool in the Editor Window (or its Play Selection tool; see above). To set the Post-roll value, click on the current value. In the Post-roll window, select a unit of measurement, type in the desired value and click OK or hit RETURN/ENTER.

SMPTE Lock Pre-roll

When PARIS is SMPTE-locked to an external device using MIDI Time Code (MTC), it must fill its audio buffers with data before it can begin playback. The SMPTE Lock Pre-roll setting determines how long PARIS will take to fill its audio buffers. The default value for SMPTE-Lock Pre-roll is :04 (four seconds). Consider changing the SMPTE Lock Pre-roll if:

- You're getting disk error messages during playback when PARIS is SMPTE-locked. If this occurs, experiment with higher SMPTE Lock Pre-roll values.
- You're only working with a few tracks and would like PARIS to start playback more quickly when SMPTE-locked. In this case, experiment with lower SMPTE Lock Pre-roll values. The minimum setting is :01.

Input Monitor

The Input Monitor pop-up lets you to select when the inputs of record-enabled Channels will be heard. You can select:

- **During Record**—Any Channel's input will be heard when playback is stopped if it is record-enabled. It will also be heard when Record is engaged (manually or as a result of an automatic punch-in) while playback is occurring.
- **Rehearse**—If no punch-in range has been set, the input of record-enabled Channels will be heard during playback. When a punch-in range has been set—and when the Punch button in the Transport window is turned on—the input will be heard only within the punch-in range during playback. The inputs will also be heard when playback is stopped. To begin recording in this mode, hold down the C16 Pro's Play button and press its Record button.
- **Always Monitor Input**—In this mode, the inputs of record-enabled Channels are always audible.
- **Live Mix**—In Live Mix mode, you can route live audio through Mixer Channels and bounce that audio directly to disk—with or without already-recorded PARIS Tracks/Instruments—using the Disk Record feature found in the Master Mixer Window. In addition, you can utilize the Mixer Window's Faders, Pan controls, EQ, Insert and Aux Effects and automation tools to perfect the incoming live audio prior to, and during, bouncing. When Live Mix mode is selected in the Project Window, the record-enable button for each Channel in the current Card SubMix's Mixer Window (See page 174) becomes a "Live" button, which, when depressed, allows you to input live audio through the Channel. When in Live Mix mode, you can also set a Channel to input live audio by selecting it on the C16 Pro and pressing the Track Record Enable button.

To select an input monitoring mode, click the pop-up, drag to the desired setting and release the mouse.

Record Resolution

The Record Resolution pop-up allows you to select the bit resolution—either 16- or 24-bit—for Audio Files you're about to record. PARIS supports 24-bit recording for .paf files; if you've selected .sd2 or .wav as your file format when setting the Project's record path (See page 21), only the 16-bit option will be available in the Record Resolution pop-up. However, .sd2 or .wav files that were recorded at 24-bit resolution will play back on PARIS

Tip: While 24-bit files provide higher sound quality than 16-bit files, make sure that the software you'll be using when master your Project to CD supports the conversion of 24-bit files to compact disc's 16-bit format.

Control Surface Mode

The Control Surface mode pop-up provides two methods for synchronizing the physical positions of the C16 Pro's Faders with those in its SubMix's Mixer Window:

- **14Auto Nulling**—Select Auto Nulling when you've established a Fader setting in the Mixer Window that you'd like to adjust using the C16 Pro. The green Null Arrow LEDs (See page 214) above each Fader on the C16 Pro will indicate the direction in which the Fader must be moved to correspond to the position of the Fader in the Mixer Window. As you move the C16 Pro Fader in the indicated direction, the Null LED will begin to blink quickly at first as you approach the matching position, and then slow down as you get closer. When the blinking stops, the LED will go out—the Faders will then be matched, and you can change the Channel's level from the C16 Pro.

- **Override**—Use the Override mode when you want to force the position of a Channel Fader in the Mixer Window to the current position of the Fader on the C16 Pro. When in Override mode, as soon as you move a Fader on the C16 Pro, the Fader in the Mixer Window will jump to that position. In this mode, the lit Null Arrow signifies the direction in which the C16 Pro Fader must move in order to correspond with its counterpart in the Mixer Window.

SubMix Display Controls

At the bottom of the Project Window, buttons for the four windows in each of the Project's SubMixes are arranged in a vertical column under the SubMix's number. Click the desired window's button to open or close the window.

The C16 Pro indicators show to which of the Project's SubMixes use of a C16 Pro has been assigned. These indicators are for informational purposes only. C16 Pro use is assigned to a SubMix from the C16 Pro itself—See page 209.

Chapter 3—Window Control and Views

Working with the PARIS Windows

You will often find yourself moving between windows as you work in a Project. You can have as many PARIS windows open at a time as you want. PARIS provides three important methods for working with its windows:

- Basic window tools, including keyboard shortcuts, are provided for moving and navigating between windows.
- Local Views—Local Views allow you to save and recall window layouts. Each time you set up a window with the tools and look required for a particular task, you can save that layout as a View—up to 99 Views can be saved for each window in a Project. By using Local Views, you can quickly call up the tools and window appearance you need.
- Windows by number—lets you view or close a window in the default SubMix (See page 172) by typing numbers on a keypad.

Basic Window Tools

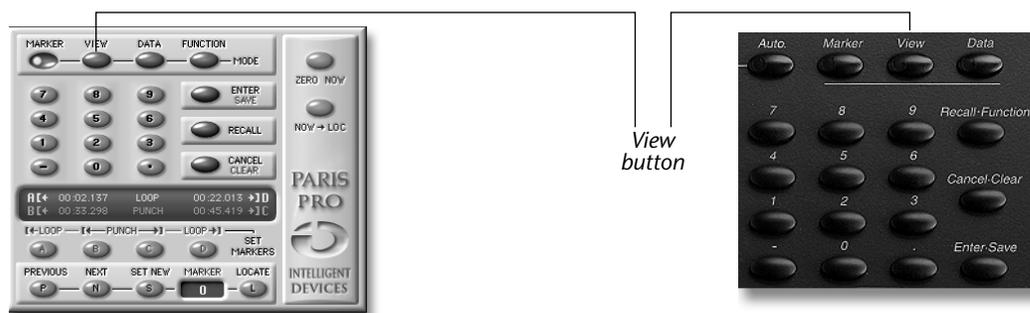
To achieve this goal	Do this:
Re-size a window	Click its lower-righthand corner and drag the corner
Move a window on the desktop	Drag the window by its title bar. Mac OS: COMMAND-drag windows that have no title bar.
Close the front-most window using your mouse	Click the Close box in its title bar.
Close the front-most window using your keyboard	Type COMMAND-W (Mac OS) or CONTROL-W (Windows).
Bring an obscured window forward using your mouse	Click on an exposed portion of the window.
Minimize a Windows window	Click its Minimize button.

Note: When a window is minimized, it cannot be selected using a letter on the keyboard or in View mode until it has been released from the Windows Task bar.

View Mode

In order to save and recall Local Views, or view windows by typing numbers on a keypad, PARIS must be in View mode—the LED in the View button in PARIS' Locator Window and on the C16 Pro must be lit.

C16 Pro



If these LEDs are not lit, click/press either button to enter View mode. You can also cycle through PARIS' modes by tapping the asterisk key on your keyboard's numeric keypad.

Local Views

When you've customized a window—re-sized it, shown or hidden and tools or channels, or, in the case of the Editor Window, changed your view magnification—you can save the window's layout as a Local View. Each window can contain up to 99 Local Views that can be recalled whenever the window is the front-most, or top window.

Local Views are set and recalled from the numeric keypad on your computer keyboard or on the C16 Pro's numeric keypad in View mode (page 209). Views are saved with the Project in which they're created.



Tip: Once you are familiar with the setup and use of Views, you may want to create your own default Project. This Project can contain a set of saved View states tailored to your particular needs and need not contain audio. By doing this, you'll save the step of creating the same Views with every Project that you work on. See page 16 for details.

Saving and Recalling Local Views

When in View mode (page 27), you can save and/or recall Local Views using the keypad on your keyboard, C16 Pro, or the Control 16.

To:	on your computer's keypad:	on the C16 Pro:
Enter View mode	Repeatedly press the keypad's asterisk button until the C16 Pro's View LED lights.	Press the View button to light its LED.
Save a Local View	<ol style="list-style-type: none"> 1. Assign the Local View a number by entering a one- or two-digit number on the keypad. 2. Press the minus key. 	<ol style="list-style-type: none"> 1. Assign the Local View a number by entering a one- or two-digit number on the keypad. 2. Press the Enter•Save button.
Recall a Local View	<ol style="list-style-type: none"> 1. Enter the Local View's number on the keypad. 2. Press the plus key. 	<ol style="list-style-type: none"> 1. Enter the Local View's number on the keypad. 2. Press the Recall button.
Clear a Local View number you've begun entering	1. Press the "clear" key	1. Press the Cancel•Clear button

Note: Overwrite warnings will be displayed if you try to save a View with an already-used number. You can choose to overwrite the destination or click Cancel and enter a different, unused Local View number.

Windows by Number

In View mode (page 27), you can type numbers on your computer's or the C16 Pro's keypad to view or close windows in the default SubMix.

Tip: You can also view a PARIS window by typing the letter shown in the last column in the following table.

To:	Enter on either keypad:	Or you can type
view the Project Window	1.	P
view the Editor Window	2.	E
view the Mixer Window	3.	M
view the Transport Window	4.	T
view the Locator Window	5.	L
view the Instruments Window	6.	I
view the Patch Bay Window	7.	B
view the Audio Window	8.	A
view the Mini Mixer Window	9.	SHIFT-M
view the Automation Editor Window	10.	SHIFT-E
view the Big Display	11.	SHIFT-T
view the Master Mixer Window	12.	G
view the Markers Window	13.	K
view the MIDI Devices Window	14.	
view the MIDI Instruments Window	15.	
view the MIDI Chunks Window	16.	

Note: If you've installed MEC expansion modules, your PARIS system will have additional windows available for configuration and control of your modules. These appear in the Project Window's Shortcuts Menu (page 23). You can access these windows by typing numbers on a keypad as well. The first window in the Shortcuts Menu can be viewed by typing "30."; the second can be viewed by typing "31." and so on.

Tip: You can close the front-most window by typing "0." on the keypad of your computer or C16 Pro. This feature is available in all windows except the Project Window, which is always open when PARIS is running.

Chapter 4—The Patch Bay Window

Patch Bay Window Overview

The Patch Bay Window allows you to make connections—or “patches”—between your PARIS interface and the PARIS mixer using virtual patch cords. You can also use the Patch Bay Window to route audio out through your interface’s output jacks to external devices in your studio, and then back through your interface into PARIS.

The Patch Bay Window has a menu bar, a Status bar and contains three main sections with scroll bars: the Object List, the Patching Area and the Configurations Window.

Note: When PARIS is launched, or when a new Project is created, PARIS installs a default set of connections. You can create your own default connections by saving a Default Project. See “Save As...” on page 16.

The Object List

The Object List contains objects that graphically represent the PARIS mixer and its Effect busses, as well as the interfaces installed in your PARIS system. The number of inputs and outputs supported by each object follows its name in the Object List. Drag objects from the Object List into the Patching Area when you want to set up patches between them.

When an object is in the Patching Area, you can click on the object to select it—a selected object changes to a dark color.

The Patching Area

The Patching Area is where connections are made by dragging virtual patch cords from sources to destinations. Sources and destinations are shown as connection points—or “nodes”—on the objects. Nodes represent the physical or logical connections on the devices represented by the objects.

Note: Nodes are referred to as “input nodes” and “output nodes,” reflecting the flow of audio in or out of the object in the Patching Area, not the physical device represented by the object.

The Configurations Window

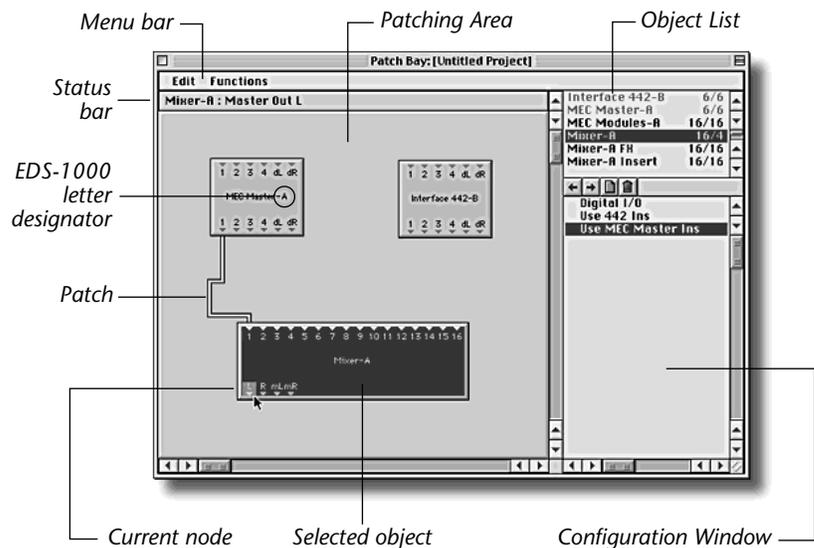
The Configurations Window provides tools for saving patch setups, such as those required during different stages of a Project. Up to 128 configurations can be saved, named, updated and/or instantly re-installed.

The Status Bar and Menus

The Status bar above the Patching Area shows object and node names as the mouse cursor is moved over them in the Patching Area. Destination node names are shown in the Status bar to the right of the source node name as the mouse cursor passes over potential destination objects. The menu bar provides various patching commands (See page 37).

EDS-1000 Letter Designator

Since PARIS 1.60 and higher can utilize multiple EDS-1000 cards, each installed card is automatically assigned a letter based on the PCI slot in which it’s installed—the card in the lowest-numbered slot is Card A, the card in the next-lowest is Card B and so on. The Patch Bay Window provides a set of color-matched patching objects that allow you to access each EDS-1000 card’s mixer, Aux and insert inputs and outputs, and any connected interfaces. Each object is identified with a letter designator corresponding to the EDS-1000 card’s letter.



Working in the Patch Bay

The Patch Bay Objects

When you drag an item from the Object List into the Patching Area, the item appears as an object in the Patching Area, and its name becomes grayed-out in the Object List. To remove an object from the Patching Area, drag it back to the Object List.

Note: Each object's name is followed by a letter designator that shows the EDS-1000 card with which it's associated.

Interface 2 [EDS-1000 letter designator]



Each Interface 2 object has two analog inputs and two analog outputs representing the four TRS jacks on the physical device. The bottom-edge output nodes are the audio appearing at the Interface 2's input jacks. The upper-edge input nodes route audio to its output jacks.

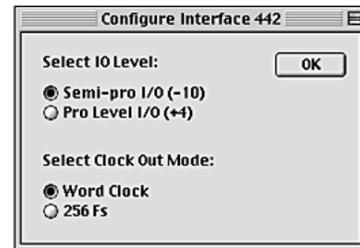
Note: When an Interface 2 is connected to the system through an Interface 442, it still appears as a separate object in the Patch Bay Window.

Interface 442 [EDS-1000 letter designator]



Each Interface 442 object has four analog inputs and four analog outputs representing the eight TRS jacks on the physical device. It also has two stereo pairs—labeled “dL” and “dR”—of digital inputs and outputs representing the two RCA (S/PDIF) connectors on the physical device. The bottom-edge output nodes are the audio appearing at the Interface 2's input jacks. The upper-edge input nodes route audio to its output jacks.

When the Interface 442 object is selected, choosing “Configure Object” from the Functions menu allows you to set the interface's input/output level and Clock Out mode. This dialog also appears when you double-click the Interface 442 object.



Tip: For more on I/O levels and clock output, see Chapter 1.

Note: The Patch Bay Window functionality of the MEC Master Module object is identical to that of the Interface 442's, except that the MEC Master Module offers separate I/O Level switches for each pair of inputs and outputs.

Mixer [EDS-1000 letter designator]



Each Mixer object provides access to its EDS-1000 card's 16 mono Channel inputs which are hard-wired to its SubMixes' Mixer Window Channels. The Mixer objects also provide patch points for their card's main left and right stereo outputs. In addition, Card A, the master card, provides access to the Project-wide Monitor stereo outputs. The upper-edge nodes on the Mixer object represent the inputs. The lower-edge nodes are the outputs: on Card A's Mixer

Object (shown at left) the stereo pair labeled “L” and “R” are the Project's Main stereo outputs; the pair labeled “mL” and “mR” are its Monitor outputs—on all other Mixer objects in a multi-card system, the main stereo outputs are labeled lower-case “l” and “r.”

Normals

As a convenience, the PARIS interfaces are connected by default to the PARIS mixer inputs and outputs in arrangements that represent common setups. The default connections are called “normals.” When you drag the Mixer object and any interface into the Patching Area, the normalised connections appear. You can remove these patches at any time using the Clear All Patches menu command to delete all of the connections, or Clear Patches to remove selected connections. You can also delete selected patches using the Delete key on your computer keyboard. The normals for the Interface 2 and Interface 442 (and the MEC Master Module) are shown in the following chart.

Interface	Input jack normal	Output jack normals
Interface 2	Audio from the Left input jack is sent to all odd mixer Channels. Audio from the Right input jack is sent to all even mixer Channels.	PARIS' Monitor L and R outputs are sent to the Left and Right output jacks.
Interface 442 & Interface MEC Master Module	Audio from Input jack 1 is sent to mixer Channels 1, 5, 9 and 13. Audio from Input jack 2 is sent to mixer Channels 2, 6, 10 and 14. Audio from Input jack 3 is sent to mixer Channels 3, 7, 11 and 15. Audio from Input jack 4 is sent to mixer Channels 4, 8, 12 and 16.	PARIS' Main L and R outputs are sent to analog outputs 1 and 2, as well as to the stereo digital output. PARIS' Monitor L and R outputs are sent to analog output jacks 3 and 4.

Mixer FX Object [EDS-1000 letter designator]



The Mixer-FX object provides patching access to the PARIS mixer's eight stereo Aux inputs and outputs, available as eight pairs of separate left and right feeds. The lower-edge nodes are the eight stereo Aux Sends. The upper-edge nodes are left and right inputs to the eight stereo Aux returns.

The Mixer FX object allows you to bring external audio—including the outputs of an external mixer—into PARIS. In addition, Interface 442 and Interface MEC owners can apply external processing to PARIS Tracks and/or create headphone mixes that can be used during recording sessions, as described in “Special Mixer FX Applications” starting on page 35.

Note: When routing an Aux Send to an external device, select External from the corresponding Aux strip's Select FX pop-up in the Mixer Window. Doing so will activate the routing, and cause the Aux strip's meters to show the level of signal routed to the external device when set to SND, or the level of signal patched into the strip's Aux Return when set to RTN. The SND meter will reflect whether you've patched a mono or stereo send; the Aux Return is always metered in stereo.

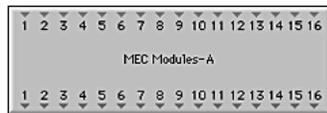
Mixer Insert Object [EDS-1000 letter designator]



The Mixer Insert object allows you to connect the input and output of an external device—or chain of devices—to each Channel's Insert module or the Insert module of the Global Master Fader. Each of the Channels is represented on the object by its number—the left-right sides of the stereo Global Master are represented by “L” and “R.” To set up an external Insert Effect loop, drag a patch connection from a lower-edge node on the Mixer Insert object to the

interface output jack that's sending audio to the external device. Drag a patch from the input jack connected to the external device's output to the corresponding upper-edge node on the Mixer Insert object. To activate the loop, select External from the Insert module's Effect selector in the Mixer or Master Mixer Window.

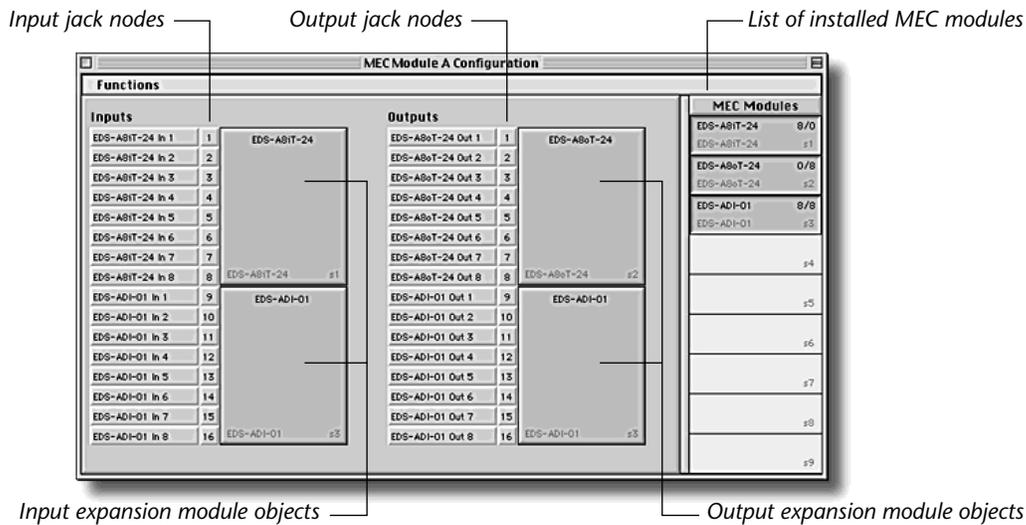
MEC Modules Object [EDS-1000 letter designator]



When PARIS detects the presence of a Interface MEC with installed expansion modules, the MEC Modules object becomes available in the Object List. This object provides 16 inputs and 16 analog outputs, providing the means for routing audio into and out of Interface MEC expansion modules. The bottom-edge output nodes are the audio appearing at each input expansion module's input jacks. The upper-edge input nodes route audio to the output jacks of connected output expansion modules.

Assigning Interface MEC Expansion Modules to Patch Bay Window Connection Nodes

Double-click the MEC Modules object to open a window in which you can assign expansion module input and output jacks to the input and output connection nodes of the MEC Modules Object. The window echoes the structure of the Patch Bay Window: the MEC Modules list on the right shows the expansion modules installed in your MEC, and the left portion of the window provides an area in which connections between the modules and the MEC Modules object are made.



To configure an expansion module, double-click it, or select Configure Object from the window's Function Menu.

Note: PARIS defaults to a setup in which your lowest-numbered input and output expansion modules are assigned to the lowest-numbered MEC Module object inputs and outputs.

To assign an expansion module's input or output jacks to nodes on the MEC Modules object, drag the desired expansion module's object alongside the intended connections in the Input or Outputs connections list. The input jack nodes that appear along the MEC Modules object's lower edge are shown in the Inputs column; the Outputs column provides access to the output jack nodes at the object's upper-edge.

Tip: Each expansion module object shows in its lower right-hand corner the Interface MEC bay in which it's installed as a lower-case "s"—for "slot"—followed by a number.

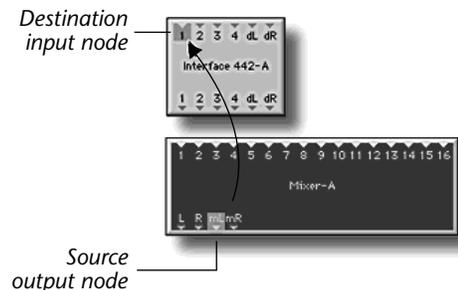
Note: Expansion modules with eight inputs or outputs can be associated only with connection points 1-8 or 9-16.

To break the connection between an expansion module's jacks and the MEC Modules object, drag the object representing the expansion module out of the connections area and into the MEC Modules list at the right-hand edge of the window.

Making Patch Connections

To Make a Patch Connection

1. In the Patching Area, click and hold the mouse button with the arrow cursor positioned on an output node of a source object.
2. Observe that the node will be highlighted with a bright orange color and that the name of the selected object and the active node will be displayed in the status bar. If the node doesn't highlight, you've clicked on an input node instead of an output node.
3. Drag the mouse cursor to the desired input node of the target object.

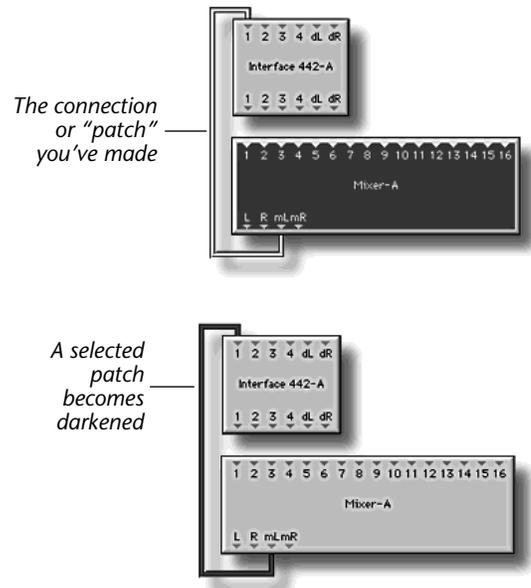


Note: Input connection nodes are located along the upper edge of each object and are marked with small triangles pointing down into the object. Output connection nodes are located along each object's lower edge, marked with small triangles pointing down and away from the object. Eligible input nodes on the destination object will be highlighted as the mouse cursor passes over them; their names will also be displayed in the Status bar.

4. Stop dragging when the desired destination node is highlighted, and release the mouse button.
5. Observe that a patch connection line will be drawn between the two nodes you selected.

To Clear One or More Patch Connections

1. Click on the patch line to select the connection that you wish to clear—the patch darkens to show it's selected.
2. SHIFT-click to select additional patches.
3. Press the BACKSPACE key on your keyboard or select the Clear Patches option from the Patch Bay Edit Menu to delete the selected patch connections.



Removing an Object from the Patching Area

When an object is selected in the Patching Area, it is highlighted with a dark red color. Objects may be deleted from the Patching Area by dragging them back into the Object List.

Special Mixer FX Applications

Note: In each of the following applications, begin your patching by selecting “Clear All Patches” from the Patch Bay Window’s Edit menu. Manually re-patch any connections you require, including PARIS’ Main and/or Monitor outputs.

Note: Two of the applications below require an Interface 442 or Interface MEC Master Module.

Interface 2, 442 and MEC Users: Patching an External Mix Into PARIS

You can use the Mixer FX object to bring external audio signals into any of the Aux strips in PARIS Mixer windows. This allows you to incorporate the output of an external mixer into your PARIS mix as a sub-mix, particularly handy when synchronizing PARIS with a sequencer that’s driving a collection of synthesizers and/or samplers.

To do this, connect the external stereo audio source to two inputs of your interface. In PARIS’ Patch Bay Window, connect the interface input jacks—located at the bottom edge of the object representing your interface—to a pair of left/right Aux Return inputs at the upper edge of the Mixer FX object. Select External from the corresponding Aux strip’s Select FX pop-up so that you can meter the external mix’s level by setting the Aux strip’s meter to RTN.

Interface 442 and Interface MEC Users: Setting up a Headphone Mix

You can create separate stereo or mono headphone mixes for performers by patching any available Aux Bus to an external headphone amp or secondary mixer/power amp combination. The steps below describe setting up a stereo mix.

1. Connect two of your interface’s output jacks to a stereo headphone amplifier.
2. In PARIS’ Patch Bay Window, patch the left/right output nodes of an Aux Send—located at the lower edge of the Mixer FX object—to the interface input nodes that feed audio to the connected jacks.
3. In PARIS’ Mixer Window, make sure that the Aux Send for the selected Aux bus is set to “Stereo” in the corresponding Aux strip.
4. Set the Aux strip’s Select FX pop-up to External to activate the external send as well as metering of the send.
5. Send any Channel to the headphone mix by assigning it to the selected Aux bus.
6. Control the overall headphone mix level using the selected Aux strip’s Send Amount control.

Chapter 4 - The Patch Bay Window

Using the Configurations Window

Note: The default mode of each Channel's Aux Send is "Post." With this setting, the performer's headphone mix will be affected by changes made to the main PARIS mix (such as level or panning). Switching a Channel's Aux Send mode to "Pre" allows the headphone mix to remain the same regardless of changes made to the Channel's Fader levels.

Interface 442 and Interface MEC Users: Using an External Effect Processor

You can patch an external stereo or mono effects processor into PARIS. Once you've connected a processor, you can send audio to the device using an Aux Send, or Insert points in each Channel and the Global Master Fader. Send amounts and panning are controlled from each Channel's Aux Send module, and the overall send and return levels are set by adjusting the Send/Return controls of the selected Aux strip. The steps below describe setting up a stereo external processor.

This example describes sending Channels to an external stereo effect processor:

1. Connect two of your interface's output jacks to the external processor.
2. In the Patch Bay Window, patch the left/right nodes of an Aux Send—located at the lower edge of the Mixer FX object—to the interface nodes that feed audio to the connected jacks (at the top edge of the interface object).
3. In PARIS' Mixer Window, make sure that the Aux Send for the selected Aux bus is set to "Stereo" in the corresponding Aux strip.
4. Set the Aux strip's Select FX pop-up to External to activate the external send metering of the external send and return.
5. Send any Channel to the processor by assigning it to the selected Aux bus using the Channel's Aux Send module.
6. Connect audio cables from the external effects processor's outputs to two of your interface's input jacks.
7. In the Patch Bay Window, patch the connected left/right jacks (located at the interface object's lower edge) to the left/right Return nodes for the Aux bus you're using—located along the upper edge of the Mixer FX object.

Using the Configurations Window

The Configurations Window allows you to save the Patching Area's current patch setup as a "configuration" that will be stored in the Project, and which can be instantly re-installed—or "recalled"—at any time. Each configuration can be named, allowing you to keep track of its intended use.

Save New Configuration Button

Click the Save New Configuration button to save a configuration containing the patch setup currently shown in the Patching Area. To name a configuration, OPTION-click (Mac OS) or right-mouse-click (Windows) its name—the name will turn red to show it can be edited. Type a new name for the configuration, and hit RETURN/ENTER.



Tip: OPTION-click (Mac OS) or right-mouse-click (Windows) to save your current hardware setup—your installed interfaces and Interface MEC expansion modules—in the configuration. A configuration that contains such a hardware setup shows a plus-sign next to its name.

Note: Configurations are displayed alphabetically in the Configurations Window.

Recall Configuration Button



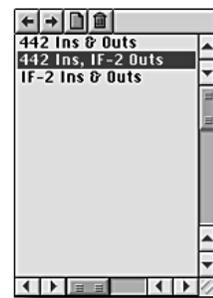
To install a previously saved configuration, select it in the Configuration Window by clicking its name—it will highlight to show that it's selected—and click the Recall Configuration button.

Tip: You can quickly recall a configuration by double-clicking its name in the Configurations Window.

Update Configuration Button



When you've altered a previously saved configuration and would like to update it, select the configuration in the Configuration Window—it will highlight to show that it's selected—and click the Update Configuration button.



Delete Configuration Button



Click the Delete Configuration button to remove the currently selected—highlighted—configuration from the Project.

Tip: To delete all patch configurations from a Project, OPTION-click (Mac OS) or right-mouse-click (Windows) the Delete Configuration button—a display will appear asking you to confirm the deletion.

The Patch Bay Window Menus

Edit Menu



This menu's commands affect the connections in the current Patch Bay configuration.

Tip: See Appendix 3 for additional Patch Bay Window keyboard shortcuts.

Clear Patches

COMMAND-B (Mac OS); CONTROL-B (Windows)

Select this option to delete all of the selected connections from the current configuration.

Clear All Patches

SHIFT-COMMAND-U (Mac OS); CONTROL-SHIFT-U (Windows)

Select this option to remove all of the patch connections in the current configuration.

Select All Patches

COMMAND-A (Mac OS); CONTROL-A (Windows)

Select All Patches select all connections present in the current configuration.

Functions Menu



Configure Object

COMMAND-F (Mac OS); CONTROL-F (Windows)

Select Configure Object to open a configuration dialog relating to the currently selected object.

Note: The remaining menu items—Load and Save Setup—are reserved for future implementation.

Chapter 5—The Transport Window

Transport Window Overview



The Transport Window provides controls for navigation through a PARIS Project in the form of tape-recorder-style buttons: Start, Stop, Play, Record, Rewind and Fast Forward. It also provides Marker, Loop, Locate, Punch-in and SMPTE Lock buttons, as well as two time displays.

Most of the buttons and displays in the Transport Window can also be found in other PARIS windows or on the C16 Pro—you can access whichever button or display is most convenient.

Tip: You'll find keyboard shortcuts for various Transport Window actions in Appendix 3.

The Transport Window Time Counters

There are two separate time displays available in the Transport Window: the Current Time counter and the Locate Time counter. You can set the time format shown in either counter.



The Current Time Counter

The Current Time counter shows the current time and position of the Now Line during playback or while editing. When recording, the white characters of the Current Time counter turn red. You can also use it to send the Now Line to a new location by clicking anywhere in the counter. A dialog will appear in which you can select a convenient time format, and type in the desired location to which the Now Line will move when you click OK.

Tip: The Big Display Window offers an easy-to-read, oversized version of the Current Time counter.

The Locate Time Counter

The Locate Time counter displays the Locate point to which the Now Line will move when you hit the Locate button in the Transport or Locator windows, or on the C16 Pro. Values are entered in the Locate Time counter when:

- You can manually enter a locate time by clicking anywhere in the Locate Time counter, selecting a convenient time format, typing the desired time and clicking OK.
- The Transport or Locator Window's Marker buttons are OPTION-clicked in (Mac OS) or right-clicked (Windows). The Transport Window's Marker buttons are described on page 42. To learn about the Locator Window, see Chapter 10.
- The Copy Now button is pressed in the Locator Window (See page 95).
- Markers are recalled in the Locator Window or from your keyboard (page 92), or from the C16 Pro (page 209).
- From the Markers Window, you can OPTION-click (Mac OS) or right-mouse click (Windows) in a Marker's Position column to copy the Marker's position into the Locate Time counter—See page 87.

Selecting a Counter's Time Format

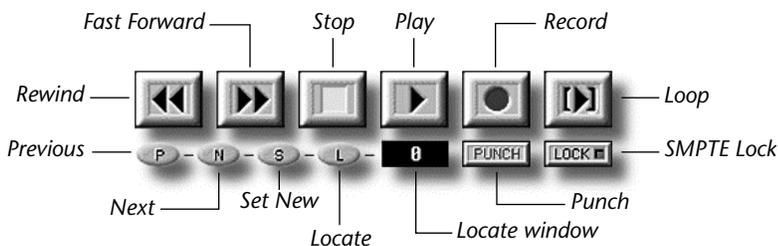
Either time counter can be set to display its time in a variety of time formats. To choose the desired unit of measurement, click the abbreviation shown in the counter's Time Format display—with each click, the abbreviation will change to show the next available unit of measurement, and the counter will translate its time to the new format.



Unit of measurement	Abbreviation
SMPTE Time Code (hours, minutes, seconds, frames and subframes)	SMPTE
Samples, according to the Project's sample rate (page 23)	SAM
Hours, minutes and seconds	HMS
Minutes, seconds and milliseconds	MSM
Seconds	SEC
Bars and beats, according to the Project's tempo (page 23)	BAR

Tip: You can save Local Views of the Transport Window to create quick access to different time-format combinations.

The Transport Buttons



Tip: You can control the Play, Stop and Record Transport functions using a two-pedal foot switch—such as E-MU's SW332—connected to the C16 Pro. See Appendix 1.

The Rewind Button

RETURN

Press the Rewind button to move backward through the Project from the current position of the Now Line. The double triangles in this button will light in blue when engaged. A quick double press of this button causes the Project to jump to the Project start. Hit the Stop button to discontinue rewinding, or use the Play button to stop the rewind process and re-start playback. When paused, double-click this button to jump to the beginning of the Project.



The Fast Forward Button

END

Use the Fast Forward button to advance through the Project from the Now Line's current position. The double triangles in this button light in blue when engaged. When fast-forwarding, press the button for a second time to jump to the Project end point. Use the Stop button to halt the fast-forwarding, or use the Play button to re-start playback. If the Project is paused, you can double-click this button to jump to the end of the Project.



The Stop Button

During playback, SPACEBAR

Press the Stop button to halt playback, rewinding or fast-forwarding of a Project. The Now Line will pause where it was at the time the Stop button was pressed—you can resume playback from this point by hitting the Play button. When recording, hit the Stop button to end the recording process and halt Project playback. The blue LED in the Stop button lights solidly whenever a Project is stopped.



The Play Button

SPACEBAR

Click the Play button to start playback from the current position of the Now Line. Once pressed, the Play button's black triangle will light in solid blue. When recording, hitting the Play button will disengage recording without stopping playback. While playing, hitting the play button again will restart playback from the last started location.



The Record Button

SHIFT-SPACEBAR

When a Channel is armed for recording, click the Record button to initiate recording—the red LED in the Record button will light to confirm that you’ve begun recording (the red Rec LED on the C16 Pro will also light). Stop the recording process by hitting the Stop button or the Play button: when you press the Stop button, the Project pauses; when you press the Play button, recording stops and playback continues, allowing you to punch-in and punch-out as the Project plays. (You can also automate punching in PARIS; see “The Punch Button” on page 42.)



PARIS provides three different ways to record—or punch in and out on—a Track or FlexTrack (to learn about Tracks and FlexTracks, see Chapter 6.)

- You can record from the Transport Window, as described below.
- You can record from your computer’s keyboard, as described below.
- You can record using the C16 Pro—see Appendix 1 for details.

Setting Up for Recording

There are two steps that must be performed prior to recording in any of the ways listed above. You must:

1. Set a record path.
2. Record-enable the Channel(s) through which you want to record. See page 206.

Note: If you attempt to record without defining a record path, PARIS will prompt you to do so. To learn about setting a record path, see page 21. To learn how to arm Channels for recording, see page 107 or 206.

To Record a Track/FlexTrack Using the Transport Window or Keyboard

Once you’ve set a record path and record-enabled the desired Channel(s), you can begin recording:

- To record from the Transport Window, rewind to the beginning of the Project—or, if you want to start recording somewhere in the middle, to a location prior to where you want to begin recording—and click the Record button.
- To record from your keyboard, rewind to the desired location and type SHIFT-SPACEBAR to begin recording.

To Punch In and Out Manually Using the Transport Window or Keyboard

PARIS allows you to re-record sections within a previously recorded Track or FlexTrack—this process is called “punching.” When you begin such a re-recording, you’re “punching in”; when you stop, you’re “punching out.” You can perform punching manually, as described below, or automatically, as described on pages 95 and 211.

Once you’ve set a record path and record-enabled the desired Channel(s), you can begin punching:

- To punch in and out from the Transport Window, rewind to a location prior to where you want to begin recording and click the Play button to begin playback. To punch in, click the Record button—its LED will light. To punch out, click the Record button again—playback will continue, but recording will end.
- To record from your keyboard, rewind to the desired location, hit your spacebar to begin playback, and type SHIFT-SPACEBAR to punch in. To punch out, type SHIFT-SPACEBAR again.

The Loop Button

When the Loop Playback button pressed in—and its blue LED is lit—PARIS will repeatedly play back the region defined by the Loop Start and Loop End markers. When the Loop Playback button is lit, the corresponding LEDs in the Locator Window and the Loop on the C16 Pro will also light.

Note: Looping occurs during the duration defined by the settings of the Loop Start and Loop End Markers. To learn how to set up Loop Markers, see page 93 or 210.



The Marker Buttons

The Transport Window's group of Marker buttons allows you to move the Now Line to Markers set in the Editor and Automation Editor windows (see pages 50 and 142), and to set new Markers from the Transport Window. All of the buttons work during playback or when the Project is paused. (Markers are described in Chapters 6, 9 and 14.)

Tip: As a convenience, the Marker buttons found in the Transport Window also appear in the Locator Window and on the C16 Pro. In addition, the Editor and Automation Editor windows provide the same functions through the use of their own Marker section buttons. You can use the Marker buttons in any of these locations interchangeably.



Tip: OPTION-click (Mac OS) or right-click (Windows) the Previous or Next buttons to copy into the Locate Time counter the time value associated with any Marker they recall. The Locate Window will show the number of the Marker whose time value has been most recently copied to the Locate Time counter (see "The Locate Window" below).

The Previous Button (P)

Press the Previous Marker button to move the Now Line to the first available Marker located earlier in the Project than the Now Line's current position.

The Next Button (N)

Press the Next Marker button to move the Now Line to the first available Marker located later in the Project than the Now Line's current position.

The Set New Button (S)

Hit the Set New Marker button to place a new Marker at the current location of the Now Line.

The Locate Button (L)

The Locate button moves the Now Line to the time stored in the Transport Window's Locate Time counter.



The Locate Window

The Locate window displays the number of the Marker whose time value you've copied to the Locate Time counter by OPTION/right-clicking a Previous or Next button, or the number of the last Marker recalled on the keypad of the Locator Window or the C16 Pro. The window shows the Marker number most recently produced by either activity.

6

Note: While a Marker number is being entered on the keypad of the Locator or C16 Pro, its digits appear in red in the Transport Window's Locate window; when a Marker has been recalled, its number is shown in white.

The Punch Button

Press the Punch button, located below the Record button, to enable PARIS' automated punch-in recording feature—when the button is depressed, the Punch button LED lights in the Locator Window and on the C16 Pro.



Note: Automated punch-in recording occurs during the duration defined by the settings of the Punch In and Punch Out Markers. To learn how to set up Punch In and Out Markers, see page 94 and 211.

The Lock Button

Press the Lock button—and then the Play button—to synchronize PARIS to incoming SMPTE using MIDI Time Code (MTC). When the button is depressed, its red LED indicates the whether or not PARIS is successfully locked to SMPTE: when SMPTE lock is achieved, the LED lights.

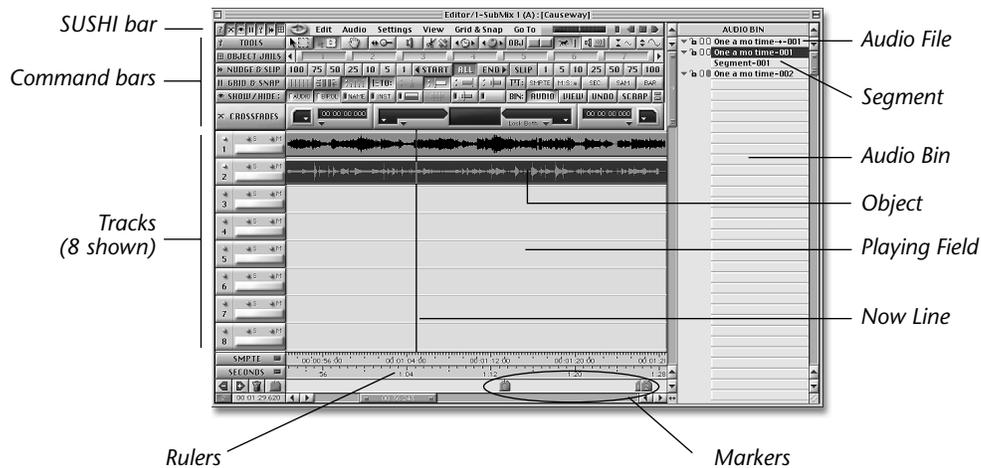
Tip: To learn how to configure PARIS to receive MTC, see page 19. For step-by-step instructions on syncing PARIS to MTC-based SMPTE, see "Syncing to SMPTE" in Appendix 2.

Note: The in/out status of the Lock button is saved with the Project.

Chapter 6—Editor Window Overview and Concepts

What is the Editor Window?

The Editor Window is the place in PARIS where you can view and manipulate the audio in a SubMix (Chapter 16). It's in the Editor Window that you can cut, move and shape your audio, where you can position various Markers to help navigate your Project, define loops and set up punch-ins. This chapter explains the underlying concepts you'll need to understand as you master PARIS' editing power, and introduces you to the Editor Window's major components.



Tip: You can re-size an Editor Window by dragging the handle in its lower right-hand corner. Your view of the Editor Window can also be easily changed using PARIS' Zoom bars, described on page 52.

The Playing Field

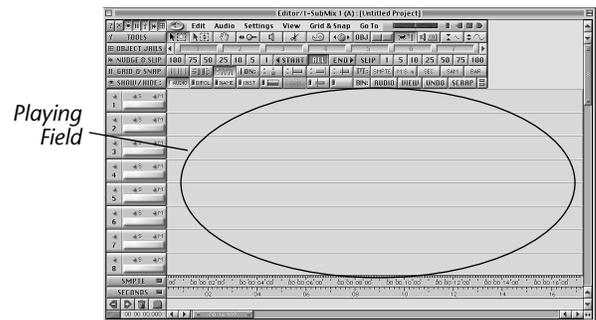
The Playing Field is the Editor Window's main work area. All audio editing in a SubMix occurs on the Playing Field.

Tracks

The Playing Field is divided into Tracks whose function depends on the Editor Window's mode—modes are described on page 54.

In either case, the Tracks can be thought of as slots into which recordings can be placed. Each Track graphically represents the passage of time: as PARIS plays a Project, it starts playing Tracks from their left edge, progressing rightward.

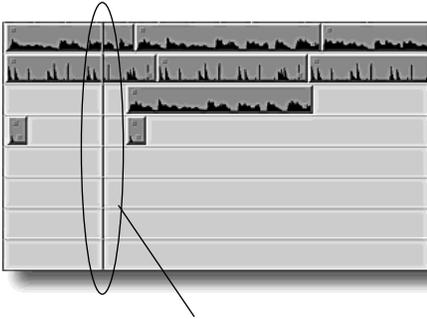
Each Track's number is shown along its left edge, along with a Solo and a Mute button (see page 59), a label and track level meter. The area to the right runs the length of the Project and contains the Track's Objects—Objects are described on page 45.



In Constrained mode, a Project has 16 standard Tracks and two extra scratchpad tracks (17 & 18) which do not play. These two tracks are meant to be used like a clipboard. In Free Form mode, a Project can have up to 999 FlexTracks. The number of Tracks visible on the Playing Field at any given time depends on the Editor Window's current view magnification—PARIS' unique Zoom bars allow you to easily change this. They're described on page 52.

Tip: In Constrained mode, the Playing Field provides an extra pair of Tracks—17 and 18—set aside for use as a holding area. Think of these Tracks as visible clipboards on which an Object (described on page 45) from a standard Track can be stored temporarily. Objects placed on these Tracks will not be heard in your mix.

The Now Line



The Now Line

The Now Line is an always-active multi-purpose tool:

- The Now Line always shows your current location in a Project. When a Project plays—during recording or playback—the Now Line moves left-to-right across the Playing Field. (To learn about PARIS Transport functions, see Chapter 5.)
- When play is stopped, you can manually reposition the Now Line to set a point at which playback will resume when you hit Play in the Transport Window or on the C16 Pro.
- When play is stopped, the Now Line functions as an editing cursor that shows where pasted data will be placed.

Now Line Scrolling

You can set the Editor Window so that, as the Now Line passes out of your current view of the Playing Field, the display updates to follow the Now Line using the Auto-Scroll feature. You can enable or disable this feature by:

- checking or un-checking Auto Scroll to Now Position in the Settings menu.
- clicking the Auto-Scroll button in the Editor Window's Tools command bar. (To learn how to show or hide the Editor Window's command bars, see page 52.)

Off 

On 

Tip: The Auto-Scroll setting can be saved in a Local View (see Chapter 3).

The Now Position Display



In its lower left-hand corner, the Editor Window provides a Now Position Display that shows numerically the current location of the Now Line. You can click anywhere in the Now Position Display to toggle among any of PARIS' units of time measurement—these are described on page 71.

Tip: When you change the time unit shown in the Now Position Display, you also change the time unit shown in the Editor Window's Information bar and its Zoom bars (described on page 52).

Note: The Now Position display also appears in the Mixer, Mini Mixer and Automation Editor Windows.

Moving the Now Line Manually

You can manually change the position of the Now Line using several methods:

- You can click—or click and drag—in any of the currently displayed Rulers (see “Moving the Now Line Using Rulers” on page 50). If any Rulers are activated (page 50) and you hold down SHIFT as you drag in a Ruler, the Now Line will snap to the Ruler's units of time measurement (even when the Grid is switched off).
- You can use the keyboard shortcuts listed in Appendix 3.
- You can OPTION-click (Mac OS) or right-click (Windows) the Now Position Display to type in a new Now Line location. (Press RETURN after typing the desired value.)
- You can turn the C16 Pro's jog/shuttle wheel to move the Now Line as described in Appendix 1.



Audio Files, Objects and Segments

When editing sound in PARIS, you're always working with one of three elements: an Audio File, an Object or a Segment. Understanding which one you're working with at any given time is crucial to getting the most out of PARIS.

Audio Files

Audio Files are the sound files on your hard disk. They can be in PARIS format (.paf files), WAV format (.wav) or sound Designer II format (.sd2). You can add Audio Files to a Project by:

- recording new Tracks or FlexTracks—see pages 41 and 207 to learn how to record audio in PARIS.
- importing pre-existing sound files into the Editor Window's Audio Bin—the Audio Bin is described on page 46— or into the Audio Window (see Chapter 15). Mac OS users can drag them onto PARIS' desktop icon.

To Import an Audio File into a Project's Audio Bin

Note: In order for PARIS to recognize a sound file, the file must have the appropriate file extension at the end of its name. PARIS Audio Files use a “.paf” file extension, Sound Designer II files use “.sd2” and WAV files use a “.wav” extension.

1. Select Add Audio File... from the Editor Window's Audio Menu.
2. In the standard Open dialog, navigate to the .paf, .wav, or .sd2 file you'd like to import.
3. Click the Open button—the Audio File will appear in the Audio Bin, described on page 46.

Tip: Each Audio File recorded in a Project remembers its place on the Playing Field and can be easily returned to that location by dragging it from the Audio Bin using the Time Locked Selector tool (described on page 65). Imported Audio Files are automatically positioned at the beginning of the Track to which they've been dragged using the Time Locked Selector tool.

Objects

When an Audio File is dragged into the Editor Window from the Audio Bin (see pages 46 and 47), it appears on there as an Object. An Object, though it looks and acts like chunk of sound, is really a graphic representation of instructions that tell PARIS how to play the Audio File on which it's based. When you perform editing operations on an Object, you're changing these instructions. This powerful form of editing is called “non-destructive editing,” since it doesn't actually affect or change the Audio File on your disk, merely the way it's to be played. Since you can repeatedly drag any Audio File onto the Playing Field, each Audio File can be the basis of as many Objects as you like—this allows you to use different pieces of the same Audio File in different places and in different ways.

Note: If you remove an Audio File from your hard drive, Objects based upon the Audio File will not be able to play.

Note: When you record a new Track, the Audio File you've recorded on your hard disk appears in the Audio Bin, and an Object which plays the Audio File is created on the Playing Field.

Waveform Overviews and Waveform Overview Files

When an Audio File is recorded, or when a sound file is first imported into PARIS, PARIS creates a graphical view of the Audio File called a “Waveform Overview” file. The Waveform Overview file can be found in the same folder/ directory as the Audio File, and shares its name, with the addition of an “.ovw” file extension.

When an Object that plays an Audio File is on the Playing Field, this Waveform Overview file depicts the Object's data as a series of sample points in relationship to a fixed zero reference—this is, in essence, a picture of the portion of the Audio File played by the Object. Louder, high amplitude sections of the wave appear farther away from the zero reference. PARIS can show Waveform Overviews with positive-going sample points that rise upward from the zero reference, or as a “bipolar” representation in which sample points rise above and fall below the zero reference (See page 61).



An Object's standard Waveform Overview



An Object's bipolar Waveform Overview

Chapter 6 - Editor Window Overview and Concepts

The Audio Bin

Tip: You can adjust your view magnification with the Zoom bars (page 52) or Zoom tool (page 66) to show greater or lesser amounts of detail. You can also adjust the waveform's height using the Amplitude Zoom buttons (page 68).

Note: Waveform Overviews are computed in the background (page 22), allowing other operations to continue.

Segments

You can drag any Object you've created off the Playing Field and back into the Audio Bin for later use. When you do so, the Object appears in the Bin as a Segment shown underneath the Audio File on which it's based and is assigned the next unused number as a name. By dragging into the Audio Bin only those Objects you want to keep—thereby creating Segments from the Objects—the amount of clutter in the Audio Bin is kept to a minimum, making it easy for you to edit a Project, even with hundreds of bits and pieces.

Tip: The Time Locked Selector tool (page 65) can return each Segment to its original location on the Playing Field.

Tip: Segments can also be exported from the Audio Window in any of PARIS' supported audio file formats (page 158).

Note: When you record a new Track, a Segment that plays the entire new Audio File is placed in the Audio Bin.

The Audio Bin

The Audio Bin is a simplified version of the Audio Window. The Audio Bin allows you to drag a Project's Audio Files and Segments on and off the Playing Field (described below). You can also rename Audio Files and Segments in the Audio Bin. The contents of the Audio Bin belong to the whole Project, and are thus visible in any SubMix's Audio Bin.

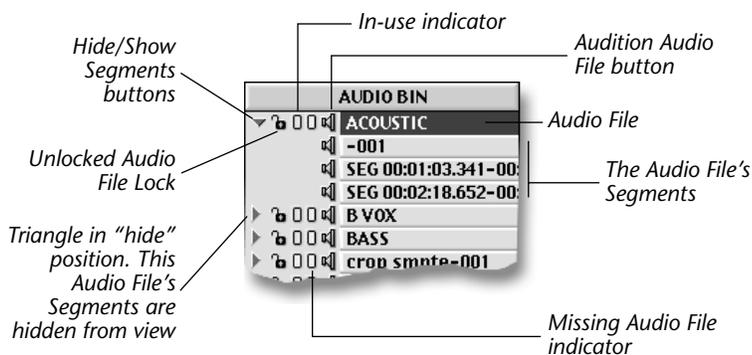
To Show or Hide the Audio Bin

- Select Audio Bin from the View menu. Re-select the menu item a second time to hide the Bin.
- Click the Audio button on the Show/Hide bar (to learn how to show or hide the Editor Window's command bars, see page 52). Click the button again to hide the Audio Bin.

Tip: If the Audio Bin is too narrow to show your Audio Files' names, drag its lower-righthand corner outward to widen it.

How Audio Files and Segments are Shown in the Audio Bin

The Audio Bin shows a Project's Audio Files and Segments in a manner similar to the way in which your computer shows its folders/directories. Beneath each Audio File are the Segments that belong to it. The triangle to the left of each Audio File's name is a button that can be clicked to show or hide the Audio File's Segments.



The three status indicators to the left of each Audio File provide helpful information about the Audio File:

- The Audio File Lock, in its closed position, shows that the Audio File is protected from being deleted from the Project.
- The blue In-Use indicator, when lit, shows that an Object that plays the Audio File is on a Playing Field.
- The red Missing Audio File indicator lights when PARIS can't find the Audio File. See Chapter 15 to learn how to locate missing Audio Files.

Note: Since the Audio Bin and Audio Window are different views of the same items, the show/hide state and status of each Audio File in the Audio Bin is also shown in the Audio Window, and vice versa.

Note: SubMix Audio Files created by updating (page 174) are shown in gray in the Audio Bin.

Renaming Audio Files and Segments in the Audio Bin

Any Audio File or Segment in the Audio Bin can be renamed at any time as work on a Project progresses.

Note: Changes made to names in the Audio Bin are reflected in the Audio Window.

To Rename an Audio File in the Audio Bin

Warning: When you rename an Audio File, its name will change in the current Project and on your hard disk. Any other Projects that use the Audio File will no longer be able to find the file by its former name. You can re-direct such Projects to the re-named Audio File using the Audio Window's Reset File Path command (see Chapter 15).

1. OPTION-click (Mac OS) or right-click (Windows) the Audio File's name—it will highlight to show it can be edited.
2. Type in a new name for the Audio File and hit the RETURN key on the keyboard.

Note: The name of the Audio File's waveform overview file will be reset to match the Audio File's new name.

To Rename a Segment in the Audio Bin

1. OPTION-click (Mac OS) or right-click (Windows) on the Segment's name.
2. Type in a new name for the Segment and hit the RETURN key on the keyboard.

Note: Renaming a Segment does not change the name of the Audio File on which it's based.

Creating Objects

An Object is created when an Audio File or Segment is dragged from the Audio Bin onto the Playing Field—described below—or when an already extant Object is cut up into smaller Objects (as described in the next chapter). To create an Object by dragging an Audio File or Segment from the Audio Bin:

1. Open the Audio Bin if it's not already open.
2. Drag the desired item from the Audio Bin to the desired location on the Playing Field.

Tip: You can drag more than one item from the Audio Bin at a time—an Object will be created on the Playing Field for each item dragged from the Audio Bin.

Object Selection

Before you can perform any of the operations you'll want to execute in the Editor Window, the Object upon which you want to perform the operation must be selected. You can tell at a glance when an Object is selected: its colors invert.



You can select multiple Objects located anywhere on the Playing Field—each selected Object's colors will invert as it's selected.

Note: When you're about to perform an operation which requires its target Object(s) to be selected, look around the Playing Field to ensure that only those Objects you want included in the procedure are selected.

You can select and un-select Objects using:

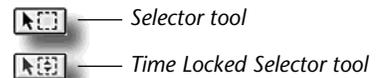
- the Selector tool, as described below.
- the Data Present LED as a button, as described on page 60.
- the Time Locked Selector tool, as described below.
- the C16 Pro as described on page 220.

Tip: To select all of the Objects on a Track or FlexTrack, click the number at its left edge. SHIFT-click to select all of the Objects on multiple Tracks/FlexTracks; SHIFT-click the Track or FlexTrack a second time to de-select it from a group.

You can also select all of a Project's Objects simultaneously by choosing the Select All item from the Edit menu, or by typing its keyboard equivalent: COMMAND-A (Mac OS) or CONTROL-A (Windows). You can un-select all Objects in a Project by choosing the Select None item from the Edit menu or by typing COMMAND-D (Mac OS) or ALT-D (Windows). Both of these menu items are described on page 78.

To Select and Un-Select Objects Using the Selector and Time Locked Selector Tools

The Selector and Time Locked Selector tools may each be activated by clicking the desired button in the Editor Window's Tools bar (to learn how to show or hide command bars, see page 52).



Selection by Clicking

To select single Objects by clicking your mouse:

1. Click on the Selector tool or the Time Locked Selector tool button to activate the desired tool if it's not already active.
2. Click in the middle of the Object—its color will invert to show that it's selected.

Note: The Selector and Time-Locked Selector tools are context-sensitive: the tasks they perform depend on where you position them over an Object, as described on page 63.

To select multiple Objects by clicking your mouse:

1. Click on the Selector tool or the Time Locked Selector tool button to activate the desired tool if it's not already active.
2. After selecting the first of the Objects you want to select, SHIFT-click on each additional Object—each new selection's colors will invert.

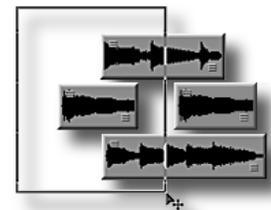
You can un-select Objects by clicking your mouse in the following ways:

- To un-select the only selected Object in a Project, click an unoccupied spot on the Playing Field.
- To un-select all of the Objects when multiple Objects are selected, click an un-occupied spot on the Playing Field.
- To un-select a single Object when multiple Objects are selected, SHIFT-click the Object you want to de-select.

Selection by Dragging

To select Objects by dragging your mouse:

1. Activate the Selector tool or the Time Locked Selector tool by clicking its button.
2. Click an empty spot on the Playing Field near the Object(s) you want to select and drag across the desired Objects—a rectangle will appear to indicate the selection area you're drawing. Any Object that touches the rectangle will become selected. When you let go of the mouse button, the colors will invert in the Objects the rectangle has touched.
3. To select additional Objects, hold down your SHIFT key and repeat Step 1 for the Objects you want to add to the selection group.



To un-select Objects by dragging, hold down your SHIFT key and drag across any Objects you'd like to de-select.

Undo and Redo

When the Editor Window is the front-most window, PARIS allows you to undo the last 99 Object edits you've made. By invoking the Editor Window's Undo feature, you can travel back through your edits, undoing Object edits and movements. Undo works in concert with Redo—using the two features together, you can move back and forth through your previous actions.



To undo Editor Window edits:

- select the Undo item from the Editor Window Edit menu.
- type COMMAND-Z (Mac OS) or CONTROL-Z (Windows).
- click the C16 Pro's Undo button.

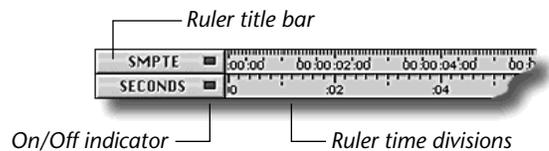
To redo Editor Window edits: o select the Redo item from the Edit menu:

- type SHIFT-COMMAND-Z (Mac OS) or SHIFT-ALT-Z (Windows).
- click the C16 Pro's Redo button.

Rulers

What Are Rulers?

Along the lower edge of the Playing Field, PARIS provides Rulers that show the Project time location currently being viewed. In addition, each Ruler's units of measurement can be employed as anchors to which Objects can be aligned when the Editor Window's Grid is active—the Grid is described on page 70.



Rulers can measure time in a variety of formats:

- Samples—The Samples Ruler shows the passage of time in samples: 44,100 per second when the Project Sample Rate is 44.1 kHz, or 48,000 per second when it's 48 kHz. The Project Sample Rate is set in the Project Window (page 23). The Ruler shows each duration of 44,100 or 48,000 (depending on the Sample Rate setting) divided into fifths.
- Seconds—The Seconds Ruler shows the passage of time in seconds divided into fifths.
- M:S:mS—"M:S:mS" stands for "minutes:seconds:milliseconds," the units of time shown in the numerical portion of this Ruler; the graphic portion shows seconds divided into fifths.
- SMPTE—The SMPTE Ruler shows the passage of time in SMPTE time code, at a frame rate selected with the Project Window's SMPTE Setting parameter (page 24).
- Bars/Beats—The Bars/Beats Ruler shows time in bars and beats according to the Tempo Setting and Time Signature values selected in the Project Window (page 23).

Displaying Rulers

You can choose to display as many Rulers at a time as you wish. To make a Ruler visible:

- Select the Ruler in the View menu so that a check appears next to its name. To hide a Ruler, un-check its name.
- Click the Ruler's button on the Grid & Snap command bar (described on page 49).

Rulers can be arranged in any order. To change a Ruler's location relative to the other displayed Rulers, drag its title bar to the desired position.

Activating Rulers for Use in the Grid

Each Ruler, when activated, can contribute its time divisions to the Editor Window's Grid (see page 71). To activate a Ruler, click the blue On/Off indicator in its title bar, an at-a-glance indicator to show you if a Ruler is currently participating in the Grid. You can also activate a Ruler using one of the Grid & Snap bar's Ruler buttons (see page 71).

Moving the Now Line Using Rulers

You can click a time value on any open Ruler to move the Now Line to that location. Doing this when playback is stopped will cause playback to resume from the selected location when the Play button is pressed in the Transport Window or on the C16 Pro. If you click in a Ruler while a Project is playing, the Now Line will jump from its current position to the location where you clicked—this allows you to easily audition non-contiguous sections of a Project. OPTION-clicking (Mac OS) or right-clicking (Windows) on the Ruler will locate and start playback from the selected location.

Note: The Now Position Display does not have to show the same time format as the Ruler being clicked upon.

Markers

What are Markers?

Markers are pointers that you can place at any time location in a Project. You can create up to 999 Markers in a Project. Markers can be of great help when putting together a Project, since they can:

- serve as locators to which you can quickly jump when navigating your Project.
- contribute to the Grid to help precisely position Objects on the Playing Field (the Grid is described on page 70).
- designate the beginning and end of loops through the use of Loop Markers.
- set the punch in and punch out points with Punch Markers for use in performing automated punch-ins.

Markers can be placed while PARIS is playing, during recording or when a Project is stopped. You can set Markers from the Editor, Automation Editor, Transport or Locator windows, from the C16 Pro or from the Markers Window, which provides a comprehensive collection of Marker tools (see Chapter 9). Once placed, you can precisely position your Markers. Each new Marker is automatically assigned a number that you can use to recall the Marker from the Locator or Markers windows, or the C16 Pro. You can renumber Markers—and/or assign them names—in the Markers Window.

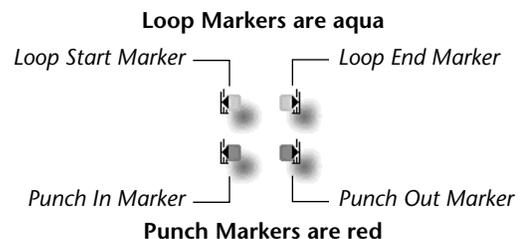


Tip: To learn about setting Markers in the Automation Editor Window, see page 142; from the Transport Window, page 42. To learn how to set and recall Markers in the Locator Window, see page 94; from the C16 Pro, page 210.

Loop and Punch Markers

While loops and automated punch-ins/punch-outs are controlled from the Locator Window or the C16 Pro—as described on pages 94 and 210—both operations utilize special Markers for the setting of their boundaries.

These Markers are set from the Locator Window or the C16 Pro. Once placed, the Markers can be repositioned in the Editor, Automation Editor and Markers windows in the same manner as any other Markers.



The Editor Window Marker Bar

The Editor Window's Marker bar provides four Marker control buttons, as well as a strip showing your Project's Markers—this strip runs beneath the Rulers so that you can see the time location of each Marker in the Ruler above it.



The Marker bar control buttons perform various Marker-related functions:

- The Set New Marker button places a new Marker in the Editor Window's Marker strip at the Now Line's current location. The Marker will be assigned a number (Marker numbering in a Project runs upward from 1).
- The Marker Trash Can functions in the same manner as your desktop Trash Can/Recycling Bin: to remove a Marker from the Marker strip—and therefore the Project—drag it from the Marker strip onto the Marker Trash Can. When a Marker is deleted, its number will be re-used for the next placed Marker.
- The Previous and Next Marker buttons are used for navigating your Project. When you click the Previous Marker button, the Now Line jumps back to the most recently passed Marker; when you press the Next Marker button, the Now Line jumps forward to the next Marker in the marker strip.

Tip: The Set New, Previous and Next Marker buttons can also be found in the Transport and Locator windows, as well as on the C16 Pro. Any of these buttons can be used at any time.



The Previous/Next Marker display shows the number of the Marker that the Now Line has just passed, or the next one ahead of the Now Line, depending on the setting of the Show Last Marker Options Menu item in the Markers Window—when that menu item is checked, the display shows the last Marker; when it's un-checked, it shows the next. This is a read-only informational display; it cannot be edited.

Note: In the Previous/Next Marker Number display, “L<” and “>L” indicate the Loop Start and Loop End Markers, respectively. “P<” and “>P” indicate the Punch In and Punch Out Markers.

Setting a New Marker in the Editor Window

PARIS provides several ways in which you can set a new Marker. You can set a Marker by:

- clicking the Set New Marker button to place a Marker at the current location of the Now Line.
- OPTION-clicking (Mac OS) or right-clicking (Windows) in the Marker strip at the time location at which you want to place the new Marker.
- selecting the Set Markers from Object command from the Edit menu to place Markers at the beginning and end of any currently selected Object on the Playing Field—to learn how to select Objects, see page 47. (If multiple, end-to-end Objects are selected, PARIS will intelligently create only non-redundant Markers.)

Moving a Marker in the Editor Window

- To move a Marker using your mouse, drag the Marker to the desired time location in the Marker strip. As you drag the Marker, the Now Line will follow your movement; as a result, the location of the Marker will be shown in the Now Position Display.
- To move a Marker precisely by typing a time value on your keyboard, OPTION-click (Mac OS) or right-click (Windows) the Marker you want to position—a window will open into which you can type the desired location for your Marker in a time format of your choosing. When you've finished typing, press RETURN/ENTER or click the OK button.

Navigating a Project Using Markers

You can use Markers to quickly jump to their locations using any of several methods:

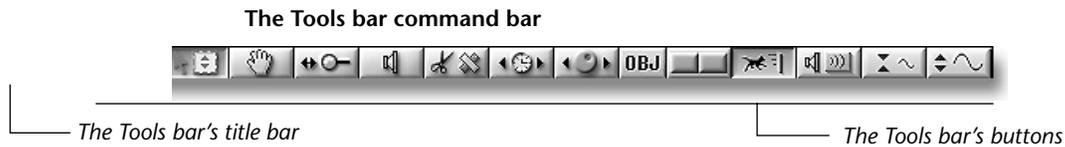
- You can click the Next Marker button or the Previous Marker button in the Editor, Transport or Locator windows, or on the C16 Pro to jump to the next or last Marker.
- You can type COMMAND-“+” (Mac OS) or ALT-“+” (Windows) to move to the next Marker, or COMMAND-“-” (Mac OS) or ALT-“-” (Windows) to move to the last Marker.
- You can move to a Marker’s location by entering its number on a keypad, as described on pages 92 and 209.

Markers and the Grid

When the Editor Window’s alignment Grid is active, and the Grid & Snap menu’s Show Markers item is checked, Markers can contribute their time locations to the Grid (described on page 70).

Command Bars

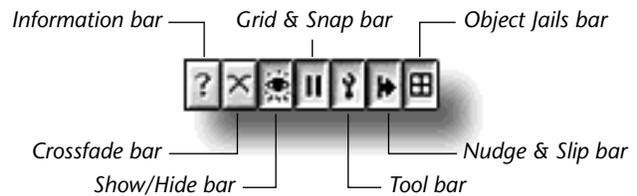
Many of the editing devices provided in the Editor Window are activated by buttons on the command bars located above the Playing Field. Each bar provides the implements required for the performance of related operations. The command bars are described in detail in Chapter 7.



Tip: You can re-order the position of any displayed command bar by dragging it by its title bar upward or downward.

Standard User Show/Hide Indicator (SUSHI) Bar

The upper left-hand corner of the Editor Window provides an always-visible group of buttons, called the Standard User Show/Hide Indicator bar (a.k.a. the SUSHI bar). Each of the SUSHI bar’s buttons is associated with one of the command bars. When a SUSHI bar button is depressed, the command bar it controls is visible in the Editor Window. When a button is released, the associated command bar is hidden.



The Zoom Bars

The two Zoom bars—located in the Editor Window’s scroll windows beneath and at the right-hand edge of the Playing Field—allow you to drag your mouse to change your view magnification, navigate through a Project and/or select Tracks for viewing:

- The horizontal (time) Zoom bar sets the amount of time to be displayed on the Playing Field, and can be dragged to move back and forth in time through the current Project.
- The vertical (Tracks) Zoom bar sets the number of Tracks to be shown, and can be dragged to change the Tracks being viewed

Drag the handles at either end of a Zoom bar to change the view magnification of the axis it controls.



Drag the center of a Zoom bar to scroll the window along the Zoom bar’s axis.



Note: Since the size of the Playing Field doesn’t change when you alter the amount of time or number of Tracks shown, doing so has the effect of changing your view magnification. When less time is shown, the Waveform Overviews spread out horizontally to fill the available space and more lateral detail can be seen; the opposite is true

when more time is shown. Likewise, when fewer Tracks are shown, each visible Track is drawn larger, and vice versa.

The center of each Zoom bar contains a numerical read-out showing the current view magnification:

- The horizontal (time) Zoom bar shows the amount of time currently visible on the Playing Field, expressed in the same time values as those currently displayed in the Now Position Display.
- The vertical (Tracks) Zoom bar shows the number of Tracks currently in view.

Tip: To change the time value shown in the horizontal (time) Zoom bar, repeatedly click in the Now Position Display until the desired time value appears.

To:	Do this:
Show less time on the Playing Field (zoom in)	Drag either of the horizontal Zoom bar's handles inward.
Show more time on the Playing Field (zoom out)	Drag either of the horizontal Zoom bar's handles outward.
Move to a different location in a Project	Drag the center of the horizontal Zoom bar in the desired direction.
Show fewer Tracks (zoom in)	Drag either of the vertical Zoom bar's handles outward.
Show more Tracks (zoom out)	Drag either of the vertical Zoom bar's handles inward.
View Tracks that are currently out of view.	Drag the center of the vertical Zoom bar in the desired direction.

Tip: The Zoom bars work best when altering your view of time or Tracks in large increments. For finer adjustments, use the standard scroll buttons. To move change your view one display's worth at a time, click in the gray area to the left or right, respectively, of the horizontal Zoom bar, or above or below the vertical Zoom bar.

Tip: The Editor Window's Zoom tool offers finer resolution than the Zoom bars and keeps your data in view (page 66).

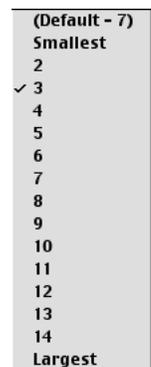
Track Sizing

The vertical size of each track can be programmed to appear in one of 16 fixed sizes or to the default value. When a track is set to a fixed size, it will remain at this size regardless of the setting of the vertical Zoom bar. Using this feature, you could display close-up views of two tracks that are several rows apart.

A track can also be set to a default value so that it will scale normally using the vertical Zoom bar. The default selection shows the current setting of the vertical Zoom bar. Track sizing is saved and restored with Window Views.

 *To set the size of a Track:*

- **Mac** - Hold Option and Click in an unused portion of the Track Controls section at the left of the track. The popup menu shown at left will appear. Drag the cursor the desired selection and release the mouse button.
- **PC** - Right Click in an unused portion of the Track Controls section at the left of the track. The popup menu shown at left will appear. Drag the cursor the desired selection and release the mouse button.



Editing in the Editor's Two Window Modes

PARIS offers a pair of recording/editing modes—Constrained and Free Form—that represent two different approaches to the recording and editing process. Constrained mode offers simplicity, while Free Form mode provides power.

Constrained Mode

Constrained mode mimics the multi-track layout used in traditional recording. The 16 Tracks of a Project are arranged in numerical order on the Playing Field, and each Track contains one or more Objects. The Track plays through its like-numbered Mixer Window Channel. Constrained mode's main characteristic is its simplicity and visual clarity. It's useful when you're getting to know PARIS; it's also handy when you've finished recording and editing, and want your 16 Tracks arranged in a one-to-one relationship to Mixer Window Faders during mixdown.

Free Form Mode

Free Form mode provides a wide-open architecture ideally suited to the recording of multiple takes of a performance or punch-ins, and the collection and assembly of the best sections from those takes. This flexible way of working is based on the use of 16 "Instruments," each of which is controlled by one of the 16 Channels in the Mixer Window. In Free Form mode, Instruments are not tied to particular Tracks on the Playing Field. Rather, they can play Objects from any of the 999 slots—or "FlexTracks"—into which the Playing Field is divided.

How Each Instrument Plays an Object

In order for an Instrument to play an Object, the Object must be assigned to the Instrument. This assignment can be done:

- automatically when recording in Free Form mode (this can be manually changed during editing if you wish). Page 41 provides step-by-step instructions for recording.
- manually during editing in Free Form mode, as described below.

To Assign an Object or Group of Objects to an Instrument Using the Mouse

1. Click an Object—or group of Objects—to select it. The Object's colors will invert to show that it's selected.
2. CONTROL-click the Object—the Instruments pop-up will appear.
3. Drag your cursor to the desired Instrument and release the mouse.

Tip: You can use the above method to assign an Instrument to an Audio File in the Audio Bin—any Objects you create from the Audio File will automatically be assigned to the selected Instrument.

Tip: You can also assign Objects to selected Instruments using the Information bar—see page 76.

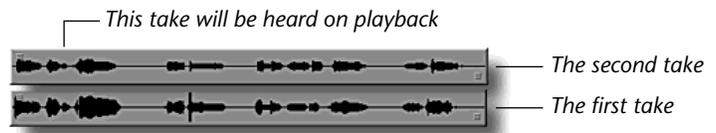
How the Position of an Instrument's Objects Determines What You Hear

The power of Free Form mode lies in its ability to simultaneously display multiple versions—alternate takes, for example—of the audio that will eventually be played by each Instrument. This allows you to lay out all of an Instrument's raw materials on the Playing Field as you select and shape the bits and pieces that will comprise the final Instrument.

In Free Form mode, the Playing Field's FlexTracks provide a stack of high-to-low slots into which you can place an Instrument's Objects. The top of the Playing Field—FlexTrack 001—is the highest position, while the bottom—FlexTrack 999—is the lowest. Free Form mode uses the high-to-low position of an Instrument's Objects as a mechanism for determining which of the Instrument's potentially many alternate Objects will be heard at any given time. The rule is this: each Instrument plays only its highest-positioned audio.

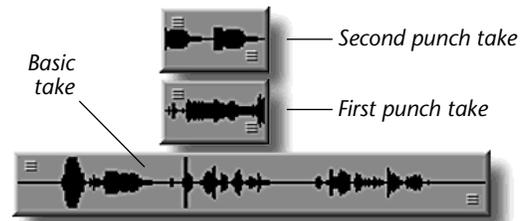
The Role of Playing Field Position in Free Form Recording

When recording a first take in Free Form mode, the Object that plays the take appears in a FlexTrack on the Playing Field. (The FlexTrack is automatically assigned to an Instrument through which it was recorded.) As a second take is recorded, its Object appears on the Playing Field in the FlexTrack originally occupied by the first take (PARIS moves the earlier Object down by one FlexTrack to make room for the new take and shows the new FlexTrack being recorded in red). Since only the Instrument's highest-positioned audio will be played in Free Form mode, when you play the Project, only the newest take is heard. This procedure is repeated for all additional takes.



When punching in Free Form mode, each punch-in take is placed higher and higher above the original basic recording, as the basic recording and earlier punch-in takes are moved down the Playing field FlexTrack by FlexTrack.

Note: Whether recording an entire take or a punch-in, PARIS places the newly recorded Object in the FlexTrack containing the current Instrument's most highly positioned Object.

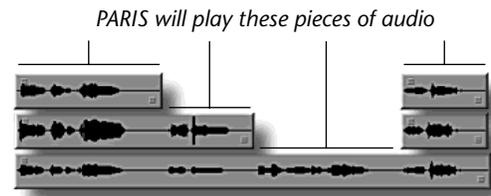


The Role of Playing Field Position in Free Form Editing

When an Instrument's Objects are visible on the Playing Field, you can bring to the top-most available FlexTrack any Object you'd like to audition.

You can also cut holes in upper Objects to expose lower-placed audio—PARIS will follow any contours you create, always seeking and playing the highest-placed audio it can find for each Instrument.

The Instrument in the illustration to the right shows a simple example in which a vocalist sang three takes of a melody with four phrases.



- Take 3 contained the best performances of Phrases 1 and 4.
- Take 2 contained the best performance of Phrase 2.
- Take 1 contained the best performance of Phrase 3.

Free Form editing allowed the quick and easy construction of a perfect performance from the three imperfect takes:

1. Take 3 was the best overall take, and as the last-recorded performance, it was already in the highest position on the Playing Field for any of the Instrument's Objects.
2. A portion spanning Phrases 2 and 4 was cut out of Take 3.
3. Take 2 was dragged upward on the Playing Field and positioned underneath Take 3's Object.
4. Since the hole in Take 3 exposed for playback Phrases 2 and 3 from the second take—and only Phrase 2 was desired—a hole was cut in Take 2 that exposed for playback Phrase 3 in the bottom-most take, Take 1.



Understanding Instruments

When you first enter Free Form mode (see page 57), PARIS creates 16 default Instruments, assigning each a name:

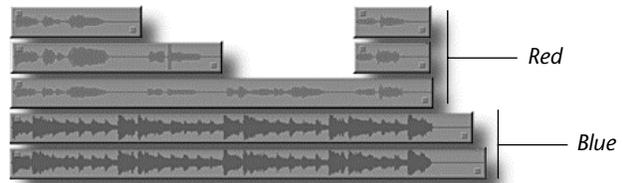
- If you enter Free Form mode immediately after creating a new Project, the default Instrument names are “Untitled-01” through “Untitled-16.”
- If you enter Free Form mode with Objects already present on any of Constrained mode’s 16 Tracks, each Instrument is named after the Audio File or Segment upon which the corresponding Constrained Track’s earliest Object was based. (If no Object exists on a Constrained Track, then an “Untitled” Instrument is created.)

Tip: You can rename an Instrument at any time using the renaming feature in the Editor Window’s Instruments Bin (see page 56) or the Instruments window (page 97).

Each Object’s Instrument assignment can be seen at a glance in any of three ways:

- You can set the Editor Window to show an Object’s name in its Waveform Overview (See page 62).
- When an Object is selected, its Instrument assignment is shown in the Information bar (See page 76).

You can set the Editor Window to show each Instrument’s Objects in a color unique to that Instrument, as shown in the illustration to the right (See page 62 to learn how to activate Instrument color coding).



Controlling Instruments

Each Instrument is controlled by a Channel in the Mixer Window. When first entering Free Form mode in a Project, the first Instrument is assigned to Channel 1, the second to Channel 2, and so on. You can change these assignments at any time from the Mixer Window (see page 106 to learn how).

Tip: Since you can change Instrument-to-Channel assignments as a Project plays, Projects are not limited to 16 Instruments. You can employ as many Instruments in a Project as you want, assigning Channel control of each as needed.

Tip: When the Waveform Overview Instrument name is shown in the Waveform Overview (page 76), the Mixer Window Channel to which the Instrument’s been assigned is also shown.

The Instrument Bin

In Free Form mode, the Instrument Bin shows all of the Instruments in the Project (the Instrument Bin is also visible in Constrained mode, though its only use there is as a reference when you’re switching back and forth between the two modes). The Instrument Bin is a scaled-down version of the Instrument Window described in Chapter 11.

 *To Show or Hide the Instrument Bin:*

- Select the Show Instrument Bin command from the View menu so that a checkmark appears next to the command. Re-select the menu item to remove the checkmark, and the Instrument Bin from view.
- With the Show/Hide bar visible, click the “Instrument” button to show the Instrument Bin. Click the button again to hide the Instrument Bin (to learn how to show or hide Editor Window command bars, see page 52).

 *To Rename an Instrument in the Instrument Bin:*

1. OPTION-click (Mac OS) or right-click (Windows) on the Instrument’s name—it will highlight.
2. Type in the new name and hit RETURN/ENTER key.

Moving Between Modes

You can switch between Constrained and Free Form modes as your recording and editing needs change at different stages in a Project. The Editor Window's track-editing tools and operations function similarly in the two modes—any differences will be discussed, where they occur, as each tool and operation is described later in the PARIS Reference.

What Happens When You Change Modes

When you switch from Constrained to Free Form mode:

- The first time this occurs in a Project, 16 default Instruments, each assigned to a Mixer Window Channel, are created.
- If Instruments already exist in the Project, no changes occur beyond the switching of modes.

When you switch from Free Form to Constrained mode:

- PARIS compiles the top-most Objects and Object pieces for the each of the 16 Instruments into a single Constrained mode Track that numerically corresponds to the Mixer Window Channel that controlled the Instrument in Free Form mode.
- All other Objects and Object pieces are discarded.

Note: The Audio Files and Segments upon which the discarded were based remain in the Audio Bin.

Note: Switching back to Free Form mode will not restore your un-compiled Free Form Instruments. This can only be accomplished by using the Undo feature (described on page 49), and then switching back to Free Form mode. If you wish to restore your Free Form Instruments, you therefore must do so before closing your Project, and before performing 99 additional edits (as explained on page 49).

To Switch Between the Editor Window Modes

1. Select the desired mode from the Settings menu.
2. Click "OK" if you're sure you want to change modes.

The Free Form Instrument's Objects, on three FlexTracks...



...are collapsed into a single Constrained Track.



Chapter 7—Editor Window Tools and Operations

Editing Objects

This chapter describes the editing tools and operations available in the Editor Window. All editing tools and operations function identically in both Constrained mode and Free Form modes (described on page 54) unless otherwise noted. Additional editing commands can be found in the Editor window's menus, described in the next chapter.

Tip: To learn how to turn on or off, or re-position, any of the command bars described in this chapter, see page 52.

Tip: Many of the items mentioned in this chapter can be accessed with keyboard shortcuts—see Appendix 3.

The Track and FlexTrack Status Controls



Each Constrained Track and Free Form FlexTrack has set of three status controls located at its left edge. These controls provide information and allow you to perform certain actions.

The Editor Window Solo Button



Solo button

The Editor Window allows you to solo any Track or FlexTrack. When a Track or FlexTrack is soloed, all other Tracks or FlexTracks are silenced in PARIS Monitor outputs—the Main Left and Right mix outputs are unaffected. PARIS can solo up to three Tracks or FlexTracks at a time per EDS-1000 card. If you attempt to solo more than four, each Track or FlexTrack you add to the solo group will replace the last most-recently soloed Track or FlexTrack.

Tip: You can un-solo all soloed Tracks or FlexTracks at once by clicking the Mixer Window's master Solo On button or text.

To Solo and Un-Solo a Constrained Track

Click the Track's Solo button—the Track's yellow Mute button will become concave with a yellow center. To un-solo the Track, click the button a second time.

Tip: The Editor Window's Solo feature is identical to the Solo feature found in the Mixer Window and on the C16 Pro; any of these can be used interchangeably when soloing or un-soloing Constrained Tracks.

To Solo and Un-Solo a Free Form FlexTrack

Click the FlexTrack's Solo button—the yellow Solo LED will light. To un-solo the FlexTrack, click the button a second time.

Tip: To solo and entire Free Form Instrument—including all of its FlexTracks—use the Channel Solo feature found in the Mixer Window and on the C16 Pro.

The Editor Window Mute Button



Mute button

The Editor Window allows you to silence—or “mute”—any Track or FlexTrack. When a Track or FlexTrack is muted, it's removed from PARIS' Main Left and Right mix (and therefore from its Monitor outputs). You can mute as many Tracks or FlexTracks at a time as you wish.

Tip: To un-mute all currently muted Tracks or FlexTracks, click the Mixer Window's master Mute On LED or text.

To Mute and Un-Mute a Constrained Track

Click the Track's Mute button—the Track's purple Mute button will become concave with a blue center. To un-mute the Track, click the button a second time.

Chapter 7 - Editor Window Tools and Operations

The Track and FlexTrack Status Controls

Tip: The Editor Window's Mute feature is identical to the Mute feature found in the Mixer Window and on the C16 Pro; any of these can be used interchangeably when muting or un-muting Constrained Tracks.

To Mute and Un-Mute a Free Form FlexTrack

Click the FlexTrack's Mute button—the red Mute LED will light. To un-mute the FlexTrack, click the button a second time.

Note: When you mute a FlexTrack, the FlexTrack is removed from its Instrument's high-to-low playback hierarchy, allowing you to audition the Instrument's other FlexTracks.

Tip: To mute an entire Free Form Instrument—including all of its FlexTracks—use the Channel Mute feature found in the Mixer Window and on the C16 Pro.

The Track Label



The horizontal bar under the Solo and Mute buttons is a label space for the Track or FlexTrack. The track label can be up to 15 characters in length, four or greater.

To label the Track or FlexTrack:

- Mac - Hold Option and click in the label field, then type.
- PC - Right click in the label field, then type.

The Data Present LED & Track Number



Track Number
Data Present LED

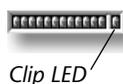
The blue Data Present indicator shows whether each Track or FlexTrack contains any Objects at any point in the Project. This can be handy when Objects are out of your current view. If the blue indicator is lit, there is an Object on the Track or FlexTrack.

- Click on the Track Number to select all the Objects in the Track.

You can click on the Data Present LED to quickly select and move the Now Line to any Object on the Track or FlexTrack:

- Click normally to move the Now Line to the next Object.
- OPTION-click (Mac OS) or right-mouse click (Windows) to move the Now Line to the previous Object.
- SHIFT-OPTION-click (Mac OS) or SHIFT-right-click (Windows) to jump to the first Object on the Track or FlexTrack.
- SHIFT-click to jump to the last Object on the Track or FlexTrack.
- CONTROL-click to jump to the end of the last Object on the Track or FlexTrack.

The Track Level Meter



At Track sizes of four or greater (see page 53), a track level meter is displayed. The red clip indicator lights and stays lit if the signal reaches full scale. Clicking the LED resets the clip LED. The Track Level meter only operates in Constrained mode.

The Vertical Waveform Magnifier



At Track sizes of five or greater (see page 53), the vertical waveform magnifier is displayed. The plus button doubles the magnification with each press up to a maximum of 512x. The minus button reduces the magnification to a minimum of .1x. If the magnification is increased beyond the limits of the track window, the waveform display will appear clipped, even though the actual waveform is not.

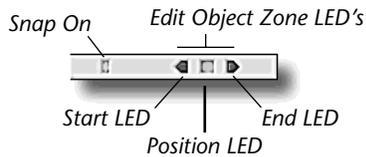
OPTION-click (Mac OS) or right-mouse click (Windows) on either magnifier button to reset the magnifier to 1x.

The Track Record Enable Button



At Track sizes of five or greater (see page 53), the Track Record Enable button is displayed. This button doubles the function of the Track Record Enable button in the mixer window (see page 107).

Editor Window Indicator LEDs



The upper right-hand corner of the PARIS Editor Window provides two sets of status indicators, the blue Snap On LED, and the three green Edit Object Zone LEDs.

Snap On LED

The Snap On LED indicator works with the Editor Window's Grid and Snap features, which are described on page 70. When Snap is enabled, the Snap On LED lights, allowing you to tell at a glance if this helpful feature is switched on, even when you've hidden the Grid & Snap command bar.

Tip: You can click directly on the Snap On LED in the menu bar to enable or disable the Snap function.

Edit Object Zone LEDs

The Edit Object Zone LEDs indicate which portion of an Object is currently being edited. As you pass an editing tool's cursor over an Object, the appropriate LED will light. When using context-sensitive tools—such as the Selector and Time-Locked Selector tools, the lit LED helps visually confirm what it is you're about to do: when the Start or End LED is lit, you can trim or fade the start or end of the Object, respectively; when the Position LED is lit, you can select the Object and/or drag it to a new position on the Playing Field.

The Show/Hide Bar

The Show/Hide bar provides a set of buttons that control the visual attributes of Objects on the Playing Field; it also allows you to show or hide the Audio Bin and/or Instrument Bin.



Audio Button



This button enables or disables the display of the Waveform Overview within each Object. When the button is depressed, the overview is displayed. When this button is not depressed, Objects appear as solid rectangles.

Bipolar Button



When the Audio button is depressed, the Bipolar button changes the default positive-going Waveform Overview shown in Objects to a bipolar, full-waveform display with a zero-crossing line.



Name Button



When switched on, this button causes PARIS to display of each Object's name within the Object. Each Object is named after the Audio File or Segment from which it was created.

Inst. Button



When this button is depressed, PARIS shows within each Object the name of the Instrument to which the Object is assigned when using Free Form mode.

Instrument Color Coding button



When this button is depressed in Free Form mode, PARIS shows the Waveform Overviews in each Object in a color unique to the Instrument to which the Object is assigned. This allows you to see at a glance which Objects belong to which Instruments.

Show Sync Points Button



This button works in conjunction with the Add Sync Point Audio menu item (see page 81). When a sync point has been added to an Object, depressing the Show Sync Points button causes a green line to appear at the location of the sync point.

The Open Bin Buttons

The Show/Hide bar provides buttons that allow you to show the Audio and/or Instrument Bins, each of which is provided its own toggle button.

Audio Bin Button



This button provides a toggle for switching the Audio Bin in and out of view. To learn about the Audio Bin, see page 46.

Views Bin Button



This button provides a toggle for switching the Views Bin in and out of view. To learn about the Views Bin, see page 84.

Undo Bin Button



This button provides a toggle for switching the Undo Bin in and out of view. The Undo Bin is currently unimplemented. Coming soon!

Scrapbook Bin Button



This button provides a toggle for switching the Scrapbook Bin in and out of view. The Scrapbook Bin is currently unimplemented. Coming soon!

The Tools Bar

The Tools bar provides access to the Editor Window's collection of tools. This bar's buttons enable the tools you'll need for selecting, moving, trimming, fading, playing, splitting and joining Objects, for zooming in and out and changing the displayed height of Waveform Overviews and for grabbing the section of the Playing Field you want to see.



The Tools bar is divided into two sections:

- When you activate one of the buttons in the Tools section, you're setting the behavior of your mouse.
- The Object section contains buttons that set certain display characteristics behavior of the Playing Field, and a button that allows you to audition selected Objects.

Tip: You can activate any of the seven tools in the Tools section by typing SHIFT-(1-7), respectively, or cycle through them by repeatedly typing TAB.

Selector Tool

 — "Off" position

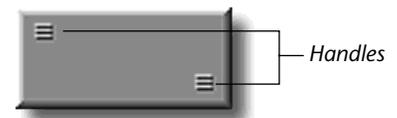
 — "On" position

The multi-purpose Selector tool is the most commonly used tool in the Editor Window. When it's switched on, you can use your mouse to:

- select Objects
- move Objects
- trim Objects
- create Object fade-ins and fade-outs

The Selector is context-sensitive, changing its abilities as you position it over different areas within an Object. The Selector tool's cursor changes to indicate the task that the tool is prepared to accomplish. Each Object has three kinds of area:

- The central area of the Object, including any area that's away from its leading or rear edge.
- The front and back ends of the Object.
- The Object's fade handles. These handles appear at either end of every Object.



When the mouse is positioned over an Object away from either end, the Selection cursor appears to show that the Object can be selected for moving or editing.



When the mouse is positioned over either end of the Object—but not over its handle—the Trim cursor appears, showing that you can use the mouse to change the start or end time of the Object (See page 64).



When the mouse is held over either Object handle, the Fade cursor appears to show that you can use the mouse to create a fade-in or fade-out for the Object (See page 65).

Moving an Object with the Selector Tool

1. Activate the Selector tool by clicking its button on the Tools bar if the button isn't already depressed.
2. Position the cursor over the Object to be moved, away from the ends of the Object.
3. Click on the Object and drag it to a new location.

Tips:

- You can move multiple Objects by dragging as you SHIFT-click on the last Object to be selected.
- If the Snap function (page 72) is on, the Object will jump to the closest Grid line when the mouse button is released.
- You can move an Object by copying it from one location and pasting it to another—see page 77.

Objects are not permitted to remain in an overlapped state. When a new Object is moved on top of an existing Object, PARIS automatically changes the start or end of the Object underneath to accommodate the dragged Object.

If, for example, you want to place a smaller Object on top of a larger Object...



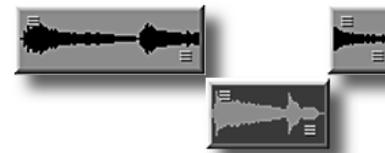
...you drag the smaller Object on top of the larger Object.



The smaller Object replaces the covered portion of the larger Object...



...as shown if you remove the smaller Object.



Drag-Copying an Object Using the Selector Tool

You can use the Selector tool to make a copy of any Object—or Objects—by OPTION-dragging (Mac OS) or right-mouse dragging it (Windows):

- to a different location on the Playing Field, leaving the original Object intact.
- to the Audio Bin, where a Segment will be created from the Object while leaving the original on the Playing Field.
- to an Object Jail (see page 73), where a copy will be created while leaving the original on the Playing Field.
- From an Object Jail, where it will remain, while a new copy is created on the Playing Field.

When you copy an Object, the copy is a separate entity independent of the original. You can edit either the original or the copy without affecting the other.

Trimming an Object with the Selector Tool

1. Activate the Selector tool by clicking its button on the Tools bar if the button isn't already depressed.
2. Move the Selector tool over the Object start or end that you want to trim—the Trim cursor (see page 63) will appear.
3. Click and hold the mouse button. The Object's color will invert to show that it's editable.
4. While still holding the mouse button down, drag the start or end of the Object to the desired position.
5. Release the mouse.

Tip: When trimming an Object, you'll want to avoid the clicks or pop that occur when Objects start or end on high-amplitude peaks in their audio. As you select trim points, make a coarse selection and then use PARIS' zoom features to increase the display size of the start and/or end points. Select start and/or end points that are close to the zero-crossing line in the Waveform Overview; these will be the points least likely location to produce clicks.

Tips:

- You can trim multiple Object simultaneously by selecting the desired Objects and applying the steps listed above to any one of the selected Objects.
- You can also use the Nudge feature to change the start or end points of Objects in exact increments—see page 69.
- You can also trim Objects using the C16 Pro's Jog/Shuttle wheel—see Appendix 1 to learn how.



Creating an Object Fade-In or Fade-Out with the Selector Tool

1. Activate the Selector tool by clicking its button on the Tools bar if the button isn't already depressed.
2. Trim the Object so that it extends to the full length of the desired fade-in or -out.
3. Position the Selector cursor over the handle in the Object start or end to be faded—the cursor changes to the fade tool (see page 63)—and drag outward, or...
4. To add a fade without changing an Object's length, hold the OPTION key (Mac OS) or use the right mouse button (Windows) as you drag the handle inward towards the center of the Object.



Tips:

- You can fade multiple Object simultaneously by selecting the desired Objects and applying the steps listed above to any of the selected Objects.
- You can create a crossfade between two Objects by creating a fade-out on one Object at the same time as a fade-in occurs on the other. In Constrained mode, this would be a cross-fade between two different Tracks. In Free Form mode, if you fade an Object, the Object on the next-lower FlexTrack will automatically be faded in, resulting in a crossfade.

Warning: There must be audio in the area of the crossfade or you won't hear anything. To create a Fade-In or Fade-Out, you might have to adjust the start or end point of the Object.

Time Locked Selector Tool



The Time Locked Selector tool is operates almost identically to the basic Selector tool, except that it restricts the movement of Objects in time. While you can perform all of the functions that the Selector tool performs using the same method, using this special tool, you can:

- automatically return an Object that was dragged into the Audio Bin to its original time position on the Playing Field when you drag it out of the Audio Bin.
- automatically return an Object that was drag-copied into the Audio Bin to its original time position on the Playing Field when you drag it out of the Audio Bin.
- automatically return an Audio File, Segment or punch-in recorded in the current Project to its original time location on the Playing Field when you drag it from the Audio Bin.
- automatically create an Object placed at the beginning of the selected Track or FlexTrack when you drag an imported Audio File from the Audio Bin to the Track or FlexTrack.
- automatically return an Object that was dragged into an Object Jail to its original time position on the Playing Field when you drag it out of the Object Jail.
- automatically return an Object that was drag-copied into an Object Jail to its original time position on the Playing Field when you drag it out of an Object Jail.
- re-position an Object's high-to-low playback position within an Instrument in Free Form mode without altering its start time by dragging it to a higher or lower FlexTrack.

Move View Tool



The Move View tool, when activated, allows you to click and drag the entire Playing Field left, right, up or down to change the portion of the Project, Tracks or FlexTracks being viewed.

 *To use the Move View tool:*

1. Activate the Move View tool by clicking its button on the Tools bar—the cursor will change into a hand.
2. Position the hand icon on the Playing Field.
3. Hold the mouse button and moving the Playing Field itself so that different areas are shown in the stationary window.

Note: The current view magnification does not change as you re-position the Playing Field shown in the Editor Window.

Zoom Tool



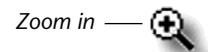
Activating the Zoom tool allows you to click anywhere on the Playing Field to show more or less visual detail by zooming in or out, showing less or more time spread across the Playing Field.

 *To use the Zoom tool:*

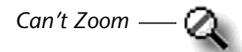
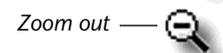
1. Activate the tool by clicking its button on the Tools bar.
2. Click anywhere on the Playing Field—with each click of the mouse the button, your view magnification will increase.
3. To zoom out, OPTION-click (Mac OS) or right-click (Windows) using the tool.

The Zoom tool's cursor changes to show whether you're zooming in or out, and to show when you've zoomed as far as possible in either direction.

Tip: To quickly jump to the maximum view magnification, SHIFT-click your mouse. To zoom all the way out, SHIFT-OPTION-click (Mac OS) or SHIFT-right-click (Windows).



Tip: This tool can be used in conjunction with the Amplitude Zoom buttons. While the Zoom tool changes the amount of time shown on the Playing Field, the Amplitude Zoom buttons change waveform height, emphasizing or de-emphasizing volume changes in the waveforms.



Audition Tool



When the Audition tool is activated, clicking on any Object on the Playing Field will cause it to play back for as long as you hold the mouse down, or until the Object reaches its end.

 *To use the Audition tool:*

1. Activate the Audition tool by clicking its button on the Tools bar.
2. Click any Object on the Playing Field and hold the mouse down for as long as you want the Object to play back (or until it reaches its end).

The Audition tool works in conjunction with the Audition Pre-Roll and Audition Post-Roll settings in the Project Window—the two settings determine how much of the clicked Object's Track (or Instrument in Free Form mode) will be heard before and after the Object itself (see page 24).

Tip: The clicked Object's Track or FlexTrack is soloed when using the Audition tool. To use the tool without soloing the Object's Track or FlexTrack, OPTION-click (Mac OS) or right-click (Windows) when using the tool.

Tip: You can access the Audition feature while using the Selector and Time-Locked Selector tools by CONTROL-SHIFT-clicking when either tool is active. To release the tool to its normal mode of operation, release the CONTROL and SHIFT keys.

Split & Join Object Tool

The Split & Join Object tool is used to break and join Objects. Use this tool to divide an Object into multiple part or to re-connect previously joined Objects that have been separated using the Split Object tool. Once separated, the newly created Objects can be edited normally.

Note: Objects cannot be cut into Segments of less than 1000 samples.

 *To cut an Object with the Split & Join tool:*

1. Activate the Split & Join Object tool by clicking its button on the Tools bar—the cursor will turn into a pair of scissors (as shown at right).
2. Position the cursor at the location in the Object at which you want to make a cut and click the mouse.



Tip: SHIFT-click with the Split tool to cut Objects precisely at the nearest Grid line.

 *To join an Object with the Split & Join tool:*

1. Activate the Split & Join Object tool by clicking its button on the Tools bar.
2. Position the cursor to the left of the seam between the two Objects to be joined—this can be helpful when the Objects are separated but still on the same track.
3. PC - Right-click the mouse button. The Objects will join and the seam between them disappears.
Mac - OPTION-click the mouse button. The cursor turns into a tape patch when the Option button is pressed. The Objects will join and the seam between them disappears.



Warning: You cannot join Objects composed of different Audio Files.

Dynamic Time Compress/Expansion Tool

Activate the Dynamic Time Compress/Expansion tool to change the duration of an Object without affecting its pitch—this can be especially handy when working with loops. PARIS accomplishes this task using an extremely precise phase vocoding algorithm.

When you select Dynamic Time Compress/Expansion tool, changing the length of the Object using the trim cursor changes the duration of the Object while preserving the original pitch. When you release the mouse button, a pop-up dialog box appears allowing you to save the Audio File as a new File name. This is done so that the original file will be preserved. Click OK when you're ready to perform the operation.

Note: If the amount of time-expansion or -compression you've set up is not possible, an error message will be displayed.

Note: Audio Files smaller than 4096 samples cannot be time-compressed or -expanded.

 *To use the Dynamic Time tool:*

1. Activate the Dynamic Compress/Expansion tool by clicking its button on the Tools bar—the cursor will turn into the trim cursor tool.
2. Position the cursor at the beginning or end of the Object, then click the mouse and drag the Object to the desired length.
3. A pop-up dialog box appears, allowing you to save the file with a new name.
4. Click OK to Compress or Expand the file or Cancel to cancel the operation.

Mouse Scrub Tool



The Mouse Scrub button activates and de-activates Editor Window Mouse Scrubbing. When on, you can scrub through the audio of a single track using the mouse.

 *To use the Mouse Scrub tool:*

1. Activate the Mouse Scrub tool by clicking its button on the Tools bar—the cursor will turn into a pointer.
2. Position the cursor over the track at the position you wish to audition.
3. Click the mouse button to scrub at the lowest rate. Click the mouse button and drag the pointer to scrub faster through the audio.

Auto-Crossfade Tool



Auto-crossfade in-active



Auto-crossfade active

The Auto-Crossfade button activates and de-activates Editor Window Auto-Crossfading. If the Auto-Crossfade button is in its “on” position, when you drag one Object on top of another on a Track or FlexTrack so that the two Objects overlap, PARIS automatically creates an equal-power crossfade between the two Objects—the amount of overlap determines the length of the crossfade. If you drag one

Object on top of another when the Auto-Crossfade button is in its “off” position, the Object underneath will be trimmed.

 *To use the Auto-Crossfade tool:*

1. Activate the Auto-Crossfade tool by clicking its button on the Tools bar.
2. Drag an object on top of another so it overlaps another object
3. Release the mouse button and an equal-power crossfade will be created between the two objects.

Auto-Scroll Button



Auto-scroll in-active



Auto-scroll active

The Auto-Scroll button activates and de-activates Editor Window scrolling. When on, the Editor Window updates its view to follow the Now Line as it moves through a Project. When off, the portion of the Project being viewed does not change to follow the location of the Now Line.

Tip: You can always find the Now Line by typing CONTROL-HOME or selecting Now Line from the Go To Menu (page 86).

Play Selection Button



Click the Play Selection button to play any Objects currently selected on the Playing Field. OPTION-click (Mac OS) or right-mouse-click (Windows) the tool to cause it to use the Audition Pre-Roll and Audition Post-Roll settings in the Project Window, which set an amount of time to be played before and after the Objects (see page 24).

Amplitude Zoom Buttons



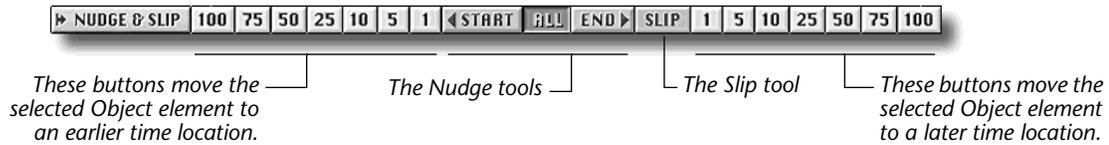
You can click either of the two Amplitude Zoom buttons to decrease or increase the displayed height of the Playing Field’s Waveform Overviews. With greater waveform heights, more detail is visible, and vice versa. Each tool will become unavailable (grayed-out) when its greatest value has been reached.

Tip: Since the Amplitude Zoom buttons operate strictly upon waveform height—making volume differences in the waveforms more or less visible—they can be used in conjunction with the Zoom tool, which stretches or shrinks the amount of time showed on the Playing Field’s time.

Tip: To reset amplitude zooming to its default value, OPTION-click (Mac OS) or right-click (Windows) either button.

The Nudge & Slip Bar

The Nudge & Slip bar provides “Nudge” tools that allow you to move, in millisecond (1/1000ths of a second) increments, the start point, end point, and/or the relative position of selected Objects. The bar also provides a “Slip” tool that allows you to shift in milliseconds the audio played by an Object without altering the Object’s size.



Each Nudge or Slip tool becomes activated when its button is clicked—these tools determine the Object element that will be moved. The numbered buttons to the left and right of the Nudge and Slip tools move the selected component of the Object earlier or later in time, respectively, by 1-millisecond, 5-millisecond, 10-millisecond, 25-millisecond, 50-millisecond, 75-millisecond or 100-millisecond intervals. You can click the buttons in any order achieve the desired result.

Note: The Nudge and Slip tools function independently of the Grid & Snap features (page 70).

Using the Nudge Tools



The Nudge Start and End tools allow you to increase the size of any selected Object by moving its start point to an earlier time in the Project, or by moving its end point to a later time, respectively. Use the All tool to shift the entire Object forward or back in time without changing its size.

To perform this action:	Click this Nudge button:	And then:
Change the location of the beginning of the Object	Start	Click the desired millisecond button(s) to move the Object start to the desired location.
Change the location of the end of the Object	End	Click the desired millisecond button(s) to move the Object end to the desired location.
Change the location of the entire Object	All	Click the desired millisecond button(s) to move the Object to the desired location.

Tip: The colors of the currently selected Nudge tool invert to show that the tool is selected.

Using the Slip Tools



The Slip tool allows you to change the audio to be played by any selected Object. While the Object retains its shape and position on the Playing Field, Slip shifts forward or backward in time the instructions within the Object that tell it what portion of its Audio File to play. The result is that the Object plays where and for how long it always did, but it plays a different piece of its Audio File.

To use the Slip tool:

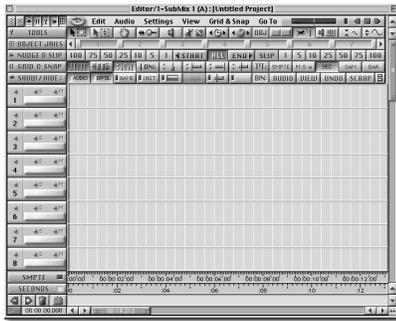
1. Click the Slip tool button to activate the tool, if it isn’t already switched on.
2. Click the desired millisecond button(s) to shift the portion of its Audio File to be played by the Object.

The Grid and Snap Bar

The Grid and Snap features allow you to automatically place Objects you drag precisely at specified time locations. This precision-placement of Objects is called “snapping.” The locations to which Objects are snapped are located on the Grid. The Grid & Snap bar contains tools related to the Grid and Snap features.

Note: Some of the Grid and Snap features can be accessed in the Grid & Snap menu—see page 85.

What is the Grid?



The Grid is a set of time locations in a Project, each of which is represented by a vertical line drawn on the Playing Field when the Grid is activated. You can designate locations to be included in the Grid by:

- turning on any Ruler (see page 71) so that it contributes the large or small intervals by which it measures time to the Grid.
- setting Markers (page 51) at locations you want to use in the Grid and adding those Markers to the Grid.
- adding the beginning and/or ending time locations of Objects on the Playing Field to the Grid.
- adding sync points (page 81) to the Grid.

Note: The Grid’s lines are only visible when the Grid is activated and at least one contributor to the Grid is active.

Activating and De-Activating the Grid



1. Click the Grid On/Off button so that it highlights, or select “Grid on” from the Grid & Snap menu—any time locations currently designated for use by the Grid will appear on the Playing Field.
2. To turn off the Grid, click the Grid On/Off button again.

Adding Time Locations to the Grid

Minor Time Divisions On/Off Button



The Minor Time Divisions On/Off button operates in conjunction with the Ruler buttons appearing on the right-hand-side of the Grid & Snap bar, and described below. When the Minor Time Divisions On/Off button is depressed, each Ruler adds finer time units to the Grid.

Note: This feature can also be enabled or disabled using the Use Minor Time Division item in the Grid & Snap menu.

Markers On/Off Button



When the Markers On/Off button is depressed, all Markers in the Project contribute their time locations to the Grid.

Note: This feature can also be turned on or off by selecting or de-selecting Use Markers in the Grid & Snap menu.

Object Start On/Off Button



When the Snap On/To button (page 72) is in its out position and the Object Start On/Off button is depressed, Grid lines corresponding to the start points of all Objects on the Playing Field are added to the Grid.

Note: This feature can also be turned on or off by selecting or de-selecting Use Object Start in the Grid & Snap menu.

Object End On/Off Button



When the Snap On/To button (page 72) is in its out position and the Object End On/Off button is depressed, Grid lines corresponding to the end points of all Objects on the Playing Field are added to the Grid.

Note: This feature can also be turned on or off by selecting or de-selecting Use Object End in the Grid & Snap menu.

Sync Point On/Off Button



When the Snap On/To button (page 72) is in its out position and the Sync Point On/Off button is depressed, Grid lines corresponding to the sync points of all Objects on the Playing Field are added to the Grid.

Tip: Sync points are set using the Add Sync Point Audio menu item (see page 81).

Ruler Mode Switch



Ruler buttons add time units to the Grid



Ruler buttons show or hide Rulers

The Ruler Mode switch sets the functionality of the buttons located to its right on the Grid & Snap bar—each of these buttons being associated with a Ruler. When the Ruler Mode switch is in its out position, each of the Ruler buttons, when depressed, adds its timing units to the Grid, regardless of whether or not the Ruler is currently visible in the Editor Window. When the Ruler Mode switch is depressed, each of the Ruler buttons enable or disable the display of the associated Ruler, regardless of

whether the Ruler is currently contributing its time units to the Grid.

SMPTE Ruler On/Off Button



When the Ruler Mode switch is depressed (see above), press the SMPTE Ruler On/Off button to contribute SMPTE time units representing seconds to the Grid. The blue indicator to the left of the Ruler will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the SMPTE Ruler On/Off button enables or disables display of the SMPTE Ruler.

Note: When the Minor Time Divisions button is depressed, one-tenth-second time units are contributed to the Grid.

M:S:m Ruler On/Off Button



When the Ruler Mode switch is depressed (see above), press the M:S:m Ruler On/Off button to add minute, second and millisecond time units to the Grid. The blue indicator to the left of the Ruler will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the M:S:m Ruler On/Off button enables or disables display of the M:S:m Ruler.

Note: When the Minor Time Divisions button is depressed, one-tenth-second time units are contributed to the Grid.

Seconds Ruler On/Off Button



When the Ruler Mode switch is depressed (see above), press the Seconds Ruler On/Off button to add second-long time units to the Grid. The blue indicator to the left of the Ruler will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is its out position, the Seconds Ruler On/Off button shows or hides the Seconds Ruler.

Note: When the Minor Time Divisions button is depressed, one-tenth-second time units are contributed to the Grid.

Samples Ruler On/Off Button



When the Ruler Mode switch is depressed (see above), press the Samples Ruler On/Off button to add second-long time units shown in samples to the Grid—the sample measurements shown will depend on the Project's sample rate (page 23). The blue indicator to the left of the Ruler will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the Samples Ruler On/Off button enables or disables display of the Samples Ruler.

Note: When the Minor Time Divisions button is depressed, one-tenth-second time units are contributed to the Grid.

Bars-Beats Ruler On/Off Button



When the Ruler Mode switch is depressed (see above), press the Bars-Beats Ruler On/Off button to contribute time units representing every bar and every other beat to the Grid. The blue indicator to the left of the Ruler will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the Bars-Beats Ruler On/Off button enables or disables display of the Bars-Beats Ruler.

Moving Data Into an Object Jail

Object Jail cells can hold various items:

- You can drag an Object or group of Objects into a Jail cell from the Playing Field.
- You can drag one or more Audio Files and/or Segments from the Audio Bin into a Jail cell—the originals remain in the Audio Bin while a copy of the dragged items is placed in the selected Jail cell.

Tip: To copy an Object or Group of Objects into a Jail cell while leaving the original on the Playing Field OPTION-drag (Mac OS) or right-mouse drag (Windows) the Object or group of Objects to the desired cell.

Moving Data Out of the Object Jails

To release the contents of an Object Jail cell, select the cell and drag its to the desired location. The cell is cleared and it is available to be filled again.

Tip: You can copy the contents of an Object Jail without emptying its cell by OPTION-dragging (Mac OS) or right-mouse dragging (Windows) the cell to the location in which you want to make a copy.

Returning a Jail Cell's Contents to their Original Location

Each Object or Segment stored in an Object Jail recalls its last location on the Playing Field. This allows you to return the contents of a cell to the location from which it came, preserving, for example, the timing and Track/FlexTrack relationships between the Objects within a group of Objects you've placed in a Jail cell.

To return a Jail cell's contents to its last location on the Playing Field:

1. Activate the Time-Locked Selector tool by pressing its button if it's not already pressed.
2. Drag the contents of the Jail cell to the Playing Field.

Editor Window Crossfades Bar

The Crossfades bar allows you to adjust the shape and length of any fade-in, fade-out or crossfade with ease and precision.

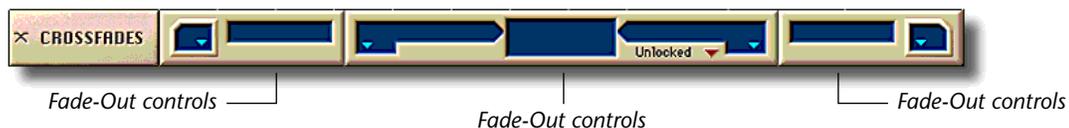
- A fade-in is an increase over time to full volume at the front of an Object.
- A fade-out is a decreasing of volume to silence at the end of an Object.
- A crossfade occurs when two Objects on a Track or FlexTrack overlap, with the earlier Object fading out while the later Object fades in.

To display or hide the Crossfades bar, click its button in the SUSHI bar, select the Crossfades Bar menu item from the View Menu or type CONTROL-2 (Mac OS) or ALT-2 (Windows).



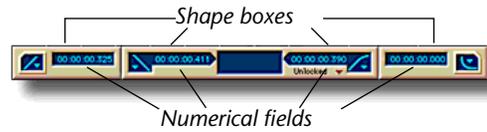
Crossfades bar button

The Crossfades bar is divided into three sections, each of which provides controls for one of the fade types.



In each section, there are two types of control:

- A shape box that allows you to select a shape for the corresponding fade. To use this control, repeatedly click the box until the desired fade shape appears (see below).
- A numerical field in which the length of the corresponding fade is displayed. To change the length, click in the field—a dialog will appear in which you can set the length of the fade as desired.



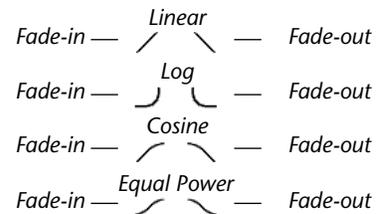
Tip: The unit of time measurement that appears in the fade length display corresponds to that of the Now Position Display (see Page 34 in the PARIS Reference). To change it, repeatedly click in the Now Position Display until the desired unit of measurement appears.

The Crossfades controls also contains a window that shows the shape of the selected crossfade.



Fade Shapes

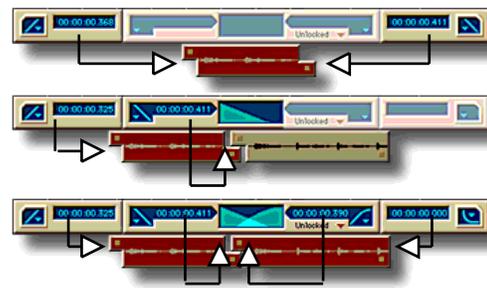
In each fade box, there are four available shapes for a fade-in, fade-out and the fade-out and -in that comprise the left and right sides of a crossfade.



How the Crossfades Bar Works

As you select one or more Objects on the Playing Field, PARIS activates the appropriate Crossfades bar displays.

- When you select a single Object that does not overlap any other Objects, the Fade-In and Fade-Out controls become activated so that you can set the selected Object’s fade-in and -out. (Note: You may need to adjust the start or end time so that you have some audio to work with. In other words, you can’t Fade-In or Fade-Out of silence!)
- When you select a single Object that overlaps another Object, the Fade-In control activates, as does the side of the Crossfade controls that manages the edge of the Object overlapping the other Object.
- When two Objects overlap, and both are selected, all of the Crossfade bar’s controls are activated: the Fade-In controls manage the front of the earlier Object, the Fade-Out controls set the fade-out of the later Object, and the Crossfade controls manage the edges of the Objects that overlap.



When more than two Objects are selected, the sections operate in the same manner: the Crossfade controls set the left and right side of any crossfades, while the Fade-In and Fade-Out controls set any fades that do not overlap with other Objects.

When more than two Objects are selected that have differing fade shapes, the Crossfades bar will show an “unequal” symbol (≠) in the corresponding shape boxes; if the fade lengths are not the same, “Different” will be displayed in the appropriate numerical fields.

Tip: You can set differing fades to the same shape or length by selecting the desired shape or entering the desired length in a shape box or numerical field that shows “≠” or “Different.”

When more than one overlap occurs among the selected Objects, the graphic depiction of crossfade shapes does not appear in the Crossfade control section.

Crossfade Lock Pop-Up

The Crossfade Lock popup allows you to lock together the fade-out and fade-in that comprise a crossfade between Objects. When locked together, you can use either shape box or fade-length numerical field in the Crossfade bar's Crossfade controls to simultaneously change both sides of any selected crossfade to the same shape and/or length.

Note: In order to lock together the sides of a crossfade, both Objects that make up the crossfade must be selected.

To view the Crossfade Lock pop-up, click and hold on the word "Unlocked" in the Crossfade control section. The pop-up will appear and offer four choices:

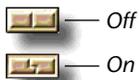
- Unlocked—The fade-out and fade-in that comprise the crossfade will be independently affected by changes made to their respective shape boxes and fade-length numerical fields.
- Lock Shape—Selecting a new shape in either shape box in the Crossfade controls will set both sides of the crossfade to the same shape.
- Lock Length—Typing in a new fade-length value in either numerical field in the Crossfade controls will set both sides of the crossfade to the same length.
- Lock Both—Setting a new shape or length anywhere in the Crossfade controls will set both sides of the crossfade to the same shape and length.



To set the Crossfade Lock status, select the desired setting from its pop-up.

Note: The setting of the Crossfade Lock pop-up is one of the attributes saved in a Local View.

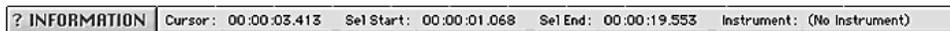
Editor Window Auto-Crossfade Button



The Editor Window's Auto-Crossfade button enables and disables the Auto-Crossfade feature. If the Auto-Crossfade button is in its "on" position, when you drag one Object on top of another on a Track or FlexTrack so that the two Objects overlap, PARIS automatically creates an equal-power crossfade between the two Objects—the amount of overlap determines the length of the crossfade. If you drag one Object on top of another when the Auto-Crossfade button is in its "off" position, the Object underneath will be trimmed.

The Information Bar

The Information bar provides informational read-outs, some of which can be used for re-positioning currently selected Objects, as well as a Free Form mode pop-up menu that lets you assign currently selected Objects to an Instrument.



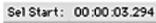
The Information bar works with Objects currently selected on the Playing Field. All time information shown in the Information bar is expressed in the unit of measurement currently selected in the Now Position Display (page 44).

Cursor



The Cursor read-out shows the current location of your mouse cursor.

Sel Start



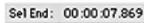
The Sel Start (“Selection Start”) field shows the start time of the currently selected Object or group of Objects on the Playing Field. When a group of Objects is selected, this read-out will show the earliest start time of any Object in the group.

You can use the Sel Start value to change the starting location of a selected Object, or the leading edge of a group of Objects. When a group of Objects is moved, the time relationships between the Objects will be preserved.

To Change the Sel Start Value

1. Select the Object or group of Objects to be moved.
2. Click the current Sel Start value—the Move Selection Start pop-up window will appear.
3. Click the radio button next to the unit of time measurement you’d like to use.
4. Type the desired time value (the number beneath the typing area shows the form in which the value should be typed).
5. Click OK—or press RETURN (Mac OS) or ENTER (either platform)—or click Cancel to exit the window.

Sel End



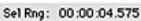
The Sel End (“Selection End”) field shows the end time of the currently selected Object or group of Objects on the Playing Field. When a group of Objects is selected, this read-out will show the latest end time of any Object in the group.

You can use the Sel End value to change the ending location of a selected Object, or the trailing edge of a group of Objects. When a group of Objects is moved, the time relationships between the Objects will be preserved.

To Change the Sel End Value

1. Select the Object or group of Objects to be moved.
2. Click the current Sel End value—the Move Selection End pop-up window will appear.
3. Click the radio button next to the unit of time measurement you’d like to use.
4. Type the desired time value (the number beneath the typing area shows the form in which the value should be typed).
5. Click OK—or press RETURN (Mac OS) or ENTER (either platform)—or click Cancel to exit the window.

Sel Rng



The Sel Rng (“Selection Range”) read-out shows the length of the currently selected Object or group of Objects. This display is read-only. To view the Sel Rng value, click on “Sel End” text label. To hide Sel Rng, click Sel End again.

Instrument



In Free Form mode, this display shows the name of the Instrument to which the select Object—or the first Object in a group of Objects—is assigned. You can click on the Instrument name to view a pop-up menu from which you can select a new Instrument for the select Object or group of Objects.

Chapter 8—The Editor Window Menus

This chapter describes the Editor Window menus and the features to which they provide access. To the right of each item's name, you'll see the keyboard shortcut that invokes the item. See Chapter 6 for an overview of the Editor Window.

The Edit Menu



The Edit Menu accesses the basic commands and functions that can be performed upon Objects.

Undo C16 Pro *COMMAND-Z (Mac OS); CONTROL-Z (Windows)*

As long as the Editor Window is the front-most window, when you select the Undo command, PARIS restores the Objects on the Playing Field to the state they were in prior to your last edit. Undo-able edits include the placement, trimming, fading, cutting or duplication of Objects. You can undo a maximum of 99 edits. Use this command in combination with the Redo command to move forward and backward through your edits. The Undo command can be also be invoked from your keyboard or the C16 Pro.

Redo C16 Pro *SHIFT-COMMAND-Z (Mac OS); CONTROL-SHIFT-Z (Windows)*

Redo undoes Undo. When you've undone an edit, you can select the Redo command to restore it. You can Redo up to 99 undone edits. Using Redo and the Undo together, you can move forward and backward through your edits. The Redo command can be also be invoked from your keyboard or the C16 Pro.

Cut COMMAND-X (Mac OS); CONTROL-X (Windows)

The Cut command removes the currently selected Object or group of Objects and places it in the Clipboard and the first Object Jail cell (page 72). Use the Paste command to move the data to a new location, or drag the contents of cell to the desired location. Objects remain in the Clipboard until replaced by a new Cut, Snip or Copy command.

When the selected Object is...



...Cut, it leaves a space.



...Snipped, the space is removed



Snip SHIFT-COMMAND-X (Mac OS); CONTROL-SHIFT-X (Windows)

The Snip command performs two actions:

- It removes the currently selected Object, or group of Objects, placing it/them in the Clipboard, and therefore into the first Jail Cell (page 72). Use the Paste command to move the data to a different location, or drag the contents of Object Jail Cell 1 to a new location. Objects placed on the Clipboard using Snip remain there until another Cut, Snip or Copy command replaces them.
- It removes from the Track or FlexTrack the time previously occupied by the Object(s), causing any later-positioned Objects on the Track or FlexTrack to be moved closer to the start of the Project.

Copy COMMAND-C (Mac OS); CONTROL-C (Windows)

Copy places a duplicate of selected Objects or groups of Objects into the Clipboard, and therefore into the first Object Jail cell. This copy can then be pasted elsewhere using the Paste command, or by dragging the first Object Jail cell to the desired location. The copy will remain on the Clipboard until another Cut, Snip or Copy command replaces it.

Paste

COMMAND-V (Mac OS); CONTROL-V (Windows)

Paste copies the contents of the Clipboard (and therefore Object Jail Cell 1) to a selected location on the Playing Field. Before selecting the Paste menu item, select a time and Track/FlexTrack destination location for the command:

1. Click in any open Ruler to position the Now Line at the desired time location.
2. Click anywhere in the intended destination Track or FlexTrack, or on its number—the Now Line will turn yellow as it crosses the Track or FlexTrack to show that it's selected as a Paste-command target.

Tip: You can also use your keyboard's up and down arrows—or the C16 Pro's arrow buttons (see Appendix 1)—to select a destination Track or FlexTrack.



Tip: When the Clipboard contains Objects from separate Track or FlexTracks, click in the top-most desired destination Track/FlexTrack. When pasted, the group of Objects will retain their original Track spacing.

Paste at...

SHIFT-COMMAND-V (Mac OS); CONTROL-SHIFT-V (Windows)

The Paste at... command allows you to type in a time location to which the contents of the Clipboard will be copied. When this menu item is selected, the Paste at... window appears, in which you:

1. Select a destination Track or FlexTrack using any of the methods listed in Step 2 of the standard Paste operation described earlier in this chapter.
2. Click the radio button next to the unit of time measurement you'd like to use.
3. Type the desired time value (the number beneath the typing area shows the form in which the value should be typed).
4. Click OK—or press RETURN (Mac OS) or ENTER (either platform)—to execute the command, or click Cancel to exit.

Paste Multiple

COMMAND-L (Mac OS); CONTROL-L (Windows)

This command operates similarly to the Paste command, except that it allows you to paste multiple copies of the contents of the Clipboard (and Object Jail Cell 1) end-to-end at the selected Paste destination location. Prior to using the Paste Multiple command, select a destination using the steps listed earlier in this chapter for the standard Paste command. When you then select Multiple Paste, the Paste Multiple window will appear. After you've typed the number of pasted copies you want to create, click OK—or press RETURN (Mac OS) or ENTER (either platform)—to execute the command.

Note: Pasting Objects does not remove them from the Clipboard; they can be pasted again to other locations if you wish.

Clear

COMMAND-B (Mac OS); CONTROL-B (Windows); DELETE/BACKSPACE (both platforms)

Clear removes a selected Object or group of Objects from the Playing Field without sending it to the Clipboard.

Clear and Close

SHIFT-COMMAND-B (Mac OS); CONTROL-SHIFT-B (Windows)

The Clear and Close command removes the selected Object or group of Objects from the Playing Field, and removes from the Track or FlexTrack the time previously occupied by the Object(s), causing any later-positioned Objects on the Track or FlexTrack to be moved closer to the start of the Project. The cleared data is not sent to the Clipboard.

Note: The Clear and Clear and Close commands have the same relationship as Cut and Snip—see "Snip" on page 77.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use the Select All command to simultaneously select every Object in the Project.

Select None

COMMAND-D (Mac OS); CONTROL-D (Windows)

Select None de-selects all selected Objects in the Project, allowing you to ensure no Objects are unintentionally selected.

Insert Time

SHIFT-COMMAND-I (Mac OS); CONTROL-SHIFT-I (Windows)

Insert Time adds a blank section of time into a Track/FlexTrack or Project at the Now Line's current position. To do this:

1. Click in any open Ruler to position the Now Line where you'd like the time to be inserted.
2. Select Insert Time—a dialog box will appear.
3. Click the radio button next to the unit of time measurement you'd like to use.
4. Type the amount of time you want to add.
5. Click One Track to add time to any selected Track/FlexTrack, or click All Tracks to add time to the entire SubMix.
6. To add time to all of the SubMixes in the Project, click the Across all SubMixes checkbox.
7. Click OK—or press RETURN/ENTER—to execute the command, or click Cancel to exit.

Note: When the Editor Window is in Constrained mode, this command also inserts blank time into the Automation Tracks that numerically correspond to the selected Editor Window Tracks. When in Free Form mode, time is inserted into the corresponding Automation Tracks only when All Tracks is selected in Step 5 above.

Delete Time

SHIFT-COMMAND-D (Mac OS); CONTROL-SHIFT-D (Windows)

Delete Time removes a region of time from a Track/FlexTrack or Project, including Objects or portions of Objects located within the selected time period. To use this command:

1. Click in any open Ruler to position the Now Line at the beginning of the time region you want to remove.
2. Select Delete Time—a dialog box will appear.
3. Click the radio button next to the unit of time measurement you'd like to use.
4. Type the amount of time you want to remove from the Project.
5. Click One Track to delete time from any selected Track/FlexTrack, or All Tracks to delete it from the entire SubMix.
6. To remove time from all of the SubMixes in the Project, click the Across all SubMixes checkbox.
7. Click OK—or press RETURN (Mac OS) or ENTER (either platform)—to execute the command, or click Cancel to exit.

Note: When the Editor Window is in Constrained mode, this command also deletes time (and data) from the Automation Tracks numerically corresponding to the selected Editor Window Tracks. In Free Form mode, time is removed from the corresponding Automation Tracks only when All Tracks is selected in Step 5 above.

Insert Audio Tracks...

In Free-Form mode, this command adds audio tracks BEFORE the current selected track (yellow line). This allows you to insert empty track above where you are working and pushing the data down, so you can record or move new objects. See page 55 for more information about Free-Form mode.

Add MIDI Tracks

This command allows you to add any number of MIDI Tracks to the Edit Window's Playing Field (up to 999). MIDI Tracks will be added beginning at Track 19 in Constrained mode or on the currently selected track (yellow line) in Free-Form mode. See page 179 for detailed information about MIDI Tracks.

Break Objects at Now Line

COMMAND-K (Mac OS); CONTROL-K (Windows)

This command splits all currently selected Object(s) on the Playing Field at the current position of the Now Line. Any Objects that do not touch the Now Line will not be affected.

Set Markers From Object

COMMAND-M (Mac OS); CONTROL-M (Windows)

The Set Markers From Object command creates new Markers at the start and end times of any selected Object. PARIS places the Markers intelligently: end-to-end Objects do not result in the placement of redundant Markers.

Set Loop Range From Object

The Set Loop range From Object command automatically places the Loop Markers at the start and end times of any selected Object. See "Looping and Punching" on page 93.

Set Punch Range From Object

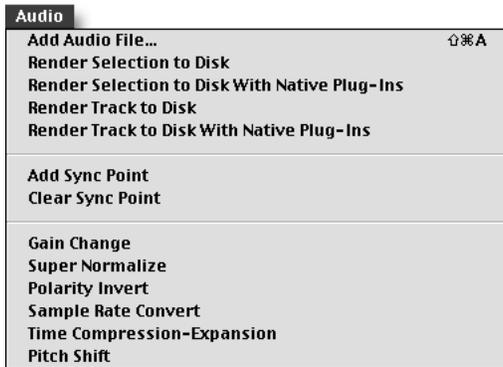
The Set Punch Range From Object command automatically places the Punch Markers at the start and end times of any selected Object. See “Looping and Punching” on page 93.

Break Objects at Markers

SHIFT-COMMAND-M (Mac OS); CONTROL-SHIFT-M (Windows)

Use this command to split any selected Object(s) on the Playing Field at the time locations of the Project’s Markers. Objects that are not placed at these time locations will be unaffected by the command.

The Audio Menu



The Audio Menu contains tools for accessing Audio Files stored on the hard drives in your computer system, and brings some of the editing and processing commands available in the Audio Window into the Editor Window for quick access.

Add Audio File...

SHIFT-COMMAND-A (Mac OS); CONTROL-SHIFT-A (Windows)

This command allows you to use your computer’s standard open dialog to import Audio Files from your hard drive into the Audio Bin for inclusion in the current Project. PARIS can open and use native PARIS files, WAV files or Sound Designer II files. (See “Importing and Exporting Sound Designer II and WAV Files” on page 156.)

Note: In order for PARIS to recognize a sound file, the file must have the appropriate file extension at the end of its name. PARIS Audio Files use a “.paf” file extension, Sound Designer II files use “.sd2,” and WAV files use a “.wav” extension.

Background: Rendering to Disk

Rendering to disk creates a new audio file using the Mixer’s EQs and Effects routings. Rendering to disk can be extremely useful in several situations.

- Rendering is extremely useful to transfer files out of PARIS to a sampler or other audio application. By rendering before the transfer, all audio files will begin the zero time point, freeing you from having to realign each file to its proper time location. In addition, your EQ and FX processing are rendered into the audio file.
- If you’re working on a large project and run out of Native CPU power, rendering finished tracks with EQ and Effects will free up the effects for use on new tracks.
- Tracks containing several audio files can be rendered down into a single audio file.

Render Selection to Disk

Rendering Selection to Disk creates a new audio file using only the selected Objects or Segments. Edits, fades, cross-fades and native inserts will be used in the rendering process. EDS effects and EQ will NOT be used in the rendering process. If multiple Objects are selected, they will each be rendered as an individual file.

Render Selection to Disk with Native Plug-ins

Rendering Selection to Disk with native Plug-ins creates a new audio file using only the selected Objects or Segments. Both Native plug-ins and EDS effects (as well as EQ) will be used in the rendering process. If multiple Objects are selected, they will each be rendered as an individual file.

Render Track to Disk

This command renders the entire track to disk. If there are multiple Objects on the Track, they will be combined into a single file. EDS effects and EQ will be used in the rendering process, but Native plug-ins will NOT be used.

Render Track to Disk with Native Plug-ins

This command renders the entire track to disk. If there are multiple Objects on the Track, they will be combined into a single file. Both Native plug-ins and EDS effects (as well as EQ) will be used in the rendering process.

Add Sync Point

Add Sync Point allows you to embed a pointer that can be used for synchronization within any currently selected Object at the location at which the Object is crossed by the Now Line. Sync points can be invaluable when synchronizing PARIS to video or in any other situation in which you need to ensure that an event within an Object will play at a precise time. The synchronization point appears within the affected Object as a green line (once the Now Line no longer covers it).



Clear Sync Point

Use this command to remove the sync point marker for all currently selected Objects touching the Now Line.

DSP Functions

The Audio Menu provides access to DSP (“digital signal processing”) functions also available in the Audio Window (Chapter 15). You can run these DSP commands on Objects to alter only the portions of Audio Files you actually want to change, such as, for example, a single phrase in a vocal whose gain needs boosting. The DSP commands create new Audio Files, leaving intact the original Audio Files upon which Objects are based. When you select any of the DSP commands from the Audio Menu, you’re presented with a standard Save dialog in which you must select a location and name for the Audio File to be created—when this has been done, a settings dialog for the command itself will appear. After the command has run, the selected Object will play the newly created Audio File.

Tip: When more than one Object is selected, a DSP command will process one Object—asking you to place and name its new Audio File, and then set a value for the operation being performed—and then process the next one, and so on.

Tip: The DSP functions are undo-able, in a sense, since selecting Undo re-points a selected Object to its original Audio File (though the newly created Audio File remains on your hard disk). This allows you to try out different DSP settings.

Gain Change

Gain Change allows you to change the overall loudness of the selected Object. In the Change Gain dialog box, type, in dBs, the amount of volume change you desire. To lower the selected Object’s gain, type a minus sign before the value.

Super Normalize

Super Normalize allows you to increase the overall volume of a selected Object based on its loudest components, or “peaks,” by setting the desired volume for those peaks in the “Normalize to:” box at the top of the window that appears when you select this command. PARIS provides two forms of normalization: Normalize and Super Normalize, either of which may be selected by clicking its radio button in the normalization dialog box.

- Normalize seeks the loudest peak in the Object and raises the overall level of the Object so that the peak is precisely at the value entered in the “Normalize to:” box. This method will be familiar to users of other audio programs.
- Super Normalize ignores the highest peaks in an Object when normalizing to prevent situations in which an untypical peak or two can cause the entire Object to be normalized to an unacceptably low volume. The radio buttons that appear under Super Normalize in the dialog window set the degree to which such peaks will be ignored, with Most Strict ignoring fewer peaks and Most Relaxed ignoring the most peaks. More relaxed Super Normalization values, while likely to produce louder Objects, are also more likely to result in distortion. Use Super Normalization with care.

Polarity Invert

When you run the Polarity Invert command, the selected Object's wave data will be phase-inverted in respect to the zero line in its Waveform Overview. Samples that are positive in value (shown above the zero line) will be made negative; samples with a negative value will be made positive.

Sample Rate Convert

Sample Rate Convert changes the sample rate of a selected Object's Audio File—this can be helpful when you intend to use the file in another application where a different, perhaps lower, sample rate is desired. In the Sample Rate Convert command's dialog window, type the desired sample rate in the Final Sample Rate box, or type the desired ratio of increase or decrease to the current sample rate in the Ratio box. You can also select one of five quality settings that will determine the fidelity of the new Audio File. The higher the quality you select, the longer the sample rate conversion will take.

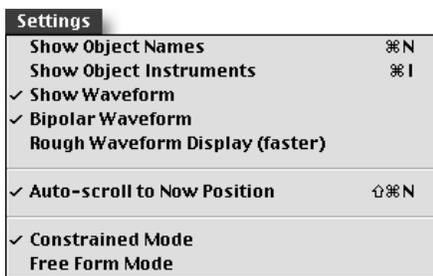
Time Compression-Expansion

The Time Compression-Expansion command allows you to set a new length for the selected Object—PARIS will lengthen or shorten the Object as requested without changing the pitch of its contents. In the command's dialog window, type the desired length for the Object in the Final Length box, or type the desired increase or decrease ratio value in the Ratio box.

Pitch Shift

The Pitch Shift command allows you to change the pitch of a selected Object without changing its length. In the Pitch Shift dialog window, select whether you'd like the pitch to go up or down, and set the desired amount of pitch change in semitone steps and cents (1/100th of a half-step). You can also select one of five quality settings that will determine the fidelity of the new Audio File. The higher the quality you select, the longer the Pitch Shift operation will take.

The Settings Menu



The items in the Settings Menu control the look of Objects, scrolling behavior of the Playing Field, and allows you to switch between Editor Modes. The features accessed by most of the items in the Settings Menu are also accessible using the buttons of the Show/Hide bar (page 61) and the Tools bar (page 63).

Show Object Names *COMMAND-N (Mac OS); CONTROL-N (Windows)*

When Show Object Names is selected—so that a checkmark appears next to its name—each Object's name will appear inside its Waveform Overview. This menu item duplicates the function of the Name button (see page 62) on the Show/Hide bar.

Show Object Instruments *COMMAND-I (Mac OS); Windows: CONTROL-I (Windows)*

In Free Form Mode, when Show Object Instruments is selected—so that a checkmark appears next to its name—the name of the Instrument to which each Object is assigned will be shown in each Object's Waveform Overview. This menu item duplicates the function of the Inst. button (see page 62) on the Show/Hide bar. When using Constrained Mode, "No Instrument" will be displayed for each Object if this feature is activated.

Show Waveform

When Show Waveform is checked, the audio played by each Object will be represented with a Waveform Overview drawn within each Object. To learn about Waveform Overviews, see page 45. This menu item duplicates the function of the Audio button (see page 61) on the Show/Hide bar.

Bipolar Waveform

Bipolar Waveform determines the manner in which Waveform Overviews will be displayed when the Show Waveform menu item is checked (or when the Audio button is depressed). Waveforms can be drawn as positive-going lines above a line representing zero volume, or, when the Bipolar Directional menu item is checked, as

bidirectional lines above and below the zero line. This menu item duplicates the function of the Bipolar button (see page 61) on the Show/Hide bar.



Rough Waveform Display (faster)

When this menu item is checked, Objects on the Playing Field will be displayed with a more coarsely drawn Waveform Overview. This is useful when you want to know where there is actual sound data and where there is silence, for example, but don't need the precision of the Show Waveform setting.

Auto scroll to Now Position

SHIFT-COMMAND-N (Mac OS); CONTROL-SHIFT-N (Windows)

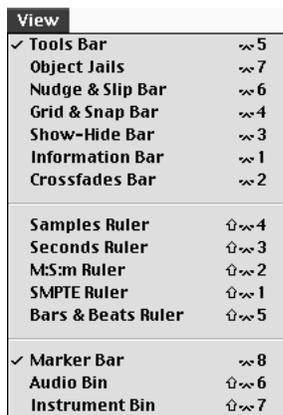
When the Auto scroll to now Position menu item is checked, the Playing Field will automatically scroll to keep pace with the Now Line. When this option is off, playback will continue normally, but the window will not scroll to keep up with the Now Line. This menu item duplicates the function of the Auto-Scroll button (see page 68) on the Tools bar.

Editor Window Mode Settings: Constrained Mode and Free Form Mode

The Editor Window can operate in either of two modes—Constrained Mode and Free Form Mode—determined by which of these two menu items is currently checked. For a complete explanation of the two Editor Window modes, see page 54.

- Constrained Mode presents the Playing Field as 16 linear Tracks controlled by 16 Mixer Window Channels.
- In Free Form Mode, the Playing Field is a wide-open canvas upon which Objects are edited and arranged.

The View Menu



The options in the View Menu control the on/off status of the command bars, the Markers bar, the Object and Instrument Bins, and Rulers in the Editor Window.

Command-Bar-Related View Menu Items

Selecting any of the command-bar View Menu items—so that a checkmark appears next to its name—will cause the corresponding bar to be displayed (Chapter 7.) These items duplicate the actions of the buttons in the SUSHI bar (page 52). The View Menu items that show or hide command bars are:

Ruler-Related View Menu Items

View Menu item:	Keyboard Shortcut:	See page:
Tools Bar	CONTROL-5 (Mac OS); ALT-5 (Windows)	63
Object Jails	CONTROL-7 (Mac OS); ALT-7 (Windows)	72
Nudge & Slip Bar	CONTROL-6 (Mac OS); ALT-6 (Windows)	69
Grid & Snap Bar	CONTROL-4 (Mac OS); ALT-4 (Windows)	70
Show-Hide Bar	CONTROL-3 (Mac OS); ALT-3 (Windows)	61
Information Bar	CONTROL-1 (Mac OS); ALT-1 (Windows)	75
Crossfades Bar	CONTROL-2 (Mac OS); ALT-2 (Windows)	73

Selecting any of the View Menu Ruler items—so that a checkmark appears next to its name—will cause the corresponding Ruler to be displayed. (Rulers are described on page 49). The View Menu Ruler items duplicate the Ruler Show/Hide buttons in the Grid & Snap bar—see page 49. The menu items show or hide the following Rulers:

Chapter 8 - The Editor Window Menus

The View Menu

View Menu item:	Keyboard Shortcut:	Ruler shows time in:	See page:
Samples Ruler	SHIFT-CONTROL-4 (Mac OS); SHIFT-ALT-4 (Windows)	44,100 or 48,000 samples per second, according to Project Window's Sample Rate setting (page 23)	71
Seconds Ruler	SHIFT-CONTROL-3 (Mac OS); SHIFT-ALT-3 (Windows)	seconds	71
M:S:m Ruler	SHIFT-CONTROL-2 (Mac OS); SHIFT-ALT-2 (Windows)	minutes, seconds and milliseconds	71
SMPTE Ruler	SHIFT-CONTROL-1 (Mac OS); SHIFT-ALT-1 (Windows)	hours, minutes, seconds and frames	71
Bars & Beats Ruler	SHIFT-CONTROL-5 (Mac OS); SHIFT-ALT-5 (Windows)	bars (measures) and beats, according to Project Tempo and Time Signature settings (page 23)	71

Marker Bar

CONTROL-8 (Mac OS); ALT-8 (Windows)

When the Marker bar menu item is checked, the Editor Window's Marker bar becomes visible. To learn about the benefits of using Markers when editing—and the Marker bar—see page 50. The Markers Window is described in Chapter 9.

Note: Markers are always available for use, whether or not the Markers bar is shown.

Audio Bin

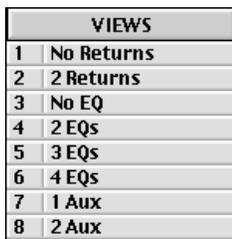
SHIFT-CONTROL-6 (MAC OS); SHIFT-ALT-6 (Windows)

The View Menu's Audio Bin item sets whether or not the Audio Bin—a scaled-down version of the Audio Window (see Chapter 15)—will be displayed. When the menu item is checked, the Audio Bin is visible. This menu item duplicates the action performed by clicking the Show/Hide bar's Audio button (page 61). To learn about the Audio Bin, see page 46.

Note: You can CONTROL-SHIFT-click on an audio file name to play the audio file or segment if the transport is not engaged. CONTROL-SHIFT-click on the file again to stop playback.

Views Bin

SHIFT-CONTROL-7 (MAC OS); SHIFT-ALT-7 (Windows)



VIEWS	
1	No Returns
2	2 Returns
3	No EQ
4	2 EQs
5	3 EQs
6	4 EQs
7	1 Aux
8	2 Aux

When the Views Bin menu item is checked, the Editor Local Views Bin appears at the right of the Editor window. Up to 99 local Editor views can be displayed, renamed and selected from the Editor Views Bin. Views can be labelled with up to 15 characters.

 *To save a local view of the Editor:*

1. Set the C16 Pro to View mode by pressing its View mode button.
2. Select any number from 0 to 99. The View will be stored in this location.
3. Press the Enter•Save button to the right of the keypad.

 *To recall a local view of the Editor from the C16 Pro:*

1. Set the C16 Pro to View mode by pressing its View mode button.
2. Select the number (from 0 to 99). where the desired View is stored.
3. Press the Recall•Function button to the right of the keypad.'

 *To recall a local view of the Editor from the Mixer Views Bin:*

1. Select Views Bin from the Editor Views window.
2. Double click on the desired view in the Editor Views window.

 *To name a view in the Editor Views Bin:*

- **On the PC:** Right click the mouse button while the cursor is over the label area, then type the name.
- **On the Mac:** Press the Option key while clicking with the mouse on the label area, then type the name.

The Grid & Snap Menu



The Grid & Snap Menu provides options that control the on/off status of the Editor Window's alignment Grid, its Snap feature, the fineness of time measurements used by the Grid, and allows you to activate Marker, and Objects and sync point times for use by the Grid. The items in this menu duplicate the actions of the buttons on the Grid & Snap bar, as described below.

Note: Grid lines are visible only when the Grid and at least one of its contributors are activated.

Grid On

COMMAND-G (Mac OS); CONTROL-G (Windows)

When Grid On is checked, the Editor Window's Grid becomes active. The Grid's vertical lines on the Playing Field are used for the alignment of Objects to selected time measurements when the Snap feature is activated. The Grid is explained fully on page 70. This menu item duplicates the function of the Grid On/Off button in the Grid & Snap bar (page 70).

Snap On

COMMAND-P (Mac OS); CONTROL-P (Windows)

When the Grid is activated, checking the Snap On menu item causes any Objects moved on the Playing Field to jump into alignment with the lines of the Grid. The Snap feature is fully described on page 72. This menu item duplicates the function of the Snap On/Off button on the Grid & Snap bar.

Use Minor Time Divisions

The Use Minor Time Divisions menu item, when checked, activates the Grid's use of smaller time increments when the Grid is active and at least one Ruler is contributing its units of time measurement to the Grid. This feature can also be engaged by clicking the Minor Time Divisions On/Off button in the Grid & Snap Menu (page 70).

Use Markers

The Use Markers command, when checked, adds a line to the Grid reflecting the time location of each of the Project's Markers, performing the same function as the Grid & Snap bar's Markers On/Off button (page 70). To learn about Markers, see page 50.

Use Object Start

The Use Object Start command, when checked, adds a line to the Grid corresponding to the start time of each of the Objects on the Playing Field—this duplicates the function of the Grid & Snap bar's Object Start On/Off button (page 70).

Use Object End

The Use Object End command, when checked, adds a line to the Grid corresponding to the end time of each of the Objects on the Playing Field—this duplicates the function of the Grid & Snap bar's Object End On/Off button (page 70).

Use Sync Point

When the Use Sync Point menu item is checked, a grid line for each sync point in any Object on the playing Field is added to the Grid—sync points are described on page 71.

The Go To Menu

Go To	
Start Time	
End Time	
Now Line	
First Track	
Last Track	
Previous Marker	⌘ -
Next Marker	⌘ +

The Go To menu contains command for jumping to various time locations within a Project.

Start Time *HOME*

Select the Start Time menu item to position the view of the Playing Field at the Project start time.

End Time *END*

Select the End Time menu item to position the view of the Playing Field at the end of the Project.

Now Line *CONTROL-HOME*

Select the Now Line menu item to move the view of the Playing Field to the current location of the Now Line. This menu item can be useful when the Auto scroll to Now Position option is turned off.

First Track *SHIFT-HOME*

Select First Track to position the view of the Playing Field so that the Project's first Track or FlexTrack is visible.

Last Track *SHIFT-END*

Select Last Track to position the view of the Playing Field so that the Project's last Track or FlexTrack is visible.

Previous Marker *COMMAND-⌘ (Mac OS); ALT-⌘ (Windows)*

Select Previous Marker to move the view of the Playing Field to the location of the Marker that precedes the current location of the Now Line. If this menu item is selected while a Project is playing, playback will continue from this location. This menu item duplicates the function of the Previous Marker button found in the Editor Window's Marker controls, in the Transport and Locator windows, and on the C16 Pro.

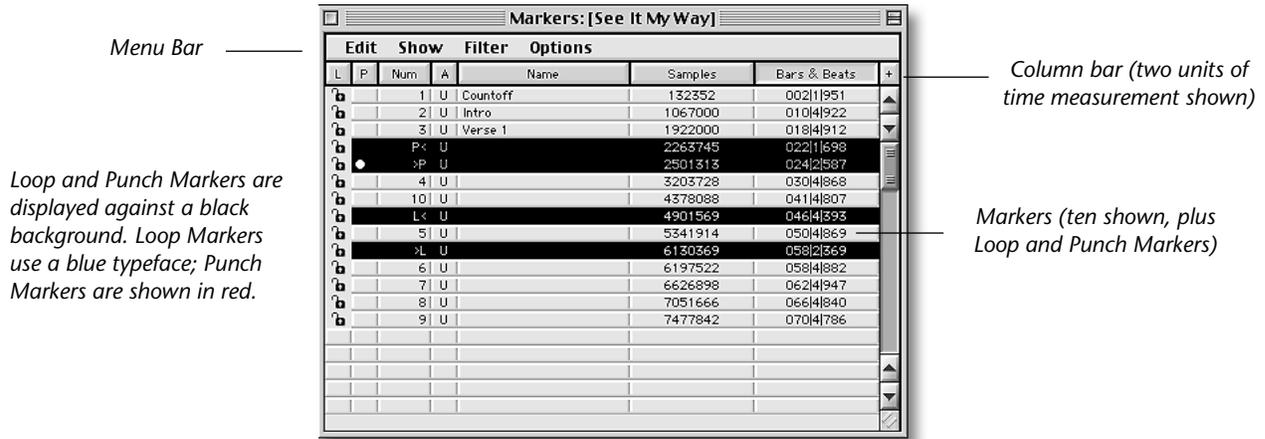
Next Marker *COMMAND-⌘ (Mac OS); ALT-⌘ (Windows)*

Select Next Marker to move the view of the Playing Field to the location of the closest Marker in the Project that follows the current position of the Now Line. If this menu item is selected while a Project is playing, playback will continue from this location. This menu item duplicates the function of the Next Marker button found in the Editor Window's Marker controls, in the Transport and Locator windows, and on the C16 Pro.

Chapter 9—The Markers Window

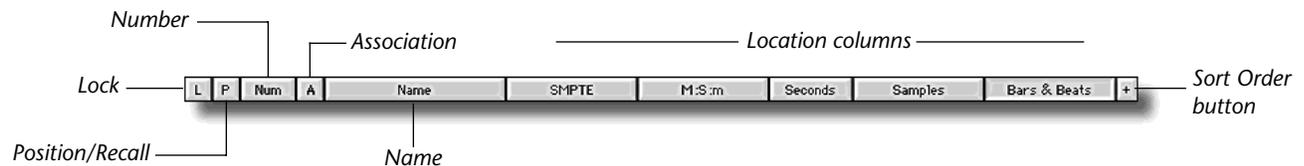
Markers Window Overview

You can manage your Projects' Markers in the Markers Window. This window is arranged in sortable columns, some of which also offer clickable tools. Its menus provide Marker-related commands and window display settings. To select a Marker, click its name; to select more than one SHIFT-click each desired Marker.



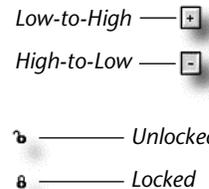
Markers Window Columns

Marker information is arranged in columns—you can select the columns to be displayed from the Show Menu (page 89).



Click the name of any column in the Column Bar to view the Project's Markers sorted according to the values shown in the column. The values in the currently selected column are shown against a light background.

Tip: Click the Sort Order button to set whether Markers will be sorted low-to-high or high-to-low.



The Lock (L) Column

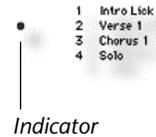
Each Marker can be locked to prevent accidental deletion of the Marker in the Markers or Editor windows, and to prevent movement of the Marker when time is added to, or removed from, the Project using the Editor Window's Insert Time and/or Delete Time menu commands (page 79). To lock a Marker, click its lock in the Lock column. To unlock it, click again.

Note: When you attempt to move or delete a locked Marker, PARIS will ask if you're sure that you want to do so.

The Position/Recall (P) Column

The Position/Recall column functions as both position indicator and tool:

- When the Options Menu's Show Last Marker item is checked (page 90), the column displays a Last Marker indicator that shows the Marker last passed by the Now Line as the Project plays. When the menu's Auto-scroll to Marker item is checked, the column displays a Next Marker indicator—as the Project plays, the indicator shows the next upcoming Marker.
- Click in the Position/Recall column next to a Marker to move the Now Line to the Marker's location.
- OPTION-click (Mac OS) or right-mouse-click (Windows) in the Position/Recall column next to a Marker to copy the Marker's time location into the Locate Time counter.



Tip: You can use your keyboard to move the Now Line to the selected Marker's location by pressing the TAB key. To copy the selected Marker's location into the Locate Time counter, type OPTION-TAB (Mac OS) or SHIFT-TAB (Windows).

The Number (Num) Column

The Number column shows the number assigned to each Marker, as well as Loop start and end symbols (“>” and “<,” respectively) and Punch in and out symbols (“>” and “<,” respectively) for Loop and Punch Markers.

Tip: Use the Edit Menu's Renumber... feature to renumber Markers in their current order. See “The Markers Window Edit Menu” on page 89.

The Association (A) Column

Each Marker can be associated with a specific SubMix. This association serves two purposes in the Markers Window:

- You can see at a glance the Markers relevant to the contents of a particular SubMix.
- You can use the Filter Menu (page 89) to hide all Markers not associated with the SubMix on which you're working.

To associate a Marker with a SubMix, OPTION-click (Mac OS) or right-mouse-click (Windows) in the Marker's Association column and select the desired SubMix from the pop-up menu that appears. Select “Universal” to associate the Marker with the entire Project, and not a specific SubMix.

Tip: If more than one Marker is selected—highlighted—the Association pop-up menu will simultaneously set the association for all of the selected Markers.

The Name Column

The Name column shows the name of each Marker. To name a Marker, OPTION-click (Mac OS) or right-mouse-click (Windows) in its Name column—the background turns white to show that it can be edited. Type the desired name and hit ENTER or RETURN. Marker names are also shown in the Marker Strip in the Editor and Automation Editor windows.

The Location Columns

The Markers Window allows you to display the location of your Markers in any of the units of time measurement available in PARIS' Rulers—each unit of measurement is shown when its name is checked in the Show Menu (page 89).

Tip: You can change the location of a Marker by OPTION-clicking (Mac OS) or right-mouse-clicking (Windows) its time value in any location column—a window will appear in which you can type the desired location, and hit ENTER or RETURN.

The Markers Window Menus



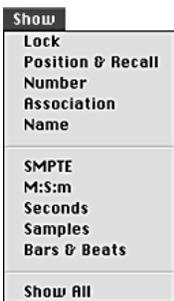
The Markers Window Edit Menu

The Edit Menu offers commands that affect the currently selected Marker, as well as selection and renumbering commands.

Note: To select a Marker, click in any of its columns—a red highlight shows the Marker is selected. You can also select a Marker using your up/down keyboard arrow keys; SHIFT-TAB to select multiple Markers. Click in an unused area of the window to de-select all selected Markers.

Edit Menu Item	Performs this action:	Keyboard Shortcut:
New Marker	Creates a new Marker at the Now Line's current position	COMMAND-N (Mac OS); CONTROL-N (Windows)
Clear	Deletes the selected Marker from the Project	COMMAND-B (Mac OS); ALT-B (Windows); DELETE key (both platforms)
Select All	Selects all Markers in the Project	COMMAND-A (Mac OS); CONTROL-A (Windows)
Select None	De-selects any selected Markers	COMMAND-D (Mac OS); CONTROL-D (Windows)
Lock Selected	Locks any unlocked and selected Marker	COMMAND-L (Mac OS); ALT-L (Windows)
Unlock Selected	Unlocks any locked and selected Marker	SHIFT-COMMAND-L (Mac OS); SHIFT-ALT-L (Windows)
Renumber...	Renumbers Markers in their currently displayed order	COMMAND-R (Mac OS); ALT-R (Windows)

The Markers Window Show Menu



The Markers Window Show Menu controls the display of the columns in the Markers Window. To show a column, select its name in the Show Menu so that a checkmark appears next to the item. To hide a column, select it again—when the column is hidden, no checkmark is shown next to its name.

Tip: See Appendix 3 for keyboard shortcuts for this menu.

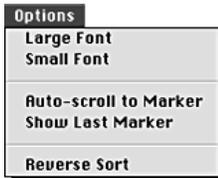
The Markers Window Filter Menu



The Markers Window Filter Menu allows you to show or hide Markers according to their association (page 88). To show only those Markers associated with a particular SubMix, select the SubMix from the Filter Menu so that a checkmark appears next to its name. To show those Markers designated as Universal, select Universal. Select the Show All Markers item to display all Markers.

Tip: See Appendix 3 for keyboard shortcuts for this menu.

The Markers Window Options Menu



This menu alters the display and functionality of the Markers Window. To activate one of its items, select it from the menu so that a checkmark appears next to its name; to de-activate it, select it again so that the checkmark is removed.

Tip: See Appendix 3 for keyboard shortcuts for this menu.

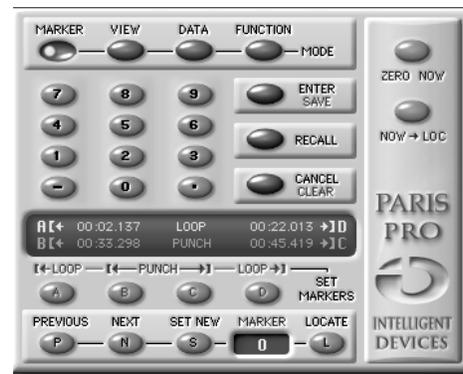
Option Menu Item:	Performs this action:
Large Font	Sets the Markers Window so that it uses a large, easy-to-read typeface
Small Font	Sets the Markers Window so that it uses a smaller, space-efficient typeface
Auto-scroll to Marker	Activates the Position/Recall column's Next Marker feature (page 88)
Show Last Marker	Activates the Position/Recall column's Last Marker feature (page 88)
Reverse Sort	Reverses the high-to-low/low-to-high sort order of the column selected for the ordering of Markers; duplicates the action of clicking the Sort Order button (page 87)

Chapter 10—The Locator Window

What's in The Locator Window

The Locator Window contains a variety of important controls. It:

- contains a Locate feature that lets you jump to any time location in a Project by typing the desired time or Marker location.
- provides a keypad from which you can open any Project window or window in the default SubMix.
- lets you select an operating mode that determines the behavior of the keypad on your computer keyboard, the C16 Pro and in the Locator Window.
- allows you to navigate among a Project's Markers, and to set new Markers.
- allows you to set up and activate looping.
- allows you to set up and activate automated punch-ins and -outs.



Tip: You'll find keyboard shortcuts for various Locator Window actions in Appendix 3.

The Zero Now Feature

The Zero Now button sets the current location of the Now Line as the “Return-to-Zero” point. Double-clicking the Rewind button of the Transport, instantly jumps you to the Return-to-Zero point. This is a handy feature when you're working in the middle of a song and want to set a temporary song start location.

Note: You can also set the Return-to-Zero point from the C16 Pro. See page 208.

The Locate Feature

The Locate Time counter is the key to PARIS' Locate feature, which stores a time location in memory to which you can instantly send the Now Line when a Project is paused or playing back. The Locate feature has two components: setting a locate time, and moving the Now Line to that location.

Setting the Locate Time

You can set the locate time in any of several ways:

- You can manually enter a locate time by clicking anywhere in the Locate Time counter of the Transport Window, selecting a convenient time format, typing the desired time and clicking OK (See page 39).
- You can click the Now->Loc button located above the PARIS Pro logo to copy the current location of the Now Line into the Locate Time counter.
- You can OPTION-click (Mac OS) or right-mouse click (Windows) the Previous or Next Marker buttons in the Locator Window (see page 93) or Transport Window (page 42) to copy the most-recently passed or upcoming Marker's position into the Locate Time counter (page 93).
- You can copy a Marker's location into the Locate Time counter in Marker mode (see “Marker Mode” on page 92).
- From the Markers Window, you can OPTION-click (Mac OS) or right-mouse click (Windows) in a Marker's Position/Recall column to copy the Marker's position into the Locate Time counter—see page 88.

Sending the Now Line to the Locate Time

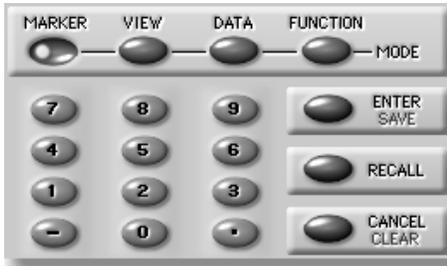
You can send the Now Line to the locate time using any of several methods. You can do this by:

- clicking the Locate button in the Locator Window. 
- clicking the L (for “Locate”) button in the Transport Window (page 42).



- pressing the Locate button on the C16 Pro (page 210).

The Mode Buttons and Keypad



The Locator Window contains a keypad section from which you can copy Markers into the Locate Time counter, open any Project window or window in the default SubMix (page 172) or save or recall Local Views. This keypad is one of three keypads available in PARIS, all of which function in a nearly identical manner, and which can be used interchangeably. The three are:

- the Locator Window keypad
- the keypad on your computer keyboard
- the keypad on the C16 Pro

Since all three keypad function similarly, this chapter's description of the Locator Window's keypad applies to all three, with differences as noted.

The Keypad Modes

The behavior of the keypad is determined by the setting of its Mode buttons:

In this mode:	you can:
Marker mode	copy a Marker's location into the Locate Time counter
View mode	open any window in the default SubMix; save and recall Local Views

Note: The two remaining Mode buttons are reserved for future implementation.

Note: When you select a mode for any of the three keypads, you're selecting the mode for all three.

To Change Keypad Modes

The current keypad mode is indicated by a lit blue LED in its active mode button. To change modes in the Locator Window or on the C16 Pro, click the desired Mode button—its LED will light. To change modes from your keyboard, type "*" to cycle between the four modes.

Entering Numbers in the Keypad

The keypad allows you to select Markers or windows by clicking—or typing on your keyboard—their numbers. As you type a Marker, Local View or window's number, the number appears in red in the Locate window. Once you've actually copied the Marker into the Locate Time counter, saved or recalled a Local View, or opened a window, the number changes to white.



To Clear a Number You've Begun Entering

If you begin entering a number and decide you'd like to start again it—perhaps you'd like to type a different number or have mis-entered a digit—click the Clear button on the keypad or the + key on your keyboard's keypad.

Marker Mode

In Marker mode, you can copy any Marker's time location into the Locate Time counter for use with feature (Markers are described on page 50). To do this, select Marker mode, enter the Marker's number on the keypad, and click the Recall button, or hit ENTER key on your keyboard.



Tip: When entering Marker numbers on the keypad—leading zeroes are not required.

Tip: To Recall a Marker's location into the Locate Time counter and move the Now Line to that location, enter the Marker number and hit the "." button.

View Mode

In View mode, you can use the keypad to open any Project window or window in the default SubMix. You can also save Local Views of the Locator Window—this can be handy for saving and recalling different time-format settings for the Locator window’s counters.

Note: You can save Local Views using the Locator Window keypad, your keyboard or C16 Pro—see page 28.

Opening Project or Default SubMix Windows

To open any Project Window or default SubMix window, select View mode and enter the number of the desired window, followed by a period:

Type:	for the:	Type:	for the:
1.	Project Window	10.	Automation Editor Window
2.	Editor Window	11.	Big Display
3.	Mixer Window	12.	Master Mixer Window
4.	Transport Window	13.	Markers Window
6.	Instruments Window	14.	MIDI Devices
7.	Patch Bay Window	15.	MIDI Instruments
8.	Audio Window	16.	MIDI Chunks
9.	Mini Mixer Window	20.	Background Tasks Window

Tip: If you’ve got a MEC, you can also select the MEC Modules Object Window (page 33) and/or expansion module-related windows by typing “30.” for the first item in the Project Window’s Shortcuts Menu (page 23), “31.” for the next item, and so on.

Saving and Recalling Local Views of the Locator Window

You can save up to 99 Local Views of the Locator Window. Since this window’s components are fixed, you may find this useful for saving different views with different time formats shown in the Locator Window’s counters.

- To save a Local View in the Locator Window, assign a number to the Local View by entering it on the Locator Window’s keypad, and then click the keypad’s Enter/Save button.
- To recall a Local View, enter the view’s number on the Locator Window’s keypad and click the Recall button.

The Marker Control Section



The Locator Window provides Marker controls for navigating among a Project’s Markers. These controls are similar to those found in the Transport Window and on the C16 Pro.

To:	Do this:
Move the Now Line back to the last Marker it passed	Click the Previous button.
Move the Now Line to the next upcoming Marker	Click the Next button.
Place a new Marker at the Now Line’s current location	Click the Set New button.

Tip: You can copy a Marker’s location to the Locate Time counter at the same time as you move the Now Line to the Marker’s location by OPTION-clicking (Mac OS) or right-mouse-clicking (Windows) the Previous or Next buttons.

Looping and Punching

The Locator Window provides controls for setting up looping and punching in a Project:

- Looping allows you to play the same section of a Project over and over, up to 250 times. This is accomplished by setting the beginning and end of the section to be repeated—or “looped”—and activating the Loop feature.
- Punching is a form of recording in which a selected portion of a Track or FlexTrack is re-recorded, leaving the remainder of the original recording intact. When you begin re-recording, you’re “punching in”; when you stop, you’re “punching out.” The Locator Window provides automated punching, achieved by setting the beginning and end of the section to be re-recorded and activating the Punch feature.

Tip: You can perform manual punch-ins and -outs using the Transport Window, your keyboard, or the C16 Pro. See pages 41 and 207.

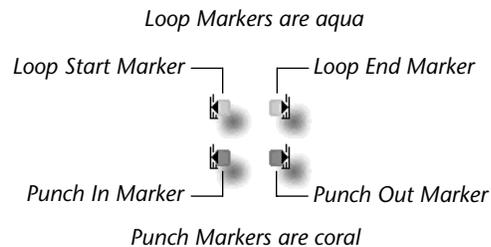
Tip: In FreeForm mode (page 54), punching does not replace any of the earlier recording; rather, it places the punched section on the next highest-FlexTrack. This allows you to accumulate multiple takes of a punched section from which you can choose the best performance.

One looping section and one punching section can be set up in a Project at any time. You can also use these two features together. See “Using Looping and Punching Together” on page 95.



PARIS utilizes special Loop and Punch Markers for the setting of the beginning and ends of sections to be looped or punched. Loop and Punch Markers share shapes, but are colored differently.

- The beginning of a loop is set with a Loop Start Marker, and then end of the loop is set with a Loop End Marker.
- The beginning of a section to be punched is set with a Punch In Marker, and its end with a Punch Out Marker.



Setting Loop and Punch Markers

Loop and punch Markers are placed using a common method. Once you’ve placed a Loop or Punch Marker, its precise location is shown in the Loop/Punch Time display. The colors in the display match the colors of the Loop and Punch Markers.



Tip: Click on the display to change the time format shown in the Loop/Punch time display

Placing a Loop or Punch Marker begins by moving the Now Line to the Marker’s desired location. You can position the Now Line by typing the desired location in the Current Time counter (Page 69), using standard Markers (pages 94 and 50), or manually. To learn how to manually position the Now Line, see pages 44, 141 or 220.

Tip: You can also place Loop and Punch Markers from the C16 Pro. See Appendix 1.

Tip: After placing Markers from the Locator Window or the C16 Pro, you can drag them in the Editor or Automation Editor windows’ Marker strips to new positions.



Tip: When you’re not looping or punching, you can use the Loop and Punch Markers as special letter-designated Markers with their own buttons—note that in the Locator Window, the Loop and Punch Markers are labeled “A,” “B,” “C,” and “D.” Once you’ve placed these Markers, you can move the Now Line to any of their positions by clicking the desired button in the Locator Window or on the C16 Pro.

Setting Loop Markers

To set the start of the section to be looped, position the Now Line at the desired location and OPTION-click (Mac OS) or right-mouse-click (Windows) the Loop Start button. to set the end of the section, position the now Line as desired and OPTION-click (Mac OS) or right-mouse-click (Windows) the Loop End button.



Setting Punch Markers

To set the start of the section to be punched, position the Now Line at the desired location and OPTION-click (Mac OS) or right-mouse-click (Windows) the Punch In button. To set the end of the section, position the Now Line as desired and OPTION-click (Mac OS) or right-mouse-click (Windows) the Punch Out button.



You don't have to place both Punch Markers if you want to perform an automated punch from the beginning of a Project to a specified location, or from a location somewhere in the middle of the Project until you manually stop recording.

- To punch from the beginning of a Project to a particular location, place the Punch Out Marker where you want recording to end. PARIS will punch in at the start of the Project and stop at the Punch Out location.
- To punch from a location in the middle of a Project indefinitely, place the Punch In Marker at the location at which you want recording to begin—PARIS will punch in at that location and continue recording until you manually stop it.

Playing Loops and Performing Punches

Playing a Loop

To activate playback of a looped section in a Project, click the Loop button on the C16 Pro so that its yellow LED is lit. Play back the Project normally—when PARIS gets to the end of the looped section, it will automatically return to the beginning of the section. To stop looping, stop playback and click the Loop button to turn off its LED.



Mac OS Tip: If you encounter problems playing looped sections with many short Segments, try adding 1-2 Mb to PARIS' Recommended and Preferred Sizes in its Get Info window (select the PARIS icon and type COMMAND-I).

Warning: To prevent problems, do not move Loop Markers, turn the Loop feature off or drag new Objects onto the Playing Field in an Editor Window during loop playback.

Performing an Automated Punch

 To perform an automated punch after placing Punch In and Out Markers:

1. Set a record path (page 21).
2. Record-enable the Channel on which you wish to record (page 107 or 206).
3. On the C16 Pro, click the Punch button so that its red LED is lit.
4. Position the Now Line at the location at a convenient location before the start of the punch.
5. Click the Record button in the Transport Window or hold down the Record button and press the Play button on the C16 Pro—the C16 Pro's Record LED will flash until you reach the Punch In Marker, at which time it will light solidly and begin recording. When it reaches the Punch Out Marker, it will begin flashing again to show that recording has ended.
6. Stop playback of the Project after the punch has been completed.



Using Looping and Punching Together

By using looping and punching together, you can take multiple passes at the same section—perhaps one in which it's difficult to achieve the desired performance—without re-starting. This can be especially useful in Free Form mode, where each attempt is preserved for later examination and possible use. In addition, by positioning the Loop Start Marker a bit earlier in the Project than the Punch In Marker, you can begin playback for each pass with enough time before punching begins to provide a sense of context before recording—this is called a “pre-roll.” Likewise, by placing the Loop End Marker after the Punch out Marker, you create a “post-roll” that will allow you to hear how the new recording blends with the original recording.

Tip: When using looping and punching together in the manner described above, you can click the Loop Start button in the Locator Window to position the Now Line at the start of your pre-roll when you begin your punching session.

Chapter 11—The Instruments Window

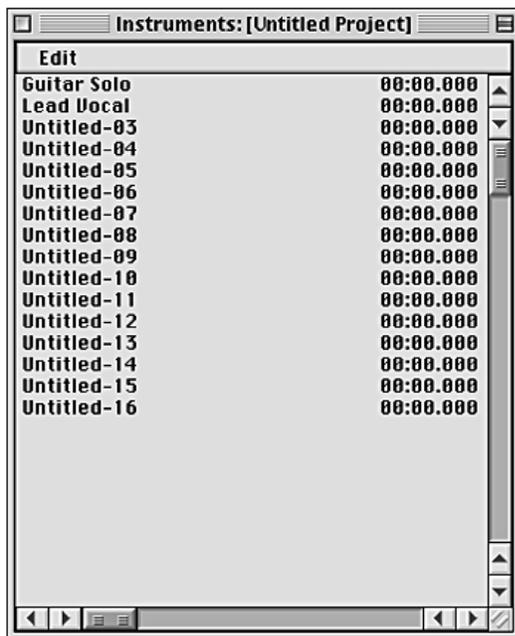
Using the Instruments Window

When working in the Free Form mode, Objects on the Editor Window's Playing Field are organized into Instruments instead of conventional Tracks. Each Instrument can be assigned to a Channel strip in the Mixer Window for the control of its volume, panning, EQ and Effects. For a complete explanation of Free Form mode—including a detailed definition of Instruments—see page 54.

A Project can contain a virtually unlimited number of Instruments that can be used throughout its SubMixes. In addition, you can use the same Channel strip for different Instruments at different places in a Project (page 106). The Instruments Window allows you to create, delete and/or re-name a Project's Instruments.

Note: The Editor Window's Instruments Bin allows you to view the contents of the Instrument Window from the Editor Window—see page 56.

Working in the Instruments Window



The Instruments Window shows you all of the Instruments in the current Project. The left-hand column shows you each Instrument's name. (The numbers in the right-hand column are reserved for future implementation.) You can also use your mouse to accomplish a couple of tasks directly within the Instruments Window. You can:

- select Instruments as targets for Edit Menu operations.
- re-name Instruments.

To Select an Instrument

To select an Instrument, click its name—its background will highlight to indicate that it's selected. To select more than a single Instrument, SHIFT-click each additional desired Instrument. To de-select an Instrument from a group of selected Instruments, SHIFT-click its name again. To de-select all Instruments, click in an unused area of the window.

To Rename an Instrument

1. OPTION-click (Mac OS) or right-mouse-click (Windows) the Instrument's name.
2. Type the desired name.
3. Hit RETURN/ENTER on your keyboard.

Tip: You can also use this technique to re-name Instruments in the Editor Window's Instruments Bin.

The Edit Menu



The Edit Menu provides commands that allow you to manage to manage your Project's Instruments when working in Free Form Mode.

New

COMMAND-N (Mac OS); CONTROL-N (Windows)

Select this menu item to add a new Instrument to the Project. The new Instrument will appear with the name "Untitled," followed by the next available number.

Delete

COMMAND-B (Mac OS); CONTROL-B (Windows)

Select Delete to remove any selected Instrument from the Project.

Chapter 11 - The Instruments Window

Using the Instruments Window

Duplicate

COMMAND-D (Mac OS); CONTROL-D (Windows)

Select this menu item to duplicate any selected Instrument.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use this command to select all of the Instruments in the Project.

Select Unused

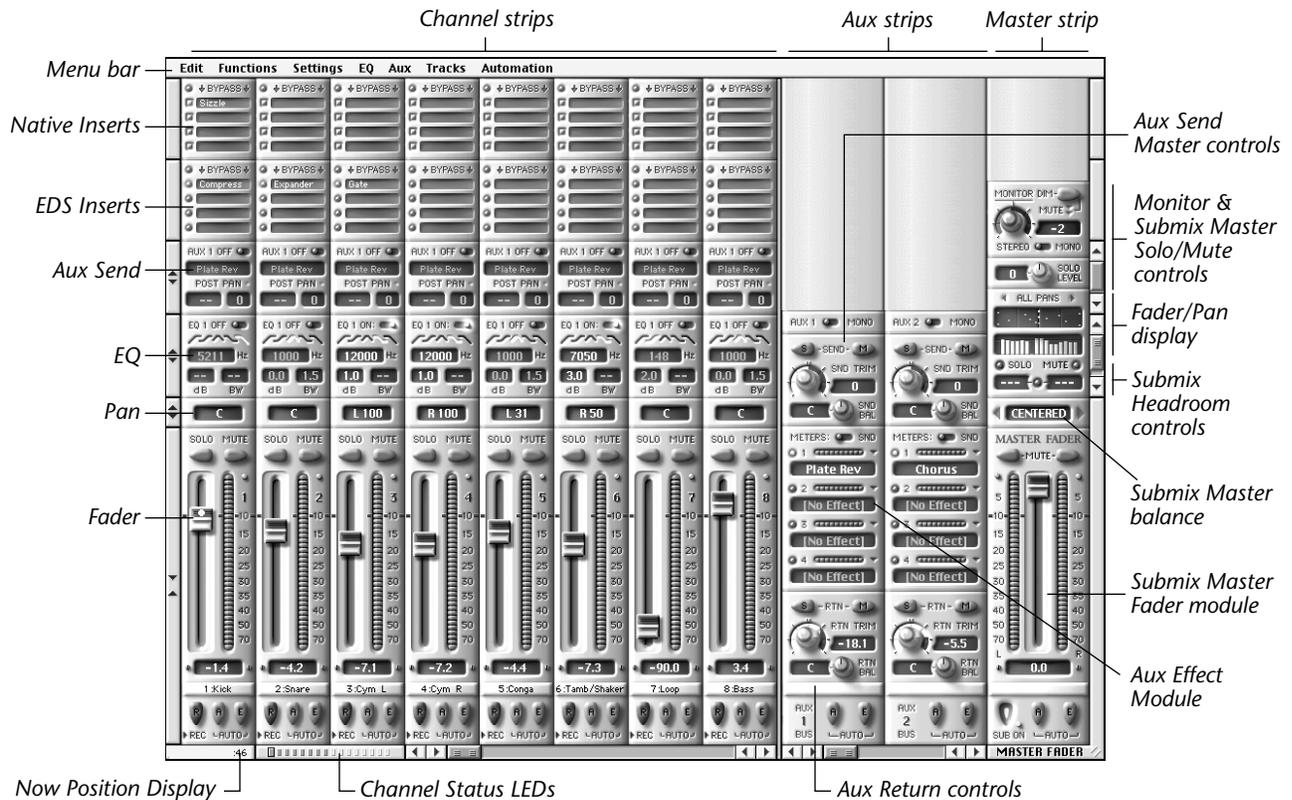
COMMAND-U (Mac OS); CONTROL-U (Windows)

The Select Unused menu item selects any Instrument to which no Object on the Editor Window's Playing Field has been assigned. Once selected, these unused Instruments can be removed from the Project using the Delete Edit Menu item.

Chapter 12—The Mixer Window

Mixer Window Overview

The Mixer Window is a virtual console on which all mix-related activities can be performed, including Track/
Instrument volume control, stereo panning, equalization, Effect processing, monitor control and the recording of
mix automation. Each SubMix has its own Mixer Window whose title bar shows the SubMix and EDS-1000 card with
which it's associated.



Note: In the illustration above, some sections of the console are shown in their “collapsed” state, as described on page 100 in “Collapsing and Expanding Channel Strip”.

Tip: Many of the Mixer Window’s operations can also be performed on the C16 Pro (Appendix 1) when the SubMix with which you’re working is set to use the C16 Pro (see page 209).



Main Sections of the Mixer Window

As shown by the labels along the top edge of the illustration above, the Mixer Window is divided into three primary sections, each of which is described in this chapter:

- the Channel strips
- the Aux strips
- the Master strip

Mixer Window Management

The Mixer Window contains such a large number of features that it's not possible to display all of its elements at a single time. PARIS provides an assortment of tools for controlling what you see in the window. You can re-size the window, or show or hide various console elements as your needs dictate, saving any such arrangement as a local view (see Chapter 3).

Tip: Each SubMix has a Mini Mixer Window that shows all of its 16 Channel strips in reduced scale—see page 104.

Note: Many of the major elements of the Mixer Window can be displayed or hidden selecting or de-selecting Mixer Window menu items. The Mixer Window menus are described later in this chapter, beginning on page 124.

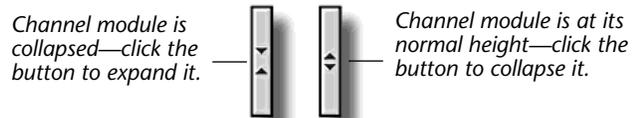
Re-Sizing the Mixer Window

You can adjust the size of the Mixer Window by click-dragging the lower right corner of the window—the window will snap to the nearest size that allows the display of complete Channel and Aux Master strips. The minimum width of the window is six Channel or Aux Master strips in addition to the Master strip.

Collapsing and Expanding Channel Strip Module

In order to fit more elements into the Mixer Window, you can minimize the height of any Channel strip module using the Collapse/Expand buttons located along the left edge of the Mixer Window. To return a module to its full size, click the Collapse/Expand button again.

The arrows in the Collapse/Expand buttons indicate both the current state of the module and what will happen if the button is clicked.



When a Channel module is “collapsed,” a scaled-down graphic representation of its controls is shown in each of the displayed Channel strips.



To change a setting in a collapsed Channel module, click and drag to the desired value directly in its data readout.

Scroll Bars and Buttons in the Mixer Window

The scroll bars and scrolling arrow buttons in the Mixer Window perform several important tasks:

- The horizontal scroll bars and buttons located at the bottom edge of the window shift the 16 Channel strips and eight Aux Master strips in and out of view.
- The vertical scroll bars and buttons located at the right-hand edge of the window parallel to the Aux Sends shift the eight Aux Sends in and out of view when all eight are not being simultaneously displayed.
- The vertical scroll bars and buttons located at the right-hand edge of the window parallel to the EQ sections shift the four sections in and out of view when fewer than all four are not being simultaneously displayed.

Tip: When you select a Channel strip Aux Send or EQ module on the C16 Pro, it auto-scrolls into view.



Setting the Number of Aux Strips to be Displayed

You can change the number of displayed Aux strips by dragging the divider bar located at the left edge of the first displayed Aux strip (if no Aux strips are currently being displayed, the divider will be at the right-hand edge of the highest-numbered displayed Channel strip).

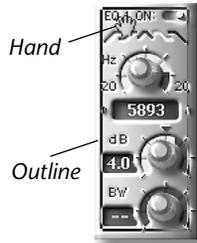


When you position your mouse cursor over the divider bar, the cursor changes to indicate that you can click and drag the bar. To show more Aux strips, drag the bar to the left; to show fewer strips, drag it rightward.

Note: PARIS allows you to control the display of complete Aux strips—you cannot display a portion of a strip.

Copying Mixer Strip Settings

You can copy entire mixer strip settings, EQ settings, or Aux settings or from one strip to any other. When the cursor is not positioned over a button or other field, a small hand appears.  While the hand is visible, simply click and drag the module to copy it to another location. An outline appears around the module indicating that it is selected.



- **Entire Strip** - Position the cursor over the fader section until the hand appears, then drag to the new location.
- **Single EQ Section** - Position the cursor over the EQ band until the hand appears, then drag to new location.
- **All EQ Sections** - Position the cursor over the Master EQ Section or the Graphic Display until the hand appears, then drag to the new location.
- **Single Aux Section** - Position the cursor over the Aux section until the hand appears, then drag.

Note: You can drag and drop mixer strip settings back and forth between the mini mixer and big mixer.

The Channel Status Bar

The Channel Status bar—located in the lower left corner of the Mixer Window—provides information about the Mixer Window’s 16 Channel strips, allowing you to tell at a glance:

- which Channel strips are currently in view.
- which Channel strip is selected
- which Channel strips are not currently in view.
- which Channel strips are hidden.

Each of the 16 Channel strips is represented in the Channel Status bar by a small rectangle whose color shows the strip’s current state.

Rectangles 1-16 represent.



Channel strips 1-1

If a Channel strip’s indicator is:	the Channel strip is:
medium blue	visible in window
light sand	not currently visible in Mixer Window
dark red	hidden
outlined	selected

Selecting a Channel Strip

One of the Mixer Window’s Channel strips is always selected, and commands provided in the Mixer Window’s Edit and Functions menus (page 124) can be performed upon the strip. In addition, when a Channel is selected, you can adjust its EQ settings, Aux Send amounts and panning from the C16 Pro (see Appendix 1).

When a Channel is selected, the area behind its Fader turns light blue in the Mini Mixer, light blue arrows also point to its number. When the Channel Fader module is collapsed, the area around its Channel Fader numeric readout turns light blue.

To select a Channel strip in the Mixer Window:

1. SHIFT-click the desired strip’s name label (page 106), or its number in the Mini Mixer Window.

Tip: Channel strips can also be selected from the C16 Pro, as described in Appendix 1.



Hiding a Channel Strip

You can use the Channel Status bar to hide individual Channel strips. to do so, click on the corresponding Channel indicator on the Channel Status bar. When a Channel is hidden, its indicator will be shown as dark red.

Tip: You can also hide Channel strips using the Tracks Menu (page 126).

Now Position Display

The Mixer Window—and the Mini Mixer Window—provides its own Now Position Display showing the current position of the Now Line (see page 44), and, therefore, your current location in the Project. You can click anywhere in the Now Position Display to toggle among any of PARIS' units of time measurement—these are described on page 49.

Using the Mixer Window Controls

The Mixer Window provides three general types of controls, each of which is indicated by its own cursor.

The Knob Cursor



When you position your mouse cursor over any of the Mixer Window's knobs or editable numerical readouts, the Knob cursor appears, indicating that you can drag left or right to set the value of the knob or readout.

Tip: When a component is collapsed (see page 100), otherwise non-editable readouts may become editable.

The Fader Cursor



When you position your mouse cursor over any of the Mixer Window's Faders—or nearby, if the Fader is not currently collapsed—the Fader cursor appears, indicating that you can drag in the direction of the cursor's arrows to set the value of the Fader.

The Finger Cursor



When you position your mouse cursor over any of the Mixer Window's buttons, switches or reset LEDs, the Finger cursor appears, indicating that you can click your mouse to change the setting of the item.

Note: There is an additional left-right arrow cursor that appears when you position your mouse over the divider bar between the Channel strips and the Aux Master strips—see page 100.

Resetting Mixer Window Controls to Default Values

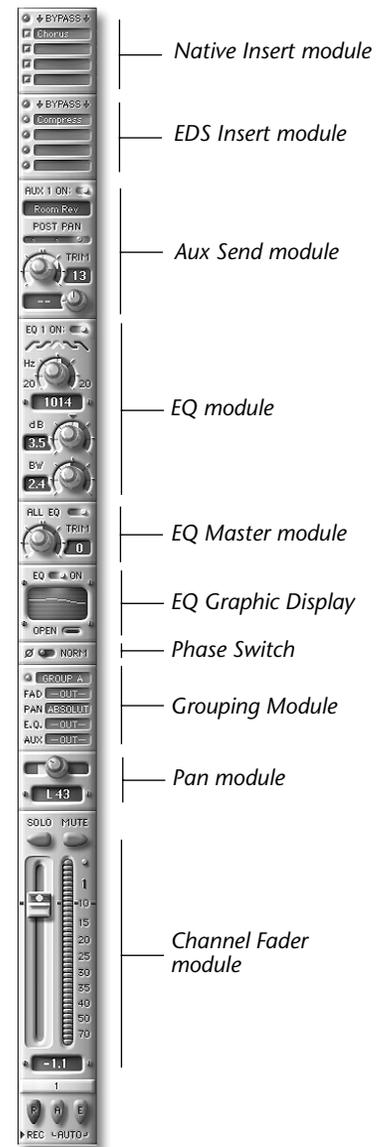
You can quickly reset the value of any control that's editable using the Knob or Fader cursor. To reset such a control to its default value:

- **Mac OS:** OPTION-click on the control
- **Windows:** right-mouse-click on the control.

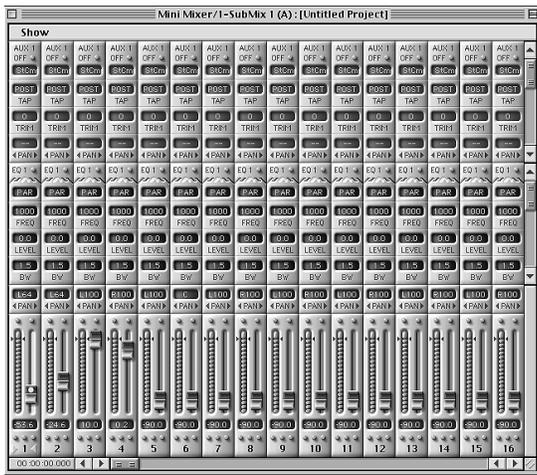
The 16 Channel Strips

Each of the 16 numbered Channel strips in the Mixer Window controls one of the current SubMix's Constrained Mode Tracks or Free Form Mode Instruments (see page 54 to learn about Editor Window modes). A Channel strip contains an assortment of individual modules, each of which is described in this chapter:

- Native and EDS Insert modules—You can select up to eight PARIS or third-party Plug-In Effects for a Channel strip. The strip's signal flows through each Insert Effect and back out before passing into the Channel's Fader or Pan. See page 114.
- Aux Send module—Each of a Channel strip's eight Aux Send modules directs the strip's signal to one of the eight Aux Send busses. See page 117. Aux busses can be routed to an Aux Effect—as described in “The Eight Aux Strips” on page 115—or patched from PARIS to an external device, as described on page 33.
- EQ module—Each Channel strip contains four EQ (for “equalization”) modules that allow you to shape the frequency content of the strip's signal. See page 108.
- EQ Master module—The EQ Master module in each Channel strip allows you to simultaneously activate or de-activate the strip's four EQ modules. It also provides a an overall EQ gain control, as well as a Channel clipping indicator. See page 110.
- EQ Graphic display—The EQ Graphic display provides a visual indication of the composite equalization curve of all four EQ sections. Clicking on the Open button brings up a large pop-up color display window with several extra features. See page 111.
- Phase switch— This switch allows you to reverse the phase of the strip's signal. See page 110.
- Grouping module—The Fader, Pan, EQ controls, or Aux controls of several channels can be grouped so that moving a control on one channel will move the same control on another. Eight separate groups and several control options, such as “Inverse” and “Relative”, are provided. See page 113.
- Pan module—Each Channel strip's Pan module allows you to place the Channel's signal in the stereo field. See page 107.
- Channel Fader module—The Channel Fader module in each Channel strip provides level metering, a Fader that allows you to adjust the strip's output volume, a numeric readout of the Fader's position, Solo and Mute buttons, a strip you can use for naming the Channel and three important Channel status switches. See page 105.



The Mini Mixer Window



PARIS provides a Mini Mixer Window in which you can view all 16 Channel strips at once, without having to scroll the desired strips in and out of view, as described in “Scroll Bars and Buttons in the Mixer Window” on page 100. This window can be opened from the Project Window (page 22), or by typing SHIFT-M.

Note: The Mini Mixer Window is capable of displaying a single Aux Send and EQ module per Channel strip.

Note: The Mini Mixer has its own Now Position Display, which operates identically to the one in the Mixer Window; see M.

Note: You can drag and drop mixer strip settings back and forth between the mini mixer and big mixer and even between mixers from different Submixes.

The Mini Mixer’s Show Menu



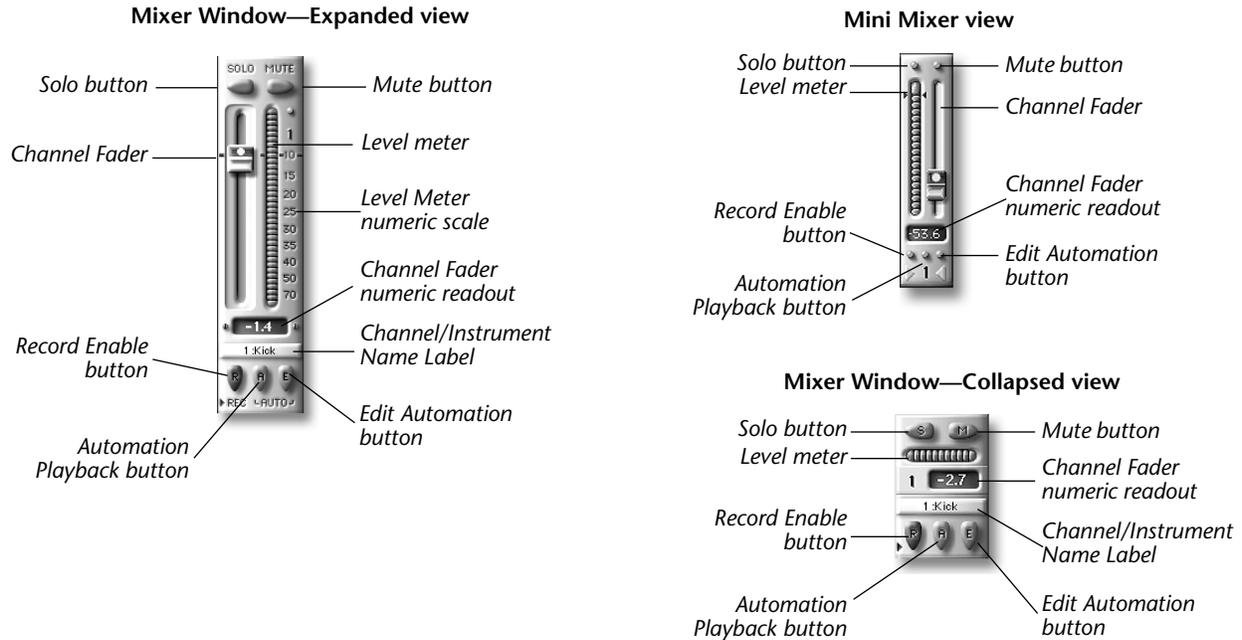
The Show Menu allows you to enable or disable the display of modules in the Mini Mixer’s Channel strips. To enable display of a module, select it on the menu so that a check appears next to it:

To enable the display of:	select:	To enable the display of:	select:
Aux Send modules	Aux Sends	Pan modules	Pans
EQ modules	EQs	Channel Fader modules	Faders
EQ Master modules	EQ Masters		

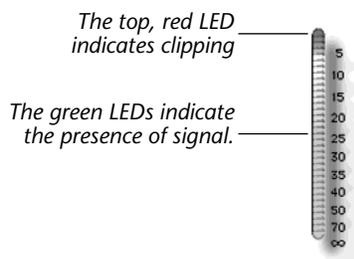
The Appearance of Channel Strip Modules

The exact appearance of the controls in a Channel strip can vary. In the Mixer Window, the module can be expanded or collapsed (see page 100). In the Mini Mixer Window, the Channel strips are shown with reduced visual detail. Each of the Channel strip module descriptions in the following section begins with a map of the module in each of these three states.

Channel Fader Module Components



Level Meter



The level of each Channel strip's signal is shown in the strip's Level Meter LED ladder. The LED colors help you maintain a strong level without letting your signals become so loud that clipping occurs, resulting in unwanted distortion.

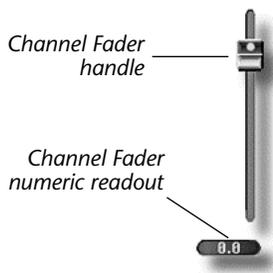
The green LEDs in Level meter indicate that signal is present in the Channel strip. As the signal volume increases, the green turns to yellow and then amber to signify that the signal's volume is approaching the acceptable limit. The top LED is red, signifying that the signal is too loud, and distortion will likely occur.

The numbers to the right of the Level meter show in dB your distance from clipping, beginning at -5 dB below clipping. Clipping occurs at 0 dB.

What a Channel strip's Level meter signifies depends on whether you're recording or playing back audio:

- If you're recording, the Level meter shows the level of the signal being sent into the analog-to-digital converter associated with the PARIS input controlled by the strip. The best fidelity will be achieved when your loudest volume peaks are well into the amber range, without crossing over into the red.
- If you're playing back Audio Files, the Level meter shows the output of the Channel strip as it's being sent to the overall mix, determined by its Fader and EQ settings. The proper level will depend on the music being mixed. However, avoid lighting the red LED—when the red LED is lit, the Channel strip's output is being overdriven, resulting in undesirable distortion.

Channel Fader



The Fader controls the Channel's volume in the overall mix. The Fader can boost the Channel's signal by up to 10 dB, or reduce it by 90 dB—the amount of boost or cut is shown in the Fader's numeric readout. When the center line in the Fader's handle is aligned with the horizontal mark drawn across the Fader, no boost or cut is applied to the signal.

Note: When the Channel Fader module is collapsed, the Fader is not shown—its level can be controlled by clicking and dragging in its still-visible Channel Fader numeric readout.

Tip: To quickly reset the Fader so that it's not applying any boost or cut to the Channel's signal, OPTION-click (Mac OS) or right-mouse-click (Windows) the Fader handle (or the Channel Fader numeric readout when the module is collapsed).

Note: When recording, the Fader has no effect on the volume of the signal being recorded—input volume levels must be set at the external device sending signal into PARIS.

Solo



The Channel strip Solo button—when it's depressed and its LED is lit—allows you to hear a Channel without listening to the rest of the mix. The Solo feature plays the Channel's signal after it's passed through its EQ, Pan and Fader modules, so that you hear it in its final form. Up to three Channels can be soloed at once on each EDS-1000 card—each additional soloed Channel replaces the last most-recently soloed Channel. What you hear when you solo a Channel depends on the current Editor Window mode (see page 54):

If the Editor Window is in:	you'll hear:
Constrained Mode	the Channel's Track
Free Form Mode	Instrument currently assigned to the Channel, including all of its FlexTracks

Note: Soloing is a monitoring feature—it does not affect the main stereo mix. Use the Solo feature only when you're listening to PARIS' Monitor outputs; it will have no effect when you're listening to the Main outputs.

Tip: If any Channel is soloed, the Solo On LED in the Master strip will light.

Tip: Channels can also be soloed from the C16 Pro.

Mute



When a Channel strip's Mute button is depressed—and its LED is lit—the Channel's signal is removed from the stereo Main mix, and therefore silenced.

Tip: When one or more Channels is muted, the Mute On LED in the Master strip will be illuminated.

Tip: Channels can also be muted from the C16 Pro.

Channel/Instrument Name Label

Each Channel strip's Channel/Instrument Name Label serves two purposes:



- It shows the number of—and allows you to name—the Channel strip, or allows you to see the name of the Instrument being controlled by the strip when the Editor Window is operating in Free Form Mode.
- It provides access to a pop-up menu from which you can select an Instrument to be controlled by the strip when the Editor Window is operating in Free Form Mode.

The Show Instrument Assignment item in the Settings Menu sets what you see in the Channel/Instrument Name Label:

- When the item is un-checked, the label shows the strip's number and any name you've assigned the strip.

 To name a Channel strip:

1. Click on the Channel/Instrument Name Label—its characters turn red to show that it's ready for a new name.
 2. Type the desired name. Use no more than six or seven characters so that the name will fit in the label area.
 3. Press RETURN—the strip's number will be displayed, followed by the typed name.
- When the Show Instrument Assignment item is checked, and the Editor Window is in Free Form Mode, the label shows the Instrument currently being controlled by the strip.

When the Editor Window is in Free Form Mode, the Channel/Instrument Name Label provides a pop-up menu from which you can select an Instrument to be controlled by the strip. To select a Channel strip's Instrument, CONTROL-click on its Channel/Instrument Name Label, drag to select the desired Instrument, and release your mouse.

Tip: As a Project plays, you can select different Instruments to be controlled by a Channel strip. Though each strip handles a single Instrument at a time, you can manage as many Instruments as you need by changing its Instrument assignment on the fly. This can be handy if you've created Instruments that you need to control only during certain sections of a Project.

Record Enable Button



When depressed, a Channel strip's Record Enable button activates recording through the Channel. The settings in PARIS' Patch Bay Window (see Chapter 4) determine the source of the audio routed through the strip. The strip's signal will be recorded in one of two places, according to the Editor Window's current mode (page 54):

- If the Editor Window is in Constrained Mode, the strip's signal will be recorded on its like-numbered Track.
- When the Editor Window is in Free Form Mode, the Channel strip's signal will be recorded on the FlexTrack immediately above the highest-placed FlexTrack belonging to the Instrument to which the strip is assigned.

PARIS allows you to set what's heard through a record-enabled Channel strip. See "Input Monitor" on page 25.

Note: Before recording can take place, a record path must be assigned—see page 21.

Tip: You can also record-enable a Channel strip from the C16 Pro; see Appendix 1 to learn how.

Note: When the Project is in Live Mix mode (page 25), this button becomes an "L" and can be used to set a Channel to input live audio.



Automation Playback Button



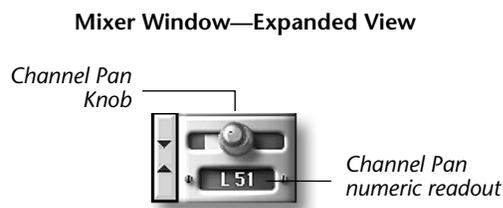
This button enables or disables playback of automation data for the Channel strip—see page 137.

Edit Automation Button

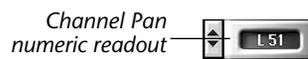


This button enables or disables the recording of automation data for the Channel strip—see page 137.

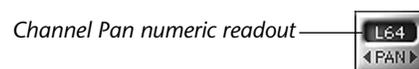
Channel Pan Module Components



Mixer Window—Collapsed View



Mini Mixer View



Channel Pan Knob



The Channel Pan knob controls the position of the Channel strip's signal in the stereo SubMix after the signal has passed through the Channel Fader module. To change the stereo placement of the strip's signal, click and drag on the knob: leftward to move the signal to the left, and rightward to move it to the right. The Channel Pan numeric readout shows the current position of the Pan knob, from L100 to R100 ("C" signifies that the strip's signal is dead center).

When the Channel Pan module is collapsed, or when working in the Mini Mixer, the knob is not shown—in these cases, click and drag the Channel Pan numeric readout to change the stereo placement of the strip's signal.

Tip: To quickly center a Channel strip's signal, OPTION-click (Mac OS) or right-click (Windows) the Channel Pan knob (or the readout when the module is collapsed, or when working in the Mini Mixer).



Tip: You can also set the stereo placement of a Channel strip's signal from the C16 Pro; see Appendix 1.

EQ Module Components

Four EQ Modules Per Channel Strip

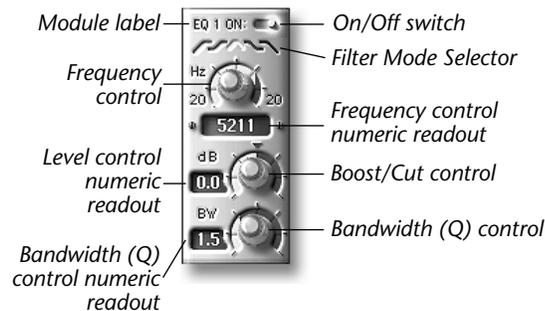
Each Channel strip contains four EQ modules—the illustrations below show the different views for one of the four EQ modules. While you can choose to display from one to four modules (as determined by the EQ Menu settings; see page 125), all four are always available. You can scroll the desired module(s) in and out of view when less than four are displayed, as described on page 100. Each module can control any frequency range.

Tip: EQ modules can be edited from the C16 Pro—when a currently hidden module is edited on the C16 Pro, PARIS automatically scrolls it into view. See Appendix 1.

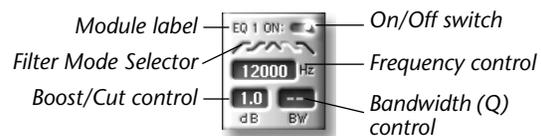


Tip: The EQ's can also be edited from the Graphic Display Module. See page 111 for more information.

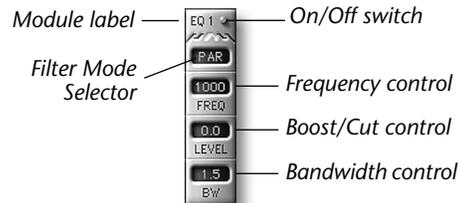
Mixer Window—Expanded View



Mixer Window—Collapsed View



Mini Mixer View



Tip: The Boost/Cut, Frequency and Bandwidth ("Q") controls can be quickly reset to their center values by OPTION-clicking (Mac OS) or right-mouse clicking (Windows) the controls.

On/Off Switch



Click the On/Off switch to enable or disable (bypass) the EQ module. When the module is enabled, the blue switch and all the other module indicators illuminate.

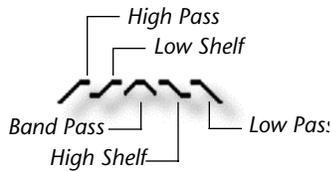
Note: In the Mini Mixer EQ module, the On/Off switch and indicator are one and the same—click the indicator to turn activate or de-activate the module.

Note: To use an EQ module, make sure that the EQ Master module's All EQ switch is in its "On" position—otherwise, all EQ modules will be bypassed, regardless of their On/Off settings (see page 108).

Filter Mode Selector



Each EQ module is a multi-mode filter with five possible modes of operation, as determined by the position of the Filter Mode Selector. Icons beneath the selector—which represent the five filter modes—show the shape of the EQ provided by each mode. In the Mini Mixer EQ module, a text readout above the indicators shows the name of the currently selected mode):



Filter Mode	Name in Mini Mixer readout
High Pass (Low Cutoff)	HP
Low Shelf	LS
Band Pass (Parametric)	PAR
High Shelf	HS
Low Pass (High Cutoff)	LP

Set the filter mode by clicking the desired filter mode icon. In the Mini Mixer module, click the Filter Mode Selector text readout repeatedly to toggle through the five modes.

Note: PARIS provides relevant EQ controls for each of the modes, as noted in the control descriptions below.

Boost/Cut Control



When an EQ module is in its Low Shelf, Band Pass and High Shelf filter mode, the Boost/Cut control sets the amount by which the module raises (boosts) or lowers (cuts) the volume of the selected frequency (see “Frequency Control,” below). The control’s range is -18 to +18 dB—its current value is displayed in its readout.

To increase the amount by which the EQ module will boost the selected frequency, click and drag the Boost/Cut Control knob to the right; reverse the direction to apply a cut. When the module is collapsed, and in the Mini Mixer Window, set the Boost/Cut value by clicking and dragging in the Boost/Cut Control numeric readout.



Note: In the Mini Mixer Window, the Boost/Cut Control readout is labeled “Level.”

Frequency Control



The Frequency control sets the center of the range of frequencies to be raised or lowered using the EQ module’s Boost/Cut control (see above). A module’s center frequency can be anywhere from 20 Hz to 20 kHz (20,000). The module’s current value is displayed in the Frequency Control readout.

To set the module’s frequency:

Click and drag the Frequency Control knob to the right for higher frequencies; reverse the direction for lower frequencies. When the module is collapsed, and in the Mini Mixer Window, select the module’s frequency by clicking and dragging in the Frequency Control numeric readout.



Bandwidth (“Q”) Control



When an EQ module is in its Band Pass (Parametric) mode, the module’s Boost/Cut control can be set to raise or lower the volume of frequencies at specified distances above and below the selected center frequency (see “Frequency Control” above). The Bandwidth (“Q”) control sets the width of this frequency range, from 0.1 octave (for a narrow range) to 5 octaves (for a wide range). The current Bandwidth (“Q”) value is displayed in its numeric readout.

Note: This filter parameter is labeled “BW” in the Mini Mixer Window.

To set the module’s Bandwidth (“Q”):

Click and drag the Bandwidth (“Q”) Control knob to the right for a wider range of frequencies; reverse the direction for a narrower selection. When the module is collapsed, and in the Mini Mixer Window, click and drag in the Bandwidth (“Q”) Control numeric readout.



EQ Master Module Components

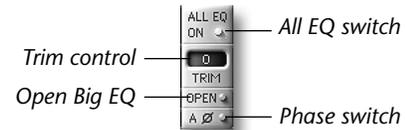
Mixer Window—Expanded View



Mixer Window—Collapsed View



Mini Mixer View



Note: When the EQ Master module is collapsed in the Mixer Window, all EQ Master controls other than the All EQ switch are hidden.



Phase Switch

The Phase switch can be engaged in situations where phasing anomalies between related Channels are present—if there’s unwanted “swishing,” for example, or when you raise the volume of a Channel and its signal level appears to go down. When the switch is in its “On” position, the Channel’s signal is inverted: or delayed slightly to become 180 degrees out of phase with its original position. The blue LED in the switch lights when the Channel’s phase is inverted.

To invert a Channel strip’s phase:

Click the Phase switch—its blue LED will light to show that the feature is activated. In the Mini Mixer Window, click the Phase Switch LED to invert the strip’s phase—when activated, it will turn blue.

Trim Control



This control adjusts the signal level (boost or cut) to be applied to the Channel’s signal prior to passing into its EQ modules. When the Clipping indicator’s LED has lit, lower the signal’s level using this control. If a Channel’s signal is too low, you can also use this control to increase its volume. The Trim control’s range is -20 to +20 dB—its current value is displayed in its readout.

To adjust the Trim control:

Click and drag the Trim Control knob to the right to increase the volume of the Channel’s signal; reverse the direction to decrease it. In the Mini Mixer Window, click and drag in the Trim Control numeric readout.

Tip: The Trim control can be quickly reset to its center values by OPTION-clicking (Mac OS) or right-mouse clicking (Windows) the control.

All EQ Switch

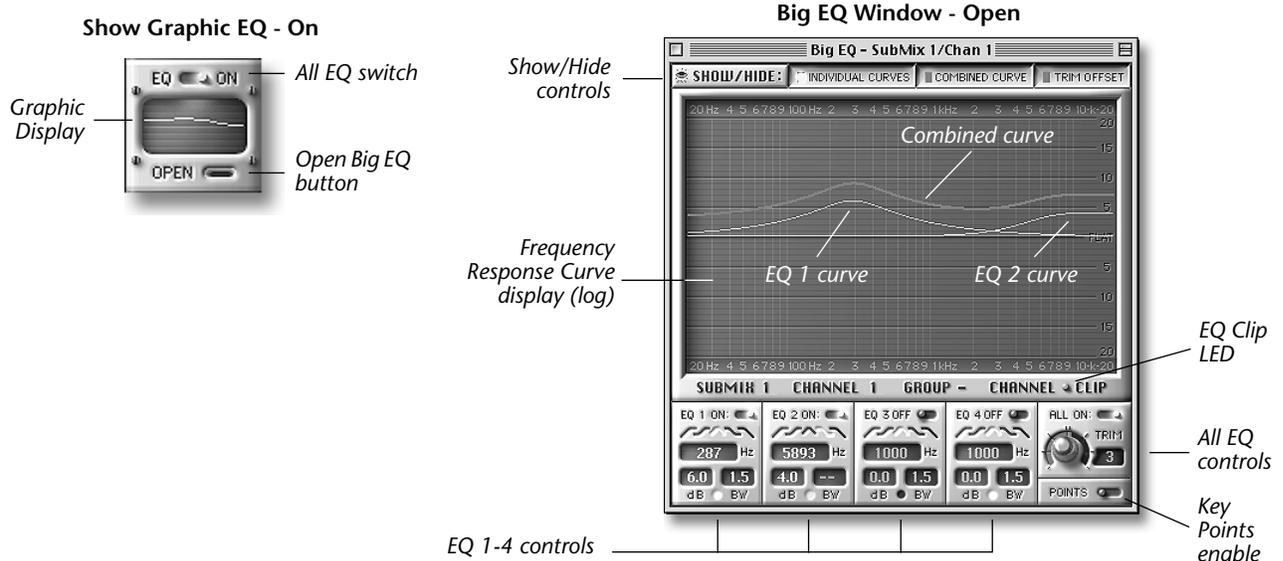


When the All EQ switch is depressed—and its blue LED is lit—all of the Channel’s EQ modules are bypassed: the Channel’s signal is routed around them, so that they will have no effect on its sound regardless of their on/off state.

To activate or bypass the EQ modules:

In the Mini Mixer Window, click the All EQ Switch LED. When the LED is green, the switch is on and the Channel’s EQ modules are active (an up-pointing arrow is shown next to the LED). When the modules are bypassed, the LED is blue, and an “X” appears next to the LED.

EQ Graphic Display Module Components



Note: When the EQ Master module is collapsed in the Mixer Window, all EQ Master controls other than the All EQ switch are hidden.



Graphic EQ Display

The Graphic EQ display allows you to see the EQ curve for every channel at a glance. Select the “Show Graphic EQ” option in the EQ menu of the Mixer window to add the display to the channel strips.

The EQ On switch at the top of the graphic display allows you to bypass the EQ entirely. The blue switch LED and the display backlight illuminate when EQ is turned on. Press the Open button to open the Big EQ window.

Big EQ Display

The Big EQ window allows editing of all parameters of the four EQ bands while simultaneously displaying their frequency response curves. The individual EQ curves for each parametric band and the red composite EQ curve can be displayed by selecting the corresponding Show/Hide button at the top of the display. The Trim Offset button lets you see the red Combined Curve with the boost or cut from the EQ Trim control added in. The Trim Offset button and the Combined Curve button must both be depressed to use this feature.

Key Points allows you to edit the EQ curves directly from the graphic display by dragging the individual points of the curves. Hold the SHIFT key dragging key points up and down to change the Q instead of the amplitude.

Aux Send Module Components

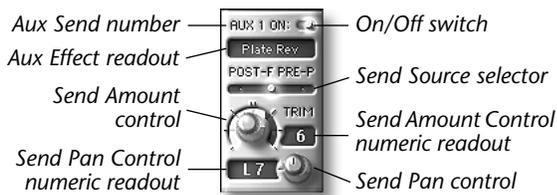
Eight Aux Send Modules Per Channel Strip

Every Channel strip provides eight Aux Send modules. Each of these modules allows you to route the Channel strip’s signal to its like-numbered Aux Send bus.

When you activate a Channel’s:	Its signal is sent to:	When you activate a Channel’s:	Its signal is sent to:
Aux Send 1	Aux Bus 1	Aux Send 5	Aux Bus 5
Aux Send 2	Aux Bus 2	Aux Send 6	Aux Bus 6
Aux Send 3	Aux Bus 3	Aux Send 7	Aux Bus 7
Aux Send 4	Aux Bus 4	Aux Send 8	Aux Bus 8

Note: Each Aux Send bus has its own Aux Send Master module from which its behavior is controlled. This module is located in the Aux strip that corresponds numerically to the Aux Send. See “The Eight Aux Strips,” on page 115.

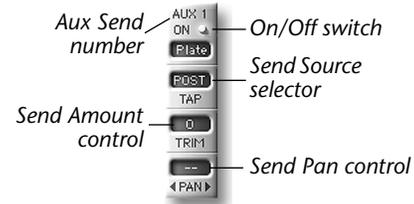
Mixer Window—Expanded View



Mixer Window—Collapsed View



Mini Mixer View



Tip: The Aux Send Amount and Pan controls can be quickly reset to their center values by OPTION-clicking (Mac OS) or right-mouse clicking (Windows) the controls.

Aux Effect Readout



The Aux Effect readout shows the currently selected Effect for the Aux Effect connected by default to the Aux Send bus (see page 117 to learn how to select Aux Effects). When the Aux Send module is switched on (see below), the Channel’s signal will be routed to the Aux Send bus and into this Aux Effect.

Note: In the Mini Mixer Window, the Aux Send Number readout is labeled “Send.”

On/Off Switch



The On/Off switch enables or disables the Aux Send module—when it’s enabled, the Channel strip’s signal is sent to the Aux Bus that corresponds numerically to the module, and then to the like-numbered Aux Effect. When the On/Off switch is depressed—its blue LED lit and a “1” appearing in the button—the Aux Send module is enabled; when the module is switched off, the LED is unlit, and a zero appears in the button. When the module is collapsed, and in the Mini Mixer Window, click the On/Off Switch LED to turn the module on or off—when the module is on, the blue LED lights.

Send Amount Control



The Send Amount control sets the amount of the Channel strip’s signal to be sent to the Aux Send module’s corresponding Aux Bus. The strip’s signal can be boosted by as much as +20 dB, or cut by as much as –20 dB.

To raise the send Amount, click and drag the Send Amount Control button to the right; to lower it, drag it leftward. When the module is collapsed, and in the Mini Mixer Window, click and drag the Send Amount control readout. To control the Send Amount from the C16 Pro, see page 218.



Note: In the Mini Mixer Window, the Send Amount Control readout is labeled “Level.”

Send Source Selector



The Send Source Selector toggle switch selects the point along the Channel strip’s signal flow at which the Aux Send module will access the strip’s signal. The Aux Send module always accesses the signal after the strip’s EQ modules; you can set whether the signal will be tapped before the strip’s Fader and/or its Pan control—“pre-Fader” and “pre-Pan”—or after them—“post-Fader” and “post-Pan.” Due to differing amounts of display space, these sources are labeled differently in the three Aux Send module views:

Aux Send Source	Mixer Window—Expanded view label	Mixer Window—Collapsed view label	Mini Mixer label
Pre-Fader	PRE	PRE FADER	PRE
Post-Fader, pre-Pan	P/P	POST-F PRE-P	P/P
Post-Fader, post-Pan	POST	POST PAN	POST

Tip: In most mixing situations, you’ll want the Aux Effect being added to a Channel strip’s signal to get louder and softer proportionately as you raise or lower the Channel’s Fader—in these cases, select the post-Fader source or the

post-Fader, post-Pan source if you're using a stereo Aux Effect (page 117) and want it to mirror the signal's stereo placement. If you want the Aux Effect's volume (and/or pan) to be independent of the Channel's, select the pre-Fader source.

 *To set the Aux Send module source:*

Click and drag the Send Source Selector toggle switch so that it rests above the desired source, or click the source names themselves. When the module is collapsed, and in the Mini Mixer Window, click the source names repeatedly to toggle through the available choices.

Note: In the Mini Mixer, the Send Source Selector is labeled "Tap."

Send Pan Control



When the Aux Send module is routed to a stereo Aux Send Bus (page 116), the Send Pan control positions the Aux Send module's signal in the Aux Effect's stereo field. The range of the Send Pan control is from -10 to +10.

To set the Send Pan control, click and drag the control knob left or right, in the direction you want to move the signal. When the module is collapsed, and in the Mini Mixer Window, click and drag in the Send Pan Control numeric readout.

Note: When the Aux Send module's Send Source Selector is set to Post-Fader, Post-Pan (see above), the Send Pan control adjusts the stereo position of the signal already established with the setting of the Channel's Pan knob.

Grouping Module



The controls of several channels can be grouped so that moving a control on one channel will move the same control on another. Faders, Pan controls, EQ controls and the Aux Controls can be grouped.

Grouping the faders automatically groups the Mute controls as well. When the EQ or Aux sends are selected for grouping, all the controls in the grouped modules will act in tandem. There are eight separate groups defined by the letters A-H. Mixer channels are grouped when they are assigned to the same letter designator.

There are several control options which affect the way grouped controls behave.

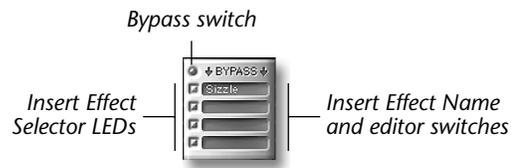
- **Absolute** - Grouped controls are locked at the same position.
- **Relative** - Grouped controls maintain their relative position to each other.
- **Inverse** - The control response will be reversed from the other controls in the group. To invert two controls, set one to Absolute or Relative and the other to Inverse.

 *To Group a Set of Controls:*

1. Select "Show Groupings" from the Settings menu in the Mixer window to add the Grouping section to the mixer strips.
2. Turn on grouping by clicking the blue LED in the upper left corner of the Group module. The blue LED will illuminate.
3. Click on the topmost label with your cursor and select one of the eight groups (A-H). Select the same letter for each channel you want to be grouped.
4. Select the control type for the fader, Pan, EQ or Aux controls for each channel in the group. The controls are now grouped.
5. Grouping can be turned OFF by clicking on the blue LED. The Group settings will be retained

Insert Module Components

Each Channel strip provides two Insert modules. An Insert module accesses the Channel strip's signal after it has passed through its EQ modules. Each module provides four insert points from which you can interrupt the flow of signal through the strip, divert it to an Insert Effect, and then return—or “insert”—the signal back into the strip. When multiple insert points are used in an Insert module, the signal passes out of and back into each insert point one after another in a daisy-chain. When the signal exits the Insert module, it passes into the strip's Channel Fader module. This form of routing should be used when compressing, gating or expanding a Channel strip's signal—in such cases, you'll want to hear the signal in its processed form, with no original, or “dry” signal remaining. Inserts are also used for the routing of a Channel's audio to a third-part Effect Plug-In.



Note: Insert modules are visible in the Mixer Window only

Note: Insert Effects operate on the Channel's output—they are not recorded during the recording of Tracks/FlexTracks.

The two Insert Effect modules on each Channel strip—audio flows from the lower to the upper Insert module—allow you to route the Channel's audio to two different types of Insert Effects:

- The lower-positioned module is the EDS Insert module, which sends the Channel's signal to PARIS' own Effects, or to an external device (see page 33). EDS Insert Effects are produced by an EDS-1000 card.
- The upper module is the Native Insert module, which sends the Channel's signal to any installed VST or DirectX (Windows only) Plug-In Effects. These Effects are produced by your computer's own processor—hence they're referred to a “Native” Insert Effects. Native Effects can be mono or stereo. To learn how to install VST or DirectX Plug-Ins, see page 11. Native Insert Effect are heard only when playing back audio, not during recording.

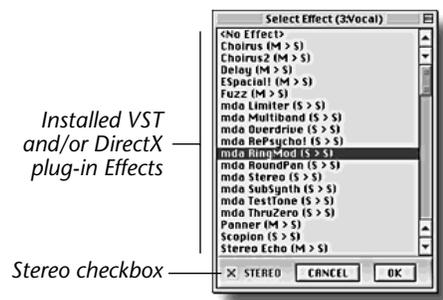
Insert Effect Selector LED and Stereo Checkbox

In an Insert module, each of the four Insert Effect Selector LEDs allow you to activate an insert point and select it an Insert Effect. When selecting an Insert Effect, the Effect's mono/stereo structure is shown as an abbreviation to its right:

This abbreviation:	means:
M>M	The Effect has a mono input and a mono output.
M>S	The Effect has a mono input and a stereo output.
S>S	The Effect has stereo inputs and outputs.

The methods for selecting EDS and Native Insert Effects differ:

- When you click an Insert Effect Selector LED in an EDS Insert module, a pop-up menu appears from which you can select the desired Insert Effect. To completely de-activate an insert point, selected (No Effect) from the pop-up.
- When you click an Insert Effect Selector LED in a Native Insert module, the Native Insert Effect window opens in which you can select the desired Plug-In and set whether you'd like to use it in mono or stereo:
- To select a Plug-In, click it, type its first letter (if no other Plug-In begins with the same letter or use your keyboard's UP and DOWN arrow keys. When selected, its background will highlight.
- The Stereo checkbox sets whether the Plug-In will be used on the selected Channel only, or on the Channel and its next-higher neighbor. When the checkbox has an “X” in it, the selected Channel and its neighbor will use the selected Native Insert Effect—the Plug-In's name will appear in the second Channel's Native Insert module in gray.



Tip: Since you can use mono-mono, mono-stereo or stereo-stereo Plug-Ins on either one or two Channels, you'll want to set the appropriate routing options in the Plug-In's editing window—see page 129.

- To confirm your selection and close the window, click OK or RETURN/ENTER.
- To completely de-activate a Native insert point, select (No Effect) in the Native Insert Effect window.

Tip: You can also select a Plug-In by double-clicking its name in the Native Insert Effect window.

Note: The Native Insert Effect window shows the currently selected Channel's number and name in its title bar.

Bypass Switch

Each Insert module provides a Bypass switch that allows you to instantly silence all of the Channel's Insert Effects without losing your settings. To Bypass all of a Channel's Insert Effects, click the Bypass switch (the word "BYPASS") or click the button to its left—they will both highlight in yellow. To un-bypass the Insert Effects, click the switch or button again.

Tip: To bypass individual Insert Effects, OPTION-click (Mac OS) or right-mouse-click the Effect's Insert Effect Selector LED—to mute a stereo pair, click either Channel's LED. To un-bypass, OPTION-click or right-mouse-click the LED again.

Insert Effect Name and Editor Switch

To edit an Insert Effect, click on its name to open its editing window (to learn about editing Plug-Ins, see Chapter 13).

The Eight Aux Strips

The eight numbered Aux strips in the Mixer Window control the eight Aux Effects available in each of PARIS' SubMixes. Each Aux strip's layout reflects the default flow of signals assigned to its like-numbered Aux Send bus (see page 111).



Note: The Aux Return's stereo output feeds directly into the SubMix.

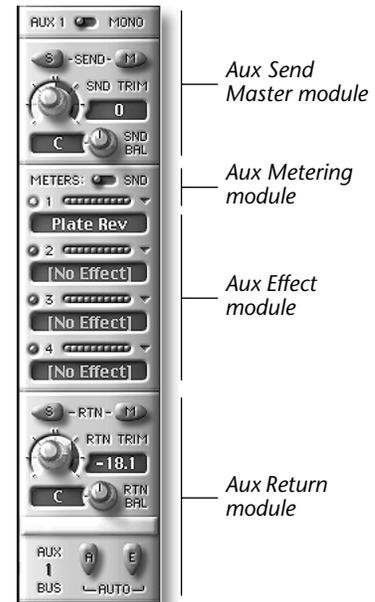
Tip: You can break this default Aux signal flow using the Mixer FX object in the Patch Bay Window that's associated with the SubMix's EDS-1000 card in order to use the Aux Sends and Returns for external processing, headphone mixes, extra mix inputs, and so on. See "Select FX Button" on page 117.

Chapter 12 - The Mixer Window

The Eight Aux Strips

Each Aux strip contains the following set of modules, described in the following pages:

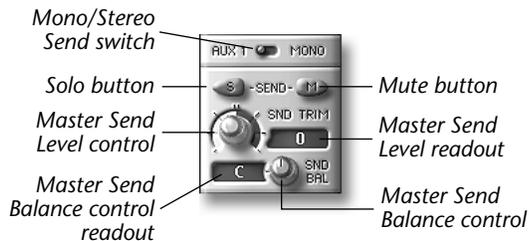
- **Aux Send Master module**—This module provides level and pan controls for all of the audio routed to its like-numbered stereo Aux Send, as well as a mono-stereo switch and Solo and Mute functions. See page 116.
- **Aux Metering module**—Each Aux strip contains a pair of switchable stereo meters that can be set to show the level of its like-numbered Aux Send bus or Aux Return. See page 117.
- **Aux Effect module**—The Aux Effect module provides controls of the strip's like-numbered Aux Effect, allowing you to select its Effect, and providing access to a window in which the Effect can be edited. See page 117.
- **Aux Return Module**—The Return module controls the stereo pair of mixer inputs (the Aux Returns) connected by default to the output of the like-numbered Aux Effect module. The module provides level and pan controls, Solo and Mute functions, as well as automation controls that allow you to record changes made to the Aux Return level and pan controls. See page 118.



The Aux strips can be scrolled in and out of view using the scroll bar beneath the strips. In addition, you can drag the left edge of the first displayed Aux strip to the left to show more Aux (and fewer Channel) strips.

Note: If the tops of the Aux strips are hidden from view, increase the height of the Mixer Window by expanding or adding Channel strip modules (see pages 125 and 126).

Aux Send Master Module Components



Solo Button



When listening to PARIS' Monitor outputs, click the Aux Send Master's Solo button to listen to the Aux Send's audio before it's sent into the Aux Effect module. To un-solo the Aux Send, click the button again. Up to three Channels can be soloed at once on each EDS-1000 card—each additional soloed Channel replaces the last most-recently soloed Channel.

Mute Button



Click the Aux Send Master's Mute button to silence the Aux Send, stopping its audio from being sent into the Aux Effect module.

Mono/Stereo Send Button



When the currently selected Aux Effect (page 117) has a stereo input, the position of the Mono/Stereo Send button sets the mono-stereo nature of the Aux Send as it feeds its audio into the Aux Effect module:



- When the Mono/Stereo Send button is in its Mono position, all of the audio routed to the Aux Send is summed to a single mono signal fed into both the left and right inputs of the stereo Aux Effect.

Note: When the Mono/Stereo Send button is set to Mono, the Channel Aux Send Pan controls are inactive.

- When the Mono/Stereo Send button is in its Stereo position, audio routed to the Aux Send remains in stereo, and is sent into the Aux Effect’s left and right inputs.

Note: When Mono/Stereo Send button is set to Stereo, the Channel Aux Send Pan controls set the position of each Channel’s audio in the Aux Send’s stereo field.

Click the Mono/Stereo Send button to toggle its position. The “Mono” or “Stereo” label above the button shows its current setting. In addition, when the button is set to Mono, it contains a single line; when set to Stereo, it contains a pair of lines.

Master Send Level Control



The Master Send Level control cuts or boosts the volume of the Aux Send as it’s fed into the Aux Effect module. Click and drag the control leftward or rightward to lower or raise its setting, shown in the Master Level Send readout. The range of the control is -40 to +40 dB.

Tip: To reset the Master Send Level control to 0 dB—no change to the Aux Send’s volume—OPTION-click (Mac OS) or right-mouse-click (Windows) the control.

Master Send Balance Control



The Master Send Balance control adjusts the relative volumes of the left and right sides of the Aux Send when its Mono/Stereo button is set to Stereo. The control goes from L100—only the left side is sent to the Aux Effect module—to R100—only the right side is sent to the module. The Master Send Balance readout shows the control’s current setting. To use the control, click and drag it to the left or right.

Tip: To quickly set the Master Send Balance control to its center position, OPTION-click (Mac OS) or right-mouse-click (Windows) the control.

Aux Metering Module Components

SND/RTN switch - RETURN



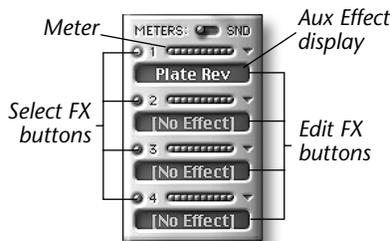
SND/RTN switch - SEND

Aux Meters and the SND/RTN Switch

The two meters in each Aux strip allow you to observe the levels of audio going into or out of the strip’s Aux Effect module or to an from and external device (see below) according to the setting of the SND/RTN switch—for “Send” and “Return”—beneath them. The switch determines whether the Aux strips’ meters will show the Aux Send’s level on its way into the Aux Effect module (SND), or the level of the stereo audio coming out of the Aux Effect module (RTN). To set the switch, click SND or RTN. When the meters’ red LEDs light, the signal going into the Aux Effect module is too loud and should be lowered.

Note: When an Aux Send is set to mono and the SND/RTN switch is set to SND, the upper meter shows the single input that’s copied to the left and right inputs of the Aux Effect module—when the Aux Send is stereo, both meters are active.

Aux Effect Module Components



Select FX Button

Click on the one of the four Select FX buttons to view a pop-up menu from which you can select an Aux Effect. To turn off an Aux Effect, select (No Effect) from the pop-up menu. The currently selected Aux Effects are shown in the Aux Effect display. The four Aux effects are connected in series beginning with Aux effect number one. You can Mute a single Aux Effect by PC- Right clicking, or Mac-OPTION clicking on the Select FX button.

Note: As a new Aux Effect loads after it’s been selected, audio may be momentarily interrupted.

Each Aux Effect has an abbreviation appended to its name that tells you its mono/stereo nature:

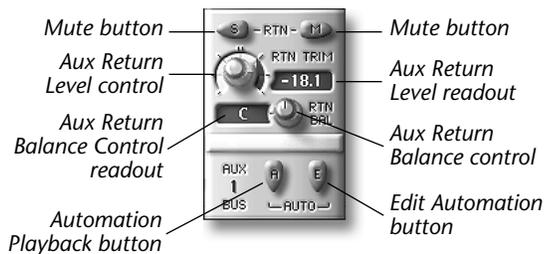
This abbreviation:	means:
M>M	The Effect has a mono input and a mono output.
M>S	The Effect has a mono input and a stereo output.
S>S	The Effect has stereo inputs and outputs.

Tip: You can re-direct an Aux Send to an external Effect by selecting External from the Select FX button pop-up menu, and making the appropriate connections in the Patch Bay Window (see page 33).

Edit FX Button

Click the Edit FX button to open the editing window for the Aux strip’s Aux Effect. To learn how to edit Aux Effects, save and recall Effect Presets, and for a list of all of the factory Effect parameters, see Chapter 13.

Aux Return Module Components



Solo Button



The Aux Return Solo button allows you to audition to the output of the Aux Effect module when you’re listening to PARIS’ Monitor outputs. To un-solo the Aux Return, click the button again. Up to three Channels can be soloed at once on each EDS-1000 card—each additional soloed Channel replaces the last most-recently soloed Channel.

Note: Soloing only affect monitoring of the SubMix; it has no effect on the main stereo mix.

Mute Button



Click the Aux Return’s Mute button to remove the output of the Aux Effect module from the SubMix. To un-mute the Aux Return, click the Mute button again.

Aux Return Level Control



The Aux Return Level control adjusts the volume of the Aux Effect module’s output in the overall SubMix. To lower the volume of the module’s output, click and drag the control to the left; to raise it, click and drag to the right.

Tip: To reset the Aux Return Level control to 0 dB—so that the Aux Effect Module’s output is unchanged—OPTION-click (Mac OS) or right-mouse-click (Windows) the control.

Aux Return Balance Control



The Aux Return Balance control adjusts the relative volumes of the left and right outputs of the Aux Effect module as they’re fed into the overall SubMix. The control goes from L100—only the left side is heard in the SubMix—to R100—only the right side is heard. The Aux Return Balance readout shows the control’s current setting. To use the control, click and drag it to the left or right.

Tip: To quickly set the Aux Return Balance control to its center position, OPTION-click (Mac OS) or right-mouse-click (Windows) the control.

Automation Playback Button



This button enables or disables playback of automation data for the Aux Return Level control—see Chap. 14.

Edit Automation Button

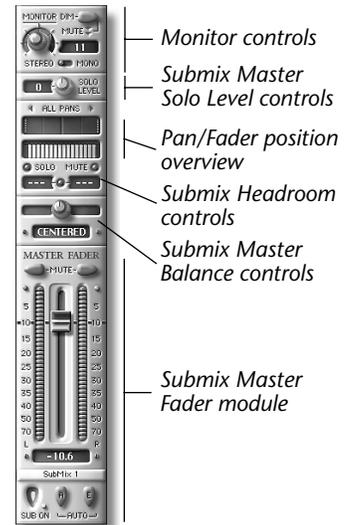


This button enables or disables recording of automation data for the Aux Return Level control—see Chap. 14.

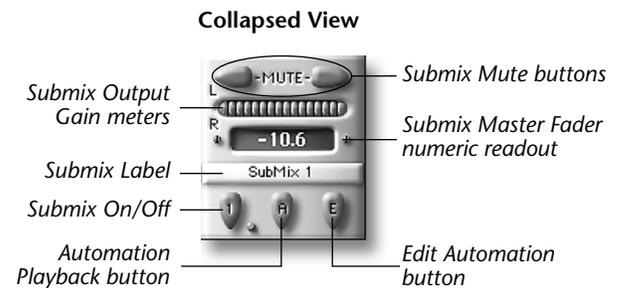
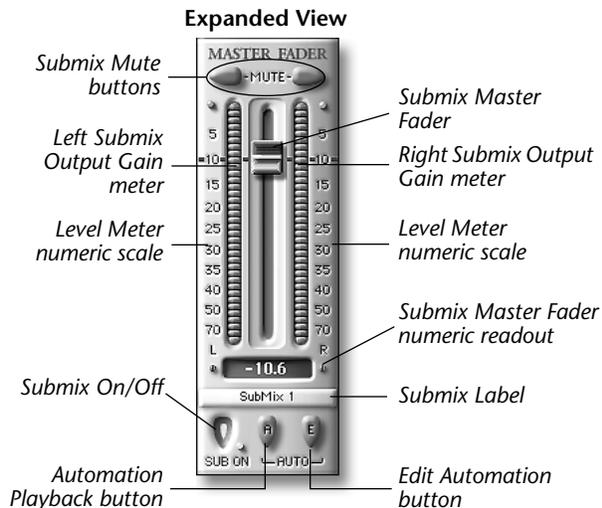
The Master Strip

The Mixer Window's Master strip contains an assortment of controls, most of which control a key aspect of the overall SubMix:

- SubMix Master Fader module—This module contains control of the overall volume control for the SubMix, and provides tools for silencing the SubMix, naming it and recording and playing back SubMix volume and balance automation data.
- SubMix Master Balance controls—The section allows you to offset the left/right stereo balance of the SubMix.
- SubMix Headroom controls—These handy controls help you achieve the maximum volume for the SubMix without clipping.
- SubMix Master Solo/Mute controls—This module features indicators that let you see at a glance if anything's soloed or muted, and allows you to set the volume of soloed audio.
- Monitor controls—These controls manage the listening level of the entire Project, and allows you to set whether you'll be listening in mono or stereo.



SubMix Master Fader Module Components



Note: The SubMix Master Fader module becomes collapsed as the result of collapsing Channel Fader modules.

Tip: You can Show/Hide the Master strip by pressing Command-M while the Mixer window is active.

SubMix Master Fader and Readout



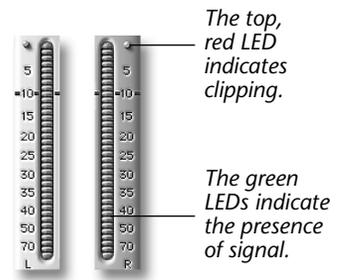
Click and drag the SubMix Master Fader to reduce the overall volume of the SubMix. The current amount of reduction to the SubMix's volume is shown in the SubMix Master Fader readout. When working with a collapsed SubMix Master Fader module, click and drag directly on the SubMix Master Fader readout.

Tip: To quickly reset the SubMix Master Fader or collapsed readout to no reduction in the SubMix's volume, Option-click (Mac OS) or right-mouse-click (Windows) the appropriate control.

Note: The SubMix Master Fader and the corresponding Master Mixer Window SubMix Fader function interchangeably in setting a SubMix's volume.

SubMix Output Gain Meters

The level of the SubMix's volume is shown in the SubMix Output Gain meters. The LED colors help you maintain a strong level without letting your signals get so loud that clipping—unwanted distortion—occurs. The green LEDs in the SubMix Output Gain meters indicate that signal is present. As its volume increases, the green turns to yellow, and then amber to signify that the signal's volume is approaching the acceptable limit. The top LED turns red when the signal is too loud. The numbers to the left and right of the SubMix Output Gain meters show in dB the distance from clipping. Clipping occurs at 0 dB.



SubMix Mute Buttons



The SubMix Master Fader's Mute buttons allow you to quickly silence the SubMix. To use this feature, click either Mute button; to un-mute the SubMix, click either button again.

SubMix Label



The SubMix Label allows you to name the current SubMix—this name will appear in the title bar of each of the SubMix's windows, as well as in the SubMix Label itself and the SubMix Strip Name Label in the Master Mixer Window. To name the SubMix:

1. Click on the SubMix Label—its characters turn red to show that it's ready for a new name.
2. Type the desired name. Use no more than six or seven characters so that the name will fit in the label area.
3. Press RETURN/ENTER.

Automation Playback Button



This button enables or disables playback of automation data for the SubMix Master Fader—see Chapter 14.

Edit Automation Button



This button enables or disables the recording of automation data for the SubMix Master Fader (Chapter 14).

SubMix Master Balance Controls



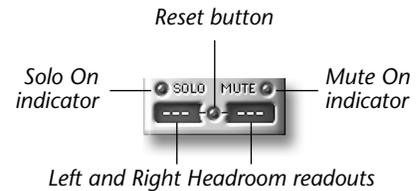
SubMix Master Balance Control and Readout

Adjust the SubMix Master Balance control to offset the stereo position of the left and right sides of the SubMix. To use the control—or collapsed readout—click and drag it to the right or left to offset the SubMix in the corresponding direction. Its readout shows the current balance, from L100 to R100.

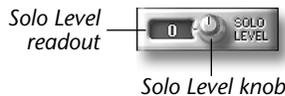
Tip: To quickly reset the SubMix's balance to its original state, OPTION-click (Mac OS) or right-mouse-click (Windows) the SubMix Master Balance knob or collapsed SubMix Master Balance readout.

SubMix Headroom Control

The SubMix Headroom controls help you set as loud a SubMix as possible without clipping in order to take best advantage of the available 16 or 24 bits (page 25). Each Headroom readout beneath the Solo and Mute indicators displays the maximum signal level that's been reached by its side of the SubMix—this tells you by how much you should reduce the SubMix's level to avoid clipping. The indicators and readouts “stick” so that you can concentrate on other matters and not fear that you missed an over-loud moment that could ruin your SubMix. To reset the Headroom indicators and readouts, click the Reset button.



SubMix Master Solo/Mute Controls



Solo On Indicator



The Solo On indicator lights whenever any Channel or Aux strip in the SubMix is soloed—this tells you at a glance if there's something you've forgotten to un-solo. The indicator also serves as a master Solo on/off switch for the SubMix—to un-solo all soloed elements, click the Solo On indicator.

Solo Level Knob



Use the Solo Level knob to lower or raise the overall volume of all soloed audio in the SubMix. The control's range is -20 to +20 dB—its current value is displayed in its numeric readout.

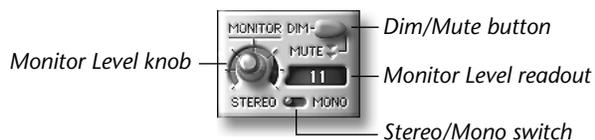
Tip: To turn off the Solo Level knob's boosting or cutting of the solo audio's volume, OPTION-click (Mac OS) or right-mouse-click (Windows) the knob.

Mute On Indicator



The Mute On indicator lights whenever any Channel or Aux strip in the SubMix is muted, letting you know at a glance if you've muted anything in the SubMix. The Mute indicator also serves as a master Mute on/off switch for the SubMix—to un-mute anything currently muted, click the Mute On indicator.

Monitor Controls



The Monitor controls set the listening environment of the entire current Project; therefore, these controls are available in each SubMix's Mixer. They allow you to set the listening volume, temporarily dim the volume without losing your original listening level, and audition your Project in mono.

Note: The Monitor controls only affect what you hear in your monitors—they have no effect on PARIS' Main stereo outputs.

Monitor Level Knob



The monitor level knob sets the overall level at which you listen to the Project—specifically, it controls the outputs levels of the Project's Left and Right Monitor outputs, which are typically connected to the amplifier(s) driving your control room monitors. The Monitor Level readout shows the current listening level, from -20 dB to +20 dB. To learn about connecting monitors to your interface, see Chapter 1.

Tip: To reset the Monitor Level to 0 dB, OPTION-click (Mac OS) or right-mouse-click (Windows) the knob.

Tip: You can also set your listening level from the C16 Pro—see Appendix 1.

Monitor Dim/Mute Switch



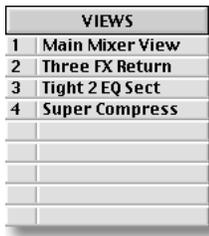
At times when you want to radically reduce your listening volume temporarily without losing your original Monitor, click the Monitor Dim/Mute switch to reduce the listening level by 20 dB. When the Monitor outputs are dimmed, the yellow LED in the switch lights. Double-click the switch to completely mute the Project's Monitor outputs altogether—the switch's Led will turn red when the Monitor outputs are muted. To return to your original listening level, click the switch again.

Mono Button



It's often helpful to be able to audition to your Project in mono. To do this, click the Mono button; to return to stereo, click it again.

Mixer Views Bin



You can save up to 99 Local Views of the Mixer Window. Selecting “Show View Bin” from the Settings menu adds a list of the saved Mixer views to the right side of the Mixer window. Views can be labelled with up to 15 characters.

To save a local view of the Mixer:

1. Set the C16 Pro to View mode by pressing its View mode button.
2. Select any number from 0 to 99. The View will be stored in this location.
3. Press the Enter•Save button to the right of the keypad.

To recall a local view of the Mixer from the C16 Pro:

1. Set the C16 Pro to View mode by pressing its View mode button.
2. Select the number (from 0 to 99). where the desired View is stored.
3. Press the Recall•Function button to the right of the keypad.'

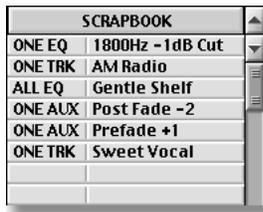
To recall a local view of the Mixer from the Mixer Views Bin:

1. Select Show View Bin from the Mixer Settings window.
2. Double click on the desired view in the Mixer Views window.

To name a view in the Mixer Views Bin:

- **On the PC:** Right click the mouse button while the cursor is over the label area, then type the name.
- **On the Mac:** Press the Option key while clicking with the mouse on the label area, then type the name.

Mixer Scrapbook Bin



The Mixer Scrapbook allows you to save up to 99 sets of module settings from the Mixer Window. The Entire Strip settings, a Single EQ section, All EQ sections, or a Single Aux section can be saved into the scrapbook.

Selecting “Show Scrap Bin” from the Mixer Settings menu adds a list of the Mixer Scrapbook settings to the right side of the Mixer window. Scrapbook entries can be labelled with up to 15 characters.

When the cursor is not positioned over a button or other field, a small hand appears. While the hand is visible, simply click and drag the module into the Scrapbook Bin. An outline appears around the module indicating that it is selected.

To save a Mixer setting into the Scrapbook:

- **One Track** - Copies the entire Mixer Strip. Position the cursor over the fader section until the hand appears, then drag to the Scrapbook.
- **One EQ Section** - Copies a single EQ section. Position the cursor over the EQ band until the hand appears, then drag to the Scrapbook.
- **All EQ Sections** - Copies all four EQ sections. Position the cursor over the Master EQ Section or the Graphic Display until the hand appears, then drag to the Scrapbook.
- **Single Aux Section** - Copies a single Aux section. Position the cursor over the Aux section until the hand appears, then drag to the Scrapbook.

To copy a saved Scrapbook setting back into the Mixer:

- Drag the desired Scrapbook setting onto the Mixer module you want to update. Scrapbook settings must be dragged onto the appropriate type of module. For example, if you are copying “One Track” you must drag it over the fader section. A rectangular outline appears around the module indicating that it is selected.

To name a setting in the Mixer Scrapbook Bin:

- **On the PC:** Right click the mouse button while the cursor is over the label area, then type the name.
- **On the Mac:** Press the Option key while clicking with the mouse on the label area, then type the name.

Note: You can drag and drop mixer strip settings back and forth between the mini mixer and big mixer.

To delete a setting in the Mixer Scrapbook Bin:

- Select the entry and press the Delete key on your computer keyboard.

The Mixer Window Menus

Edit Menu



The commands in the Edit Menu provide for the copying and pasting of Channel strip settings, including all Channel Fader, EQ Master, EQ and Aux Send module settings. You can use the copy and paste commands to duplicate one Channel strip's settings in another strip—in another SubMix, if you like—or copy all Channel strips' settings to another SubMix's Mixer Window; you can also use these commands to move Channel settings from one Project to another.

When you select:	This action occurs:	Mac OS shortcut:	Windows shortcut:
Copy Channel Settings	The settings in the currently selected Channel strip are copied to PARIS' clipboard.	COMMAND-C	CONTROL-C
Copy All Channel Settings	The settings for all of the Channel strips are copied to PARIS' clipboard.	SHIFT-COMMAND-C	CONTROL-SHIFT-C
Paste Channel Settings	The contents of the clipboard are copied to the currently selected Channel strip.	COMMAND-V	CONTROL-V
Paste All Channel Settings	When the clipboard contains settings for all Channels, the contents of the clipboard will be copied to all of the Channel strips.	SHIFT-COMMAND-V	CONTROL-SHIFT-V

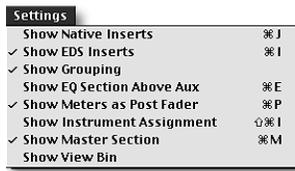
Functions Menu



The Functions Menu provides tools for resetting all of the controls on one or more Channels to their default values. It also allows you to boost your Channels' levels to their optimum setting.

When you select:	This action occurs:	Mac OS shortcut:	Windows shortcut:
Reset Channel	All controls, including Inserts, in the selected Channel strip are reset to their default values.	COMMAND-R	CONTROL-R
Reset All Channels	All controls, including Inserts, in all Channel strips are reset to their default values.	SHIFT-COMMAND-R	CONTROL-SHIFT-R
Reset All Channels to Current	The currently selected Channel strip's settings are copied to the 15 other Channel strips.	COMMAND-T	CONTROL-V
Paste All Channel Settings	When the clipboard contains settings for all Channels, the contents of the clipboard will be copied to all of the Channel strips.	SHIFT-COMMAND-V	CONTROL-T
Normalize Mix	A dialog appears in which you set a value to which your loudest non-automated Channel strip will be set—all other non-automated strips' will be adjusted accordingly.	COMMAND-N	CONTROL-N

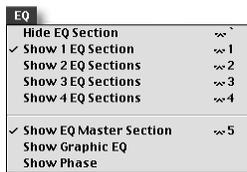
Settings Menu



The Settings Menu items allow you to show or hide the Native and EDS Insert modules in the 16 Channel strips, swap the position the EQ and Aux Send modules, determine what will be shown in the Channel strip Level meters, and set the behavior of the Channel/Instrument Name Labels. To activate a Settings Menu item, click the menu and drag to select the desired item—when it’s activated, a checkmark will appear next to it.

When you select:	This action occurs:	Mac OS shortcut:	Windows shortcut:
Show Native Inserts	The Native Insert module appears at the top of each of the 16 Channel strips.	COMMAND-J	CONTROL-J
Show EDS Inserts	The EDS Insert module appears at the top of each of the 16 Channel strips.	COMMAND-I	CONTROL-I
Show Grouping	The Grouping module appears above the Pan module.		
Show EQ Section Above Aux	The Channel strips’ EQ modules will be displayed above their Aux Send modules. (When the item is unchecked, the Aux Sends are displayed above the EQs.)	COMMAND-E	CONTROL-E
Show Meters as Post Fader	During playback, Channel strip Level meters will show the output of their Fader modules. (When the item is unchecked, the Level meters show a strip’s signal at its level prior to its passage through the Fader module.)	COMMAND-P	CONTROL-P
Show Instrument Assignment	The Channel/Instrument Name Labels will show the name of the Instruments controlled by the Channel strips when the Editor Window is in Free Form Mode.	SHIFT-COMMAND-I	CONTROL-SHIFT-I
Show Master Sections	The Master fader section appears at the right side of the Mixer.	COMMAND-M	COMMAND-M
Show View Bin	Brings up a list of all saved Views. The Views can also be labeled with up to 15 characters.	To Label: Hold Option, Click on label field and type.	To Label: Right click on label field and type.

EQ Menu



The options in this menu control the display in the Mixer Window of the 16 Channel strip EQ modules and their All EQ modules. To activate an EQ Menu item, click the menu and drag to select the desired item—a checkmark will appear next to it.

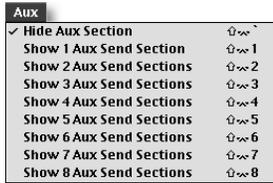
When you check this item:	This action occurs:	Mac OS shortcuts:	Windows shortcuts:
Hide EQ Section	The EQ modules in the 16 Channel strips are hidden.	CONTROL-`	ALT-`
Show 1 EQ Section	One EQ module will be displayed in each Channel strip.	CONTROL-1	ALT-2
Show 2 EQ Section	Two EQ modules will be displayed in each Channel strip.	CONTROL-2	ALT-2
Show 3 EQ Section	Three EQ modules will be displayed in each Channel strip.	CONTROL-3	ALT-3

Chapter 12 - The Mixer Window

The Mixer Window Menus

When you check this item:	This action occurs:	Mac OS shortcuts:	Windows shortcuts:
Show 4 EQ Section	Four EQ modules will be displayed in each Channel strip	.CONTROL-4	ALT-4
Show EQ Master Section	The Channel strips' EQ Master module is displayed.	CONTROL-5	ALT-5

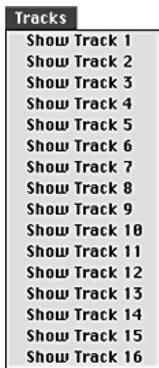
Aux Menu



The options in this menu control the number of Aux Send modules, if any, to be displayed in the Mixer Window's Channel strips. To select the desired number of modules, click the menu and drag to select the desired item—a checkmark will appear next to it.

When you check this item:	This action occurs:	Mac OS shortcuts:	Windows shortcuts:
Hide Aux Section	The Aux Send modules in the 16 Channel strips are hidden.	SHIFT-CONTROL-`	SHIFT-ALT-`
Show 1...8 Aux Section(s)	The selected number of Aux Modules are displayed.	SHIFT-CONTROL-1...8	SHIFT-ALT-1...8

Tracks Menu



The options in this menu controls the number of Channel strips available in the Mixer Window. To select the desired number of Channel strips, click the menu and drag to select the desired item—a checkmark will appear next to it.

Note: You may need to scroll the Channel strip display to view particular Channel strips (page 100).

When you check this item:	This action occurs:
Show Track 1...16	The selected number of Tracks is made available in the Mixer Window.

Chapter 13—Editing Effects

Introduction

PARIS Aux and Insert Effects are selected in the Mixer and Master Mixer windows. To learn about selecting an:

- Aux Effect in the Mixer Window, see page 117.
- Native or EDS Insert Effect for Channels, see page 114
- EDS Insert Effect for the Global Master Fader, see page 177.

Tip: To learn how to install VST and DirectX Plug-Ins, see page 11.

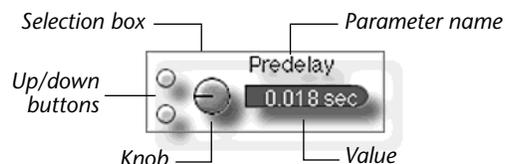
The editing of any Effect in PARIS is initiated in one of two ways. To begin editing an:

- Insert Effect in the Mixer or Master Mixer windows, click on the Insert Effect's name. If you're using a Native Insert Effect on two Channels, click the Effect's name in either Channel.
- Aux Effect in the Mixer, click the Edit FX button on the associated Aux strip (page 118).

Editing Effect Parameters

Each Effect provides a collection of editable parameters that allow you to tailor the Effect to your purposes. There are a variety of ways to edit a parameter in one of PARIS' Effects:

- You can click on the parameter's small up/down buttons to change values by single units.
- You can raise or lower a parameter's value by clicking and dragging on its knob.
- You can raise or lower a parameter's value by clicking and dragging its value upward or downward.
- You can click on its setting and enter a new value by typing it on your computer keyboard and hitting RETURN/ENTER
- You can raise or lower the value using the up and down arrows on your keyboard. To jump to the highest value for the parameter, type END; to jump to the lowest, type HOME.



Note: When you click on any controls belonging to a parameter in a PARIS Effect, a red box appears around the controls to show that the parameter is selected for editing.

Note: The editable parameters of Native—third-party—Effect Plug-Ins may utilize the same data entry devices—knobs, buttons, etc.—as PARIS' Effects, or their own custom controls.

Working with Effect Presets

You can save favorite settings for each Effect's parameters as Presets that you can use over and over again. Presets can be stored within the current Project or in the PARIS Preset Library—Presets saved in the Preset Library are available for use in any Project. (The PARIS Preset Library is contained in the PARIS_FX.var file in your PARIS folder).

In a new Project, when you open an Effect's editing window, you'll see—and hear—pre-programmed parameter settings that are stored in the Effect's default Preset. If you're opening a saved Project in which you've worked with the Effect, your most recent settings or recalled Preset will be re-installed.



When editing Aux Effects or EDS Insert Effects, you'll find a window pane containing tools for the installation, storage and selection of other Presets by clicking on the hammer icon shown in each Effect-editing window.

The editing window for Native Insert Effect Plug-Ins always displays Preset tools as well as input and mix settings, a Bypass button and a button that allows you to load VST presets created outside of PARIS.

Chapter 13 - Editing Effects

Working with Effect Presets

The Preset tools pane shows two lists of Presets associated with the selected Effect. In the top section of the pane, you'll see Presets belonging to the current Project. The bottom section shows Presets stored in the PARIS Preset Library. The buttons at the top edge of the pane perform various Preset operations—some of these operations, described below, require that you first select a Preset. To do so, click on the Preset's name—its background will become highlighted. You can select any Project or Library Preset.

Recall Button

To install the currently selected Preset, click the Recall button—the Preset's name will appear in the editing window's title bar.

Tip: You can also install a Preset by double-clicking its name.

To Save Your PARIS Effect Parameter Settings as a New Preset:

1. Set the Effect's parameters as you'd like them to be preserved in a Preset—once you change any parameter in a recalled Preset, the tools for saving your edits become available. When saving a PARIS Effect Preset, the current Preset's name will be copied into the naming field in case you want to use its name as the basis of the name of your new Preset.

Tip: If you want to base the new Preset's name on the name of another Preset, use the Name button, described below.

2. Click in the Preset naming field.
3. Type the name you'd like to use for your new Preset, or take advantage of the Name button, described below.
4. When you're done typing the Preset's name, click the Save button or press RETURN/ENTER.

To Save Your Native Plug-In Effect Parameter Settings as a New Preset:

1. After setting the Plug-In's parameters as desired, click the Save button—a dialog will appear in which you can name the new Preset. Click OK after typing the desired name to save the Preset, or click Cancel to abort the procedure.

To Discard Changes You've Made to the Currently Installed Preset:

1. Make sure that the Preset's name is selected.
2. Click the Recall button.

Name Button

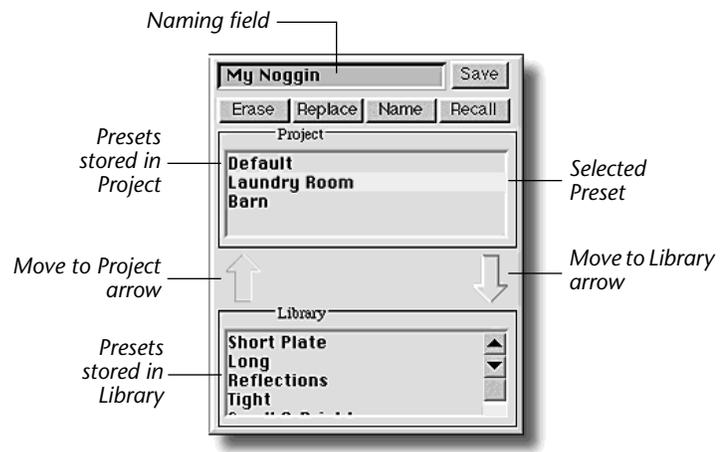
- PARIS Effects—When you want to create a new Preset with a name based on another Preset in the Project or Library, save time by selecting that Preset and clicking the Name button to paste its name into the Preset naming field. After finalizing the name of the new Preset, hit RETURN/ENTER.
- Native Effect Plug-Ins—To rename a Preset, select it and click the Name button. A dialog will appear in which you can re-name the Preset

Replace Button

When you've altered an existing Preset and want to preserve your new settings by updating the saved version of the Preset, click this button to store your current parameter settings into the selected Preset.

To Move a Preset from the Current Project Into the Preset Library

1. In the upper window, select the Preset you'd like to move to the Preset Library.
2. Click the Move to Library arrow.



 To Move a Preset from the Preset Library Into the Current Project:

1. In the lower window, select the Preset you'd like to move to the current Project.
2. Click the Move to Project arrow.

Erase Button (PARIS Effects); Del Button (Native Plug-Ins)

When working in the editing window of a PARIS Effect, click the Erase button to erase the currently selected Preset from the current Project or from the Preset Library—when editing an Native Plug-In, click the Del ("Delete") button.

Bypass Button (Native Plug-Ins Only)

Click the Bypass button to temporarily silence the Native Plug-In Insert Effect being edited—this will cause its the Channel's audio to be heard without the Plug-In.

Load Button (VST Plug-Ins Only)

PARIS allows you to import Presets created outside of PARIS for the VST Plug-In being edited. Click the Load button to imports the Preset —once imported, you can save it as a standard PARIS Preset in the current Project or Preset Library.

In/Out Pop-Ups (Native Plug-In Effects Only)

PARIS' flexible Effects architecture allows you to use both mono and stereo Native Plug-Ins as Insert Effects on a single Channel or across two Channels. As a result, there are occasions in which you'll need to choose which Channel(s) you want to use as the input for the audio being fed into the Plug-In, and to where you want the Plug-In's output directed. When such a choice is to be made, the appropriate in or out pop-up menu will be displayed. The pop-ups offer you a choice of Left, Right or Sum (both Left and Right combined). The following table lists the scenarios that will cause one of the pop-ups to be displayed when assigning different types of Insert Plug-Ins to either one or two Channels:

Channels:	Nature of Plug-In:	Pop-Up:	Reason you need to make a choice:
2	mono > mono	in	The Plug-In's single mono input is being fed by two Channels.
1	mono > stereo	out	The Plug-In's stereo outputs are being routed to a single Channel.
2	mono > stereo	in	The Plug-In's single mono input is being fed by two Channels.
1	stereo > stereo	in	The Plug-In's stereo inputs are only being fed by a single Channel.

In Gain (Native Plug-In Effects Only)

In Gain allows you to set the volume of audio being sent into the Plug-In. To edit the parameter, use the same techniques you would use when editing any other PARIS Effects parameter (page 127).

Out Gain (Native Plug-In Effects Only)

Out Gain allows you to set the volume of the Plug-In's output back into the Channel. To edit the parameter, use the same techniques you would use when editing any other PARIS Effects parameter (page 127).

Wet/Dry Ratio (Native Plug-In Effects Only)

This parameter lets you adjust the volume balance between the un-effected audio being sent into the Plug-In and the effected audio coming out if the Plug-In. The Wet/Dry Ratio can be edited using the same techniques as any other PARIS Effect parameter (page 127).

The Help Button (PARIS Effects Only)



Click the Help button in any Effect-editing window to learn more about its parameters. When the Help button is depressed and you select a parameter, a brief description of the parameter appears along the lower edge of the editing window.

The Show Advanced Parameters Button (PARIS Effects Only)



Some Effect-editing windows offer an expanded set of parameters that become visible when the Show Advanced Parameters button is clicked. If an Effect contains such parameters, the button will be available in its editing window.

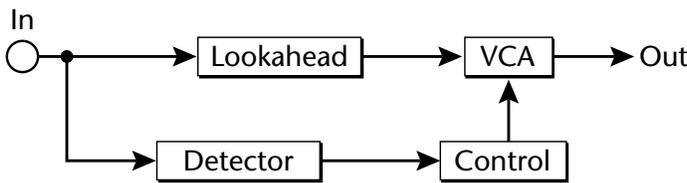
Parameter Groupings

Some Effects contain parameters organized and displayed in groups. In such cases, either a toggle or a set of radio buttons will be provided for the selection of parameter groups.

The PARIS Factory Effects

Compress

Routing: mono-in, mono-out

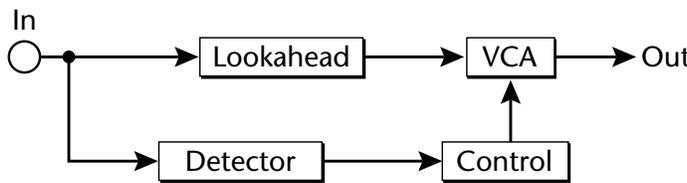


The Compress Effect helps control the dynamic range in audio by reducing the level of input signals above the setting established with the Threshold parameter. Signals below the Threshold setting are passed unchanged. In addition, a compressor can give lead instruments-especially vocals-a “tighter” feel.

Parameter	Description
Output	Adjusts the gain at the output stage; makes up for gain lost during compression.
Threshold	Sets the level above which gain is reduced.
Ratio	Controls the ratio of input level to output level during compression.
Attack	Controls how fast the compressor responds to peaks.
Release	Controls how fast the compressor recovers from peaks.
Lookahead	Reduces overshoot by delaying the audio around the sidechain.

Expander

Routing: mono-in, mono-out



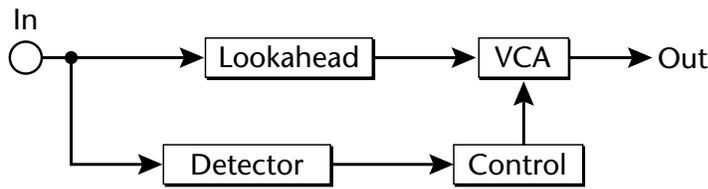
The Expander Effect widens the dynamic range in audio by reducing the level of input signals that fall below the setting established with the Threshold parameter. Signals above the Threshold setting pass unchanged. The overall effect is that loud elements stay loud, and quiet ones become even quieter.

The Expander can be useful in reducing the volume of low-level noise-such as headphone leakage-when a gate's effect would be too harsh. It can also help add excitement to recordings by increasing their dynamic variety.

Parameter	Description
Output	Adjusts the gain at the output stage.
Threshold	Sets the level below which gain is reduced.
Ratio	Controls the ratio of input level to output level during expansion.
Attack	Determines the speed at which increases in level are tracked.
Release	Controls how fast the expander recovers from peaks.
Lookahead	Reduces loss of attack transients by delaying the audio around the sidechain.

Gate

Routing: mono-in, mono-out

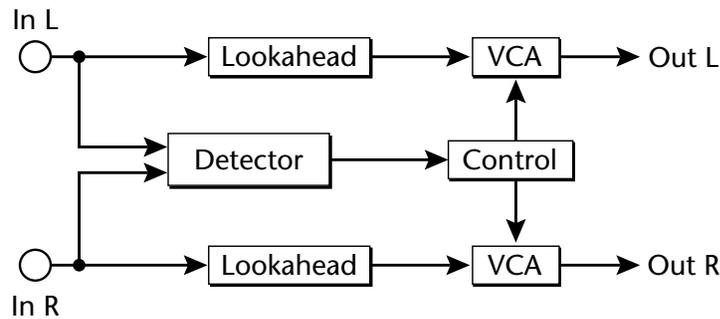


The Gate Effect can be used to reduce the level of audio that falls beneath a setting established with the Threshold parameter. Such signals can be completely silenced or merely reduced in loudness, according to the value of the Range parameter. A gate can shut off undesirable noise between notes, or to create an unnaturally clipped ambience by chopping off a sound's original acoustic decay.

Parameter	Description
Threshold	Sets the level above which the gate opens.
De-Chatter	Sets the difference between the gate-open and gate-close thresholds; reduces chatter.
Range	Controls the amount of gain reduction when the gate is closed.
Attack	Controls how fast the gate opens.
Release	Controls how fast the gate closes.
Hold	Controls how long the audio must remain below the gate-close threshold before the gate starts to close; reduces chatter.
Lookahead	Reduces loss of attack transients by delaying the audio around the sidechain.

St Compress

Routing: stereo-in, stereo-out

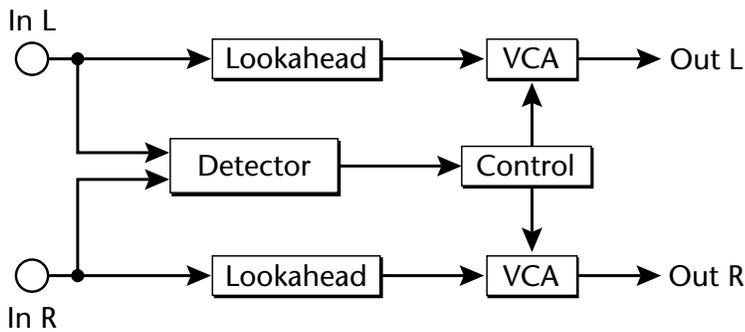


The Stereo Compress Effect provides dynamic control of stereo audio, and can be used to give instruments, groups of instruments or mixes a "tighter" feel. The Stereo Compressor reduces the level of input signal that occurs above the setting established with the Threshold parameter. Signals below the Threshold setting are passed unchanged.

Parameter	Description
Output	Adjusts the gain at the output stage; makes up for gain lost during compression.
Threshold	Sets the level above which gain is reduced.
Ratio	Controls the ratio of input level to output level during compression.
Attack	Controls how fast the compressor responds to peaks.
Release	Controls how fast the compressor recovers from peaks.
Lookahead	Reduces overshoot by delaying the audio around the sidechain.

St Expander

Routing: stereo-in, stereo-out

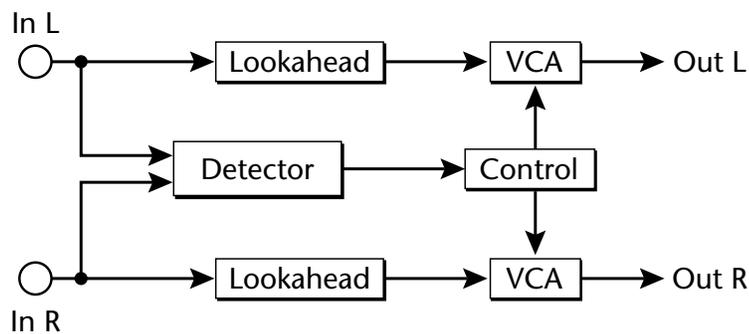


The Stereo Expander Effect reduces the level of input signals that occur below the setting established with the Threshold parameter while allowing signals above the Threshold to pass unchanged. The result is that loud elements remain loud, while quiet ones become even quieter. The Expander can add excitement to recordings by increasing their dynamic variety, or useful in reducing the volume of low-level noise such as leakage from other instruments when a gate would be too harsh.

Parameter	Description
Output	Adjusts the gain at the output stage.
Threshold	Sets the level below which gain is reduced.
Ratio	Controls the ratio of input level to output level during expansion.
Attack	Controls how fast the expander responds to peaks.
Release	Controls how fast the expander recovers from peaks.
Lookahead	Reduces loss of attack transients by delaying the audio around the sidechain.

St Gate

Routing: stereo-in, stereo-out

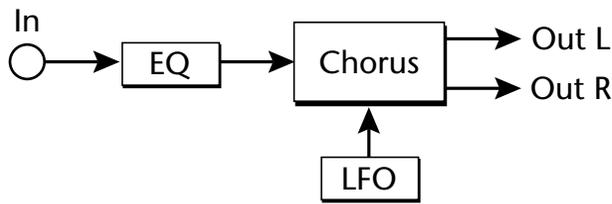


The Stereo Gate Effect decreases the volume of stereo audio occurring at a level lower than the setting established with the Threshold parameter. Such signals can be completely silenced, or merely reduced in loudness, according to the value of the Range parameter. A gate can be used to create an unnatural acoustic decay, or to shut out undesirable noise in the gaps between notes.

Parameter	Description
Threshold	Sets the level above which the gate opens.
De-Chatter	Sets the difference between the gate-open and gate-close thresholds; reduces chatter.
Range	Controls the amount of gain reduction when the gate is closed.
Attack	Controls how fast the gate opens.
Release	Controls how fast the gate closes.
Hold	Controls how long the audio must remain below the gate-close threshold before the gate starts to close; reduces chatter.
Lookahead	Reduces loss of attack transients by delaying the audio around the sidechain.

Chorus

Routing: mono-in, stereo-out

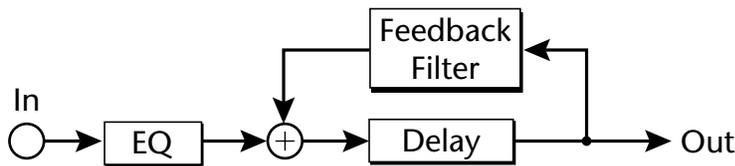


The Chorus Effect can produce effects ranging from an ethereal shimmer to wide detuning. A chorus makes two copies of the incoming signal and slightly delays the playback of each copy so that three almost-synchronized images are heard. The time at which each copy plays is continuously altered by a low-frequency oscillator, producing a sweeping effect.

Parameter	Description
Lo Freq	Controls the frequency of the low shelving EQ.
Lo Level	Boosts or cuts frequencies below Lo Freq.
Hi Freq	Controls the frequency of the high shelving EQ.
Hi Level	Boosts or cuts frequencies above Hi Freq.
Mix	Controls the proportion of chorused signal to dry signal.
Rate	Controls the sweep rate.
Width	Controls the sweep width; larger values result in more detuning (limited by the Center setting).
Center	Controls the nominal delay; smaller values create flanging Effects when Mix is 50%.
L/R Phase	Controls the stereo width by adjusting the phase difference between left and right sweeps.

Delay, Long Delay

Routing: mono-in, mono-out



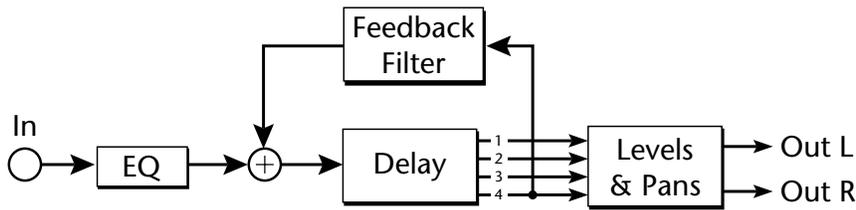
The Delay and Long Delay plugs-in each make a copy of incoming audio that is then played back after an interval determined by the setting of the Delay parameter. When the output of either Effect is sent back into its own input-this process is called “feedback”- additional images are created as the copy itself is subjected to this process again and again.

The Delay and Long Delay Effects are provided to help make most efficient use of PARIS' dynamically allocated DSP power. When a short delay is desired, use the Delay Effect; when a longer delay is required, use Long Delay.

Parameter	Description
Lo Freq	Controls the frequency of the low shelving EQ.
Lo Level	Boosts or cuts frequencies below Lo Freq.
Hi Freq	Controls the frequency of the high shelving EQ.
Hi Level	Boosts or cuts frequencies above Hi Freq.
Delay	Sets the amount of delay.
Feedback	Determines the number of repeats.
FB Hi Cutoff	Damps high frequencies in the feedback path.
FB Lo Cutoff	Damps low frequencies in the feedback path.

Tap-Delay

Routing: mono-in, stereo-out

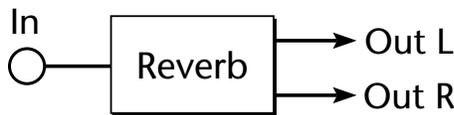


The Tap Delay Effect works similarly to the mono delays described above, except that it includes four delays instead of one, providing an excellent tool for the creation of rhythmic delays. Each of its four delays is called a “tap,” and has its own delay time setting, level control and stereo pan setting.

Parameter	Description
Time	Sets the delay of the selected tap.
Level	Controls the level of the selected tap.
Pan	Controls the stereo pan of the selected tap.
Feedback	Determines the number of repeats by adding some of the output from Tap 4 back to the input.
FB Hi Cutoff	Damps high frequencies in the feedback path.
FB Lo Cutoff	Damps low frequencies in the feedback path.
Lo Freq	Controls the frequency of the low shelving EQ.
Lo Level	Boosts or cuts frequencies below Lo Freq.
Hi Freq	Controls the frequency of the high shelving EQ.
Hi Level	Boosts or cuts frequencies above Hi Freq.

Plate Rev

Routing: mono-in, stereo-out

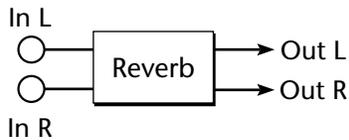


The Plate Reverb Effect simulates the light, clean reverb produced by a resonating metallic plate. This reverb can be used for a wide range of reverb effects, from a subtle touch of ambience to the simulation of a concert hall.

Parameter	Description
Predelay	Inserts a delay between the direct signal and the reverb.
Bandwidth	Adjusts the cutoff frequency of a lowpass filter in series with the reverb.
Diffuser 1	Diffuser 1 and Diffuser 2 control the gains of the two diffuser stages. Lower settings yield a discrete-sounding reverb, while higher settings yield a smooth, dense reverb.
Diffuser 2	
Decay	Controls the overall decay time.
Damping	Damps high frequencies as the reverb decays.
Definition	Controls the buildup of echo density as the reverb decays.

Room Rev

Routing: stereo-in, stereo-out

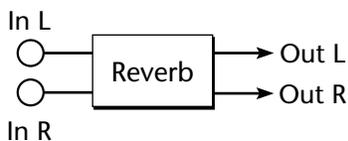


The Room Reverb Effect simulates the ambience of an enclosed space. It differs from the Plate Effect in that it provides distinct reflections to mimic sound bouncing off the walls of a room. It also offers the ability to position the listener at a selected distance from the signal within the simulated space.

Parameter	Description
Predelay	Inserts a delay between the direct signal and the reverb.
Diffuser 1	Diffuser 1 and Diffuser 2 control the gains of the two diffuser stages. Lower settings yield a discrete-sounding reverb, while higher settings yield a smooth, dense reverb.
Diffuser 2	
Bandwidth	Adjusts the cutoff frequency of a lowpass filter in series with the reverb.
Decay	Controls the overall decay time.
LF Decay	Controls the low-frequency decay time.
Damping	Damps high frequencies as the reverb decays.
Definition	Controls the buildup of echo density as the reverb decays.
Primary Send	Controls the amount of direct signal sent to the reverb.
ER1 Time	Controls the arrival time of early reflection 1
ER1 Level	Controls the amount of early reflection 1 sent directly to the output.
ER1 Send	Controls the amount of early reflection 1 sent to the reverb.
ER2 Time	Controls the arrival time of early reflection 2.
ER2 Level	Controls the amount of early reflection 2 sent directly to the output.
ER2 Send	Controls the amount of early reflection 2 sent to the reverb
Detune Rate	Controls the rate of tap modulation.
Detune Depth	Controls the amount of tap modulation.
Position 1	Controls the level of echoes from the front of the simulated room.
Position 2	Controls the level of echoes from the middle of the simulated room.
Position 3	Controls the level of echoes from the rear of the simulated room.
Balance	Adjusts the stereo balance.

Non Lin Rev

Routing: stereo-in, stereo-out



The Non Lin Reverb Effect provides a reverb with a programmable decay. This is accomplished by setting the relative volumes—the Level 1-9 parameters—of the reverb as it passes through its nine stages. In addition, a pair of reflections are provided to contribute a couple of simulated surfaces off of which sound can bounce.

Parameter	Description
Lev 1-9	Lev 1 through Lev 9 control the overall envelope of the reverb.
Diffuser 1	Diffuser 1 and Diffuser 2 control the gains of the two diffuser stages. Lower settings yield a discrete-sounding reverb, while higher settings yield a smooth, dense reverb.
Diffuser 2	
Density 1	Controls the density of echoes during the early part of the decay.
Density 2	Controls the density of echoes during the later part of the decay.
Bandwidth	Adjusts the cutoff frequency of a lowpass filter in series with the reverb.
Primary Send	Controls the amount of diffused signal sent to the definition stage.
ER1 Time	Controls the arrival time of early reflection 1.
ER1 Send	Controls the amount of early reflection 1 sent to the reverb.
ER2 Time	Controls the arrival time of early reflection 2.
ER2 Send	Controls the amount of early reflection 2 sent to the reverb.
Balance	Adjusts the stereo balance.

Chapter 14—The Automation Editor Window

Introduction to Automation

As part of its suite of mixing tools, PARIS provides the ability to record and play back and edit changes you make to:

- volume settings for the Global Master and SubMix Left/Right Masters, Channels and Aux Returns.
- stereo pan settings for the Global Master and SubMix Left/Right Masters and Channels.
- the muted/un-muted status of the Global Master and SubMix Left/Right Masters, Channels and Aux Returns.

To learn about the SubMix Left/Right Master, Channels and Aux Returns, see Chapter 12. The Global Master is described in Chapter 16.

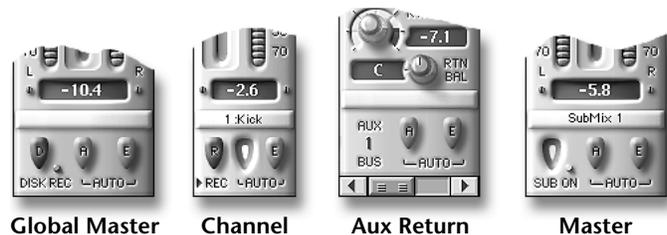
Recording and Playing Back Automation

Automation can be recorded from the Master Mixer or Mixer windows or the C16 Pro. See Appendix 1 to learn how to record automation from the C16 Pro.



Recording and Playing Back Automation in the Master Mixer and Mixer Windows

In the Master Mixer and Mixer windows, automation is recorded and played back by activating the Automation Edit and/or Enable buttons. These buttons are located at the bottom of the windows' automation Faders and Aux Returns. Each button controls the recording and/or playback of automation for its Fader or Aux Return, and has an LED that lights when it's activated.



The Edit Automation Button



The Edit Automation button, when activated, causes PARIS to record changes you make to the Fader or Aux Return as the Project plays.

The Automation Playback Button



When activated, the Automation Playback button causes recorded automation data for the Fader or Aux Return to play back when the Project is played.

To Record Fader or Aux Return Changes in the Master Mixer and Mixer Windows:

1. Click the Edit Automation button for the desired Fader or Aux Return so that its LED lights.
2. Press the Auto button on the C16 Pro. Its yellow LED will be flashing.
3. Begin playback of the Project prior to the point at which you want to record your moves.
4. Adjust the associated Fader or Return Level control, Pan control, or Mute-button status as desired.
5. Stop playback when you've recorded all the moves you want to record—the current setting for the type of data being recorded will remain in effect for the remainder of the Project's running time. If anything is muted when you stop recording, un-mute it before playing back your automation.

Tip: You can record automation data for as many Faders and Aux Returns as you like by simultaneously applying the steps above to multiple Faders and Aux Returns.

To Play Back Fader or Aux Return Changes in the Master Mixer and Mixer Windows:

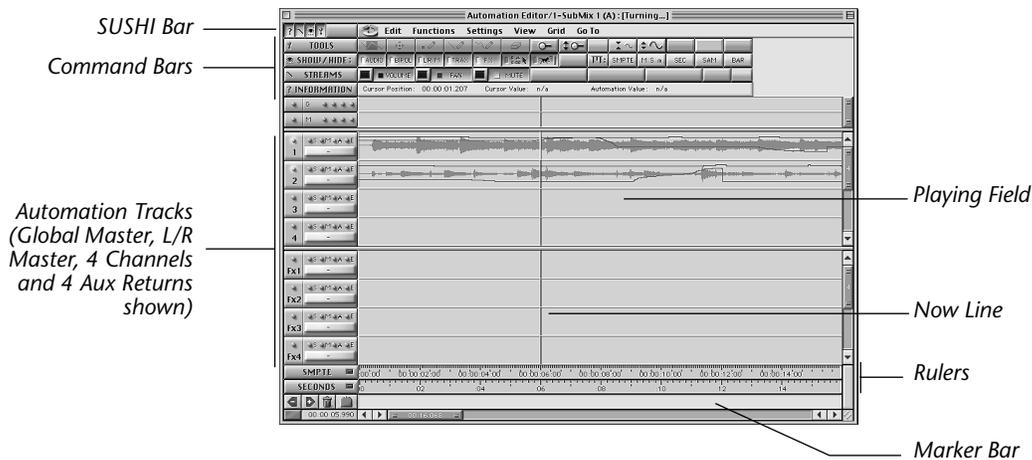
1. Click the Edit Automation button—so that its LED becomes unlit—to disable further recording of automation data.
2. Click the Automation Playback button—so that its LED lights—to enable playback of automation data.
3. Rewind and play the Project.

Tip: You can add new moves to previously recorded automation data by activating both buttons at once. As recorded automation data plays back, you can record new volume, pan or Mute-button movements. New data is only recorded when your mouse button is held down, allowing you to, in effect, punch in and out during automation recording.

The Automation Editor Window

What is the Automation Editor Window?

The Automation Editor Window is a workspace in which you can refine automation data you’ve recorded from a Master Mixer Window, the Mixer Window or the C16 Pro—you can also add new automation data while in the Automation Editor Window. The automation editing environment is similar to the one found in a standard Editor Window.



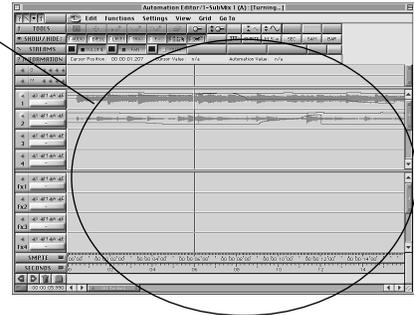
Automation Editor Window Control

The Automation Editor Window is controlled—as is the standard Editor Window—using Zoom bars (see page 52), standard scroll buttons and can be re-sized by dragging its lower-right-hand corner.

The Playing Field

The Playing Field is the work area of the Automation Editor Window on which all editing of automation data takes place.

Playing Field



Automation Tracks

The Playing Field is divided into Automation Tracks, each of which can be thought of as a slot that contains automation data controlling volume, pan and mute settings.



Automation data appears here.

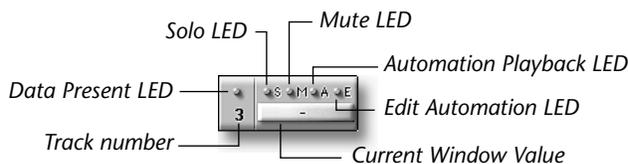
An Automation Track can hold automation data for:

- the Global Master Fader (accessible in all SubMixes for convenience)
- the currently selected SubMix's stereo Left/Right Master Fader
- one of the currently selected SubMix's 16 Channel Faders
- one of the currently selected SubMix's eight Aux Returns

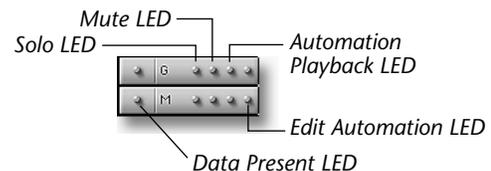
Each Track graphically represents the passage of time: as PARIS plays a Project, it starts playing Automation Tracks from their left edge, progressing rightward.

Every Track has its own control section located at its left edge. Each of these sections provides a label for the Automation Track, a set of dual-purpose buttons—these both activate features and light to show that the feature is activated—and a window providing information about the Track's automation data.

Standard Automation Track controls



Global Master and Left/Right Master controls



Data Present LED

An Automation Track's Data Present LED lights when there is automation data of any kind currently on the Track.

Solo Button (S)

When you click an Automation Track's Solo button, the corresponding Channel Fader, Left/Right Master Fader or Aux Return is heard while all other audio is silenced—the button's LED lights to show the Automation Track is soloed. Up to four Automation Tracks can be soloed at once; if more Tracks are soloed, the most recent will become un-soloed.

Note: There is no Solo button for the Global Master Fader or the Left/Right Master Fader Automation Tracks.

Mute Button (M)

Clicking an Automation Track's Mute button—so that its LED lights—silences the corresponding Global Master Fader, Channel Fader, Left/Right Master Fader or Aux Return.

Note: If you've muted an Automation Track's Global Master Fader, Channel Fader, Left/Right Master Fader or Aux Return, and a recorded mute-off automation event plays during playback, the Fader or Return will become un-muted.

Automation Playback LED (A)

The Automation Playback LED serves the same purpose as the Mixer Window's Automation Playback button (page 120), allowing you—by clicking on the LED—to enable or disable playback of the Automation Track's automation data. When automation data playback is active, the LED lights.

Edit Automation LED (E)

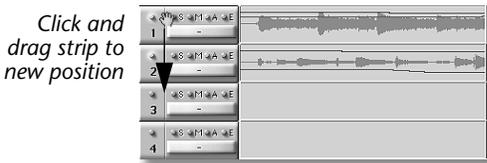
The Edit Automation LED serves the same purpose as the Master Mixer and Mixer windows' Edit Automation button (page 137), allowing you—by clicking on the LED—to enable or disable recording of automation data on the Automation Track. When automation recording is enabled, the LED lights.

Current Value Window

The current Value window displays information on the value of data points (see page 143) being drawn or moved:

- When the Data Point, Line or Freehand tools (page 147) are active, it shows the value of data point(s) being drawn.
- When you're moving a single data point with the Move tool (page 146), it shows the data point's current value.
- When you're moving a group of data points with the Move tool, it shows the amount of increase or decrease being applied to the points' original values.

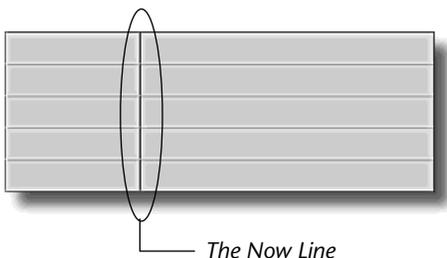
Reordering Automation Tracks



Automation tracks can be re-ordered by clicking in an unused area and dragging the track to the desired location. A small hand (shown in diagram at left) will appear when the cursor moves over an unused area of the Automation Track Controls.

The Eight Aux Strips, as well as the Master and Global tracks can be re-ordered in this same manner.

The Now Line



The Now Line is an always-active multi-purpose tool:

- The Now Line shows your current location in a Project. When a Project plays—during recording or playback—the Now Line moves left-to-right across the Playing Field. (Transport functions are described in Chapter 5.)
- When play is stopped, you can manually reposition the Now Line to set a point at which playback will resume when you hit Play in the Transport Window or on the C16 Pro.
- When play is stopped, the Now Line functions as an editing cursor that sets a destination for pasted automation data.

Now Line Scrolling

You can set the Automation Editor Window so that, as the Now Line passes out of your current view of the Playing Field, the display updates to follow the Now Line using the Auto-Scroll feature. You can enable or disable this feature by:

- checking or un-checking Auto Scroll to Now Position in the Settings menu.
- clicking the Auto-Scroll button in the Automation Editor Window's Show/Hide command bar. (To learn how to show or hide the Automation Editor Window's command bars, see page 137.)

The Auto-Scroll Button



The Now Position Display



In its lower left-hand corner, the Automation Editor Window provides a Now Position Display that shows numerically the current location of the Now Line. You can click anywhere in the Now Position Display to toggle among any of PARIS' units of time measurement—these are described on page 145.

Note: When you change the time unit shown in the Now Position Display, you also change the time unit shown in the Automation Editor Window's Information bar and its Zoom bars.

Note: The Now Position display also appears in the standard Editor, Mixer and Mini Mixer windows.

Moving the Now Line Manually

You can manually change the position of the Now Line using several methods:

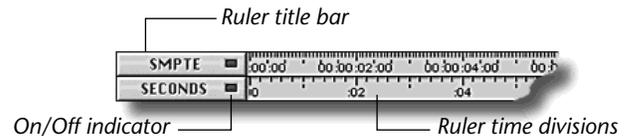
- You can drag in any of the currently displayed Rulers (see "What Are Rulers?," below).
- You can use keyboard shortcuts listed in Appendix 3.
- You can OPTION-click (Mac OS) or right-click (Windows) the Now Position Display to type in a new Now Line location. (Press RETURN after selecting a unit of measurement and typing the desired value.)
- You can turn the C16 Pro's jog/shuttle wheel to move the Now Line as described in Appendix 1.



Rulers

What Are Rulers?

Along the lower edge of its Playing Field, the Automation Editor Window provides Rulers that show the Project time location currently being viewed. These Rulers are the same as those viewed in the standard Editor Window, and offer the same selection of time measurements. See page 145 for a listing of the available Rulers.



Note: When turned on, Rulers add their units of time measurement to the Automation Editor's Grid. To turn a Ruler on, click the On/Off indicator in its title bar—when lit, the Ruler's on—or use its button on the Show/Hide bar (page 144).

Displaying Rulers

You can choose to display as many Rulers at a time as you wish. To make a Ruler visible:

- Select the Ruler in the View menu so that a check appears next to its name. To hide a Ruler, un-check its name.
- Click the Ruler's button on the Show/Hide command bar (described on page 144).

Rulers can be arranged in any order. To change a Ruler's location relative to the other displayed Rulers, drag its title bar to the desired position.

Moving the Now Line Using Rulers

You can click a time value on any open Ruler to move the Now Line to that location. Doing this when playback is stopped will cause playback to resume from the selected location when the Play button is pressed in the Transport Window or on the C16 Pro. If you click in a Ruler while a Project is playing, the Now Line will jump from its current position to the location where you clicked—this allows you to easily audition non-contiguous sections of a Project.

Note: The Now Position Display does not have to show the same time format as the Ruler being clicked upon.

Markers

What are Markers?

Markers are pointers that can be of great help when putting together and navigating a Project. The Markers shown in the Automation Editor window are the same Markers that appear in the Editor Window and in the Markers Window—they can also be set, moved and deleted in the Automation Editor Window using the same techniques employed for these purposes in the Editor Window—to learn more about Markers, see page 50. To learn about the Markers Window, see Chapter 9.

The Automation Editor Window Marker Bar

The Automation Editor Window's Marker bar provides four Marker control buttons, as well as a strip showing your Markers—this strip runs beneath the Rulers so that you can see the time location of each Marker in the Ruler above it.



The Marker bar control buttons perform various Marker-related functions:

- The Set New Marker button places a new Marker in the Marker strip at the Now Line's current location. The Marker will be assigned a number (Marker numbering in a Project runs upward from 1).
- The Marker Trash Can functions in the same manner as your desktop Trash Can/Recycling Bin: to remove a Marker from the Marker strip—and therefore the Project—drag it from the Marker strip onto the Marker Trash Can. When a Marker is deleted, its number will be re-used for the next placed Marker.
- The Previous and Next Marker buttons are used for navigating your Project. When you click the Previous Marker button, the Now Line jumps back to the most recently passed Marker; when you press the Next Marker button, the Now Line jumps forward to the next Marker in the marker strip.

The Previous/Next Marker display shows the number of the Marker that the Now Line has just passed, or the next one ahead of the Now Line, depending on the setting of the Show Last Marker Options Menu item in the Markers Window—when that menu item is checked, the display shows the last Marker; when it's un-checked, it shows the next. This is a read-only informational display; it cannot be edited.

Tip: The Set New, Previous and Next Marker buttons can also be found in the Editor, Transport and Locator windows, as well as on the C16 Pro. Any of these buttons can be used at any time.

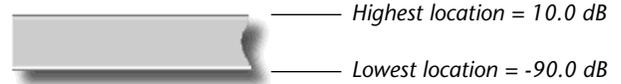
Tip: The Marker bar is hidden or displayed according to the settings in the View Menu (page 151). It can also be toggled into and out of view by typing COMMAND-8 (Mac OS) or ALT-8 (Windows).



Automation Data

Automation data is added to a Project by recording automation, or by manually entering automation data points in the Automation Editor Window. Data points are drawn low-to-high in an Automation Track along a vertical axis representing low-to-high values for the type of data being edited.

For volume data:



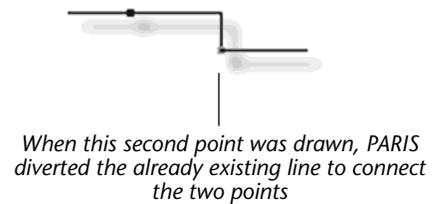
For pan data:



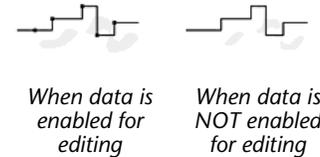
There are three types of automation data shown in Automation Tracks:

- Volume/level data is shown in brown.
- Pan data is shown in green.
- Intervals during which a Fader or Aux Return is muted are shown as a white box.

As soon as an Automation Track contains a single automation data point, PARIS draws a line from the start of the Project to that point, and a line from the point to the end of the Project. As new automation data points are added, the shape of the line changes to pass through each point, creating a graphic representation of your automated mix moves.



Automation data points for a particular type of automation data are only visible when that type of data is enabled for editing (see page 146). Otherwise, the data is displayed as a line without visible data points—muted areas are shown as white backgrounds when mute data is not enabled for editing.



Selecting Automation Data Points for Editing

Use the Selector tool (page 146) to select automation data points with which you'd like to work—when a data point is selected, it turns red, as do any lines connecting selected points and the line trailing the last selected point. Data points, when selected, can be moved, cut, copied and pasted using the tools and menu commands described later in this chapter.

Note: Immediately after a data point is drawn using the Data Point tool (page 147), it remains selected. When multiple points have been created using the Line or Freehand tool (see page 147), all of the drawn points remain selected.

Tip: To select all of an Automation Track's data points at once, click the Automation Track's number. To select the data points on additional Automation Tracks, SHIFT-click the number of each desired additional Automation Track.

Automation Editor Window Command Bars

The Automation Editor Window's features can be accessed by clicking and un-clicking buttons in its command bars. Each command bar provides the implements required for the performance of related operations.

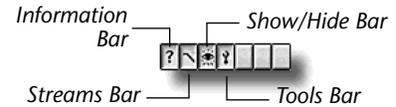


Each of the bars is described in detail later in this booklet. The bars appear above the Playing Field, as shown on page 139.

Tip: You can re-order the relative position of any command bar by dragging its title bar upward or downward.

Standard User Show/Hide Indicator (SUSHI) Bar

The upper left-hand corner of the Automation Editor Window provides a Standard User Show/Hide Indicator bar (a.k.a. SUSHI bar). Each of the SUSHI bar's buttons is associated with one of the window's command bars. When a SUSHI bar button is depressed, the command bar it controls is displayed. When a button is released, the associated command bar is hidden.



The Show/Hide Bar



Audio Button



When the Audio button is depressed, each Automation Track displays a Waveform Overview representing the audio in the corresponding Editor Window Constrained Track or Free Form Instrument, providing a visual aid in the precise placement of automation data points.



Note: In Free Form mode, each Automation Track's Waveform shows the corresponding Instrument's compiled audio.

Note: Object crossfades are represented in Waveform Overviews with a crossfade symbol.



Bipolar Button



When activated, the Bipolar button causes displayed Waveform Overviews to be drawn as a full-waveform display, showing audio above and below a central zero-crossing line.

L/R Master Button



The LR Master button, when depressed, enables the display of the Global Master Fader and the currently selected SubMix's Left/Right stereo Master Fader's Automation Track.

Trax Button



The Trax button, when depressed, enables the display of the SubMix's 16 Channel Fader Automation Tracks.

FX Button



When the FX button is depressed, the SubMix's eight Aux Return Automation Tracks are displayed.

Edit Value/Time Button



The Edit Value/Time button, when depressed, enables the display of text showing the value and time location of automation data being drawn in an Automation Track using the Data Point, Line or Freehand tools, described on page 147.

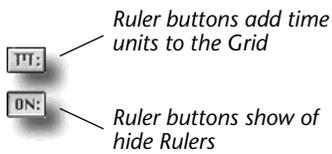


Auto-Scroll Button



When the Auto-Scroll button is depressed, the Playing Field is constantly redrawn to keep up with the moving Now Line as it moves through a Project (see page 140).

Ruler Mode Switch



The Ruler Mode switch sets the functionality of the buttons located to its right on the Show/Hide bar—each of these buttons being associated with a Ruler. When the Ruler Mode switch is in its out position, each of the Ruler buttons, when depressed, adds its timing units to the Automation Editor Window's Grid—see "The Grid Menu" on page 152—regardless of whether or not the Ruler is currently visible in the Automation Editor Window. When the Ruler Mode switch is depressed, each of the Ruler buttons enable or disable the display of the associated Ruler, regardless of whether the Ruler is currently contributing its time units to the Grid.

SMPTE Ruler On/Off



When the Ruler Mode switch is depressed (see above), press the SMPTE Ruler On/Off button to contribute SMPTE time units representing seconds to the Grid. The On/Off indicator in the Ruler's title bar will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the SMPTE Ruler On/Off button enables or disables display of the SMPTE Ruler.

Note: When the Use Minor Time Divisions menu item is selected, one-tenth-second time units are contributed to the Grid.

M:S:m Ruler On/Off



When the Ruler Mode switch is depressed (see above), press the M:S:m Ruler On/Off button to add minute, second and millisecond time units to the Grid. The On/Off indicator in the Ruler's title bar will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the M:S:m Ruler On/Off button enables or disables display of the M:S:m Ruler.

Note: When the Use Minor Time Divisions menu item is selected, one-tenth-second time units are contributed to the Grid.

Seconds Ruler On/Off



When the Ruler Mode switch is depressed (see above), press the Seconds Ruler On/Off button to add second-long time units to the Grid. The On/Off indicator in the Ruler's title bar will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is its out position, the Seconds Ruler On/Off button shows or hides the Seconds Ruler.

Note: When the Use Minor Time Divisions menu item is selected, one-tenth-second time units are contributed to the Grid.

Samples Ruler On/Off



When the Ruler Mode switch is depressed (see above), press the Samples Ruler On/Off button to add second-long time units shown in samples to the Grid—the sample measurements shown will depend on the Project's sample rate (page 23). The On/Off indicator in the Ruler's title bar will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the Samples Ruler On/Off button enables or disables display of the Samples Ruler.

Note: When the Use Minor Time Divisions menu item is selected, one-tenth-second time units are contributed to the Grid.

Bars-Beats Ruler On/Off



When the Ruler Mode switch is depressed (see page 145), press the Bars-Beats Ruler On/Off button to contribute time units representing every bar and every other beat to the Grid. The On/Off indicator in the Ruler's title bar will light to show the Ruler is participating in the Grid. When the Ruler Mode switch is in its out position, the Bars-Beats Ruler On/Off button enables or disables display of the Bars-Beats Ruler.

Note: The time signature and tempo for the Bars-Beats Ruler are controlled from the Project Window (page 23). When the Use Minor Time Divisions menu item is selected, all beats are contributed to the Grid.

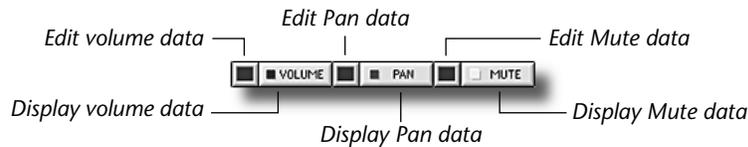
The Streams Bar

The Streams bar provides buttons that enable the display and/or editing of volume, pan and mute automation data. Data is edited one type at a time, though all three can be simultaneously displayed.



For each type of automation data, there is:

- an Edit Data button that enables the editing of the associated type of automation data, and activates its tools for use. When depressed, the button's blue LED lights.
- a Display Data button that, when depressed, enables the display of the associated type of data.



Note: When an Edit Data button is depressed, its corresponding Display button is automatically engaged.

The Tools Bar

The Tools bar provides buttons that activate the editing tools for the currently selected type of automation data.



A tool becomes active when its button is depressed. You can select each tool in turn by repeatedly tapping the TAB key.

To Edit Automation Data in the Automation Editor Window

All editing of automation data follows the same basic scheme:

1. Activate the desired type of automation data for editing by pressing the appropriate Edit Data button (see above).
2. To modify already recorded automation data, select the data you want to edit by dragging across it with the Selector tool, and use the Move tool or Automation Window menu commands to edit the selected data.
3. To add new data points, activate the appropriate pencil tool and draw the points you want to add.

The Data Point, Line and Freehand tools are described below; menu commands are described later in this document.

Selector Tool



Using the Selector tool, click on or drag across automation data points to select them for editing. Selected automation data points are shown in red, as described on page 143.

Note: The Selector tool will select only data of the type currently enabled for editing (see “The Streams Bar,” above).

Move Tool



Use the Move tool to drag selected data points up or down in an Automation Track, thereby increasing or decreasing their value. When moving one data point at a time, the value for the point is shown in the Current Value window to the left of the Automation Track as you drag your cursor—if a group of points is moved, the amount of increase or decrease to their original values will be shown.

Tip: To change the time location of selected data without affecting its value, hold down the SHIFT key and drag the data to the left or right.

Tip: To move data points in fine increments, hold down the CONTROL key while dragging.

Data Point Tool



When the Data Point tool is active, click at the desired location in an Automation Track to add a single data point. When creating a muted region, click and drag to define the boundaries of the area to be silenced.

Line Tool



When the Line tool is active, click at the desired line's starting location and drag to draw a line of data points.

Freehand Tool



When the Freehand tool is active, click at the desired starting location and drag your mouse to draw a series of data points in the shape you desire.

Eraser



To erase a data point, or group of data points, activate the Eraser tool and drag your mouse across the data you want to delete.

The Horizontal and Vertical Zoom Tools



Horizontal Zoom tool



Vertical Zoom tool

The Horizontal and Vertical Zoom tools allow you to zoom in or out on your automation data points by altering the horizontal or vertical scale of your view. To activate either tool, click its button on the Tools bar. Once engaged, you can click anywhere on the Playing Field to zoom in or out.

Clicking the Horizontal Zoom tool shows less or more time spread across the Playing Field, providing more or less space between data points. The Vertical Zoom tool spreads apparent the up/down distance between your data points.

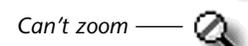
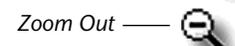
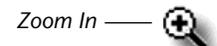
 To use either Zoom tool:

1. Activate the desired tool by clicking its button on the Tools bar.
2. Click anywhere on the Playing Field—with each click of the mouse the button, your view magnification will increase.
3. To zoom out, OPTION-click (Mac OS) or right-click (Windows) using the tool.

The Zoom tool's cursor changes to show whether you're zooming in or out, and to show when you've zoomed as far as possible in either direction.

Tip: To quickly jump to the maximum view magnification, SHIFT-click your mouse. To zoom all the way out, SHIFT-OPTION-click (Mac OS) or SHIFT-right-click (Windows).

Note: When you've altered your view using the Vertical Zoom tool, the current vertical magnification of your data is shown at the right-hand edge of each Automation Track.



Amplitude Zoom Buttons



You can click either of the two Amplitude Zoom buttons to decrease or increase the displayed height of the Playing Field's Waveform Overviews. With greater waveform heights, more detail is visible, and vice versa. Each tool will become unavailable (grayed-out) when its greatest value has been reached.

 To use the Amplitude Zoom buttons tool to change the height of displayed Waveform Overviews:

1. Click the right-hand Amplitude Zoom tool to increase the height of Waveform Overviews.
2. Click the left-hand Amplitude Zoom tool to decrease the Waveform Overview height

The Information Bar

The Information bar provides a set of handy read-only displays that display information on your mouse cursor's current position, and the edit value of data point over which it passes.



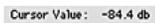
Cursor Position



A small rectangular field with a light gray background and a thin border. It contains the text "Cursor Position: 00:00:08.00".

The Cursor Position field displays the current location in time of your mouse cursor. This field can be useful for the precise placement of data points.

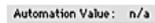
Cursor Value



A small rectangular field with a light gray background and a thin border. It contains the text "Cursor Value: -84.4 db".

The Cursor Value field displays your mouse cursor's current up/down position, expressed in a value appropriate to the type of automation data being edited. This can be useful when working with any of the pencil tools—the display shows the value that will be written if you click your mouse.

Automation Value



A small rectangular field with a light gray background and a thin border. It contains the text "Automation Value: n/a".

The Automation Value field shows the value of any data point over which your mouse cursor passes, expressed in a value appropriate to the type of automation data being edited.

Automation Editor Window Menus

The Automation Editor window menus provide access to various processes in which automation-data can be manipulated; they also provide menu switches for certain functions that are also accessible using command-bar buttons.

The Edit Menu

Edit	
Undo	⌘Z
Redo	⇧⌘Z
Clear	⌘B
Cut	⌘X
Copy	⌘C
Paste	⌘V
Paste At...	⇧⌘V
Select All	⌘A
Select None	⌘D
Data Density...	⇧⌘D

The Edit Menu accesses the basic commands and functions that can be performed upon Objects.

Undo

COMMAND-Z (Mac OS); CONTROL-Z (Windows)

As long as the Automation Editor Window is the front-most window, when you select the Undo command, PARIS restores the automation data points on the Playing Field to the state they were in prior to your last edit. You can undo a maximum of 99 edits. Use this command in combination with the Redo command to move forward and backward through your edits. The Undo command can be also be invoked from your keyboard or the C16 Pro.

Redo

SHIFT-COMMAND-Z (Mac OS); SHIFT-CONTROL-Z (Windows)

Redo undoes Undo. When you've undone an edit, you can select the Redo command to restore it. You can Redo up to 99 undone edits. Using Redo and the Undo together, you can move forward and backward through your edits. The Redo command can be also be invoked from your keyboard or the C16 Pro.

Clear

COMMAND-B (Mac OS); ALT-B (Windows); DELETE (both platforms)

Clear removes a selected data point or group of points from the Playing Field without sending it to the Clipboard.

Cut

COMMAND-X (Mac OS); CONTROL-X (Windows)

The Cut command removes the currently selected data point, or group of data points, and places it in the Clipboard. Use the Paste command to move the data to a new location. Objects in the Clipboard remain there until replaced by another Cut or Copy command.

Copy

COMMAND-C (Mac OS); CONTROL-C (Windows)

Copy places a duplicate of the selected data point or groups of points into the Clipboard. The copy can then be pasted elsewhere using the Paste command—it will remain in the Clipboard until another Cut or Copy command replaces it.

Paste

COMMAND-V (Mac OS); CONTROL-V (Windows)

Paste copies the contents of the Clipboard to a selected location on the Playing Field. Before selecting the Paste menu item, select a time and Automation Track destination location for the command:

1. Click in any open Ruler to position the Now Line at the desired time location.
2. Click anywhere in the intended destination Automation Track—the Now Line will turn yellow as it crosses the Track to show that it's selected as a Paste-command target.



Tip: You can also use your keyboard's up and down arrows—or hold down one C16 Pro arrow button while tapping the other (see Appendix 1)—to select a destination Automation Track.

Tip: When the Clipboard contains data points from separate Automation Tracks, click in the top-most desired destination Track. When pasted, the group of points will retain their original Track spacing.

Paste At...

SHIFT-COMMAND-V (Mac OS); SHIFT-CONTROL-V (Windows)

The Paste At... command allows you to set a time location as a paste destination for the contents of the clipboard by typing the time into the Paste At window. The data will be pasted into the currently selected track at the desired time (to learn how to select the Automation Track into which data will be pasted, see "Paste" above).

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use the Select All command to simultaneously select every data point for the currently enabled data type in the Project.

Select None

COMMAND-D (Mac OS); CONTROL-D (Windows)

Select None de-selects all selected data points in the Project, allowing you to ensure none are unintentionally selected.

Data Density...

SHIFT-COMMAND-D (Mac OS); SHIFT-ALT-D (Windows)

When the Data Density... menu item is selected, a pop-up window appears in which you can set how many data points will be drawn for each second of Project playing time when using the Line and Freehand tools (page 147).

The Functions Menu

Functions	
Reset to Default Value	⌘R
Change Value...	⌘E
Interpolate...	⌘I
Simplify...	⌘Y
Normalize Volume...	⌘N

The Functions menu provides access to commands that alter the value of selected data points, and can alter the number of points per second.

Reset to Default Value

COMMAND-R; (Mac OS); ALT-R (Windows)

Select Reset to Default Value to reset all currently selected data points to their default values: volume data points will be set to 0.0 dB, while pan data points will be reset to Center.

Change Value...

COMMAND-E; (Mac OS); ALT-E (Windows)

This menu item allows you to add to or subtract from the value of currently selected volume or pan data points. When the Change Value... menu item is selected, a window appears in which you can type the value you want to add to the selected data's current value; if you want to lower the value, type a minus sign followed by the desired amount.

Interpolate...

COMMAND-I; (Mac OS); ALT-I (Windows)

The Interpolate menu item allows you to smooth out a jagged automation move by increasing the number of data points used during the move. When the data points which comprise the move are selected and this menu item is chosen, a window appears in which you can type the number of data points per second to be used. Try slight increases in the points-per-second value until the move has smoothed out to your satisfaction. You can set a maximum of 172 points per second.

Simplify...

COMMAND-Y; (Mac OS); ALT-Y (Windows)

The Simplify menu item allows you to reduce the number of points-per-second in the currently selected group of data points. Fewer data points means less work for your computer during playback, so you can optimize your system's performance by removing unwanted data points. When you select Simplify... a window appears in which you can select the desired number of points per second—if you select more points per second than you already have, the command will have no effect. The window also contains a Remove Redundant Data checkbox—check this box to have the command delete the second of two adjacent, identical-value data points.

Normalize Volume...

COMMAND-N; (Mac OS); ALT-N (Windows)

The Normalize Volume... menu item allows you to simultaneously shift the values of all selected volume data points so that the point with the highest value is set to a particular level. When this menu item is selected, a window appears in which you can enter the volume value to which you'd like the group's highest volume data point to be set.

The Settings Menu



Show Waveform

COMMAND-F (Mac OS); ALT-F (Windows)

When Show Waveform is checked, each Automation Track shows a Waveform Overview for the audio in the corresponding Editor Window Track or Free Form Instrument. This duplicates the function of the Show/Hide bar's Audio button (page 144).

Bipolar Waveform

When checked, the Bipolar Waveform menu item causes displayed Waveform Overviews to be drawn above and below a central zero-crossing line. This menu item duplicates the function of the Bipolar button (see page 144) on the Show/Hide bar.

Rough Waveform Display (faster)

When this menu item is checked, Waveform Overviews are more coarsely drawn, speeding up the display of the Automation Editor Window as you edit and play a Project.

Show Edit Text

COMMAND-T (Mac OS); ALT-T (Windows)

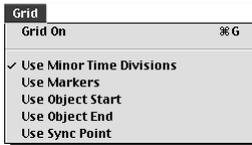
When Show Edit Text is selected—so that a checkmark appears next to it—PARIS will display the current value and time location when your mouse is clicked while using the Data Point, Line or Freehand tools. This menu item duplicates the function of the Edit Value/Time button (see page 144) on the Show/Hide bar.

Auto scroll to Now Position

SHIFT-COMMAND-T (Mac OS); SHIFT-ALT-T (Windows)

When the Auto scroll to Now Position menu item is checked, the Playing Field will automatically scroll to keep pace with the Now Line. When this option is off, playback will continue normally, but the window will not scroll to keep up with the Now Line. This menu item duplicates the function of the Auto-Scroll button (see page 144) on the Tools bar.

The Grid Menu



The Grid Menu allows you to activate the Automation Editor Window's Grid, and to determine what elements will comprise the Grid.

Grid On

COMMAND-G (Mac OS); ALT-G (Windows)

The Grid On menu item, when checked, activates the displaying of a set of time locations in a Project, each of which is represented by a white vertical line drawn on the Playing Field. These lines can be used as visual cues in the placement of automation data points.

You can designate locations to be included in the Grid in either of two ways:

- You can turn on any Ruler (see page 141) so that it contributes the intervals by which it measures time to the Grid—use the Grid Menu's Use Minor Time Divisions menu item to set whether the Ruler contributes large or small units of measurement to the Grid.
- You can select the desired items from the Grid Menu, as described below. When activated, a checkmark appears next to the menu item's name.

To:	Select this item from the Grid Menu:
use a Ruler's smaller units of measurement	Use Minor Time Divisions
add any Project Markers to the Grid	Use Markers
show in the Grid the times at which Editor Window Objects begin	Use Object Start
show in the Grid the times at which Editor Window Objects end	Use Object End
add Editor Window sync points to the Grid	Use Sync Point

Note: To learn about placing Markers, see page 142. To learn about sync points, see page 81.

Tip: The Grid is used extensively in the Editor Window—see page 70.

The Go To Menu

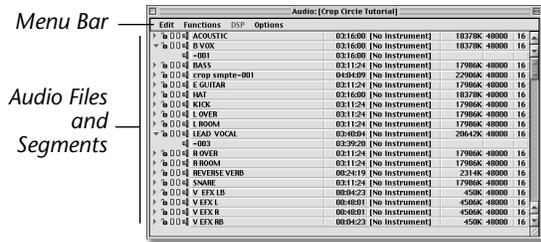


The Go To menu items, when selected, change the location in the Project to be shown on the Playing Field, and/or move the Now Line to the selected location.

To do this:	select this Go To menu item:	or type this keyboard shortcut:
View of the beginning of the Project	Start Time	Both platforms: HOME
View the end of the Project	End Time	Both platforms: END
View the Now Line's current location	Now Line	Both platforms: CONTROL-HOME
Send the Now Line and view to the start of currently selected automation data.	Selection Start	Mac OS: COMMAND-[Windows: ALT-[
Send the Now Line and view to the end of currently selected automation data.	Selection End	Mac OS: COMMAND-] Windows: ALT-]
When playback is not occurring, view the Marker most recently passed by the Now Line. During playback, view the most-recently passed Marker and move the Now Line to its location, from where playback will continue.	Previous Marker	Mac OS: COMMAND-"-" Windows: ALT-"-"
When playback is not occurring, view the Marker positioned most closely ahead of the Now Line. During playback, view the next Marker and move the Now Line to its location, from where playback will continue.	Next Marker	Mac OS: COMMAND-+ Windows: ALT-+

Chapter 15—The Audio Window

The Audio Window



The Audio Window provides a central location in which you can view, manage and process all of the Audio Files and Segments in a Project. Using commands provided in the Audio Window, you can also import and export Audio Files and File and Segment Lists.

Note: All of the Project's Audio Files and Segments are shown in the Audio Window, including any that are not currently in use on in the Project. Objects do not appear in the Audio Window.

Tip: For definitions of Audio Files, Segments and Objects, see page 45.

Tip: The Editor Window's Audio Bin (page 46) is a scaled-down version of the Audio Window in which some of its features are also available, as noted throughout this chapter.

Auditioning Audio Files and Segments

Press the Audition button next to the Audio File or Segment. The button turns blue. Press the button again to stop playback.

How Audio Files and Segments are Organized

The Audio Window displays a Project's Audio Files and their Segments in a hierarchical list structure in which each Audio File's Segments are presented beneath the Audio File.

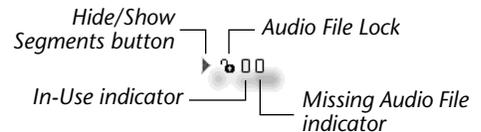


Tip: You can show or hide an Audio File's Segments by clicking the Hide/Show triangle to the left of its name.

Audio File Tools

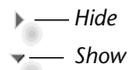
There are four tools located to the left of each Audio File in the Audio Window—these allow you to perform certain tasks upon, and provide information about, the associated Audio File.

Tip: The Audio File tools are also available in the Audio Bin.



The Hide/Show Segments Button

Click the Hide/Show Segments button to hide or reveal the Segments associated with the Audio File.



The Audio File Lock

— Unlocked You can click this button to lock or un-lock the associated Audio File. When an Audio File is locked, it cannot be cleared from the Project using the Audio Window's Clear command, or removed from your hard disk using the Delete command.

— Locked

Tip: It's a good idea to lock Audio Files that you want to protect from accidental deletion in PARIS.

The In-Use Indicator

The blue In-Use indicator, when lit, shows that there is at least one Object in the Project that's playing some or all of the Audio File.

The Missing Audio File Indicator

- The red Missing Audio File indicator lights if the associated Audio file could not be found when the Project was opened. This can occur if you've deleted an Audio File from your hard disk, or moved it to a new location.

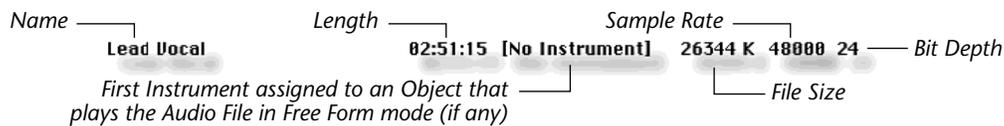
Tip: To locate missing Audio Files, you can use the Select Missing and Search for Files commands—see page 155.

The Audition Button

-  The loudspeaker button, to the left of the Audio File name, plays the Audio File or Segment from the beginning. Press the button again to stop playback.

Audio File Information

The Audio Window provides useful read-only information about each Audio File:



Note: SubMix Audio Files created using the Master Mixer Window's updating process (page 171) are shown in gray.

Renaming Audio Files and Segments

To rename an Audio File or Segment, OPTION-click (Mac OS) or right-mouse-click (Windows) its name, type the desired name and hit RETURN/ENTER on your keyboard.

Note: Re-naming an Audio File changes its name on your hard disk. As a result, any other Project that uses the Audio File will not be able to it. If this occurs, use the Reset File Path... command (page 157) to point the Project to the missing file.

Selecting an Audio File or Segment

Before you can perform any of the Audio Window's menu commands upon an Audio File or Segment, you must first select the Audio File or Segment. To do this, click on its name. To select more than a single Audio File or Segment, SHIFT-click each additional item. To de-select all Audio Files and Segments, click in an unused area of the window. To de-select a single selected Audio File or Segment from a group, SHIFT-click the desired Audio File or Segment again.

The Audio Window Menus

The Edit Menu



The Edit Menu provides commands for managing a Project's Audio Files and Segments.

Clear Items

COMMAND-B (Mac OS); CONTROL-B (Windows)

Use the Clear Items command to remove any selected Audio File and/or Segment from the Project.

- When an Audio File is selected, using the Clear command will remove the Audio File and any of its Segments from the Project—when the Audio File has been removed, no Objects in the Project that use the Audio File will play.

Note: Clearing an Audio File from a Project does not remove it from your hard drive.

- When a Segment is selected, the Segment will be removed from the Project. The Audio File will remain; therefore, any Objects that use the Audio File will continue to play normally.

Delete Files

SHIFT-COMMAND-B (Mac OS); CONTROL-SHIFT-B (Windows)

Use this command to remove any selected Audio File from the Project and to erase it from your hard drive.

Warning: This command should be used only when you are certain that you no longer need the selected Audio File for this or any other Project or purpose.

Duplicate Items

COMMAND-D (Mac OS); CONTROL-D (Windows)

The Duplicate Items command makes a copy of any selected Object and/or segment.

- When an Audio File is selected, this command makes a copy of the Audio File on your hard drive in the same folder/directory as the selected Audio File, and adds the copy to the Project.
- When a Segment is selected, this command makes a copy of the Segment and adds it to the Project.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use this menu item to select every Audio File and Segment in the Audio Window.

Select Unused

COMMAND-U (Mac OS); CONTROL-U (Windows)

Use this command to select all Audio Files that are not being used by any Object in any of the Project's SubMixes.

Select Locked

COMMAND-K (Mac OS); CONTROL-K (Windows)

Use this command to select any locked (page 153) Audio Files in the Project.

Select Missing

COMMAND-M (Mac OS); CONTROL-M (Windows)

Use this menu item to select all of the Audio Files that a Project was unable to locate when it was opened, as shown by their Missing Audio File indicators (page 154). Use this as a first step when you've moved a Project's Audio Files to a new folder/directory, and want to direct PARIS to their new location using the Search for Files command (see below).

The Functions Menu

Functions	
Add Audio File...	⇧⌘A
Save Audio Files As...	⌘F
Export Audio Objects...	⌘E
Export Stereo File...	⇧⌘E
Reset File Path...	⌘R
Search for Files...	⌘H
<hr/>	
Lock Files	⌘L
Unlock Files	⇧⌘L
<hr/>	
Compact Files	⌘T
<hr/>	
Import File & Segment List...	⌘I
Export File & Segment List...	⌘X

The Functions Menu provides a set of utilities for importing, exporting and managing Audio Files and Segments, both within and between Projects and on your hard drive.

Note: When performing the Save Audio Files As..., Export Audio Objects..., Reset File Path... and Compact Files operations upon multiple selected Audio Files and/or Segments, you will be presented a dialog for each Audio File and Segment allowing you to select a name and destination for the resulting disk file.

Add Audio File... *SHIFT-COMMAND-A (Mac OS); CONTROL-SHIFT-A (Windows)*

Use this command to add any 16 bit .paf-, .sd2- or .wav- format sound file (page 21), or any 24 bit .paf file to a Project. This command is also available in the Editor Window.

Mac OS Tip: You can add a sound file to PARIS by dropping it on the PARIS desktop icon or alias.

Note: In order for PARIS to recognize a sound file on your hard disk, the file must have the appropriate file extension affixed to the end of its name—“.sd2” for a Sound Designer II file, “.wav” for a WAV file or “.paf” for a PARIS Audio File.

Note: To ensure that imported sound files play as expected, make sure that the Project Sample Rate (page 23) matches the sound file's sample rate, or that you use the DSP Menu's Sample Rate Convert command (page 159) to match the sound file's sample rate to the Project's.

Tip: PARIS can play 16 -bit and 24-bit Audio Files in the same Project.

Save Audio Files As...

CONTROL-F (Mac OS); CONTROL-F (Windows)

Use this command to copy the selected Audio File to your hard drive as a new .paf, .sd2 or .wav sound file. This can be useful when converting a Project's .sd2 or .wav Audio Files to PARIS' .paf format for optimum performance, or when making .sd2 or .wav copies of native PARIS Audio Files for use in other programs.

Importing and Exporting Sound Designer II and WAV Files

The importing of files occurs through the selection of the **Add Audio File...** menu item in the Audio Window's Functions Menu, as well as in the Editor Window's Audio Menu. PARIS allows you to export any pair of Audio Files or Segments using the new Export Stereo File menu item in the Audio Window's Functions menu.

About Stereo Interleaved Sound Files

PARIS can import and export stereo interleaved Sound Designer II and WAV sound files. While a mono sound file contains a single channel of audio, an interleaved stereo sound file contains two channels—left and right—woven together into a single disk file. Such sound files are required when creating audio CDs. In addition, many computer sound editing programs generate interleaved stereo sound files.

When PARIS imports an interleaved stereo sound file, it converts the left and right sides of the file into two separate mono .paf Audio Files on your hard disk—for this reason, you must set a Record Path (see Page 16 of the PARIS Reference) before importing an interleaved stereo file so that PARIS knows the location on your hard drive to which you want the newly created files saved. (If you've already set a record path for the Project, PARIS will place the new Audio Files in that location.) When PARIS imports an interleaved stereo sound file, the file's original sample rate and bit depth are retained.

Note: Since PARIS always creates .paf files when importing interleaved stereo files, the file type setting in the Set Record Path... dialog is ignored.

Importing Sound Designer and WAV Files

To import a mono or stereo interleaved from your hard disk into a Project, select Add Audio File menu item from the Audio Window's Functions Menu or the Editor Window's Audio Menu—the keyboard shortcut for this is SHIFT-COMMAND-A (Mac OS) or CONTROL-SHIFT-A (Windows) in either window. PARIS will present you with a dialog box in which you can navigate to and select the desired .sd2 or .wav sound file on your hard drive. Once you've selected the desired file, click Open to add the file to the current Project.

When PARIS imports an interleaved stereo file, it creates two mono .paf Audio Files: one for the left side of the original stereo file, and one for the right. The new files are placed in the directory specified by the Record Path... setting, and are available for use in the current Project, or any other PARIS Project.

Note: Your Project must have an established record path in order to import an interleaved stereo file.

Windows Users: After clicking Open to import an .sd2 file, PARIS will present you with a dialog box in which you must:

- type the file's current sample rate
- select the file's current bit depth
- check the Stereo checkbox if the file is an interleaved stereo sound file.

After making the appropriate settings, click the OK button to finish importing the file.

Mac OS Users: A Sound Designer II sound file must have ".sd2" affixed to the end of its name—and WAV files ".wav"—in order for PARIS to properly recognize them.

Export Audio Objects...

CONTROL-E (Mac OS); CONTROL-E (Windows)

Use this command to copy a selected Audio File or Segment to your drive as a .paf-, sd2.- or .wav-format sound file.

- When an Audio File is selected, this command functions in the same manner as Save Audio Files As... above.
- When a Segment is selected, only audio data played by the Segment is exported to disk, creating a new sound file that does not contain any other data from the Audio File upon which the Segment is based.

Export Stereo File...

SHIFT-COMMAND-E (Mac OS); CONTROL-SHIFT-E (Windows)

PARIS can export any pair of Audio Files or Segments from its Audio Window as a single interleaved stereo .sd2 or .wav sound file.

 *To do this:*

1. Select the two Audio Files or two Segments you wish to export. The selection positioned highest in the Audio Window will become the left side of the interleaved stereo file, and the lower selection the right side.

Tip: Since the Audio Window displays its contents in alphabetical order, you can rename the desired Audio Files or Segments so that they're displayed in the proper order for export. To do this, OPTION-Click (Mac OS) or right-click (Windows) the selection, re-type its name and hit RETURN or ENTER.

Note: If Audio Files or Segments of unequal length are selected, the resulting interleaved stereo file will derive its length from the shorter of the two selections.

2. Select Export Stereo File... from the Functions Menu. PARIS will present you a standard saving dialog.
3. Type a name, select a file type—.sd2 or .wav—and choose a location on your drive for the new stereo sound file.
4. Click the Save button to finish exporting the file.

Reset File Path...

COMMAND-R (Mac OS); CONTROL-R (Windows)

Reset File Path can be used for either of two purposes:

- When a Project can't find an individual Audio File, select the missing Audio File and use this command to direct PARIS to its location.
- You can use this command to swap the Audio File played by Objects in a Project when you've performed a DSP function upon an Audio File and want to use the new, improved version without losing your edits. It can also be used when you have similar takes of a performance and want to swap takes while retaining your edits. To swap Audio Files, select the old version of the Audio File and use this command to direct PARIS to the Audio File you want to use.

Note: To make the Audio File swap permanent, save the Project.

Search for Files...

COMMAND-H (Mac OS); CONTROL-H (Windows)

When a Project can't find more than a single Audio File when it's opened use this command to direct PARIS to the folders/directories in which the missing Audio Files reside. Use the Select Missing command to select all of the missing Audio Files, and then use the Search for Files... command to:

1. Locate a folder/directory containing one of the missing Audio Files.
2. Select any missing Audio File in the folder/directory and click Open—the Project will automatically find any other missing Audio Files it sees in the folder/directory.

If the Project is still missing any Audio Files, the Search for Files... dialog will be presented again.

3. Repeat Steps 1 and 2 until the Search for File's dialog is no longer presented, signifying that the Project has found all of its missing Audio Files.

Note: You must save the Project after performing this operation so that the Project remembers the location of the Audio Files when it's re-opened.

Lock Files

COMMAND-L (Mac OS); CONTROL-L (Windows)

Use this command to lock any selected Audio File. When an Audio File is locked, it can't be removed from a Project or deleted from your hard drive from within PARIS. This produces the same effect as clicking an unlocked Audio File Lock button (page 153).

Unlock Files

SHIFT-COMMAND-L (Mac OS); CONTROL-SHIFT-L (Windows)

Use this command to unlock any selected locked Audio File, so that it can be removed from a Project or deleted from your hard drive from within PARIS. This produces the same effect as clicking a locked Audio File Lock button (page 153).

Compact Files

COMMAND-T (Mac OS); CONTROL-T (Windows)

In order to preserve hard disk space, you can discard unused portions of an Audio File by performing the Compact Files command upon the Audio File. When the Compact Files command runs, it notes the portions of the Audio File being used by any Segments, and searches the Project's Playing Fields and Jails for Objects that play any of the select Audio File's data. Data in the Audio File that's not being used by any Segment or Object on the Playing Field or in a Jail cell is then deleted from your hard drive, reducing the size of Audio File. To compact an Audio File:

1. In the Audio Window, clear any of the Audio File's Segments you don't want to preserve. Remember that when you record in PARIS, a Segment encompassing the entire resulting Audio File is automatically created—make sure to clear this Segment; otherwise, the Audio File's size will not be reduced during compacting.
2. In the Editor windows of your Project's SubMixes, clear any Jail cells containing unwanted Objects that play any part of the Audio File—you can do this by dragging a cell's contents to the Playing Field and clearing them.
3. In the Project's Editor windows, clear all unwanted Objects on the Playing Field that play any part of the Audio File.
4. In the Audio Window, select the Audio File you want to compact.
5. Select the Compact Files command and click OK if you're ready to proceed.

Warning: The Compact Files command will permanently remove data from your hard drive—use it with caution.

Warning: If you compact Audio Files that were imported into PARIS and positioned anywhere other than the start of the Project, you'll may lose the ability to use the Editor Window's Time Locked Selector tool (page 48) for the returning of the Audio File's Segments and Objects to their original locations on a Playing Field. This is due to the fact that the Time Locked Selector tool measures the distance of Segments and Objects from the beginning of the Audio File upon which they're based, and it considers an imported Audio File's starting point to be the beginning of the Project. When Audio File data occurring earlier in the Project than its Segments or Objects has been discarded during the compacting process, the Time Locked Selector tool offsets the placement of each Segment or Object by the distance between the placement of the original Audio File and the start of the Project.

Note: SubMix Audio Files cannot be compacted.

Import File & Segment List...

COMMAND-I (Mac OS); CONTROL-I (Windows)

The Import File & Segment List... command—together with the Export File & Segment List... command described below—allows you to transport Audio Files and Segments from one Project to another. To use the Import File & Segment List... command, select it from the Functions Menu—a dialog will appear in which you can navigate to and select the Audio File and Segment list that you'd like to import into the current Project. When you click Open to import the list, the list's Audio Files and Segments will be added to Project, appearing with the Project's other Audio Files and Segments in the Audio Window.

Tip: To return imported Segments to their original time locations, drag them from an Editor Window's Audio Bin to the desired Track/FlexTrack using the Time Locked Selector tool.

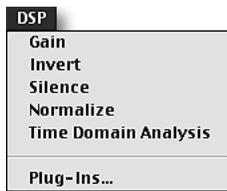
Export File & Segment List...

COMMAND-X (Mac OS); CONTROL-X (Windows)

Select Export File & Segment List... to export a list of all currently selected Audio Files that can be imported into another Project using the Import Files & Segments List... command (see above). An Audio File and Segment list is actually a small text file containing pointers to the selected Audio Files and information from which PARIS can reconstruct their Segments. To use this command, select it from the Functions Menu—PARIS will present a dialog in which you can name the list and select a location to which it will be saved on your hard drive. When you click Save, PARIS will create the list file, automatically affixing an ".fxp" file extension to the end of the list's name.

Tip: To include an Object on the Playing Field in an exportable Audio File and Segment list, drag it to the Audio Bin, creating a Segment from the Object. When the Audio File upon which the Object is based is selected in the Audio Window, the Segment will be exported in the Audio File and Segment List.

The DSP Menu



The DSP Menu provides a collection of digital signal processing (“dsp”) operations with which you can manipulate a Project’s Audio Files.

Note: DSP operations cannot be performed on SubMix Audio Files.

Note: PARIS applies each DSP operation to a copy of the currently selected Audio File, leaving the original intact. As you begin each DSP procedure, you’re presented with a dialog in which you can name and choose a hard disk location for the new Audio File.

Tip: Once you’ve processed an Audio File, you can swap the old version with the new one using the Reset File Path... command (page 157).

Gain Change

Select this menu item to raise or lower the volume of a selected Audio File. Gain Change presents you a dialog in which you can type desired amount of volume increase or decrease, in dB—place a minus sign before the desired amount to lower the Audio File’s volume.

Polarity Invert

Use this command to change the phase of the selected Audio File. All samples that were positive value are made negative; samples with negative values are made positive. This can be useful when Audio Files being used together in a stereo image “swirl” undesirably or go down in volume as you raise the level of one of the Audio Files— inverting the polarity of one of the Audio Files will often solve the problem. This condition can occur as the result of improper microphone placement when recording or faulty audio-cable wiring.

Super Normalize

Digital audio sounds best when it’s recorded at the loudest possible volume without distorting, or “clipping.” This allows the recording to take advantage of all the bits at its disposal. Often, it’s not possible to achieve this goal during a session—as a result, PARIS provides a set of tools for boosting an already recorded Audio File to its highest usable level through a process called “normalization.” PARIS offers two kinds of normalization:

- Standard normalization searches the Audio File for its loudest single sample, and then raises the volume of the entire Audio File so that loudest sample is at the highest allowable volume. While this often produces acceptable results, it can also prevent the overall Audio File from reaching its optimal setting due to one untypical, stray peak.
- PARIS’ unique Super Normalizing feature also searches for the loudest sample, but can be set to allow a few extremely brief peaks to exceed the maximum level—such peaks can occur too quickly to be heard—thus allowing the entire Audio File to be set at a higher volume.

When you select the Super Normalize menu item, its dialog box also allows you to select:

- the maximum volume that any part of the Audio File will attain. The maximum value for the Normalize to box is “0.0,” the level at which audio will begin to clip.
- the type of normalization to be performed. You can select Normalize (traditional) for standard normalization, or Super Normalize.
- the type of Super Normalization to be used when Super Normalize is selected. For most situations, the Average setting will work well, giving you more overall gain than the standard normalization method. Strict and Most Strict let fewer brief peaks through, resulting in less risk of distortion but less overall gain for the Audio File. Relaxed and Most Relaxed allow more quick peaks to pass—the result is higher overall gain for the Audio File, but a greater chance of distortion. The best approach is to experiment to find the optimal setting for the Audio File being processed.

When you’ve selected the desired values, click OK.

Sample Rate Convert

All of a Project’s Audio Files must be of the same sample rate as the Project (see page 23) in order to play at their original pitch. The Sample Rate Convert command allows you to convert any Audio File to the desired sample rate. When you select this menu item, a dialog appears in which the original Audio File’s sample rate is shown in the Original Sample Rate box. Set the sample rate to which you want to convert the Audio File by typing the desired

rate in the Final Sample Rate box, or by typing a ratio by which the Audio File's sample rate will be converted. Choose a Quality setting for the operation—in most cases, you'll want to select Highest, though other settings take less time to perform the conversion (you may also want to choose a lower Quality setting in cases where the best sound quality is not desired). Click OK when you're ready to convert the Audio File's sample rate.

Tip: Unless you're synchronizing PARIS to an unusual, externally generated sample rate (see page 23), you'll typically want to type either "44100" or "48000"—for 44.1 k and 48 k Projects—in the Final Sample Rate box.

Time Compression-Expansion

The Time Compression-Expansion menu item allows you to change the duration of an Audio File without affecting its pitch—this can be especially handy when working with loops. PARIS accomplishes this task using an extremely precise phase vocoding algorithm. When you select Time Compression-Expansion, a dialog box appears in which the original duration of the Audio File is shown in the Original Length box. dialog box. You can select the unit of measurement in which the Audio File's length will be displayed by clicking the button next to the desired form of measurement. Type the desired duration for the Audio File in the Final Length Box, or type a ratio by which the Audio File's duration will be altered. Click OK when you're ready to perform the operation.

Note: If the amount of time-expansion or -compression you've set up is not possible, an error message will be displayed.

Tip: To lengthen an Audio File using the Ratio box, type a value higher than 1.000; to shorten it, type a value below 1.000.

Note: Audio Files smaller than 4096 samples cannot be time-compressed or -expanded.

Pitch Shift

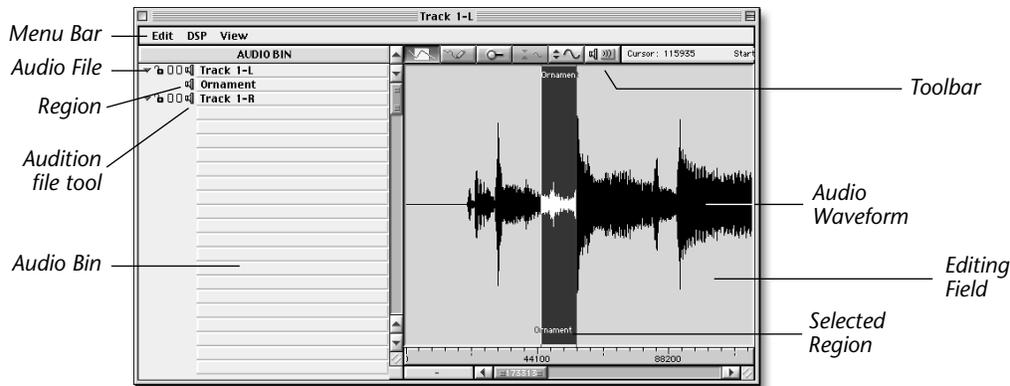
Select the Pitch Shift command to digitally raise or lower the pitch of any selected Audio File without altering its duration. When you select Pitch Shift, a dialog is presented in which you can select whether the Audio File's pitch will be shifted upward or downward. You can alter an audio File's pitch in semitone steps by entering the desired value in the Half Steps box, and/or by 1/100ths of a semitone by typing a value in the Cents box. Choose a Quality setting for the operation—in most cases, you'll want to select Highest, though this setting performs the pitch-shifting operation most slowly of all the possible values; the other settings are quicker, but do not necessarily produce the highest-quality results.

Chapter 16—The Wave Editor Window

The Wave Editor Window

The Wave Editor window allows you to make changes to the actual audio data. PARIS' built in editing tools as well as third party (DirectX or VST) plug-ins can be used.

Caution: The Wave Editor contains destructive editing tools which permanently alter the audio files on disk. Always make a duplicate audio file before making permanent changes. See Duplicate Items on page 155.



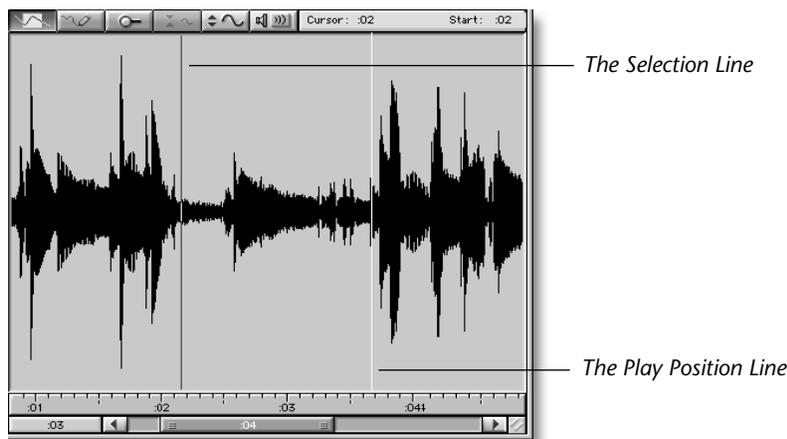
 To access the Wave Editor Window:

- Double click on an object from the Editor Window. The Wave Editor window appears.

Selecting files from the Audio Bin

- Drag a file from the Audio Bin into the editing field to select it for editing.
- Drag a Region from the Audio Bin into the editing field to select it.
- Drag the left and right parts of a stereo file from the Audio Bin to the editing field to select it for editing.

The Selection Line & Play Position Line



The **Selection Line** is black and is positioned by clicking your mouse button on a section of the waveform. By clicking and dragging over an area of the waveform, you can select a region to be processed, cut or copied.

Chapter 16 - The Wave Editor Window

The Selection Line & Play Position Line

The **Play Position Line** is yellow and indicates the current location in a waveform. When playing a waveform, the Play Position Line moves left-to-right.

- When play is stopped, you can manually reposition the Selection Line to set a point at which playback will resume when you press the spacebar on your computer.
- When play is stopped, the Selection Line functions as an editing cursor that shows where pasted data will be placed.

The Play Position Display

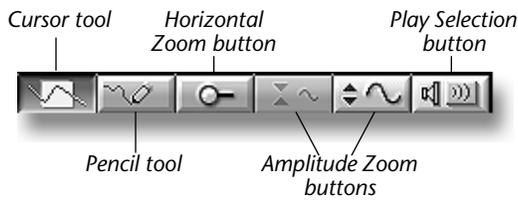
00:01:08:00

In its lower left-hand corner, the Wave Editor Window provides a Play Position Display that shows numerically the current location of the Play Position Line. You can click anywhere in the Play Position Display to toggle among any of PARIS' units of time measurement—these are described on page 71.

Tip: When you change the time unit shown in the Now Position Display, you also change the time unit shown in the Wave Editor Window's Information bar and its Zoom bars.

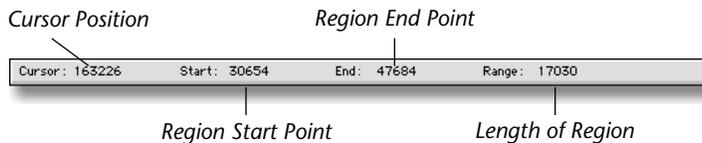
The Wave Editor Tool Bar

The Wave Editor Tool Bar provides various tools for selecting, viewing, listening to, and modifying the audio waveform. This bar's buttons enable the tools you'll need to zoom in and select the region of the waveform you want to edit.



The Position Display Bar

The right side of the Wave Editor Tool Bar is dedicated to providing measurement data about the currently selected Region. When you change the time unit shown in the Play Position Display, you also change the time unit shown in the Wave Editor Window's Information bar and its Zoom bar.



Cursor Tool



The cursor tool is used for positioning the Selection Line and for selection of Regions to be processed or marked. When the Cursor tool is selected and the mouse is positioned over the waveform area, the waveform cursor appears. <> Click once over the waveform to set the position of the Selection Line. Click and drag to select an area of the waveform to be processed or marked.

Pencil Tool



The Pencil tool lets you perform minor repairs to the audio waveform by redrawing. While redrawing larger sections of a wave will cause audible corruption, but the Pencil tool is perfect for removing a narrow glitch or tick, which will appear as a thin spike in the waveform.

When the Pencil tool is selected and the mouse is positioned over the waveform area at a high horizontal magnification, the Pencil tool appears. Position the tip of the Pencil over the part of the waveform you want to redraw, then click and drag to redraw. The redrawn section is shown in red until you release the mouse button.

Horizontal Zoom Tool

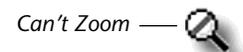
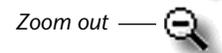
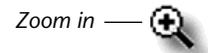


The Horizontal Zoom tool allows you to click anywhere in the waveform area to show more or less horizontal (time) detail.

 To use the Horizontal Zoom tool:

1. Activate the Horizontal Zoom tool by clicking its button on the tool bar.
2. Click anywhere on the wave editing field—with each click of the mouse, your horizontal magnification will increase.
3. To zoom out, OPTION-click (Mac OS) or right-click (Windows) using the tool.

The Zoom tool's cursor changes to show whether you're zooming in or out, and to show when you've zoomed as far as possible in either direction.



Tip: This tool can be used in conjunction with the Amplitude Zoom buttons. While the Zoom tool changes the amount of time shown on the Playing Field, the Amplitude Zoom buttons change waveform height, emphasizing or de-emphasizing volume changes in the waveforms.

Amplitude Zoom Buttons



You can click either of the two Amplitude Zoom buttons to decrease or increase the displayed height of the Waveform display. With greater waveform heights, more detail is visible, and vice versa. Each tool will become unavailable (grayed-out) when its greatest value has been reached.

Tip: Since the Amplitude Zoom buttons operate strictly upon waveform height—making volume differences in the waveforms more or less visible—they can be used in conjunction with the Zoom tool, which stretches or shrinks the amount of time showed on the Playing Field's time.

Tip: To reset amplitude zooming to its default value, OPTION-click (Mac OS) or right-click (Windows) either button.

Play Selection Button



Click the Play Selection button to play the waveform from the Play Selection Line or to play a selected region. The button stays on until you press it again or until the entire Waveform or Region has been played.

- Pressing the SPACE bar on your computer keyboard will also play the waveform from the Play Selection Line or will play a selected Region. Press the SPACE bar again to stop playing.



Note: Clicking on the Loudspeaker button in the Audio Bin (either in the main Audio Bin or the Wave Editor Audio Bin) will play the selected File or Segment if the transport is not engaged. Click on the speaker again to stop playback.

Waveform Regions

A Region is simply a selected area of the waveform. If you want to process a part of an audio file you first need to select it.

Selecting a Region

You can select a region of the waveform by:

- You can click and drag over the desired region.
- You can click to select either side of the desired region, then SHIFT-click when the cursor is positioned at the other side of the region you want.

Note: You can Zoom to the selected Region by pressing: COMMAND-E (Mas OS) or CONTROL ALT-E (Windows).

The Wave Editor Window Menus

The Edit Menu



The Edit Menu provides commands for editing a Project's Audio Files.

Undo and Redo

When the Wave Editor Window is the front-most window, PARIS allows you to undo up to 99 edits you've made. By invoking the Wave Editor Window's Undo feature, you can travel back through your edits, undoing edits and DSP functions Undo works in concert with Redo—using the two features together, you can move back and forth through your previous actions.

To undo Wave Editor Window edits:

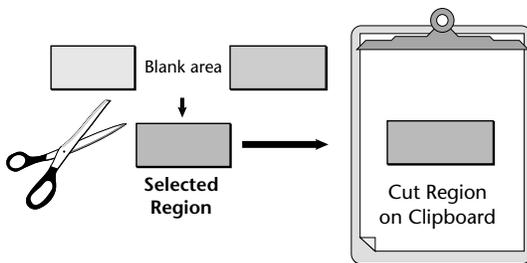
- select the Undo item from the Wave Editor Edit menu.
- type COMMAND-Z (Mac OS) or CONTROL-Z (Windows).
- click the C16 Pro's Undo button.

To redo Wave Editor Window edits:

- select the Redo item from the Wave Editor menu.
- type SHIFT-COMMAND-Z (Mac OS) or SHIFT-ALT-Z (Windows).
- click the C16 Pro's Redo button.

Cut

COMMAND-X (Mac OS); CONTROL-X (Windows)

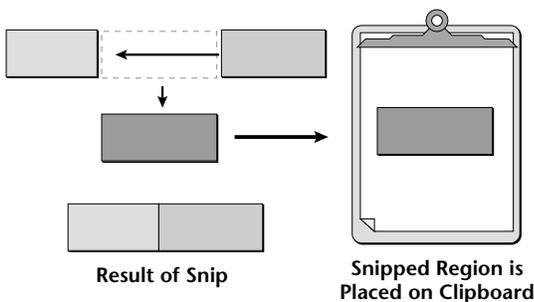


The Cut command removes the currently selected Audio Region and places it in the Clipboard. This leaves a blank section in the waveform that was cut.

Use the Paste command to move the data to a new location, or drag the contents of cell to the desired location. Audio data remains in the Clipboard until replaced by a new Cut or Copy command.

Snip

SHIFT-COMMAND-X (Mac OS); SHIFT-CONTROL-X (Windows)

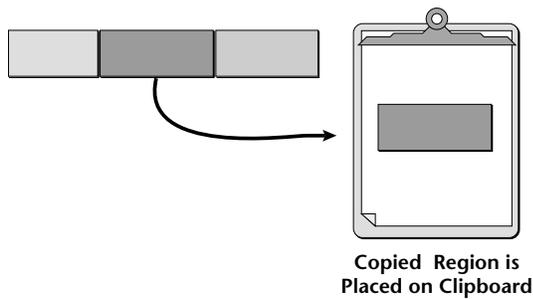


The Snip command removes the currently selected Audio Region and places it in the Clipboard. The audio following the snipped section is moved forward in time to fill the space formerly occupied by the snipped out section.

Use the Paste command to move the data to a new location, or drag the contents of cell to the desired location. Audio data remains in the Clipboard until replaced by a new Cut, Copy or Snip command.

Copy

COMMAND-C (Mac OS); CONTROL-C (Windows)

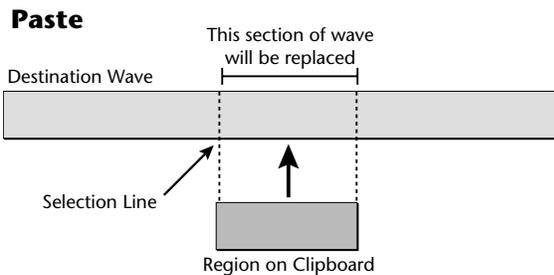


Copy places a duplicate of the selected Audio Region into the Clipboard. The waveform remains unchanged.

This copy can then be pasted elsewhere using the Paste command. The copy remains on the Clipboard until another Cut or Copy command replaces it.

Paste

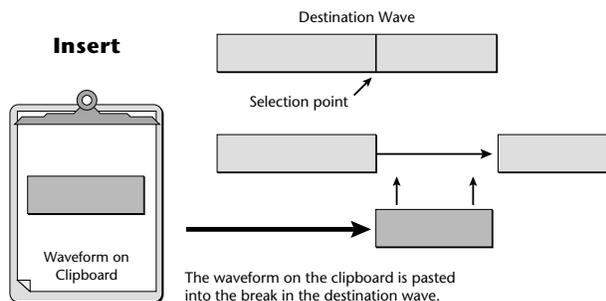
COMMAND-V (Mac OS); CONTROL-V (Windows)



Paste copies the contents of the Clipboard to a selected location in the waveform. A length of the destination waveform equal to the length of the clipboard contents will be REPLACED beginning at the Selection Line.

Before selecting Paste from the menu, position the Selection Line to choose the location for the Paste.

Insert



Insert copies the contents of the Clipboard to a selected location in the waveform, opening a space in the destination wave and inserting the Clipboard into this space.

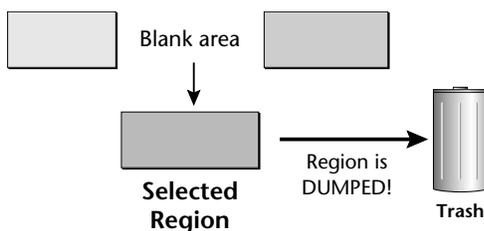
Before selecting Insert from the menu, position the Selection Line to choose the location for the Insert.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

This command selects the entire waveform file.

Delete



This command removes the selected Region, throwing it away and leaving a blank space in the waveform.

Silence

COMMAND-D (Mac OS); CONTROL-D (Windows)

Silence replaces the selected region with silence. This command is useful to clean up noisy sections of the waveform where no audio is being played.

Chapter 16 - The Wave Editor Window

The Wave Editor Window Menus

Insert Silence

COMMAND-D (Mac OS); CONTROL-D (Windows)

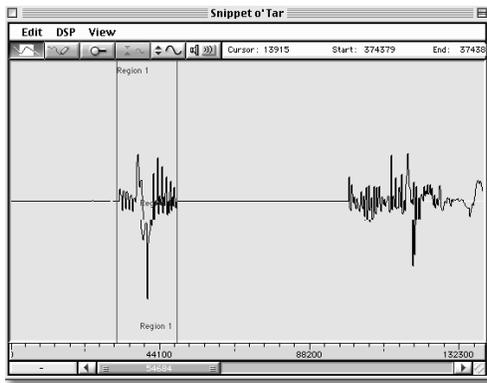
This command inserts silence of a specific length beginning at the Selection Line. Insert Silence opens a space in the wave and pushes the audio after the silence ahead. A pop-up dialog box appears allowing you to select the length of silence to be inserted in: Samples, Seconds, H:m:S, Bars/Beats or SMPTE time.

Reverse

This command flips the selected Region around so that it plays backwards. This feature is great for inserting hidden Satanic messages into your song. *Seriously though folks...it's the ever popular backwards audio effect.*

Mark Region

COMMAND-M (Mac OS); CONTROL-M (Windows)



You can mark off selected regions of the waveform by “marking” them. It’s useful to mark particular regions if you want to process them at a later time. Marked regions can be selected in the Wave Editor window by simply double-clicking within the region. Marked regions appear as “Segments” and are listed below the waveform in the Audio Bin. Segments are initially labelled with their beginning and end points, but they can be re-named to anything you want.

- Marked regions can be selected by double clicking between the Region Markers.

To mark a Region:

1. Select the desired area of the waveform using the cursor.
2. Select mark region from the Wave Editor edit window. The region will be marked and labelled with the beginning and end points (using increments as selected in the View menu). This new segment appears below the wave file in the Audio Bin.

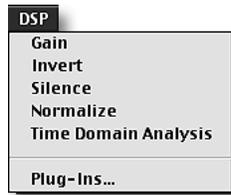
To rename a Region:

1. Select the desired Segment in the Audio Bin.
2. To Rename:
 - **Windows:** Right click the mouse button while the cursor is over the label area, then type the name.
 - **Mac OS:** Press the Option key while clicking with the mouse on the label area, then type the name.
3. The region label in the waveform display now shows the new name.

To clear a Region:

1. Select the desired Segment(s) in the Audio Bin.
2. Choose Clear Items from the Edit menu of the Audio Bin.

The DSP Menu



The DSP Menu provides a collection of digital signal processing (“dsp”) operations with which you can manipulate a Project’s Audio Files.

Note: DSP operations cannot be performed on SubMix Audio Files.

Note: PARIS applies each DSP operation to a copy of the currently selected Audio File, leaving the original intact. As you begin each DSP procedure, you’re presented with a dialog in which you can name and choose a hard disk location for the new Audio File.

Tip: Once you’ve processed an Audio File, you can swap the old version with the new one using the Reset File Path... command (page 157).

Gain Change

Select this menu item to raise or lower the volume of a selected Audio File. Gain Change presents you a dialog in which you can type desired amount of volume increase or decrease, in dB—place a minus sign before the desired amount to lower the Audio File’s volume.

Polarity Invert

Use this command to change the phase of the selected Audio File. All samples that were positive value are made negative; samples with negative values are made positive. This can be useful when Audio Files being used together in a stereo image “swirl” undesirably or go down in volume as you raise the level of one of the Audio Files— inverting the polarity of one of the Audio Files will often solve the problem. This condition can occur as the result of improper microphone placement when recording or faulty audio-cable wiring.

Silence

Use this command to insert silence at any point in the Audio File. All samples in the selected region will be set to zero. This feature can be useful to insert silence at the beginning and end of a song or anywhere else you want absolute silence.

Normalize/Super Normalize

Digital audio sounds best when it’s recorded at the loudest possible volume without distorting, or “clipping.” This allows the recording to take advantage of all the bits at its disposal. Often, it’s not possible to achieve this goal during a session—as a result, PARIS provides a set of tools for boosting an already recorded Audio File to its highest usable level through a process called “normalization.” PARIS offers two kinds of normalization:

- Standard normalization searches the Audio File for its loudest single sample, and then raises the volume of the entire Audio File so that loudest sample is at the highest allowable volume. While this often produces acceptable results, it can also prevent the overall Audio File from reaching its optimal setting due to one untypical, stray peak.
- PARIS’ unique Super Normalizing feature also searches for the loudest sample, but can be set to allow a few extremely brief peaks to exceed the maximum level—such peaks can occur too quickly to be heard—thus allowing the entire Audio File to be set at a higher volume.

When you select the Super Normalize menu item, its dialog box also allows you to select:

- the maximum volume that any part of the Audio File will attain. The maximum value for the Normalize to box is “0.0,” the level at which audio will begin to clip.
- the type of normalization to be performed. You can select Normalize (traditional) for standard normalization, or Super Normalize.
- the type of Super Normalization to be used when Super Normalize is selected. For most situations, the Average setting will work well, giving you more overall gain than the standard normalization method. Strict and Most Strict let fewer brief peaks through, resulting in less risk of distortion but less overall gain for the Audio File. Relaxed and Most Relaxed allow more quick peaks to pass—the result is higher overall gain for the Audio File, but a greater chance of distortion. The best approach is to experiment to find the optimal setting for the Audio File being processed.

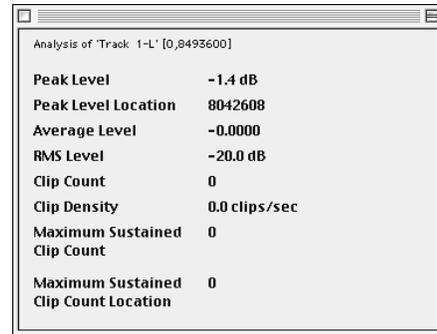
When you’ve selected the desired values, click OK.

Time Domain Analysis

This diagnostic tool provides information about the selected region or the entire audio file. Time domain Analysis can reveal audio problems such as clipping, DC offset and low volume which can be improved using the DSP tools.

Time Domain Analysis displays the following measurements for the selected region:

- **Peak Level** - The maximum signal level attained.
- **Peak Level Location** - The location of the peak level in samples.
- **Average Level** - The average signal level of the region. (Reveals DC offset in the audio file.)
- **RMS Level** - The average true power level of the audio file. (Many commercial CDs are mastered with an RMS signal level of between -15 dB to -20 dB.)
- **Clip Count** - The number of times the signal exceeded the maximum signal level or 0dB.
- **Clip Density** - The number of times the signal clipped per second.
- **Max. Sustained Clip Count** - The maximum number of simultaneously clipped samples.
- **Max. Sustained Clip Count Location** - The location of the Max. Sustained Clip Count in samples.



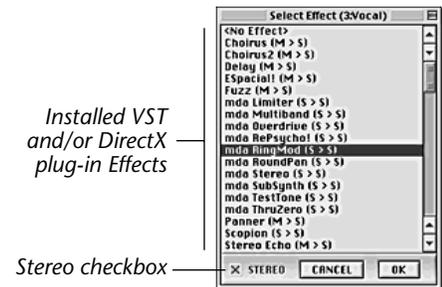
Analysis of 'Track 1-L' [0,8493600]	
Peak Level	-1.4 dB
Peak Level Location	8042608
Average Level	-0.0000
RMS Level	-20.0 dB
Clip Count	0
Clip Density	0.0 clips/sec
Maximum Sustained Clip Count	0
Maximum Sustained Clip Count Location	0

Plug-ins

You can use third-party, VST or DirectX Effect Plug-ins to process and modify audio in the Wave Editor. The selected plug-in will be applied to the currently selected Region of these audio file. If no region is selected, the effect will be applied to the entire waveform.

When you click an Insert Effect Selector LED in a Native Insert module, the Native Effect window opens in which you can select the desired Plug-In and set whether you'd like to use it in mono or stereo:

- To select a Plug-In, click it, type its first letter (if no other Plug-In begins with the same letter or use your keyboard's UP and DOWN arrow keys. When selected, its background will highlight.
- The Stereo checkbox sets whether the Plug-In will be used on the selected Channel only, or on the Channel and its next-higher neighbor. When the checkbox has an "X" in it, the selected Channel and its neighbor will use the selected Native Effect.



The View Menu



The View Menu items control the display of various Wave Editor Window elements.

Ruler Menu Items

Selecting any of the View Menu Ruler items—so that a checkmark appears next to its name—will cause the corresponding Ruler to be displayed. (Rulers are described on page 49). The menu items show or hide the following Rulers (see page 83 for descriptions):

View Menu item:	Ruler shows time in:	Keyboard shortcut:
SMPTE Ruler	hours, minutes, seconds and frames	Mac OS: SHIFT-CONTROL-1 Windows: SHIFT-ALT-1
M:S:M Ruler	minutes, seconds and milliseconds	Mac OS: SHIFT-CONTROL-2 Windows: SHIFT-ALT-2
Seconds Ruler	seconds	Mac OS: SHIFT-CONTROL-3 Windows: SHIFT-ALT-3
Samples Ruler	44,100 or 48,000 samples per second, according to Project's Sample Rate setting (see Chapter 2)	Mac OS: SHIFT-CONTROL-4 Windows: SHIFT-ALT-4
Bars & Beats Ruler	bars (measures) and beats, according to Project's Tempo and Time Signature settings (see Chapter 2)	Mac OS: SHIFT-CONTROL-5 Windows: SHIFT-ALT-5

Show Audio Bin

When Show Audio Bin is checked, the Wave Editor Window displays the Audio Bin to the left of the waveform display window. This makes it easy to drag audio files from the Audio Bin into the Wave Editor.

Note: Double-clicking on an audio file will play the audio file or segment if the transport is not engaged. Double-click on the file again to stop playback.

Show Regions

When Show regions is checked, the marker lines and labels of any previously marked regions in the wave Editor will be displayed. When Show regions is not checked, the marker lines and labels of previously marked regions will be hidden from view.

Zoom to Selection

COMMAND-E (Mac OS); CONTROL-E (Windows)

This command expands the currently selected region to fill the entire waveform display screen.

Chapter 17—The Master Mixer Window

Hardware, CPU and Virtual Tracks

PARIS Pro is a dual mode system that allows you to simultaneously use both hardware-based and host CPU-based tracks. This design gives you the best of both worlds by insuring that PARIS Pro's hardware core is always available. If you need more than 16 tracks, you can setup another submix using "Native Tracks" which use your computer's CPU to perform playback, mixing, EQ and effects. The number of available native tracks is based on the CPU processing speed of your computer. To add even more tracks, you can use PARIS Pro's Intelligent Submixing system, which uses "Virtual Submixes" to give you up to 128 tracks of audio playback.

You can also add EDS-1000 hardware cards to increase the number of playback tracks. Each EDS-1000 card adds 16 real tracks of playback with hardware EQ, mixing and effects.

Warning: EACH EDS-1000 CARD MUST BE ASSIGNED TO ONE SUBMIX (that is not virtual). Before you switch any Submix to Native, you must add another Submixer and assign it to the card you are about to switch out.

Intelligent SubMixing Overview

PARIS' Intelligent SubMixing system organizes a Project's Tracks or Instruments into as many as 16 stereo SubMixes, each of which has its own Editor Window, Mixer Window, Automation Editor Window and Mini Mixer Window. A SubMix can contain as many Tracks or Instruments as its Mixer Window's 16 Channel strips can handle, or it can be a group of fewer than 16 Tracks or Instruments that you feel belong together logically. The Master Mixer Window allows you control the overall volume and panning of each stereo SubMix, and to adjust the Project's final volume.

Note: You can perform SubMix-related functions from any connected C16 Pro, as described beginning on page 212. To learn how to assign use of the C16 Pro to any SubMix, see page 209.



Tip: The contents of a Project's Audio Window are available to all of its SubMixes. Therefore, Audio Files or Segments in one SubMix's Editor Window Audio Bin (page 46) will also appear in the Audio Bins of the Project's other SubMixes. You can drag—or copy and paste—Objects from one SubMix's Editor Window Playing Field to another's.

How Intelligent SubMixing Works

PARIS can play up to 128 Constrained Tracks or Free Form Instruments through the simultaneous playback of at least one "live" SubMix—called a "Card SubMix"—and up to 15 already-written-to-disk stereo Virtual SubMixes. A Card SubMix contains 16 Channels and utilizes the Effect-processing power provided by an EDS-1000 card's DSP chips—each installed EDS-1000 can support one Card SubMix. The Project's remaining Tracks/Instruments are contained in the Virtual SubMixes, which are written to disk using a process called "updating," described on page 174. Intelligent SubMixing allows you to move back and forth between SubMixes, re-working and re-updating each SubMix as you refine your Project. When you're done, you can adjust the volume and panning of each SubMix and control the Project's overall level in the Master Mixer Window. Master the Project using PARIS' analog or S/PDIF outputs, or use its Bounce-to-Disk-feature in the Global Master Fader (page 176).

Note: Since each Virtual SubMix plays Audio Files created when the SubMix is updated, a Virtual SubMix must be updated at least once to be heard during playback.

Tip: You can also use PARIS' Audio Window to perform all standard procedures and operations upon SubMix Audio Files.

Mac OS Note: When working with more than three SubMixes, you'll need to increase the amount of memory allocated to PARIS. To do this, quit PARIS and select its icon in the PARIS folder. Type COMMAND-I to open the Get Info window, and add 256k per additional SubMix to PARIS' Preferred Size. Close the Get Info window before re-launching PARIS.

Chapter 17 - The Master Mixer Window

The Master Mixer Window

The Default SubMix

One SubMix in each Project is designated as the default SubMix. The default SubMix's windows can be opened or brought forward using the following keyboard and numeric keypad shortcuts:

To open or bring forward the:	Type:	Enter on the keypad of the Locator Window, your keyboard or C16 Pro:
Editor Window	E	2.
Mixer Window	M	3.
Automation Editor	SHIFT-E	10.
Mini Mixer Window	SHIFT-M	9.

Note: PARIS must be in View mode to select windows using a keypad; see page 27.

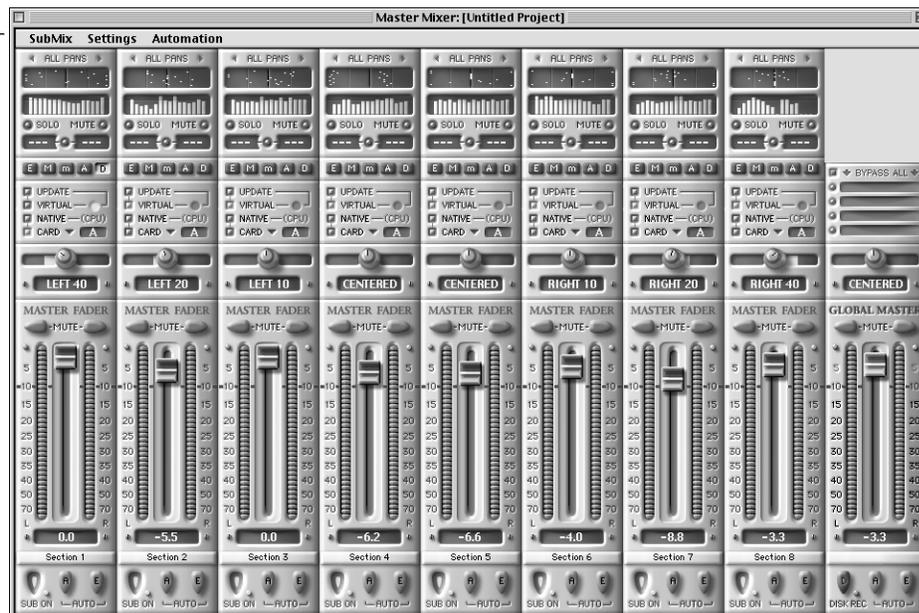
You can designate a SubMix as the default in any of three ways:

- You can designate a SubMix as the default by selecting it from the Project Window's Default To Menu (page 23).
- You can designate a SubMix as the default by clicking the desired SubMix's Default SubMix button labeled "D" (page 175).
- You can tap the C16 Pro's Submix button—with each tap, the next-highest SubMix in your Project is selected as the default, cycling after the highest-numbered SubMix back to the lowest.



The Master Mixer Window

Submix Menu



Up to 8 Submix strips

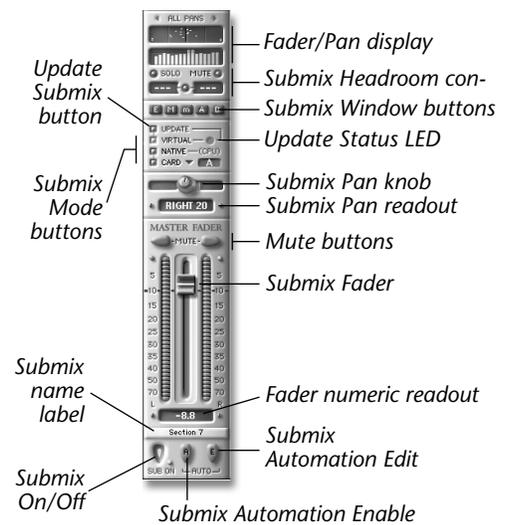
Global Master Fader

PARIS' Master Mixer Window provides a console on which you can adjust the overall volumes and stereo panning of the SubMixes, and perform other SubMix management tasks. To open the window—or bring it to the front if it's already open—type "G" on your keyboard, or "12." on the numeric keypad of your keyboard or C16 Pro in View mode.

The Eight SubMix Strips

Each of the eight SubMix strips in the Master Mixer Window controls one of the eight possible SubMixes. Each strip acts upon the SubMix as a single stereo entity, and contains:

- A Balance control that allow you to alter the relative volumes of the two sides of the stereo SubMix. See page 173.
- A Fader volume control (and numeric readout) that allows you to adjust the overall volume of the SubMix. See page 173.
- A pair of Mute buttons for silencing the SubMix. See page 173.
- An Update Status LED that shows you when a SubMix needs to be updated. See page 174.
- An Update button that, when clicked, initiates the updating process. See page 174.
- SubMix Mode buttons that allow you to designate the SubMix as Card, Native or Virtual (see below).
- A pop-up menu from which you can assign the SubMix to any EDS-1000 card in a multi-card PARIS system.
- A set of SubMix window buttons that allow you to open or bring forward the SubMix's Editor, Mixer, Automation Editor and/or Mini Mixer windows. See page 174.
- A Default SubMix button with which you can designate a SubMix as the default SubMix. See page 172.



Note: To alter a SubMix's contents, use its SubMix's Editor, Mixer, Automation Editor or Mini Mixer windows.

SubMix Strip Components

SubMix Balance Knob and Readout



The SubMix Balance knob adjusts the relative volumes of the left and right sides of the SubMix. To use the knob, click and drag it to the right or left to raise or lower the relative volume of the corresponding side of the SubMix. The SubMix Pan readout shows the current left/right balance, from L100 to R100.

Tip: To reset the SubMix to its original stereo balance, OPTION-click (Mac OS) or right-mouse-click (Windows) the SubMix Balance knob.

SubMix Fader and Readout

Click and drag the SubMix Fader downward to reduce the volume of the SubMix—the amount by which you decrease the SubMix's volume is shown in the SubMix Fader readout.

Tip: To reset the SubMix Fader to full-gain position, OPTION-click the Fader (Mac OS) or right-mouse-click the Fader (Windows).

Tip: To change the SubMix's volume by fine .1 dB increments, SHIFT-drag the Fader.



SubMix Mute Buttons



The pair of Mute buttons allows you to quickly silence the SubMix. To do so, click either Mute button.

Update Status LED

- The Update Status LED, when red, shows that changes have been made in the SubMix's windows since the SubMix was last updated. When the SubMix does not require updating, the indicator is blue.

Note: When a SubMix is designated as Virtual (see below), and its Update Status LED is red, what you hear when you play the Project does not reflect the current state of the SubMix—the changes made since the last update will not be heard. You must update the SubMix (see “Update SubMix Button” below) to hear these changes.

Update SubMix Button



If a SubMix is designated as Virtual (see below), and its Update Status LED is red, click the Update SubMix button to update the SubMix. When you update a SubMix:

- the DSP of the selected EDS-1000 card is assigned to the SubMix so that its EQ and Effects can be produced.
- the Project plays in its entirety, writing the SubMix to disk as a stereo pair of Audio Files. The files are named beginning with the first 10 characters of the Project's name. If the Project has not yet been saved, PARIS will prompt you to do so at this time. You can rename these files later in the Audio Window, if you wish.
- A progress window is displayed as PARIS writes the SubMix to disk.
- When PARIS completes the updating of a Virtual SubMix, it reassigns the EDS-100 to its designated Card SubMix.

Tip: To abort an update procedure, click your mouse anywhere in the Master Mixer Window.

SubMix Mode Buttons



The SubMix Mode buttons allow you to set the operating mode of each SubMix. To do this, click the desired button—its blue LED will light, and a “1” will appear in the button (when a button is not depressed, its LED is unlit, and a zero is shown in the button).

If a SubMix is set to:

It has the following characteristics:

Card	<ul style="list-style-type: none"> During Project playback, all recordings, edits and mix changes are heard “live.” You can record new Tracks or FlexTracks in the SubMix. Either EDS effects or Native Plug-ins (DirectX or VST) can be used for Inserts, but only EDS Effects can be used for Return Effects. Any of its windows can be viewed, and any of the commands and tools in those windows used to alter the SubMix—changes are audible immediately. The C16 Pro can be assigned to the SubMix and its EQ, Aux Send, Pan or Fader settings changed or automated—changes are audible immediately.
Native	<ul style="list-style-type: none"> During Project playback, all recordings, edits and mix changes are heard “live.” You can record new Tracks or FlexTracks in the SubMix up to the limit of your computer's CPU power. You can only use Native Plug-ins (DirectX or VST) for Inserts <i>and</i> Return Effects. EDS effects and hardware EQs are disabled. EQ settings are retained, but the EQs are now powered by your computer's CPU. Any of its windows can be viewed, and any of the commands and tools in those windows used to alter the SubMix—changes are audible immediately. The C16 Pro can be assigned to the SubMix and its EQ, Aux Send, Pan or Fader settings changed or automated—changes are audible immediately.
Virtual	<ul style="list-style-type: none"> During Project playback, PARIS plays the stereo pair of Audio Files that were written to disk when the SubMix was last updated. You cannot record new Tracks or FlexTracks. Any of its windows can be viewed, and any of the commands and tools in those windows used to alter the SubMix, though those changes will not be heard until the SubMix is updated. The C16 Pro can be assigned to the SubMix and its EQ, Aux Send, Pan or Fader settings changed or automated, though those changes will not be heard until the SubMix is updated.

Note: In a multi-card system, you can set as many SubMixes to “Card” as you have EDS-1000s. Prior to setting a SubMix to “Card,” select the EDS-1000 to which you’d like to assign the SubMix using the Select EDS-1000 pop-up (page 175).

Tip: If you need to use VST or DirectX Plug-ins as Return Effects, change the submix to “Native”.

Note: Solo channel is not currently active for Native Submixes in PARIS version 3.0.

Warning: You MUST have at least one Submix assigned to a Card in order to play back Audio.

Select EDS-1000 Card



This indicator shows which EDS-1000 card the SubMix is currently assigned to. To change the EDS-1000 card, click and drag to re-assign the SubMix to the card of your choice. Virtual SubMixes can be played by any card. When selecting an EDS-1000 to control a Card SubMix, you can only select an EDS-1000 not currently controlling another Card SubMix.

Warning: EACH EDS-1000 CARD MUST BE ASSIGNED TO ONE SUBMIX (that is not virtual). Before you switch any Submix to Native, you must add another Submixer and assign it to the card you are about to switch out.

SubMix Window Buttons



Click a SubMix Window button to open the associated window, or bring it to the front if it’s already open:

To open the SubMix’s:	Click:	To open the SubMix’s:	Click:
Editor Window	E	Mixer Window	M
Automation Editor Window	A	Mini Mixer Window	m

Each of these windows shows the name of the SubMix and EDS-1000 with which it's associated in its title bar (page 15).

Tip: The SubMix Window buttons are also available in the Project Window.

Tip: You can use keyboard and numeric keypad shortcuts to open the windows of the default SubMix; see page 172.

Default SubMix Button



Press the Default SubMix button (D) to designate the SubMix as the default SubMix (page 172).

SubMix Strip Name Label

You can name a SubMix strip by clicking the strip’s Name Label, typing in the desired name, and hitting RETURN/ENTER. The SubMix’s name will be shown in the title bar of its Editor, Mixer, Automation Editor and Mini Mixer windows.

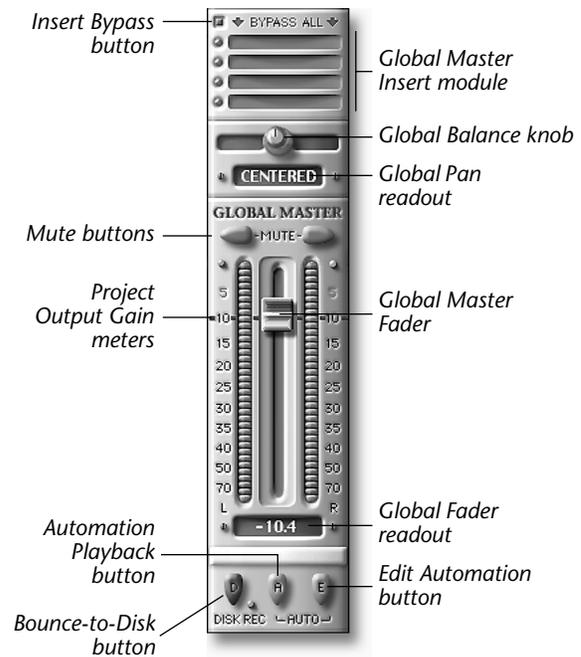
Tip: You can also name a SubMix using its Mixer Window’s SubMix Label (page 120).

The Global Master Strip

The Global Master strip controls the volume and panning of the mix created from the outputs of all of the Project's SubMixes, both Card and Virtual. The Global Master contains:

A Global Master Fader volume control (and numeric readout) that allows you to adjust the overall volume of the Project and create fade-ins and -outs. See below.

- Global Balance controls that allow you to change the relative volumes of the left and right side of the overall Project mix. See page 176.
- A pair of Mute buttons for silencing the Project. See page 177.
- Edit Automation and Automation Playback buttons that allow you to record your Global Master Fader and Pan moves. To learn about using automation, see Chapter 14.
- A Bounce-to-Disk button that enables the recording of the entire Project as a stereo pair of Audio Files. See page 177.
- An Insert Effect module that allows you to route the entire Project through a PARIS Insert Effect or external device (page 33). The module is described on page 177.



Global Master Strip Components

Global Master Fader and Readout

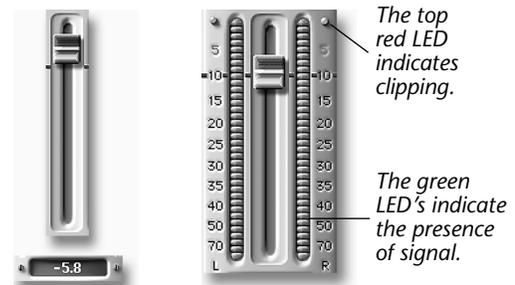
Use the Global Master Fader to control the overall volume of the Project's mix, and to create fades.

Project Output Gain Meters

The level of the Project's signal is shown in the Project Output Gain meters. The LED colors help you maintain a strong level without letting your signals get so loud that clipping—unwanted distortion—occurs.

The green LEDs in the Project Output Gain meters indicate that signal is present. As its volume increases, the green turns to yellow, and then amber to signify that the signal's volume is approaching the acceptable limit. The top LED turns red when the signal is too loud.

The numbers to the left and right of the Project Output Gain meters show in dB your distance from clipping. Clipping occurs at 0 dB.



Global Master Fader Output Gain Meters

Global Balance Knob and Readout



By adjusting the Global Balance knob, you can offset the stereo position of the Project's SubMixes. To use the knob, click and drag it to the right or left to move the Project mix in the corresponding direction. The Global Balance readout shows the amount by which the Project is being shifted, from L100 to R100.

Tip: To quickly reset the SubMix's balance to its original state, OPTION-click (Mac OS) or right-mouse-click (Windows) the Global Balance knob.

Global Mute Buttons



The Global Master Fader's Mute buttons allow you to quickly completely silence the Project. To use this feature click either Mute button; to un-mute the Project, click either button again.

Automation Playback Button



This button enables or disables playback of automation data for the Global Master Fader—see Chapter 14.

Edit Automation Button



This button enables or disables the recording of automation data for the Global Master Fader (Chapter 14).

Disk Record Button



The Disk Record button allows you to record the Project's current mix to disk as a pair of Audio Files.

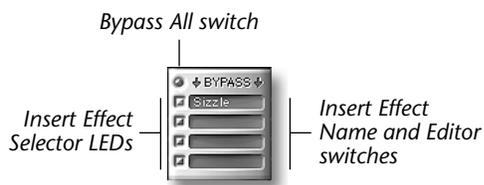
To bounce your current mix to disk from the SubMix Master Fader:

1. Set a record path in the Project Window, as described on page 21.
2. Click the SubMix Master Fader's Disk Record button so that it's depressed.
3. Initiate the bounce by clicking the Record button in the Transport Window or by holding down the C16 Pro's Record button and then hitting its Play button.



Tip: By using the bounce-to-disk feature in conjunction with PARIS' Live Mix mode (page 25), you can bounce live audio routed through Mixer Window Channels to disk along with recorded PARIS Tracks/Instruments or by itself.

Insert Module Components



The Global Master strip provides an Insert module that provides four insert points from which you can interrupt the flow of signal through the strip, divert it to a PARIS Effect, and then return—or “insert”—the signal back into the strip. When multiple insert points are used in an Insert module, the signal passes out of and back into each insert point one after another in a daisy-chain. When the signal exits the Insert module, it passes into the Global Master Fader.

Each of the four Insert Effect Selector LEDs allow you to activate an insert point and select it an Insert Effect. Click the LED to activate the insert point by selecting an Insert Effect—a pop-up menu will appear from which you can select the desired Effect. Each Effect’s mono/stereo structure is shown as an abbreviation to its right:

This abbreviation:	means:
M>M	The Effect has a mono input and a mono output.
M>S	The Effect has a mono input and a stereo output.
S>S	The Effect has stereo inputs and outputs.

To completely de-activate an insert point, select “No Effect”.

Tip: You can also select External to route the Global Master Fader’s audio to an external device (page 33).

Chapter 17 - The Master Mixer Window

The Master Mixer Window Menus

Bypass All Switch

The Insert module provides a Bypass All switch that allows you to instantly silence all of the Global Master Fader's Insert Effects without losing your settings. To bypass all of its Insert Effects, click the Bypass All switch (the words "BYPASS ALL") or click the button to its left—they will both highlight in yellow. To un-bypass the Insert Effects, click the switch or button again.

Tip: To bypass individual Insert Effects, OPTION-click (Mac OS) or right-mouse-click the Effect's Insert Effect Selector LED. To un-bypass, OPTION-click or right-mouse-click the LED again.

The Master Mixer Window Menus

The SubMix Menu



Create SubMix

Select Create SubMix to create a new SubMix—and SubMix strip—in the Master Mixer Window.

Delete SubMix

Select Delete SubMix to remove the highest-numbered SubMix from the Project.

Update All Changed

Select the Update All Changed command to update all Virtual SubMixes whose Update Status LEDs are red, showing that changes have been made since the SubMixes were last updated.

Note: PARIS will play the Project from beginning to end as many times as there are Virtual SubMixes, displaying a progress window as it works. To abort the updating procedure, click anywhere in the Master Mixer Window.

Force Update All

When what you hear is not what you expect after updating all of your Virtual SubMixes, check each SubMix to make sure your recordings, edits and mixes are as you intend—most often, this will reveal the problem. If you don't find any incorrect settings, you can select the Force Update All command to update all of the Project's Virtual SubMixes.

Note: PARIS will play the Project from beginning to end as many times as there are Virtual SubMixes, displaying a progress window as it works. To abort the updating procedure, click anywhere in the Master Mixer Window.

The Settings Menu



Show Inserts

Select the Show Inserts menu item to cause the Global Master Fader's Insert module to be displayed.

Chapter 18—The MIDI Editor

What is the MIDI Editor?

PARIS allows you to record and playback MIDI tracks as well as audio tracks. You can view and manipulate MIDI data objects using the same tools you use for manipulating audio tracks. Like audio tracks, MIDI tracks can be cut, snipped, copied and pasted however you like. This chapter explains the underlying concepts behind PARIS' MIDI recording and editing power, and introduces you to the MIDI Editor's major components.

Note: Before reading this chapter, make sure you understand the Editor Window concepts presented in chapter 6: The Editor Window.

MIDI: Events, Chunks, Objects, Tracks & Instruments

The MIDI editor introduces several new items which should be defined before we go any further.

- **Event** - is a single MIDI command such as: Note-on, Note-off, Program Change, etc.
- **Chunk** - is a collection of MIDI events which may include multiple tracks or an entire song.
- **MIDI Object** - is a MIDI Chunk which has been added to the playing field.
- **Track** - is a part of a MIDI Chunk associated with a particular MIDI Instrument (or sound).
- **Instrument** - defines which MIDI channels and MIDI ports will be used for a MIDI Track.

MIDI Events

A MIDI Event is a single MIDI message which tells the MIDI device to perform a particular function such as, “play note C3”, “turn note C3 off”, or “set the volume of MIDI channel 5 to 90”. A MIDI sequence is simply a list of MIDI Events linked with the *Time* that each Event was recorded.

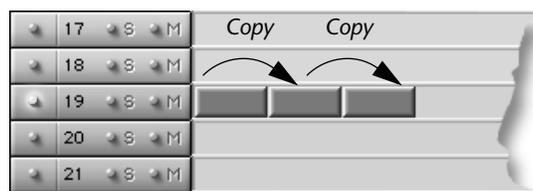
MIDI Chunks

A MIDI Chunk is a collection of MIDI events which may include multiple tracks or may be an entire song (as is the case when you import a Standard MIDI File into PARIS). A Project can contain as many MIDI Chunks as your computer's memory will allow. You can build a entire song using just one Chunk—recording multiple tracks within that Chunk, or you can record into multiple Chunks—moving and editing them using the same tools and methods used for audio tracks.

MIDI Objects

When a MIDI Chunk is dragged onto a MIDI Track from the MIDI Chunks Bin (see page 187), it appears on the playing field as a MIDI Object. A MIDI Object is a series of instructions that tell a MIDI sound generator which notes to play, how hard to play them and various other kinds of control data. A MIDI Chunk's position on the Playing Field determines when it will be played or recorded. For example, a new MIDI Chunk will not begin recording until the Now Line has entered the Chunk. This makes it easy to create automatic punch-ins and punch-outs by simply placing a MIDI Chunk in the desired location on the Playing Field.

When you perform editing operations on a MIDI Object, you're changing the events in the MIDI Chunk. If you copy a MIDI object and make changes to one of the copies, the MIDI Chunk and all copies will also be affected. This feature allows you to repeatedly copy a one bar sequence and change all the copies with a single stroke. By *Duplicating* the MIDI Chunk, you can make changes to the duplicate chunk without affecting the original.



Changing the data in one Object will affect all copies.

MIDI Tracks and... MIDI Tracks

The term MIDI Tracks can be a source of confusion as PARIS actually contains TWO entities called MIDI Tracks.

- The light purple space on the Playing Field is a MIDI track.
MIDI tracks are added to the Playing Field using the “Add MIDI Tracks...” command located in the Edit menu of the Editor window. MIDI tracks are identified by their light purple color as opposed to Audio tracks which are light yellow.



- Each MIDI Chunk contains one or more entities which are also called MIDI tracks. In this usage, a MIDI Track is associated with one voice or line of music to be played by a specific Instrument. Most references to MIDI Tracks from here on out will describe the MIDI Tracks within a MIDI Chunk.



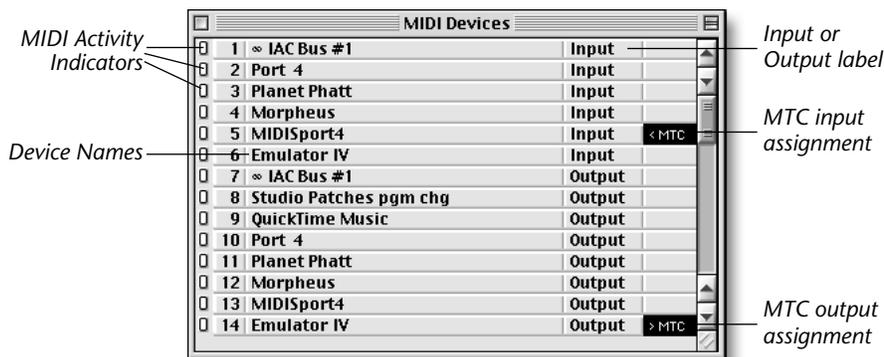
Five MIDI Tracks contained within a MIDI Chunk.

MIDI Instruments

MIDI Instruments provide a convenient way to route your recorded MIDI Tracks to specific MIDI channels and MIDI Devices. MIDI Channel information is not recorded into PARIS. The function of Instruments is to assign MIDI Channel information to the recorded tracks on playback. See “What are MIDI Instruments?” on page 188.

The MIDI Devices Window

(14 .)



MIDI Devices are the actual MIDI sound generators connected to your MIDI Interface. After setting up OMS on the Mac or configuring your Windows MIDI setup on the PC, all available MIDI devices will be listed in the MIDI Devices Window, which can be accessed from the Windows menu in the Project window or by typing 14-period. The MIDI Devices Window also contains MIDI activity indicators which illuminate to show input of output activity on each MIDI Device. MIDI Input Devices have red indicator LEDs and MIDI Outputs have blue indicator LEDs.

MTC

One MIDI Device can be assigned to be the MTC master and one MIDI Device can be assigned to be a MTC slave by simply clicking in the MTC field at the right side of the MIDI Devices Window. PARIS will synchronize to a MTC master if the “Lock Button” is depressed in the Transport controls and the master Device is transmitting MTC. PARIS generates MTC whenever the transport is moving. See page 19 and page 223 for additional information.

Tip: When working with PARIS and a sequencer, we recommend that you use PARIS as the master timing source. When performing other MTC operations, such as syncing PARIS with a tape deck, either device can be the master.

IAC Device

The Inter-Application Communication device is an OpCode tool which allows communication between MIDI applications running on the same computer (Mac). To synchronize two applications, set one program to be the IAC master (this will be PARIS in most cases) and set the other application to receive on the IAC device. See “Synchronizing Other Applications and External Devices to PARIS” on page 223.

The MIDI Chunks Bin

(16 .)

The MIDI Chunks bin is analogous to the Audio Bin, except that it holds MIDI data instead of audio data. The MIDI Chunks bin contains ALL the MIDI data used in a Project. You can duplicate and rename MIDI Chunks from within the MIDI Chunks window.

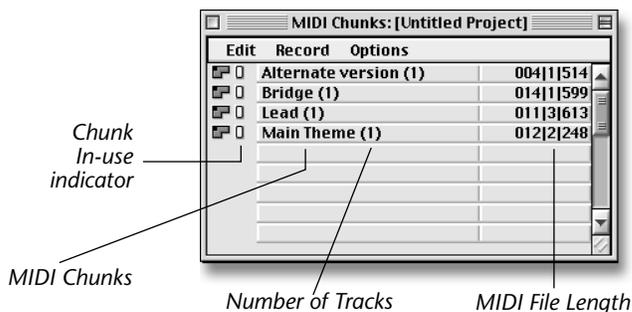
When you perform editing operations on a the data in a MIDI Object, you’re changing these instructions in the MIDI Chunk. If you copy a MIDI Object and make changes to one of the copies, the MIDI Chunk and all copies will also be affected. This feature allows you to repeatedly copy a one bar sequence and change all the copies with a single stroke. By *Duplicating* the MIDI Chunk, you can make changes to the duplicate chunk without affecting the original.

 *To Show or Hide the MIDI Chunks Bin:*

- Select MIDI Chunks from the Project window or type 16-period.
- Click the Close button to hide the MIDI Chunks Bin.

How MIDI Chunks are Shown in the MIDI Chunks Bin

The MIDI Chunks Bin shows a Project’s MIDI Files in a manner similar to the way in which your computer shows its folders/directories.



- The Chunk In-use indicator lights blue if the MIDI Chunk is used in an Object on the Playing field.
- The number in parentheses displays the number of Tracks contained within the MIDI Chunk.

Importing MIDI Files

MIDI Files contain instructions which tell a MIDI sound generator which notes to play and which controls to adjust. MIDI files do not contain sound data and are therefore much smaller than audio files. When you import a Format 1 Standard MIDI File into PARIS, all the individual tracks contained within the SMF are imported into a single MIDI Chunk. You can add MIDI Files to a Project by:

- recording new MIDI Tracks—see page 196 or page 199 to learn how to record MIDI tracks in PARIS.
- importing pre-existing Standard MIDI files into the MIDI Chunks Bin—MIDI Chunks are described on page 181. PARIS can import Standard MIDI Files of format 0, 1, & 2 for maximum interchangeability.
 - Format 0 files - contain a single multi-channel track.
 - Format 1 files - contain one or more simultaneous tracks of a sequence.
 - Format 2 files - contain one or more sequentially independent single-track patterns.

To Import a Standard MIDI File into a Project's MIDI Chunks Bin

Note: In order for PARIS to recognize a Standard MIDI file, the file must have the appropriate file extension at the end of its name. Standard MIDI Files must have a “.mid” file extension in order to be recognized by PARIS.

1. Open the MIDI Chunks window from the Project Windows menu, or by pressing 16-period.
2. Select Import Standard MIDI File....
3. In the standard Open dialog, navigate to the .mid file you'd like to import.
4. Click the Open button—the MIDI File will appear in the MIDI Chunks Bin, described on page 181.

Each MIDI File recorded in a Project remembers its place on the Playing Field and can be easily returned to that location by dragging it from the MIDI Chunks Bin using the Time Locked Selector tool (described on page 65). Imported MIDI Files are automatically positioned at the beginning of the Track to which they've been dragged using the Time Locked Selector tool.

- Importing Format 1 Standard MIDI Files creates an Instrument per track with the proper MIDI channel assigned

Renaming MIDI Chunks

Any MIDI Chunk can be renamed at any time as work on a Project progresses.

To Rename a MIDI Chunk:

1. OPTION-click (Mac OS) or right-click (Windows) the MIDI Chunk's name—it will highlight to show it can be edited.
2. Type in a new name for the Chunk and hit the RETURN key on the keyboard.

Note: Changes made to names in the MIDI Chunks Bin are reflected in the Editor Window if the Name button in the Show/Hide menu is turned on.

MIDI Chunks Edit Menu



New Chunk *COMMAND-N (Mac OS); CONTROL-N (Windows)*

The New Chunk command creates a new, empty default MIDI Chunk. Before you can record a MIDI track, you create a new MIDI Chunk for the MIDI data.

Clear Chunks *COMMAND-B (Mac OS); CONTROL-B (Windows)*

Select this option to delete all of the selected Chunks from the MIDI Chunks Bin.

Duplicate Chunks

COMMAND-D (Mac OS); CONTROL-D (Windows)

The Duplicate Chunks command makes a copy of any selected Chunks. Use this command when you want to modify a MIDI track without affecting the original data.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use this menu item to select every MIDI Chunk in the MIDI Chunks Bin.

Select Unused

COMMAND-U (Mac OS); CONTROL-U (Windows)

Use this command to select all MIDI Chunks that are not being used by any Object in any of the Project's Submixes.

Import Standard MIDI File...

Use this command to add a Standard MIDI File to the MIDI Chunks Bin. PARIS recognizes SMF's of format 0, 1 & 2. Track information is preserved when importing format 1 & 2 files. Importing Format 1 Standard MIDI Files creates an Instrument per track with the proper MIDI channel assigned.

Warning: A Standard MIDI File must have a ".mid" suffix attached to the file name in order to be recognized by PARIS.

Export Format 0 Standard MIDI File...

Use this command to copy a selected MIDI Chunk to your drive as a ".mid", format 0, Standard MIDI File. Format 0 files contain a single multi-channel track.

Export Format 1 Standard MIDI File...

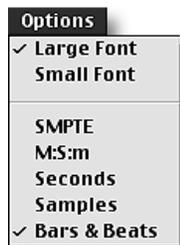
Use this command to copy a selected MIDI Chunk to your drive as a ".mid", format 1, Standard MIDI File. Format 1 files contain one or more simultaneous tracks of a sequence.

The MIDI Chunks Record Menu



This menu contains only one item. Merge Recorded Data, when enabled, merges MIDI data into the currently record-enabled Chunk. This feature allows you to record more than one pass into the same MIDI Track. With Merge Recorded Data disabled, recording into a previously recorded track overwrites any data already recorded on the track.

The MIDI Chunks Options Menu



This menu alters the display and functionality of the MIDI Chunks window. To activate one of its items, select it from the menu so that a checkmark appears next to its name; to de-activate it, select it again so that the checkmark is removed.

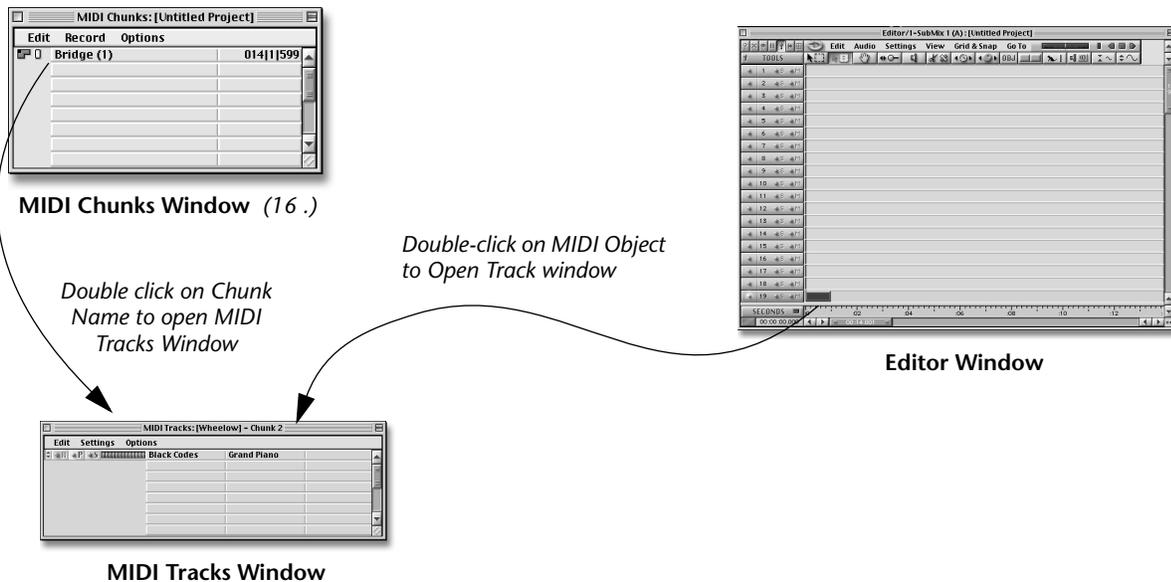
Menu Item:	Performs this action:
Large Font	Sets the MIDI Chunks Window so that it uses a large, easy-to-read typeface
Small Font	Sets the MIDI Chunks Window so that it uses a smaller, space-efficient typeface
SMPTM	Displays the length of the MIDI Chunk in SMPTM time units.(Hours:Min:Sec:Frames)
M:s:m	Displays the length of the MIDI Chunk in Minute:Second:millisecond time units.
Seconds	Displays the length of the MIDI Chunk in second long time units. (Minute:Seconds)
Samples	Displays the length of the MIDI Chunk in Samples
Bars & Beats	Displays the length of the MIDI Chunk in Bars, Beats and Ticks (960 ticks to a beat)

MIDI Tracks

The term MIDI Tracks can be a source of confusion as PARIS actually contains TWO entities called MIDI Tracks.

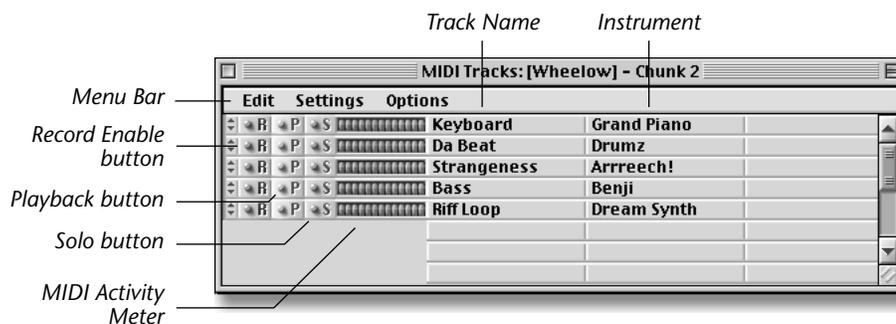
The light purple space on the Playing Field is a MIDI track, as described on page 180. Every MIDI Chunk also contains one or more MIDI Tracks. In this usage, a MIDI Track is associated with one voice or line of music to be played by a specific Instrument. In this section we'll elaborate on the MIDI Tracks contained within a Chunk.

Accessing the MIDI Tracks Window



The MIDI Tracks window can be opened directly from the MIDI Chunks Window or from the Editor Window. In either case, you simply double click on the MIDI Chunk to open the MIDI Tracks Window.

The MIDI Tracks Window



What are MIDI Tracks?

MIDI Chunks may contain one or more MIDI Tracks. A MIDI Track is a group of MIDI events which are associated with a particular Instrument. In PARIS, you can record individual tracks within a single MIDI Chunk or create a new MIDI Chunk for each MIDI track you record. Multiple tracks recorded within a single MIDI Chunk are displayed as in the window above. The Record, Playback and Solo buttons function like their counterparts on the Audio Tracks.

Note: When you import a Format 1 or 2 MIDI file, any tracks contained within that file will be maintained and displayed separately in the MIDI Tracks window.

MIDI Track Window Components

Record Enable Button



When depressed (red LED lit), the Record Enable button activates recording on the MIDI Track. The Input Filter determines the source of MIDI data to the Track.

Note: Once a MIDI Track is enabled, you must press Record-Play on the C16 Pro to initiate recording.

Playback Enable Button



When depressed (blue LED lit), the Playback button enables playback of the MIDI Track. When the blue LED is Off, the Track will be muted.

Track Solo Button



When depressed (yellow LED lit), the Solo button allows you to hear a Track without listening to un-soloed tracks. Any Tracks that have Solo turned on will be heard.

MIDI Activity Meter



This indicator displays the level of MIDI activity on the track as it's recorded or played back. The meter shows the cumulative activity of ALL COPIES of the chunk track during playback. If there is only one copy of the chunk playing, then it accurately shows the track MIDI activity.

Track Name

This field allows you to name or rename the MIDI Track.

- OPTION-click (Mac OS), or right-mouse click (Windows) over the Track Name field, then type to change the Track name.

Input Filter

This field allows you to select which MIDI Device will be used to input MIDI data for recording. If "No Filter" is selected, MIDI data will be recorded from any and all MIDI Devices which are generating MIDI data during recording.

- OPTION-click (Mac OS), or right-mouse click (Windows) over the Input Filter field, then select the MIDI Device.

Instrument

This field allows you to select the Instrument for the MIDI Track. (See page 184.)

- OPTION-click (Mac OS), or right-mouse click (Windows) over the Instrument field, then select the Instrument.

MIDI Tracks Edit Menu



New Track

COMMAND-N (Mac OS); CONTROL-N (Windows)

The New Track command creates an new default MIDI Track.

Clear Tracks

COMMAND-B (Mac OS); CONTROL-B (Windows)

Select this option to delete all the selected Tracks from the MIDI Tracks Window.

Duplicate Tracks

COMMAND-D (Mac OS); CONTROL-D (Windows)

The Duplicate Tracks command makes a copy of any selected Track. Duplicating Tracks allows you to make changes to the duplicate without affecting the original Track.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use this menu item to select every Track in the MIDI Tracks Window.

MIDI Tracks Settings Menu

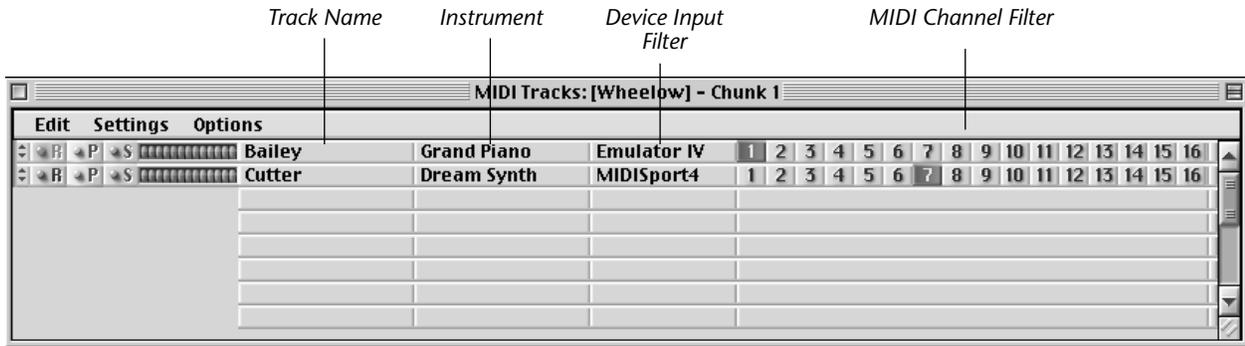
Settings

MultiRecord On

MultiRecord On

MultiRecord mode allows you to record from several MIDI devices simultaneously and each MIDI channel can be recorded on a separate track. Using MultiRecord, several musicians can simultaneously record MIDI into PARIS. MultiRecord can also be useful when transferring data from another sequencer.

When MultiRecord is enabled, two more fields are added to the MIDI Tracks window. The Device Input Filter field limits MIDI input on the track to a certain MIDI Device. The MIDI Channel Filter field limits MIDI input on the track to the selected MIDI channels.



To MultiRecord several MIDI devices:

1. Determine which MIDI channel each device is transmitting.
2. Create the necessary number of new tracks to record on.
3. Select MultiRecord from the MIDI Tracks Settings menu. The Device and Channel Input Filter fields appear.
4. Record-Enable the tracks you wish to record.
5. Set the Device Input Filter and the MIDI Channel Filter for each track.
6. Record-enable the MIDI Object by CONTROL-clicking the Object.
7. Hold Record, then press Play on the C16 Pro to begin recording.

The MIDI Tracks Options Menu

Options

✓ Large Font
Small Font

SMPTE
M:S:m
Seconds
Samples

✓ Bars & Beats

This menu alters the display of the MIDI Tracks window. To activate one of its items, select it from the menu so that a checkmark appears next to its name; to de-activate it, select it again so that the checkmark is removed. **Note:** the time display options are for future expansion

Option Menu Item:

Performs this action:

Large Font

Sets the MIDI Chunks Window so that it uses a large, easy-to-read typeface

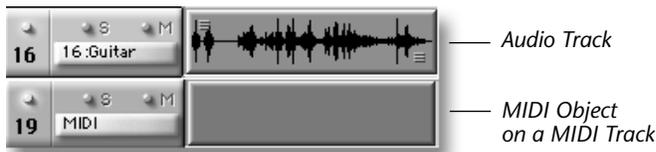
Small Font

Sets the MIDI Chunks Window so that it uses a smaller, space-efficient typeface

Creating MIDI Objects

A MIDI Object is created when a MIDI Chunk is dragged from the MIDI Chunks Bin onto a MIDI Track on the Playing Field—described below. MIDI Tracks are added to the playing field using the “Add MIDI tracks...” command, located in the Edit menu of the Editor window.

- In Constrained mode, new MIDI tracks are added beginning at track 19. (Tracks 17 & 18 are permanently designated as “Scratch” tracks, used as temporarily holding areas.)
- In Free Form mode, new MIDI tracks are inserted at the currently selected track.



When a MIDI Chunk is dragged into a MIDI Track from the MIDI Chunks Bin (see page 187), it appears on the playing field as a MIDI Object. The position of a MIDI Object on the Playing Field determines when it will be played or recorded. For example, a new MIDI Object will not begin recording until the Now Line has entered the Object. This makes it easy to create automatic punch-ins and punch-outs by simply placing a MIDI Object in the desired location on the Playing Field.

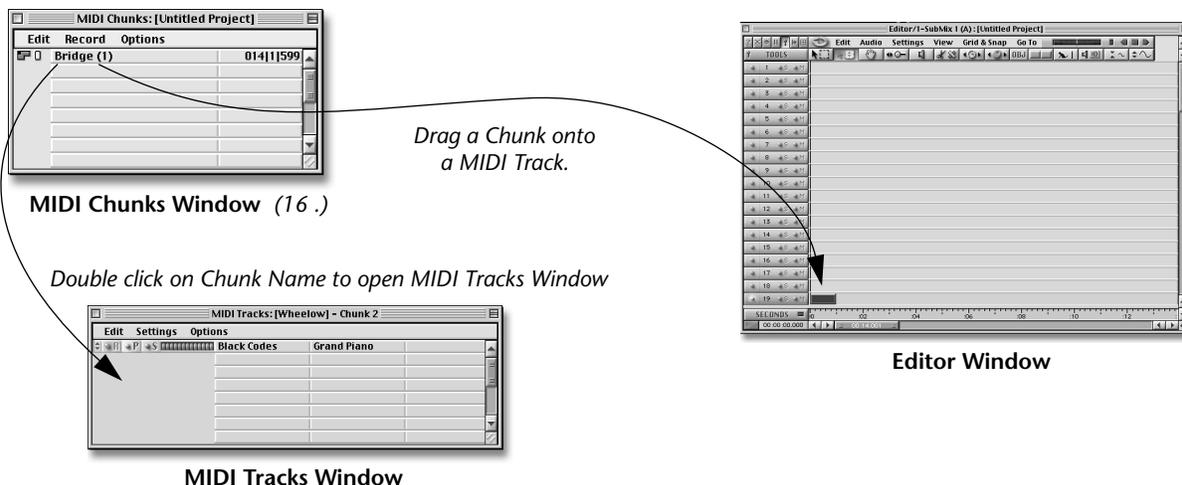
When you perform editing operations on a MIDI Object, you’re changing the events in the MIDI Chunk. If you copy a MIDI object and make changes to one of the copies, the MIDI Chunk and all copies will also be affected. This feature allows you to repeatedly copy a one bar sequence and change all the copies with a single stroke. By *Duplicating* the MIDI Chunk, you can make changes to the duplicate chunk without affecting the original.

- In Constrained mode, new MIDI tracks are added beginning at track 19.
- In Free Form mode, new MIDI tracks are inserted at the currently selected track.

To Create a new MIDI Object by dragging a Chunk from the MIDI Chunks Bin:

1. Select “Add MIDI Tracks...” from the Editor window’s Edit menu. (In Free Form mode, select the track where you want the MIDI track inserted using the Track Select keys on the C16 Pro.)
2. A popup window asks you “Number of MIDI Tracks to Add?”.
3. Select the number of tracks to add, then press OK or Cancel.
4. Open the MIDI Chunks Bin if it’s not already open. (type: 16-period)
5. Drag the desired item from the MIDI Chunks Bin to the desired location on a MIDI track. (See page 181 for information on MIDI Chunks.)

Note: You can drag more than one item from the MIDI Chunks Bin at a time—a MIDI Object will be created on the Playing Field for each item dragged from the MIDI Chunks Bin.



The MIDI Instruments Window

(15 .)

The MIDI Instruments window is where you create, name and assign MIDI Instruments to MIDI channels and outputs.



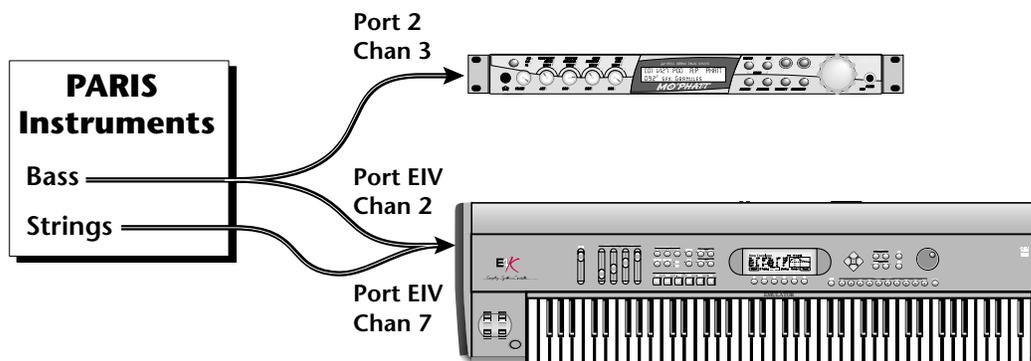
 To Show or Hide the MIDI Instruments Window:

- Select MIDI Instruments from the Project window or type 15-period.
- Click the Close button to hide the MIDI Instruments Window.

What are MIDI Instruments?

MIDI Instruments provide you a convenient way to organize your MIDI tracks. In PARIS, notes and other MIDI data are not recorded with specific MIDI Channels. Instead, MIDI Tracks are assigned to *Instruments* on playback. Instruments refer to a particular MIDI channel or multiple channels on one or more MIDI ports. Once a MIDI Instrument is defined, you simply select it by name in the track window. The MIDI port and correct MIDI channels are remembered by PARIS.

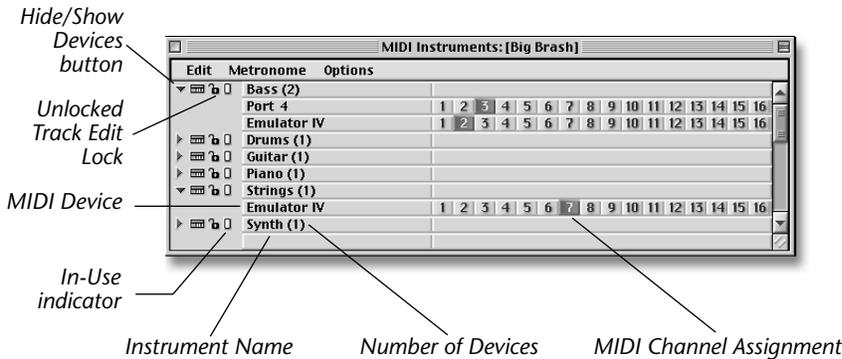
The diagram below shows an example using two PARIS MIDI Instruments. The Bass Instrument is a combination of two sounds on different MIDI channels and using 2 different MIDI ports. The String Instrument uses just one MIDI channel and a single MIDI cable.



Instruments make it easy to keep all the complicated MIDI routings under control while allowing you to have 16 MIDI channels for each MIDI port in your MIDI interface.

How Instruments and MIDI Devices are Shown in the MIDI Instruments Window

The MIDI Instruments Window shows a Project's Instruments in a manner similar to the way in which your computer shows its folders/directories. Beneath each Instrument are the Devices that belong to it. The triangle to the left of each Instrument's name is a button that can be clicked to show or hide the Instrument's MIDI Devices.

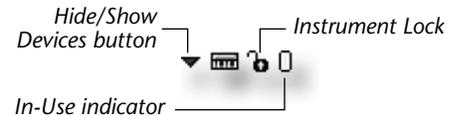


The two status indicators to the left of each Instrument name provide helpful information about the Instrument:

- The Instrument Lock, in its closed position, shows that the Instrument is protected from being deleted from the Project.
- The blue In-Use indicator, when lit, shows that an Object that uses the Instrument is on a Playing Field.
- The number in parentheses displays the number of Devices used by the MIDI Instrument.

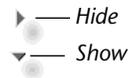
MIDI Instruments Tools

There are three tools located to the left of each Instrument in the MIDI Instruments Window—these allow you to perform certain tasks upon, and provide information about, the associated Instrument.



The Hide/Show Devices Button

Click the Hide/Show Devices button to hide or reveal the MIDI Devices associated with the Instrument.



To Create a New Instrument:

1. OPTION-click (Mac OS) or right-click (Windows) the Instrument's name—it will highlight to show it can be edited.
2. Type in a name for the Instrument and hit the RETURN key on the keyboard.
3. OPTION-click (Mac OS) or right-click (Windows) the Device name. A pull-down menu appears.
4. Select one of the available MIDI Devices.
5. Select one or more MIDI channels from the channel assignment area.

Note: Option-click (Mac OS) or Right button-click (Windows) on a MIDI Channel will deselect all channels except the one you are selecting.

MIDI Instruments Edit Menu

New Instrument

COMMAND-N (Mac OS); CONTROL-N (Windows)

The New Instrument command creates a new, empty default MIDI Instrument. Before you can play back a MIDI track, you create a new MIDI Instrument to assign the MIDI data to MIDI channels and MIDI ports.

 *To Rename a New Instrument:*

1. OPTION-click (Mac OS) or right-click (Windows) the Instrument's name—it will highlight to show it can be edited.
2. Type in a name for the Instrument and hit the RETURN key on the keyboard.

New Device

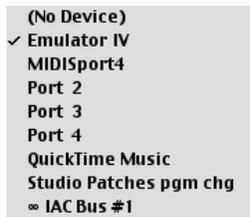
SHIFT-COMMAND-A (Mac OS); CONTROL-ALT-A (Windows)

The New Device command creates a new default MIDI device. Each new Device allows you 16 additional MIDI channels.

 *To Add a new MIDI Device:*

1. Click on the Instrument name in the MIDI Instruments Window so that it highlights.
2. Select Add Device from the Edit menu, or type Command-A (Mac OS); or Control-A (Windows).

 *To Change the MIDI Device:*



1. OPTION-click (Mac OS) or right-click (Windows) the Device name. A pull-down menu like the one shown at left appears.
2. Select one of the available MIDI Devices.

Clear Items

COMMAND-B (Mac OS); CONTROL-B (Windows)

Select this option to delete all the selected Devices or Instruments from the MIDI Instruments List.

Duplicate Items

COMMAND-D (Mac OS); CONTROL-D (Windows)

The Duplicate Items command makes a copy of any selected Devices or Instruments.

Select All

COMMAND-A (Mac OS); CONTROL-A (Windows)

Use this menu item to select every Instrument and Device in the Instruments Window.

Select Unused

COMMAND-U (Mac OS); CONTROL-U (Windows)

Use this command to select all Instruments that are not being used by any Object in any of the Project's Submixes.

Select Locked

COMMAND-K (Mac OS); CONTROL-K (Windows)

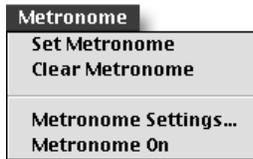
Use this command to select any locked Instruments in the Project.

Select Missing

COMMAND-M (Mac OS); CONTROL-M (Windows)

Use this menu item to select all of the MIDI Devices that a Project was unable to locate when it was opened. For example, the MIDI Devices may be missing if you open a Project on another computer system or using a different OMS Setup.

The Metronome Menu

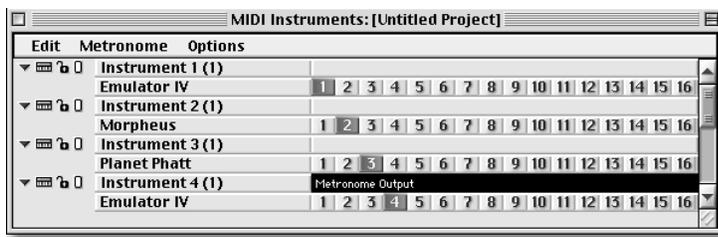


The metronome menu allows you to assign one of the MIDI Instruments as the metronome sound. This way you can have any sound you want for the metronome. The MIDI note number and note velocities for the Bar and the Beat sound can be individually programmed. The Tempo setting and Time Signature used for the metronome (and for the Grids) are set in the Project Window. See page 23.

Tip: Use the Metronome as a timing reference to record audio tracks. You do not need to assign a MIDI Chunk to the playing field to hear the metronome.

Set Metronome

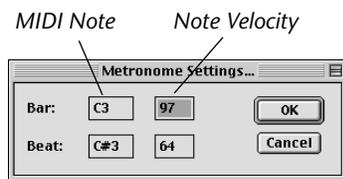
This command assigns the currently selected MIDI Instrument as the metronome sound. The selected Instrument will now be labelled as the metronome as shown below.



Clear Metronome

This command releases the designated metronome Instrument and disables the metronome.

Metronome Settings...



This pop-up pane allows you to set the MIDI key number and note velocities for the Bar and Beat metronome sounds. Simply click your mouse button to select a field, then type a MIDI key number (from C-1 to C8) and a note velocity number (from 1 to 127) for the bar and the beat sound.

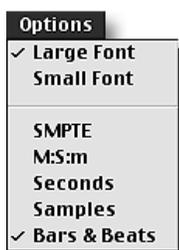
Metronome On

This command conveniently turns the Metronome on and off. A check mark appears next to the command in the menu when the Metronome is on.

To set the Metronome sound:

1. Select MIDI Instruments from the Project window or type 15-period.
2. Create a new MIDI Instrument as described on page 189 (or use an existing MIDI Instrument).
3. Assign a MIDI Device and MIDI channel to the MIDI Instrument.
4. Select the MIDI Instrument you want to use as the Metronome so that it is highlighted.
5. Select Set Metronome from the metronome menu. The Instrument is now labelled as the metronome.
6. Select Metronome On from the metronome menu.
7. Change the Metronome Settings as desired.

The MIDI Instruments Options Menu



This menu alters the display and functionality of the MIDI Instruments window. To activate one of its items, select it from the menu so that a checkmark appears next to its name; to de-activate it, select it again so that the checkmark is removed.

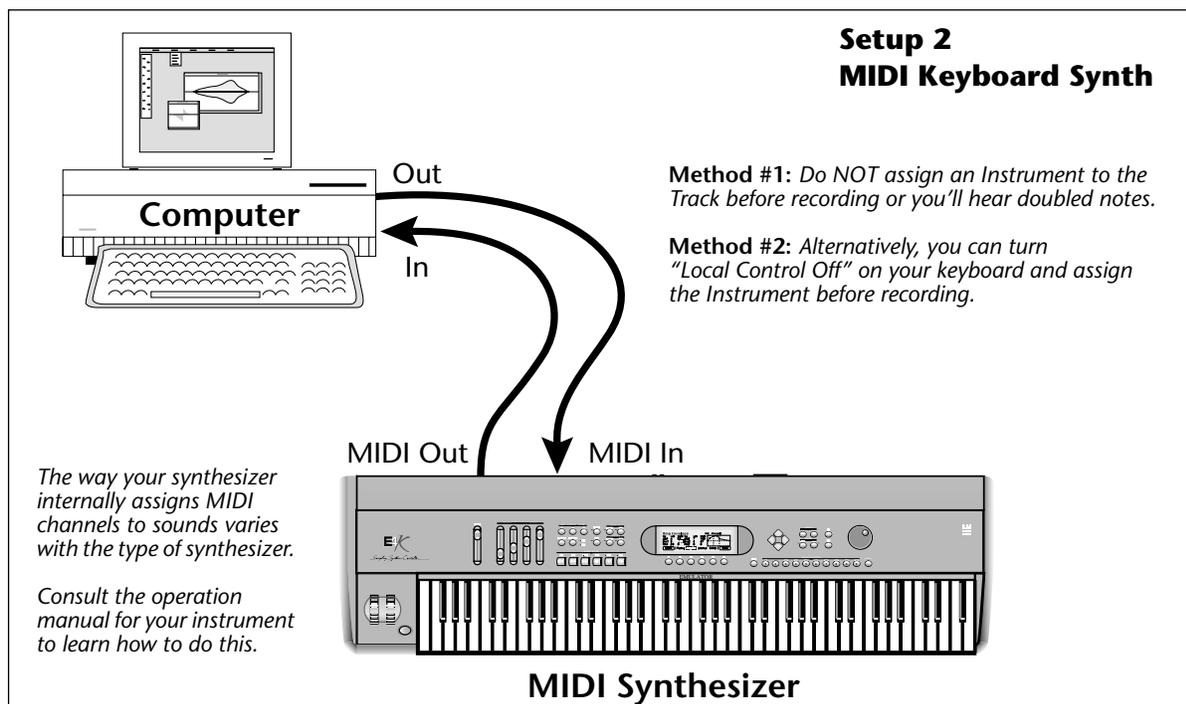
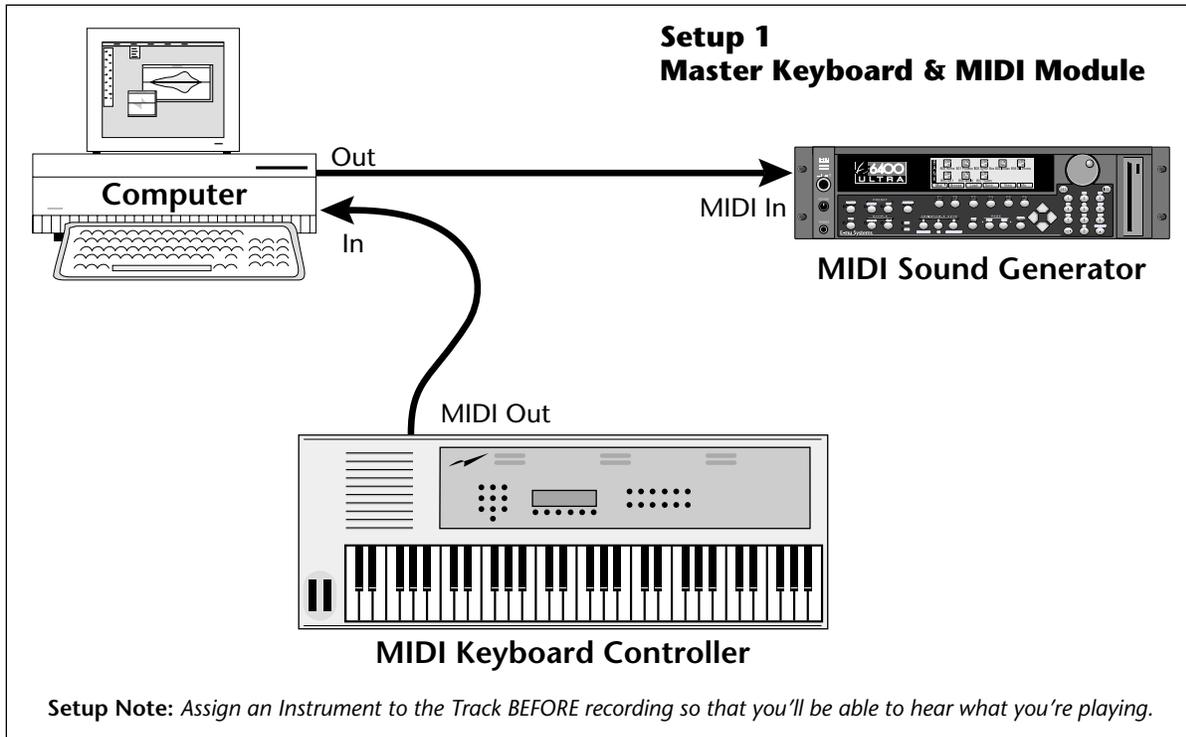
Option Menu Item: Performs this action:

Large Font	Sets the Instruments Window so that it uses a large, easy-to-read typeface
Small Font	Sets the Instruments Window so that it uses a smaller, space-efficient typeface

MIDI Setup

In this section we offer a couple of MIDI setup examples.

Key Information: If an Instrument is assigned to a MIDI Track before recording, PARIS will retransmit the keyboard MIDI data out on the MIDI channel and device defined by the Instrument after recording begins. You can use this feature to control whether or not MIDI is echoed out of PARIS during recording. See page 194 for more information.



Recording MIDI

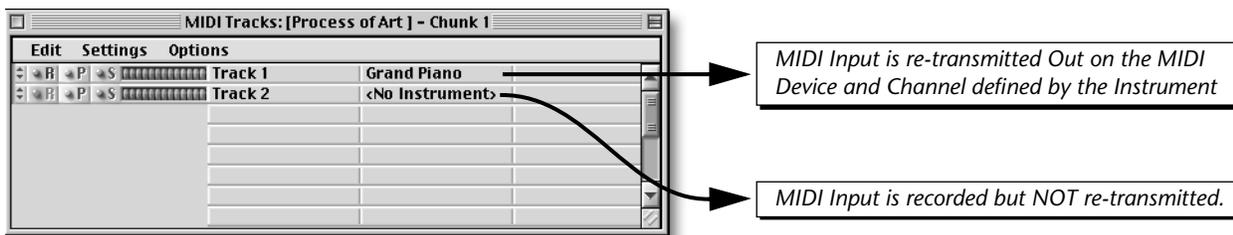
PARIS allows you great flexibility in all phases of the recording process and MIDI recording is no exception. Essentially, you can record unlimited MIDI Tracks within each MIDI Chunk and you can have up to 999 MIDI tracks on the playing field. Ah, but where to begin? In this section we'll give you some guidelines for recording MIDI into PARIS. As you continue to work with PARIS and MIDI, you'll develop your own methods and styles.

Here are three possible ways to work with MIDI tracks in PARIS:

- **MIDI Object-based recording:** Recording a single MIDI Track on each Chunk.
- **Recording multiple MIDI Tracks into a single Chunk.** (When you import a Standard MIDI File, all the MIDI tracks are contained within a single Chunk.)
- **Importing MultiTrack Standard MIDI Files** from another sequencer.

The Role of MIDI Instruments during Recording

If an Instrument is assigned to a MIDI Track before recording, PARIS will re-transmit the keyboard MIDI data out on the MIDI channel and device defined by the Instrument after recording begins. This is sometimes called Echo Thru. Use this feature to control whether or not MIDI is echoed out during recording.



MIDI Object-based Recording

Probably the quickest way to record MIDI Tracks on PARIS is create multiple MIDI Objects each containing a single MIDI Track (or multiple Tracks for that matter). This approach allows you to manipulate MIDI objects on the Playing Field just like Audio Objects and using the same editing tools. Each time you record a new MIDI Track, you record into a new MIDI Object on the Playing Field.

Before you begin: Create a number of MIDI Instruments assigned to the MIDI channels and MIDI Devices you wish to use. This will make the recording process go much smoothly. You'll also want to assign the Metronome to a MIDI Device and Channel. See page 191.

1. If this is a new Project (with no other tracks yet recorded) you must first set your Record Path. (This function is located in the Project, Settings menu. See page 21.) Otherwise, proceed to step two.
2. Select "Add MIDI Tracks..." from the Editor window's Edit menu. (*In Free Form mode, select the track where you want the MIDI track inserted using the Track Select keys on the C16 Pro.*)
3. A popup window asks you "Number of MIDI Tracks to Add?".
4. Select the number of tracks to add, then press OK or Cancel. Go ahead and add several tracks. This will save time later.
5. As long as we're in this window, select the Time Locked Selector Tool. Selecting this tool now will save a step later. See page 65 for more information on the Time Locked Selector Tool. 
6. Open the MIDI Chunks Bin if it's not already open. (type: 16 .)
7. Create several "New Chunks", COMMAND-N (Mac OS); CONTROL-N (Windows). See page 182.
8. Drag each new MIDI Chunk to a different MIDI Track. Since the Time Locked Selector Tool is selected, the MIDI Objects line right up at the beginning of the Project.

Tip: You can select and drag multiple Chunks to the Playing Field at the same time by holding down the Shift key as you select.

Note: If your MIDI setup is similar to Setup 1 on page 193 continue on to step 9. If you're using a keyboard with a built-in sound generator as in Setup 2 and are NOT using the Echo Thru feature, jump to step 12.

9. Double Click on the MIDI Object (the MIDI Chunk on the Playing Field) to open the MIDI Tracks Window.
10. Assign an Instrument to the Track if you are using the Echo Thru feature of PARIS. See page 193. Otherwise continue on.
11. Track one of the MIDI Chunk will already be armed to record. (The red Record light will be on.).
12. Record-Enable the MIDI Chunk. Hold CONTROL and click on the MIDI Object in the Editor window. The Chunk will turn red.
13. Hold the red Record button on the C16 Pro, then press Play to begin recording.

 *To play back the MIDI Track :*

- If you are using a MIDI setup similar to Setup 1 on page 193 and have already assigned the MIDI Instrument, just rewind the Transport and press Play to listen to your Track.
- If you're using a keyboard with a built-in sound generator as in Setup 2 and have NOT assigned an Instrument to your track, follow these steps.
 1. Double Click on the MIDI Object to open the MIDI Tracks Window.
 2. Assign an Instrument to the Track. OPTION-click (Mac OS), or right-mouse click (Windows) over the Instrument field, then select the Instrument.
 3. Rewind the Transport and press Play to listen to your Track.

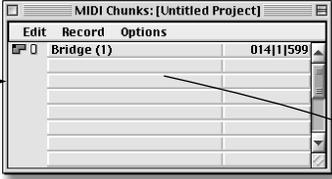
Note: After recording a Track, you might want to disable it from further recording by turning off the red Record button in the Track window. (This step isn't really necessary. It's just added protection against recording into your finished Track.)

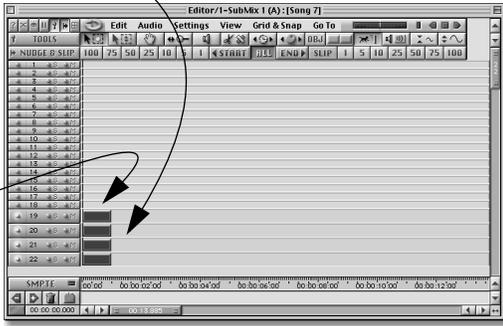
 *To record the next MIDI Track:*

- If you are using a keyboard with a built-in sound generator as in Setup 2 and are NOT using the Echo Thru feature, jump to step 3. Because you assigned several MIDI Objects earlier, all you have to do is Record-Enable the next MIDI Object and press Record!
- If you're using a MIDI setup similar to Setup 1 on page 193, begin at step 1 below.
 1. Double Click on the next MIDI Object on the Playing Field to open the MIDI Tracks Window.
 2. Assign an Instrument to the Track.
 3. Record-Enable the next MIDI Object. Hold Control and click on the MIDI Object in the Editor window. The Chunk will turn red.
 4. Rewind the Transport.
 5. Hold the red Record button on the C16 Pro, then press Play to begin recording.

Tip: Create a default MIDI setup Project containing Instruments properly assigned for your setup and MIDI Chunks on the playing field ready to go. After opening the Project, you're ready to record!

MIDI Object-based Recording

1. Create several new MIDI Chunks
 

MIDI Chunks Window
2. Create several MIDI Tracks and drag all the MIDI Chunks onto the Playing Field.
 

Editor Window
3. CONTROL-click on the first Object to Record Enable. (The MIDI Object turns red.)
 
4. Hold Record - Press Play
 

C16 Pro
5. Record-Enable the next MIDI Object to record the next Track

Recording multiple MIDI Tracks into a single Chunk

This style of MIDI recording places multiple MIDI tracks within a single MIDI Chunk. The advantage to this method is that all your tracks are contained within a single MIDI chunk. This makes it easy to lay out multitrack Chunks, using the Playing Field as a song arranger. Standard MIDI Files are also imported and exported as multitrack MIDI Chunks.

To Record the first MIDI Track:

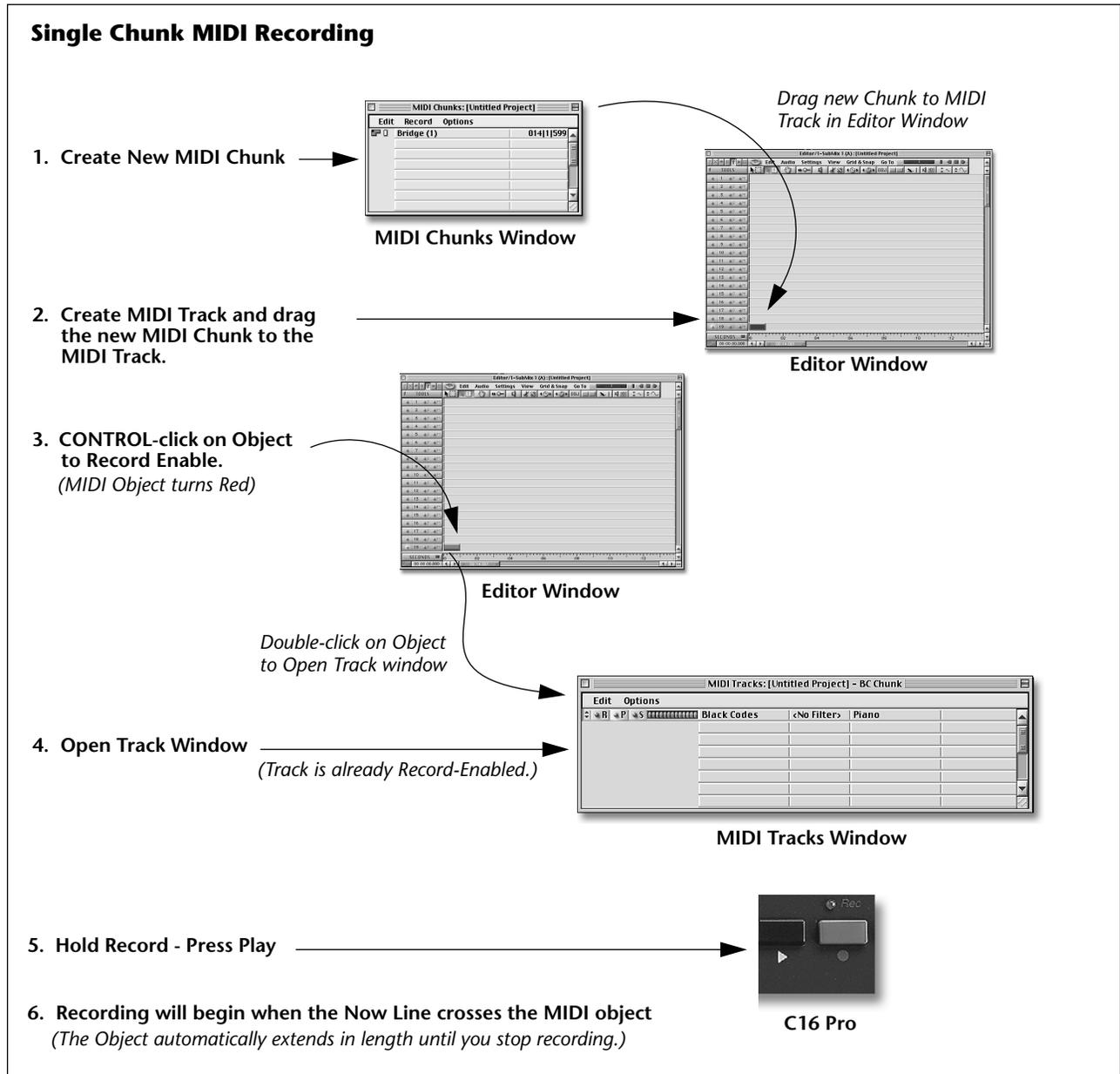
1. If this is a new Project (with no other tracks yet recorded) you must first set your Record Path. (This function is located in the Project, Settings menu. See page 21.) Otherwise, proceed to step two.
2. Select "Add MIDI Tracks..." from the Editor window's Edit menu. (In Free Form mode, select the track where you want the MIDI track inserted using the Track Select keys on the C16 Pro.)
3. A popup window asks you "Number of MIDI Tracks to Add?".
4. Select the number of tracks to add, then press OK or Cancel.
5. Open the MIDI Chunks Bin if it's not already open. (type: 16 .)
6. Create a "New Chunk". See page 182.
7. Drag the new MIDI Chunk to the MIDI Track you just added.

Tip: Select the "Time-Locked Selector" tool if you want the MIDI Chunk to automatically align itself at the beginning of the Project. (See page 65. for more information on the Time-Locked Selector Tool.)



8. Double Click on the MIDI Object (the MIDI Chunk on the Playing Field) to open the MIDI Tracks Window.
9. Assign an Instrument to the Track if you are using the Echo Thru feature. See page 193. Otherwise continue on.
10. Track one of the MIDI Chunk will already be armed to record. (The red Record light will be on.).
11. Record-Enable the MIDI Chunk. Hold Control and click on the MIDI Object in the Editor window. The Chunk will turn red.
12. Hold the red Record button on the C16 Pro, then press Play to begin recording.

Note: Recording begins when the Now Line crosses into the MIDI Object. Recording will continue until the transport stops.



Playing back your MIDI Tracks

Before a MIDI Track can be played back, you must assign a MIDI Instrument to the track. And before you can assign a MIDI Instrument to the track, you first create one.

Note: If you assign Instruments to Tracks *BEFORE* you record, PARIS will echo the played MIDI data back out the MIDI Out port and you will hear a flanging effect caused by the doubling of voices on your synthesizer. You may or may not want this depending on your MIDI setup. See page 193.

Create a MIDI Instrument:

1. OPTION-click (Mac OS) or right-click (Windows) the Instrument's name—it will highlight to show it can be edited.
2. Type in a name for the Instrument and hit the RETURN key on the keyboard.
3. OPTION-click (Mac OS) or right-click (Windows) the Device name. A pull-down menu appears.
4. Select one of the available MIDI Devices.
5. Select one or more MIDI channels from the channel assignment area.

Note: Option-clicking (Mac OS) or Right button-clicking (Windows) on a MIDI Channel will deselect all channels except the one you are selecting.

To assign a MIDI Instrument to a Track:

1. OPTION-click (Mac OS) or right-click (Windows) on the column that reads "No Instrument". A pull-down menu appears.
2. Select one of the available MIDI Instruments. OPTION-click (Mac OS), or right-mouse click (Windows) over the Instrument field, then select the Instrument.

Note: After recording a Track, you might want to disable it from further recording by turning off the red Record button in the Track window.

Recording more Tracks into the Chunk

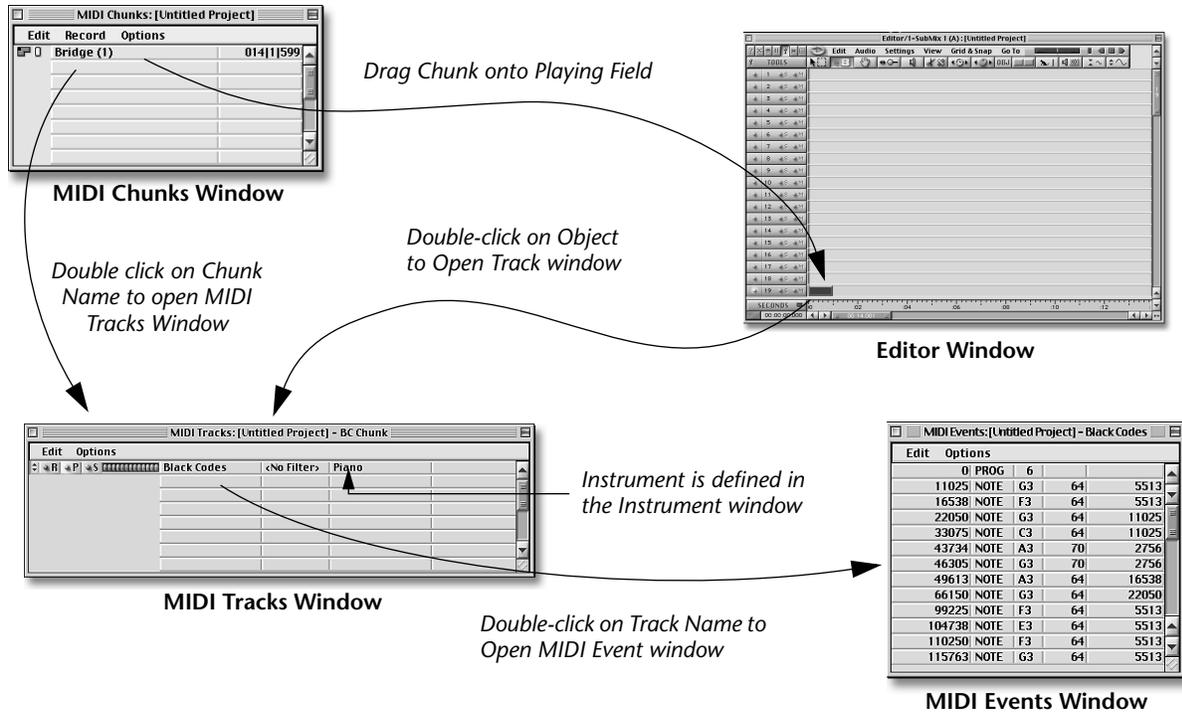
To Record Additional MIDI Tracks:

1. Select "New Track" from the MIDI Track Window. (See page 185.)
2. *Assign an Instrument to the Track if you are using the Echo Thru feature.* See page 193. Otherwise continue on.
3. Disable Record from the last Track you recorded. (Turn the red Record button off.)
4. Record Arm the new Track.
5. Hold Record, then press Play on the C16 Pro. (You don't have to Record-Enable the MIDI Chunk since it's still enabled from the last time you recorded.)
6. Repeat steps 1-5 above to record additional MIDI tracks.

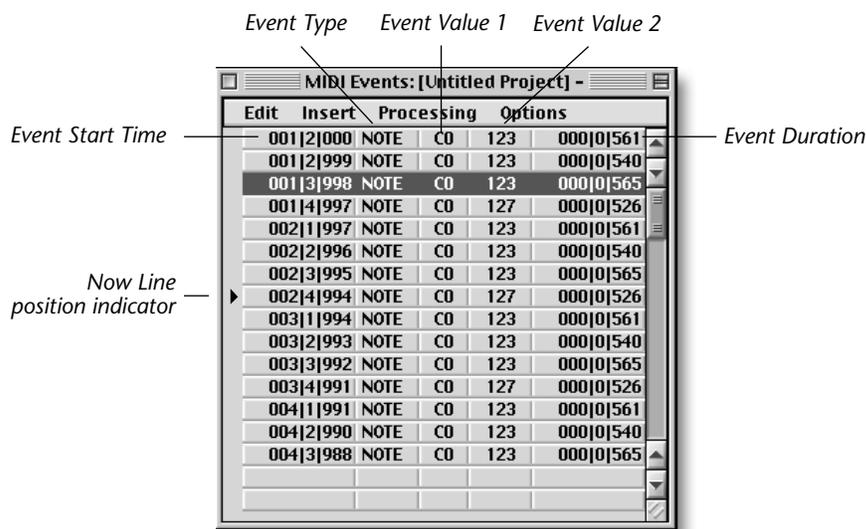
Editing MIDI

Once you've recorded your MIDI tracks, PARIS provides powerful editing controls to refine and perfect your work. MIDI events can be edited using filters, by cutting and pasting, or by editing single MIDI events.

Opening the MIDI Events Window



The MIDI Events Window

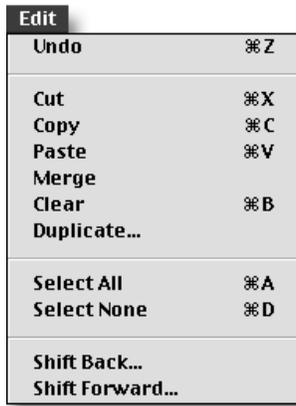


- **To edit a single parameter of a MIDI Event:** OPTION-click (Mac OS) or right-click (Windows) on the parameter. It will either highlight to show it can be edited or a pop-up dialog box will appear prompting you to enter data.

- **Select a range of MIDI Events:** Click on the the first Event of the range, then hold down the SHIFT key on your keyboard and click the last Event of the range you want to select. All Events between the two points will be selected.

- **To select an individual Event after selecting a range:** Hold the CONTROL key and click on the Event you want added. This begins a new anchor from which you can select a new range if desired.
- **To remove a single entry from a selection:** CONTROL-click on the entry you wish to remove.
- The **Now Line Position indicator** shows which Event is currently playing as the track is playing back.

The Edit Menu



The Edit Menu accesses the basic commands and functions that can be performed on MIDI Events.

Undo *COMMAND-Z (Mac OS); CONTROL-Z (Windows)*

Undo restores MIDI Event processing operations to the state they were in prior to your last edit. You can only undo 1 edit.

Cut *COMMAND-X (Mac OS); CONTROL-X (Windows)*

The Cut command removes the currently selected MIDI Event or group of Events and places it in the Clipboard. Use the Paste command to move the data to a new location, or drag the contents of a cell to the desired location. MIDI Events remain in the Clipboard until replaced by a new Cut or Copy command.

Copy *COMMAND-C (Mac OS); CONTROL-C (Windows)*

Copy places a duplicate of selected MIDI Event or groups of Events into the Clipboard. This copy can then be pasted elsewhere using the Paste command. The copy will remain on the Clipboard until another Cut or Copy command replaces it.

Paste *COMMAND-V (Mac OS); CONTROL-V (Windows)*



Paste copies the contents of the Clipboard to a selected Start Location in the MIDI Track. The MIDI events in the destination Track that occur within the space defined by the Clipboard contents will be overwritten.

1. When you select the Paste command with a MIDI Event or group of Events on the clipboard a pop-up window like the one shown at left appears.
2. Select the Start Location where you want the Event or group of events to go. The Start Location can be entered in Samples, Seconds, H-M-S, SMPTE, or Bars, Beats & Ticks.

Merge

This command combines the Clipboard contents with the MIDI Track data at the selected Start Location in the MIDI Track. Unlike the Paste command, MIDI data is not overwritten.

1. When you select the Paste command with a MIDI Event or group of Events on the clipboard, a pop-up window like the one shown above appears.
2. Select the Start Location where you want the Event or group of events to go. The Start Location can be entered in Samples, Seconds, H-M-S, SMPTE, or Bars, Beats & Ticks.

Clear *COMMAND-B (Mac OS); CONTROL-B (Windows)*

Clear removes a selected Event or group of Events from the Track without sending it to the Clipboard.

Duplicate

This command automatically copies the selected Event or group of Events and Merges the data at the selected Start Location in the MIDI Track.

Select All *COMMAND-A (Mac OS); CONTROL-A (Windows)*

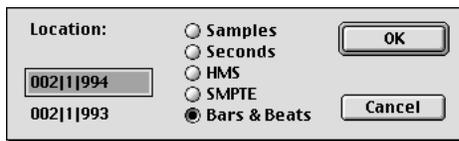
Use the Select All command to simultaneously select every Event in the Track.

Select None *COMMAND-D (Mac OS); CONTROL-D (Windows)*

Select None de-selects all selected Events in the Track, allowing you to ensure no Events are unintentionally selected.

MIDI Events Insert Menu

Note...



The Note command inserts a new MIDI Note Event at the selected Start Location in the MIDI Track.

1. When you select a MIDI Event Insert command, a pop-up window like the one shown at left appears.
2. Select the Start Location where you want the Note Event to go. The Start Location can be entered in Samples, Seconds, H-M-S, SMPTE, or Bars, Beats & Ticks (960 Ticks to a Beat).

The inserted note has a default value of C3 with a velocity of 64. You must edit the note range, note velocity and note duration. The allowable note range is from C-2 to G8. The velocity range is from 0 to 127.

Pitchbend...

The Pitchbend command inserts a new MIDI Pitchbend Event at the selected Start Location in the MIDI Track. The Pitchbend value can be edited with a range of -8191 to +8191.

Controller...

The Controller command inserts a new MIDI Continuous Controller Event at the selected Start Location in the MIDI Track. The Controller value can be edited with a range of 0 to 127. Event Value 1 is the Continuous Controller number and Event Value 2 is the Continuous Controller Amount.

Pressure...

The Pressure command inserts a new MIDI Channel Pressure Event at the selected Start Location in the MIDI Track. The Pressure value can be edited with a range of 0 to 127.

Poly Pressure...

The Poly Pressure command inserts a new MIDI Polyphonic Pressure Event at the selected Start Location in the MIDI Track. The Poly Pressure value can be edited with a range of 0 to 127.

Program Change...

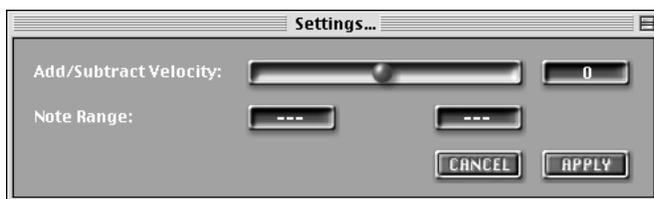
The Program Change command inserts a new MIDI Program Change Event at the selected Start Location in the MIDI Track. Program Change values can be edited with a range of 0 to 127.

MIDI Events Processing Menu

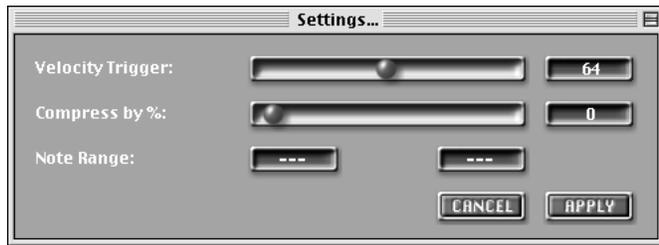
This menu contains various MIDI processing tools which can be applied to an Event or group of Events.

Change Velocity...

This MIDI processor adds or subtracts a number (-127 to +127) from the velocity value of a Note-On Event or group of Note-On Events. A note range can also be set so that only notes within the range will be affected. After selecting the velocity offset and note range, press Apply to process the MIDI data or Cancel to cancel the operation.



Compress Velocity...

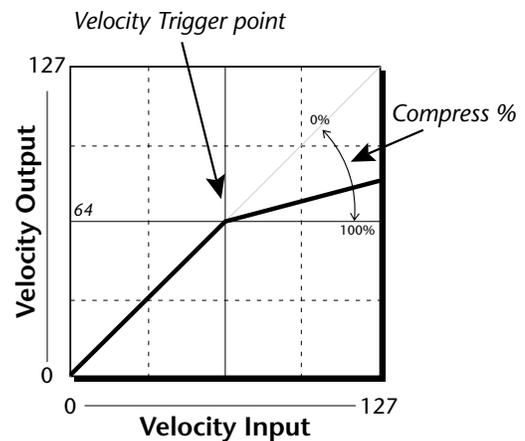


This MIDI processor reduces the velocity of a Note-On Event or group of Note-On Events. Velocity Compression reduces the level of inputs which are ABOVE the Velocity Trigger setting. Above this point the note velocity is scaled by the selected percentage.

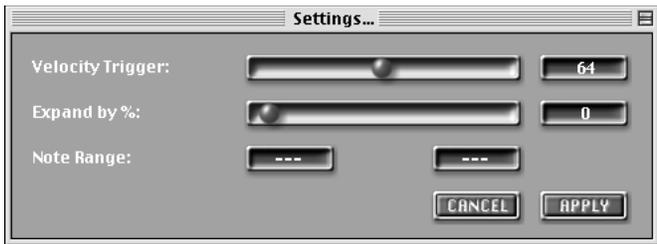
It is important to note that the Compression Percentage is calculated from the values above the Velocity Trigger point. For example, if the initial velocity = 100, the Velocity Trigger is set at 50, and the Compression Percentage is set at 50%, the resulting velocity value would be 75, which is 50% between the Velocity Trigger point (50) and the initial velocity value (100).

The diagram at right illustrates how Compression Percentage is dependent on the Velocity Trigger point.

A note range can also be set so that only notes within the range will be affected. After selecting the velocity scaling settings and note range, press Apply to process the MIDI data or Cancel to cancel the operation.



Expand Velocity...

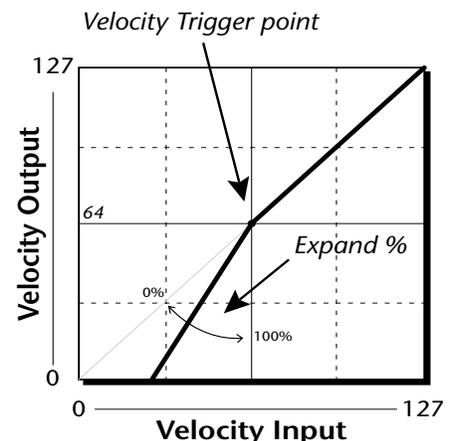


This MIDI processor keeps high velocities high, while reducing low velocities even further, exaggerating the differences. Velocity Expansion reduces the level of inputs which are BELOW the Velocity Trigger point. Below this point the note velocity is scaled by the selected percentage.

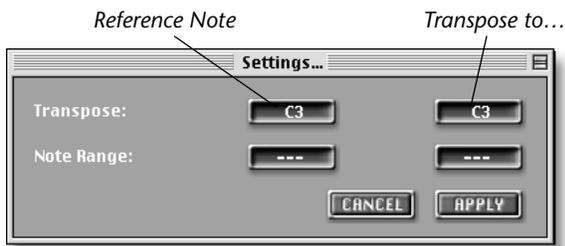
It is important to note that the Expansion Percentage is calculated from the values below the Velocity Trigger point. For example, if the initial velocity is 30, the Velocity Trigger is set at 50, and the Expansion Percentage is set at 50%, the resulting velocity value would be 15, which is one half of 30.

The diagram at right illustrates how the Velocity Expansion Percentage is dependent on the Velocity Trigger point.

A note range can also be set so that only notes within the range will be affected. After selecting the velocity scaling settings and note range, press Apply to process the MIDI data or Cancel to cancel the operation.

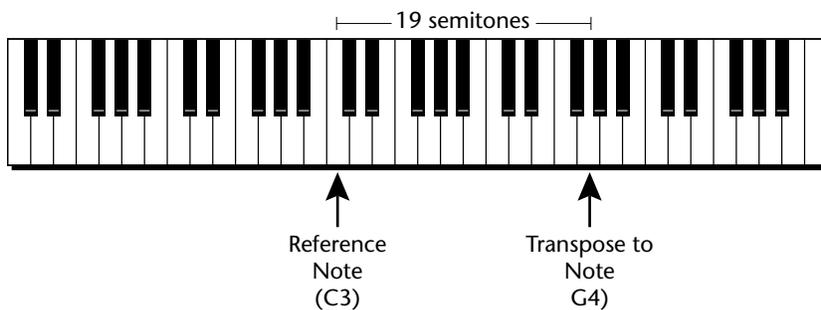


Transpose...



This MIDI processor adds an offset to a Note-On Event or group of Note-On Events. The selected range of notes will be transposed by the difference between the Reference Note and the Transpose to note values. The Reference Note is merely a hypothetical starting point for the transposition. For example, to transpose up one semitone, set the Reference Note to C3 and the “Transpose to...” note to D3, or set the Reference Note to D3 and the “Transpose to...” note to E3. In either case the difference is the same—one semitone.

A note range can also be set so that only notes within the range will be affected. After selecting the velocity scaling settings and note range, press Apply to process the MIDI data or Cancel to cancel the operation.

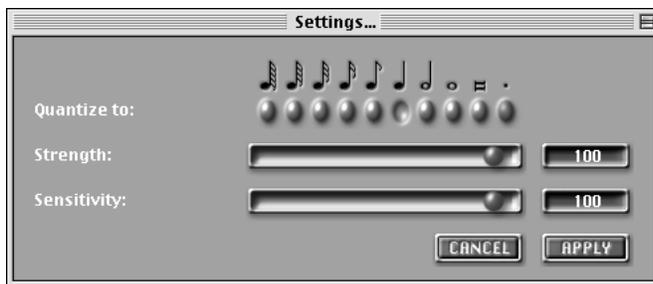


Time Change...



This MIDI processor scales the duration of a Note-On Event or group of Note-On Events. The scaling is adjustable from 25% to 400%. 100% equals no time scaling.

Quantize...



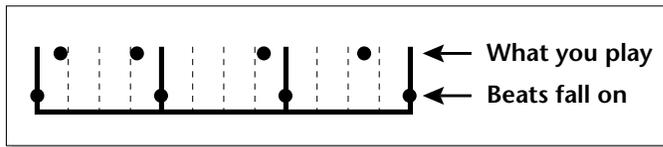
This is a useful feature when you want to tighten up the timing of a track or any portion of a track. Quantizing changes the **start point** and **end point** of notes in a track so that they fall closer to the note division specified. All other data associated with the notes will be left untouched. Quantization can be applied in note values ranging from 128th notes  to double whole notes . Dotted note values are also supported.

Note: Quantization times are calculated using the beat of the internal metronome. Therefore, if you want to use this feature you must record using the Metronome as a timing reference.

The basic idea of quantization is illustrated below. Notes are moved forward or backward so that they fall exactly onto quarter notes.

Basic Quantization

Quantize 1/4 note Strength=100 Sensitivity = 100%



Strength and Sensitivity controls

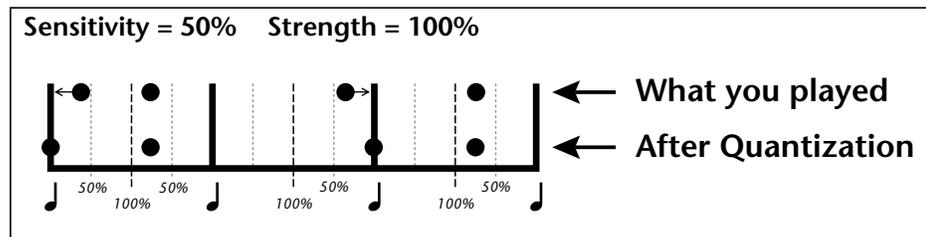
The Strength and Sensitivity controls allow you to regulate the amount of quantization to improve the timing without imparting a mechanical lack of feel to the music.

With these controls set at 100%, notes are quantized to fall exactly on the specified note value. By selecting Strength and Sensitivity values of less than 100% less drastic correction is applied.

- **Sensitivity** - Determines **which** notes are quantized. At 100%, ALL notes will be affected. At 50%, only notes which fall closer than 50% of the way toward the next beat will be quantized.
- **Strength** - Determine **how much** the notes will be moved toward the beat. At 100% any notes chosen (by the sensitivity setting) to be quantized will be moved exactly onto the beat. At a setting of 50%, notes will be moved halfway toward the beat.

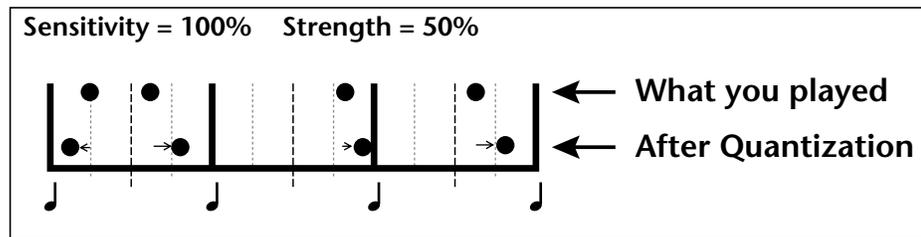
Sensitivity Example

Notes closer than 50% from the center will be pulled to the beat. Notes further than 50% will be left alone.

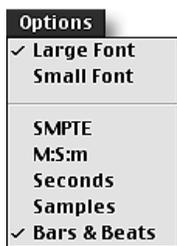


Strength Example

With a setting of 50%, notes will only be moved halfway toward the beat. The timing becomes tighter without causing a mechanical feel.



The MIDI Events Options Menu



This menu alters the display of the MIDI Events window. To activate one of its items, select it from the menu so that a checkmark appears next to its name; to de-activate it, select it again so that the checkmark is removed. **Note:** The time display options are for future expansion.

Option Menu Item:	Performs this action:
Large Font	Sets the MIDI Chunks Window so that it uses a large, easy-to-read typeface
Small Font	Sets the MIDI Chunks Window so that it uses a smaller, space-efficient typeface

Appendix 1—The C16 Pro

The C16 Pro frees you from your computer's mouse and keyboard, letting you click, slide and turn real buttons, faders and knobs for the kind of quick, precise control that only your own hands can provide. A multi-card PARIS system can contain up to eight C16 Pros, with each attached to its own EDS-1000 card. The things you can do with a C16 Pro fall into two basic categories:

- Project-related operations—Any connected C16 Pro can perform operations that apply to a Project as a whole, such as window management—including the saving and recalling of Local Views (page 28)—Marker placement, Project navigation, playback, recording and looping.
- SubMix-related operations—Activities such as editing and mixing that relate to the currently selected SubMix can be performed from a C16 Pro. In a multi-card system, each C16 Pro can be assigned to a different SubMix. (To learn about SubMixes, see Chapter 16.)



Note: For information on connecting a C16 Pro—and its foot switch—see Chapter 1.

Project-Related Operations

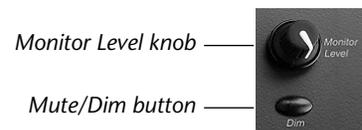
Some C16 Pro capabilities pertain to the entire Project. In a multi-card system, any C16 Pro can perform these tasks.

Monitor Controls

Monitor Level Knob

The Monitor Level knob controls the Project's left/right Monitor output level—its listening volume. The monitor outputs are separate from, though identical to, the Project's Main left/right outputs, and are typically connected to the amplifier supplying audio to studio monitors. For best fidelity, set the Monitor Level knob to 12 o'clock.

Tip: To learn how to assign a Project's Monitor outputs to specific jacks on your PARIS interface, see Chapter 4.



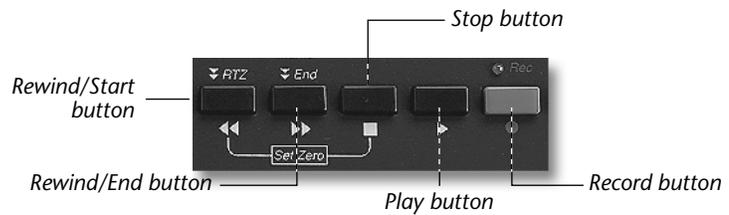
Mute/Dim Button

You can use the Mute/Dim button to reduce, or “dim,” volume of the Monitor outputs, or silence/mute them altogether:

When you:	the Monitor outputs:	and the Mute/Dim button's LED:
click the Mute/Dim button	are reduced in volume by 20 dB	lights solidly
double-click the Mute/Dim button	are silenced	blinks

The Transport Controls

The C16 Pro Transport controls perform similar actions to the buttons in the Transport Window. Some of these actions can also be performed from your computer keyboard—see Chapter 5.



Rewind/Start Button

Press and hold down the Rewind/Start button to move quickly backward through a Project, or double-click the button to immediately return to the start of the Project.

Fast Forward/End Button

Press and hold down the Fast Forward/End button to move quickly forward through a Project, or double-click the button to immediately jump to the end of the Project.

Stop Button

Press the Stop button to end playback of a Project. When recording, pressing the Stop button will end recording as it stops playback of the Project.

Tip: If you've connected an E-MU SW332 dual foot switch to your C16 Pro (see page 7), you can press the left foot pedal as a Project plays to stop playback.

Play Button

The Play button can perform four different actions:

- When a Project is stopped, press the Play button to begin playing the Project from the current location of the Now Line (page 44).
- When a Project is playing, press the Play button to re-start playback from the location at which it last began.
- When recording, press Play to stop recording but continue playing the Project.
- The Play button is also used in conjunction with the Record button to initiate recording. See “X” below.

Tip: If you've connected an E-MU SW332 dual foot switch to your C16 Pro (see page 7), when a Project is not playing, you can press the left foot pedal to begin playback.

Record Button/Record Enable

Hold down the Record button and press the Play button to initiate recording of record-enabled Channels —when recording is in progress, the red Rec LED above the Record button will light.

Before you can record a Track or FlexTrack, you must record-enable the Channel through which its audio is to pass.

To record-enable a Channel:

1. Press and Hold one or more Channel Select buttons.
2. Press the red Record button. The red Rec LED above the Channel's strip will flash to show that the Channels are ready to record.

3. To disable a Channel for recording, press and hold the Channel select button and tap the red Record button a second time.
4. To record-enable multiple Channels, press and hold each Channel's Select button and press the red Record button while the Channel's are selected.
 - **Control 16 users:** Press the Track Record Enable button on the Control 16 while holding the Channel Select button. The channel's red record LED will flash, indicating that the channel is record-enabled.

When the Project Window's Input Monitor popup is set to Live Mix, press and hold the Channel Select button, then press the red Record button to feed live audio through the Channel. To learn about Live Mix mode, see page 25.

Tip: When an E-MU SW-332 dual foot switch is connected to your C16 Pro (see page 7), pressing the right foot pedal has the same effect as pressing the Record button, allowing for “no-hands” recording or punching operations.

Basic Recording on the C16 Pro

Note: Prior to recording, you must set a record path—a destination on your hard disk—for the Audio Files you'll be creating. See page 21 to learn how to set a record path.

1. Route the audio you wish to record to the Channel corresponding to the Track or Instrument that you want to record. To learn about routing audio, see Chapter 4.
2. Press and hold the Channel's Select button (see page 214) on the C16 Pro.
3. Press the red Record button (transport controls) on the C16 Pro (Page 141)—the Channel's red Rec LED will flash to show that the Channel is record-enabled.
 - **Control 16 users:** Press the Track Record Enable button on the Control 16 while holding the Channel Select button. The channel's red record LED will flash, indicating that the channel is record-enabled.
4. Using the C16 Pro's Transport controls, find the location in the Project at which you want to begin recording.
5. Press and hold down the Record button and, while continuing to hold it, press the Play button—the red Rec LED above the Record button will light to show that PARIS is recording.
6. Release both buttons.
7. To finish recording, press the Stop button or, if you'd like playback to continue after recording ends, press the Play button.

Note: PARIS can record more than a single Track/FlexTrack at a time. The steps above describe the recording of a single Track/FlexTrack for purposes of clarity. To record more than one at a time, route audio to the desired Channels in Step 1, and repeat Steps 2 and 3 for each Channel whose audio you wish to record.

Manually Punching In and Out on the C16 Pro

Punching is the process of re-recording only a portion of a Track or FlexTrack, while leaving the remainder of your original recording intact. When you start re-recording, you're “punching in”; when you stop, you're “punching out.” You can do this manually—described below—or perform automated punch-ins and outs. See page 211 to learn how to use the C16 Pro for this purpose, or page 41 to learn how to do this using your mouse.

Tip: In FreeForm mode (page 54), punching does not replace any of the earlier recording; rather, it places the punched section on the next highest-FlexTrack. This allows you to accumulate multiple takes of a punched section from which you can choose the best performance.

 *To punch manually:*

1. Route the audio you wish to record to the Channel corresponding to the Track or Instrument that you want to record. To learn about routing audio, see Chapter 4.
2. Press the Channel's Select button (see page 214) on the C16 Pro.
3. Press the Track Record Enable button on the C16 Pro—the Channel's red Rec LED will light to show that the Channel is record-enabled.
4. Using the C16 Pro's Transport controls, find the location in the Project at which you want to begin playback.
5. Press the Play button to begin playback of the Project.

6. Press and hold down the Record button and, while continuing to hold it, press the Play button at the moment at which you want the punch-in to occur—the red Rec LED above the Record button will light to show that PARIS is recording.
7. Release both buttons.
8. To punch out, hit the Play button at the desired punch-out location—the Rec LED will go out, showing that recording has stopped.

Set the Return-to-Zero Point

This feature allows you to quickly set the Return-to-Zero point to the current position of the Now Line. Double-clicking on the Rewind button instantly moves the transport to the Return-to-Zero point. This is a handy feature when you’re working in the middle of a song and don’t want to use a Marker.

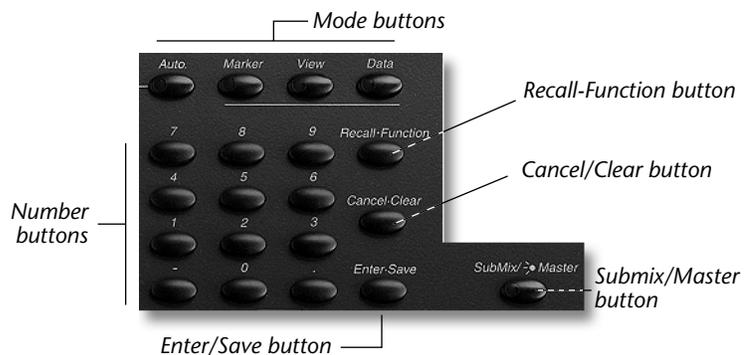
 *To Set the Return-to-Zero Point:*

1. Locate to the point in the song where you want the Return-to Zero point to be.
2. Press and Hold the Stop button of the main transport controls.
3. Press the Rewind button of the transport controls. The new Return-to-Zero point is set!

Note: You can also set the Return-to-Zero point from the Locate Window. See page 91.

The Keypad

The C16 Pro contains a keypad section from which you can copy Markers into the Transport and Locator windows’ Locate Time counter (Pages 42 and 91), and from which you can open Project-wide windows and any window in the default SubMix (page 172). This keypad functions in the same manner as the one found in the Locator Window (and the one on your computer’s keyboard when working in PARIS)—see page 91.



The Keypad Modes

The behavior of the keypad is determined by the setting of its Mode buttons:

In this mode:	you can:
Marker mode	copy a Marker’s location into the Locate Time counter
View mode	open any Project window or window in the default SubMix; save and recall Local Views

Note: The two remaining Mode buttons are reserved for future implementation.

Note: When you select a mode for any of the three keypads, you’re selecting the mode for all three.

To Change Keypad Modes

The current keypad mode is indicated by a lit yellow LED in its active mode button. To change modes, click the desired Mode button—its LED will light.

Entering Numbers in the Keypad

PARIS allows you to select Markers, windows or Local Views by typing their numbers on the C16 Pro’s keypad. As you type a Marker, Local View or window’s number, the number appears in red in the Locate and Transport windows’ Locate window—when you’ve finished copying the Marker into the Locate Time counter, saved or recalled a Local View, or opened a window, the number changes to white in these Locate windows.

To Clear a Number You’ve Begun Entering

If you begin entering a number and decide you’d like to start again it—perhaps you’d like to type a different number or have mis-entered a digit—press the keypad’s Clear button.

Marker Mode

In Marker mode, you can copy any Marker's time location into the Locator and Transport windows' Locate Time counter for use with the Locate feature (Markers are described on page 50). To do this, select Marker mode, enter the Marker's number on the keypad, and press the keypad's Recall button.

Tip: When entering Marker numbers on the keypad—leading zeroes are not required.

Tip: To Recall a Marker's location into the Locate Time counter and move the Now Line to that location, enter the Marker number and hit the "." button.

View Mode

In View mode, you can use the keypad to open any Project window or window in the default SubMix (see page 172). You can also save Local Views of any window.

Opening Project or SubMix Windows

To open any Project Window or default SubMix window, select View mode and enter the number of the desired window, followed by a period:

Type:	for the:	Type:	for the:
1.	Project Window	10.	Automation Editor Window
2.	Editor Window	11.	Big Display
3.	Mixer Window	12.	Master Mixer Window
4.	Transport Window	13.	Markers Window
5.	Locator Window	14.	MIDI Devices
6.	Instruments Window	15.	MIDI Instruments
7.	Patch Bay Window	16.	MIDI Chunks
8.	Audio Window	20.	Background Tasks Window
9.	Mini Mixer Window		

Tip: If you've got a MEC, you can also select the MEC Modules Object Window (page 33) and/or expansion module-related windows by typing "30." for the first item in the Project Window's Shortcuts Menu (page 23), "31." for the next item, and so on.

Saving and Recalling Local Views

You can save up to 99 Local Views of any window. To learn about Local Views, see Chapter 3.

- To save a Local View of the front-most window, assign a number to the Local View by entering it on the keypad, and then click the keypad's Enter•Save button.
- To recall a Local View of the front-most window, enter the view's number on the keypad and click the Recall button.

SubMix/Master Button

The SubMix button performs dual functions.

First, it allows you to set the SubMix to which the C16 Pro is assigned and designate any of a Project's SubMixes as the default SubMix (page 172):

- To learn which SubMix the C16 Pro is currently assigned to, hold down the SubMix button—the up/down Null Arrows on the Channel corresponding to the C16 Pro's current SubMix will light.
- To assign the C16 Pro to a SubMix (and set the Project's default SubMix), hold down the SubMix button and, while still holding it, type the desired SubMix's number on the keypad of the C16 Pro.

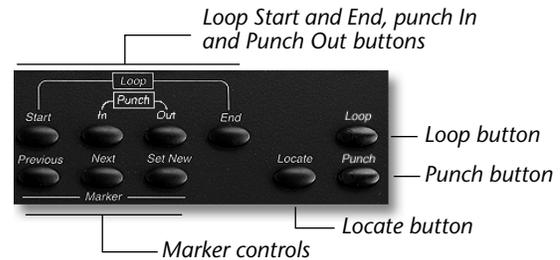
Tip: You can also learn which SubMix is the current default by viewing the Project Window's Default To Menu.

Second, the Master Mix feature allows the 16 faders on the C16 Pro to control the 16 Submixes.

- Tap the Submix/Master button twice to control all your Submix Master volumes with the C16 Pro faders. The Submix Master LED will be flashing. Channel one fader controls Submix one, channel two controls Submix two and so on. The white master fader controls the global fader. Tap the Submix/Master button twice again to turn this feature off.

The Marker, Loop, Punch and Locate Controls

The C16 Pro provides controls for navigating a Project's Markers, and for setting up and activating looping and automated punching. In addition, the C16 Pro provides a Locate button that you can use to send the Now Line to a desired location in a Project. These controls are similar to those found in the Locator and Transport windows.



The Marker Controls

The Marker controls allows you to move the Now Line from Marker to Marker within a Project, and to set new Markers.

To:	Do this:
Move the Now Line back to the last Marker it passed	Press the Previous button.
Move the Now Line to the next upcoming Marker	Press the Next button.
Place a new Marker at the Now Line's current location	Press the Set New button—the new Marker will be placed at the Now line's location at the moment you release the New button.

Tip: To learn about Markers, see page 50. You can precisely position Markers in the any Editor or Automation Editor window (Chapters 6 and 14), and re-position or name Markers in the Markers Window—see Chapter 9.

Looping on the C16 Pro

You can automatically play a section of a Project over and over—up to 250 times—by setting up and activating PARIS' Loop feature. The section to be repeated is defined by placing two special Markers, the Loop Start and Loop End Markers, at the beginning and end of the section, respectively.

To define a section of a Project to be looped:

1. Rewind to a location in the Project prior to the section to be looped, and begin playback.
2. Press and hold down the C16 Pro's Set New button.
3. At the location at which you want the loop to start, without releasing the Set New button, press the Loop Start button—the Loop Start Marker will be placed at the Now Line's position.
4. Release the Set New button.
5. As you approach the location at which you want the loop to end, press and hold down the Set New button.
6. At the location at which you want the loop to end, without releasing the Set New button, press the Loop End button—the Loop End Marker will be placed at the Now Line's position.

Tip: You can also place Loop Start and End Markers when the Project is not playing by positioning the Now Line at the start of the section to be looped, and performing Steps 2 and 3 above. To place the Loop End Marker, position the Now Line at the end of the desired section and perform Steps 5 and 6.

Tip: You can fine-tune the location of your looping Markers in any Editor or Automation Editor window (Chapters 6 and 14), or in the Markers Window (Chapter 9).

Tip: Once you've placed Loop Start and Loop End Markers, you can press the Loop Start and Loop End buttons to cause the Now Line to jump to either location.

To activate looping:

1. Press the C16 Pro's Loop button—its yellow LED will light to show that looping is turned on.

2. Play the Project, the section defined by the loop Markers will repeat until you end playback.

Tip: You can also set up and activate looping from the Locator Window; you can activate punching from the Transport Window—see page 41.

Mac OS Tip: If you encounter problems playing looped sections with many short Segments, try adding 1-2 Mb to PARIS' Recommended and Preferred Sizes in its Get Info window (select the PARIS icon and type COMMAND-I).

Warning: To prevent problems, do not move Loop Markers, turn the Loop feature off or drag new Objects onto the Playing Field in an Editor Window during loop playback.

Automated Punching on the C16 Pro

In addition to the manual punching described on page 207, you can also set up and activate automated punching on the C16 Pro. To perform an automated punch from the C16 Pro, you first define the section that you want to re-record using Punch In and Punch Out Markers, activate the Punch feature, and then record using standard PARIS techniques (page 207).

 *To define a section of a Project to be punched:*

1. Rewind to a location in the Project prior to the section to be re-recorded, and begin playback.
2. Press and hold down the C16 Pro's Set New button.
3. At the location at which you want to begin recording, without releasing the Set New button, press the Punch In button—the Punch In Marker will be placed at the Now Line's position.
4. Release the Set New button.
5. As you approach the location at which you want stop recording, press and hold down the Set New button.
6. At the location at which you want to punch out, without releasing the Set New button, press the Punch Out button—the Punch Out Marker will be placed at the Now Line's position.

You don't have to place both Punch Markers if you want to perform an automated punch from the beginning of a Project to a specified location, or from a location somewhere in the middle of the Project until you manually end recording.

- To punch from the beginning of a Project to a particular location, place the Punch Out Marker where you want recording to end. PARIS will punch in at the start of the Project and stop at the Punch Out location.
- To punch from a location in the middle of a Project indefinitely, place the Punch In Marker at the location at which you want recording to begin—PARIS will punch in at that location and continue recording you manually stop the recording.

Tip: You can also place punching Markers when the Project is not playing by positioning the Now Line at the start of the section to be punched, and performing Steps 2 and 3 above. To place the Punch Out Marker, position the Now Line at the end of the desired section and perform Steps 5 and 6.

Tip: You can fine-tune the location of your punch Markers in any Editor or Automation Editor window (Chapters 6 and 14), or in the Markers Window (Chapter 9).

Tip: Once you've placed Punch In and Punch Out Markers, you can press the Loop Start and Loop End buttons to cause the Now Line to jump to either location.

 *To activate punching:*

1. Press the C16 Pro's Punch button—its red LED will light.
2. Rewind to a location prior to the point at which your Punch In Marker is located.
3. Hold down the Record button and press the Play button—the red Rec LED will flash until the Now Line reaches the Punch In Marker, at which time it will light solidly, indicating the recording has begun. When the Now Line passed the punch Out Markers, recording will stop, and playback will continue until you stop it.

Appendix 1 - The C16 Pro

Recall-Function Key

Tip: You can also set up and activate punching from the Locator Window; you can activate punching from the Transport Window—see page 42.

Tip: See page 95 for some interesting reasons to consider using looping and automated punching together.

Recall-Function Key

The Recall-Function key has a dual purpose. Its use as a Recall button for recalling Views has been previously described on page 209. Its second purpose is as a “Function” key, similar to the function key on a pocket calculator—pressing and holding the Function key while pressing a number on the numeric keypad, invokes a secondary function. The secondary functions are described in the chart below.

To:	Do this:
Delete Last Take	Hold Recall-Function and press 0
Unlock External Lock	Hold Recall-Function and press 1
Lock External Lock	Hold Recall-Function and press 2
Turn Off Automation for Default Submix	Hold Recall-Function and press 3
Turn On Automation for Default Submix	Hold Recall-Function and press 4
Turn Off Global Automation	Hold Recall-Function and press 5
Turn On Global Automation	Hold Recall-Function and press 6
Break at Now Line in Editor (if frontmost window)	Hold Recall-Function and press ‘.’
Clear Objects in Editor (if frontmost window)	Hold Recall-Function and press ‘-’

SubMix Operations

A C16 Pro can be assigned to any SubMix in a Project in order to perform tasks relating to that SubMix. This assignment is made from the C16 Pro (see “SubMix Button” on page 209). In a multi-card system, each C16 Pro can be assigned to its own SubMix. In the Project Window, you can see which SubMixes have been allocated a C16 Pro (page 26).

Note: If you use the C16 Pro to make changes in a Virtual SubMix, you won’t hear those changes until you switch the SubMix to its Card setting, or update the SubMix. See Chapter 16 to learn more.

The C16 Pro Channel Strips

The C16 Pro contains 16 Channel strips that correspond to the 16 Channel strips in the Mixer Window—and Mini Mixer Window—of the belonging to the SubMix to which the C16 Pro is assigned. Each strip provides:

- a Rec LED that lights when the Channel is record-enabled. See below.
- an Input LED that shows whether the Channel's audio is coming from an external input or is being played back from your hard disk. See below.
- a Select button that allows you to select the Channel as the subject of various editing operations. See below.
- a Mute button that allows you to silence the Channel's audio, and that can be used as a Solo button when the C16 Pro's Solo mode is engaged.
- Null Arrow LEDs that you can use for the synchronization of the Channel's Fader with the corresponding Channel Fader in the SubMix's Mixer Window.
- a Channel Fader that allows you to adjust the volume of the Channel's audio.

Note: The C16 Pro Channel strips work in tandem with its Channel Controls section, which is described on page 218.

Channel Strip Number

Each Channel strip is identified by a number at its top and bottom. This number reflects the number of the corresponding Channel strip in the SubMix's Mixer Window.

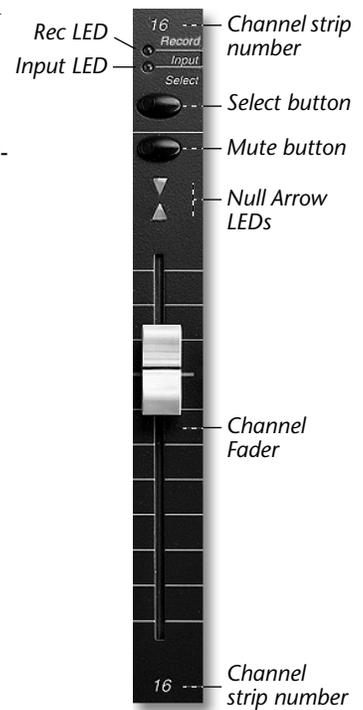
Rec LED

When lit, the red Rec LED signifies that the Channel is record-enabled: if PARIS' recording function is engaged, the Channel's audio will be recorded. A Channel can be record-enabled in the SubMix's Mixer Window (page 107) or on the C16 Pro, as described on page 206.

Input LED

Each Channel strip's green Input LED lights shows the source of the strip's audio:

- When the Channel strip's audio is coming from a live input, the Input LED lights.
- When the Channel strip is playing back audio from a disk drive, the Input LED remains unlit.



Select Button

In each SubMix Mixer Window, one Channel strip is always selected. When a Channel is selected, you can use the C16 Pro to record-enable the Channel (see page 206), or to adjust its:

- EQ settings
- Aux Send amounts
- Panning

Tip: When a Channel is selected, it can also be subjected to various Mixer Window Edit Menu commands (page 124).

To select a Channel strip on the C16 Pro, press its Select button—the button's LED will light (in the Mixer Window, the area behind the Channel Fader in the corresponding strip will be shown in blue indicator).

Note: Each Channel's Select button is also employed when recording automation from the C16 Pro. See page 215.

Mute Button

Each Channel's Mute button allows you to quickly silence the Channel's audio, or to solo it.

 *To mute and/or un-mute a Channel strip's audio from the C16 Pro:*

1. Make sure that the Master Solo button's LED (page 215) is not lit. Click the button to turn off the LED if necessary.
2. Click the Mute button belonging to the Channel strip whose audio you want to silence—the Mute button's LED will light and the Channel will be silenced.
3. To un-mute the Channel, click the Mute button again.

 *To solo and/or un-solo a Channel strip's audio from the C16 Pro:*

1. If its LED is currently un-lit, click the Master Solo button to light its LED.
2. Click the Mute button for the Channel strip whose audio you wish to solo—the Mute button's LED will flash and the Channel will become soloed.

Note: Soloing affects what is heard in the Project's Monitor outputs; if you're listening to the Project's Main outputs, the Solo feature will have no effect. To learn more about routing outputs, see Chapter 4.

Note: You can solo up to three Channels at once on each installed EDS-1000 card; if you attempt to solo more than three, the last-soloed Channel will be un-soloed and replaced by the Channel you've just attempted to solo.

Null Arrow LEDs

The Null Arrow LEDs are indicators that show you whether or not a C16 Pro Channel strip Fader is in sync with its counterpart in the SubMix's Mixer Window, and in which direction the C16 Pro Fader must be moved to match its virtual counterpart. The manner in which these physical and virtual Faders are synchronized—and the behavior of the Null Arrow LEDs— is controlled by the Control Surface Mode setting in the Project Window. See page 25 for details.

Channel Fader

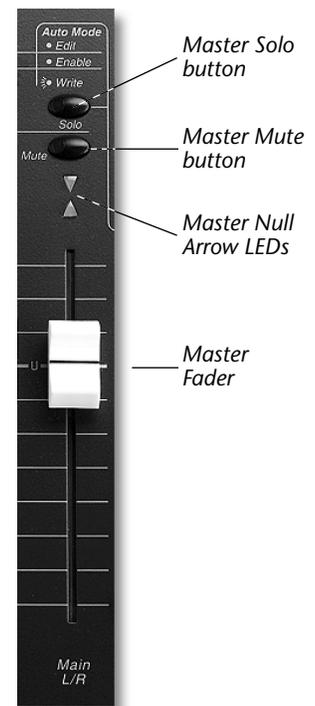
Each Channel strip's Channel Fader controls the volume of the Channel's output. The Channel Fader can boost the Channel's signal by up to 10 dB, or reduce it by 90 dB. When the center line in the Fader's handle is aligned with the horizontal mark drawn across the Channel strip, no boost or cut is applied to the signal.

Note: When recording, the Channel Fader has no effect on the volume of the signal being recorded—input volume levels must be set at the external device sending signal into PARIS.

The C16 Pro Master Strip

The C16 Pro's Master strip provides overall volume control of the C16 Pro's SubMix, provides master muting and solo controls and enables the recording of automation. The Channel strip contains:

- a Master Solo button that enables the use of Channel Mute buttons as Solo buttons (page 214), and, with the Master Mute button, enables the recording of automation from the C16 Pro (see below).
- a Master Mute button that silences the SubMix's Main left/right outputs and, together with the Master Solo button, enables the recording of automation from the C16 Pro (see below).
- Master Null Arrow LEDs used for the synchronization of the C16 Pro's Master Fader with the Master Fader in the SubMix's Mixer Window. See page 215.
- a Master Fader that controls the volume of the SubMix. See page 215.



Master Solo Button

The Master Solo button—when its LED is lit and slowly flashing—turns all Channel strip Mute buttons into Channel Solo buttons. When the Master Solo button is thus engaged, click any Channel strip's Mute button to solo the Channel. See “Mute Button” above.

Note: This button also plays a part in the recording of automation data from the C16 Pro; see “Recording Automation Data from the C16 Pro” on page 215.

Master Mute Button

The Master Mute button—when engaged—silences the SubMix's Main left/right outputs. When the outputs are muted, the Master Mute button's LED lights solidly.

Master Null Arrow LEDs

The Null Arrow LEDs are indicators that show you whether or not the C16 Pro Master Fader is in sync with its counterpart in the SubMix's Mixer Window, and in which direction the Master Fader must be moved to match its virtual counterpart. The manner in which these physical and virtual Master Faders are synchronized—and the behavior of the Null Arrow LEDs— is controlled by the Control Surface Mode setting in the Project Window. See page 25 for details.

Master Fader

The C16 Pro's Master Fader controls the volume of the SubMix. When that SubMix is the Card SubMix, the Master Fader on the C16 Pro is identical to both the SubMix's Mixer Window left/right Master Fader and the SubMix's Fader in the Master Mixer Window. When the SubMix is a Virtual SubMix, the C16 Pro Master Fader is identical to SubMix's Mixer Window left/right Master Fader. The C16 Pro Master Fader can reduce the overall volume of the SubMix—when the Master Fader is all the way up, no cut is applied to the SubMix.

Recording Automation Data from the C16 Pro

Automation Recording Overview

You use the C16 Pro to record automated Channel and Master Fader level changes and Mute-button presses for the current SubMix. Automation data is recorded during playback of the Project, and you can record automation for as many Channels as you wish during a single pass, or take. There are several aspects to the procedure:

Prior to playing the Project—and recording automation, a few preparatory steps must occur:

- Each C16 Pro Channel Fader you'll be using must be synchronized with its counterpart in the Mixer Window.
- The Edit Automation button must be engaged in the Mixer Window Channel strip corresponding to each Channel you intend to automate. This arms each Channel for automation recording.
- The C16 Pro must be switched to its automation recording mode.

- Each Channel's Select button on the C16 Pro acts as an on/off switch for the recording of the Channel's automation data—when automation recording is activated, the LED in the Select button flashes rapidly. Since there's no need to record automation during sections of the Project where no level changes or Mute-status changes occur, you can click the Select button for each Channel to activate and/or de-activate automation-data recording as the Project plays:
- Until you turn on a Channel's automation recording and move a Fader, the Channel will play its audio according to the current setting of its Fader and Mute button.
- When you record automation data and then turn off the Select button's LED, the last level and Mute-button press you recorded will remain in place until the Project ends or further automation data is recorded later in the Project.
- During playback any changes you make to Fader or Mute button settings in any armed and activated Channels will be recorded. If you stop the Project prior to its end, the current Fader and Mute settings for all armed and activated Channels will remain in place until the end of the Project upon playback of the automation data.
- The Automation Playback button must be activated in each Mixer Window Channel strip corresponding to the Channels for which you've recorded automation data so that the data will be used during playback.
- When you play the Project, your level and Mute-buttons changes will be automatically re-created.

Note: When automation data is played back in PARIS, the Null Arrow LEDs on the C16 Pro will reflect the changing position of each Channel's Mixer Window counterpart.

Step-by-Step Automation Recording Procedure (C16 Pro)

1. Make sure the transport is stopped.
2. Using their Null Arrow LEDs, synchronize the Faders of the Channel strips you intend to automate with their Mixer Window counterparts (see page 214).
3. Press the Auto button. The LED will begin flashing.
4. Press and hold the Select button on the desired channel(s) for about one second. The red LED will light, indicating that Automation Edit is enabled for that track.
5. Tap the Select button again during playback to write fader automation. The yellow LED will light indicating Automation "Write Mode".
6. You can punch in and out of Automation Write Mode by tapping the Select button during playback. You do not need to enter "Write Mode" to write Mute on or off automation.
7. Continue recording automation data until the end of the Project, or press the Stop button when you reach a point after which no further volume or Mute-button changes are to occur.
8. To un-arm each Channel for the recording of automation data, press and hold the channel's Select button for one second. The red LED will go out.
9. To activate playback of each Channel's automation data, simply tap the Channel's Select button after pressing the Auto button (LED flashing) prior to playing back the Project.

Step-by-Step Automation Recording Procedure (Control 16 only)

1. Using their Null Arrow LEDs, synchronize the Faders of the Channel strips you intend to automate with their Mixer Window counterparts (see page 214).
2. In the SubMix's Mixer Window, arm each Channel you plan to automate by clicking its Edit Automation button (page 137) so that the button is depressed and its blue LED lit.
3. Press and hold down the Master Solo button.
4. While continuing to hold down the Master Solo button, press the Master Mute button and release both buttons—the Master Solo button's LED will flash rapidly to signify that the C16 Pro is armed for the recording of automation.
5. Rewind the Project, if necessary.
6. Press the Select button of each Channel for which you'd like to record volume and Mute changes at the beginning of the Project—this activates the Channel for recording of automation data.
7. Press the Play button and make any Fader-setting or Mute-button changes you desired for each active Channel.
8. As the Project plays, you can press any active Channel's Select button to de-activate the Channel, or press the Select buttons of any inactive Channel to activate it for the recording of Fader and Mute-button changes.

9. Continue recording automation data until the end of the Project, or press the Stop button when you reach a point after which no further volume or Mute-button changes are to occur.
10. To un-arm each Channel for the recording of automation data, click its Mixer Window Edit Automation button.
11. To activate playback of each Channel's automation data, click the Channel's Automation Playback button in the Mixer Window (page 137) prior to playing back the Project.
12. To disengage the C16 Pro's automation recording function altogether, press the Master Solo button twice.

Note: To ensure proper playback of Mute automation, un-mute any Muted Channels after recording automation data.

Submix Master Automation (C16 Pro)

Automation of the Submix Masters can be performed on multiple channels using the C17 Pro faders.

To Automate the Submix Master faders:

1. Make sure the transport is stopped.
2. Go into Submix Master mode by tapping the Submix/Master button twice. The Submix Master LED will be flashing.
3. Enable Automation on the C16 Pro by pressing the Auto button.
4. Channel one fader controls Submix one, channel two controls Submix two and so on. Tap the Select button quickly on the desired channel. The green Input LED will light indicating that Automation is enabled for that track.
5. Press the Select button for about one second on the desired channel. The red Rec LED will light indicating that Automation Edit is enabled for that channel.
6. Tap the Select button on the C16 Pro during playback to write Submix Master automation.

To Automate the Global Master fader:

1. Make sure the transport is stopped.
2. Go into Submix Master mode by tapping the Submix/Master button twice. The Submix Master LED will be flashing.
3. To enable Global Master Automation, press the “A” and “E” buttons on the Global Master bus using the mouse.
4. Enable Automation on the C16 Pro by pressing the Auto button.
5. Tap the Master Solo button on the C16 Pro during playback to write Global Master fader automation using the white master fader.

Automation Recording Tips

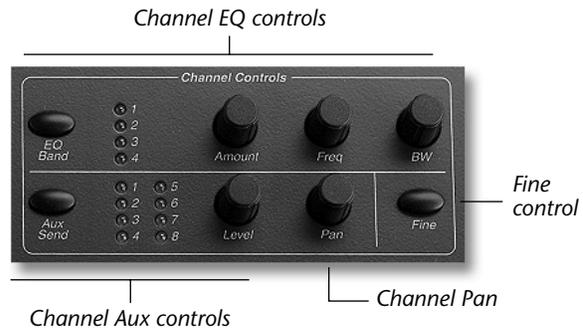
- To undo all automation data recorded during the last automation-recording take, open the SubMix's Automation Editor Window to the front, and hit the C16 Pro's Undo button (page 219).
- Each Channel's automation data can be refined or deleted in the Automation Editor Window—see Chapter 14.
- You can add new automation data on top of previously recorded data by depressing both the Channel's Edit Automation and Automation Playback buttons in Step 2 above.

The Channel Controls

The Channel controls provide tools for performing various operations upon the currently selected Channel. See “Select Button” on page 214. You can use them to:

- apply EQ to the Channel’s audio.
- add Effects to the Channel’s audio.
- set the stereo position of the Channel’s audio.
- enable the Channel for recording or punching.

Tip: All of the Channel controls have counterparts in the SubMix’s Mixer Window—you can observe the changes you make in the Mixer and Mini Mixer windows, described in Chapter 12.



If you’d like more background information on individual Channel controls:

To learn more about:	see:
EQ (equalization)	Page 108
Aux Sends	Page 111
Channel stereo panning	Page 107
Record-enabling Channels	Page 107

The Channel EQ Controls

The Channel EQ controls allow you to select each of the four EQ bands available for each Channel, turn EQ on or off for the band, select a frequency for the selected band, adjust the range of frequencies to be affected above or below the selected frequency, and to raise or lower—or “boost” or “cut,” respectively—the selected range of frequencies.

- To select an EQ band, repeatedly press the EQ Band button—with each press a different band will be selected, as indicated by the 1/2/3/4 band LEDs to the right of the button. In the SubMix’s Mixer and Mini Mixer windows, if any EQ modules are visible, but the selected band’s module was not displayed prior to selection, it will automatically be scrolled into view.

Note: Each band encompasses a range of frequencies from 20 Hz to 20 kHz, so you can use any band for any range of frequencies.

- To activate the selected band, hold down the EQ Band button for 2-3 seconds—if you have the SubMix’s Mixer or Mini Mixer windows open, you’ll see the selected EQ band on/off switch engage. To turn off the band, hold down the EQ Band button again for 2-3 seconds.
- To select a frequency for the band, turn the Freq knob.
- To “fine tune” the EQ frequency, press and hold the Fine button while adjusting the EQ frequency control/
- To set the bandwidth (or “Q”) of the frequencies to be affected, turn the BW knob.
- To boost or cut the selected range of frequencies, turn the Level knob.

The Channel Aux Controls

The Channel Aux controls allow you to route the selected Channel’s audio to an Aux Effect by sending it to the Effect on any of eight Aux Send busses. Each Aux Send is connected to its like-numbered Aux strip in the Mixer Window. Using the Channel Aux controls, you can select any Aux Send to use it for routing a Channel’s audio to an Aux Effect, activate the sending of the audio and set the amount of the Channel’s audio to be transmitted to the Effect via the Aux Send.

- To select an Aux Send, repeatedly press the Aux Send button. with each press the next of the eight Aux Send LEDs to the right of the button will light—there eight LEDs correspond numerically to the eight Aux Sends. In the SubMix’s Mixer and Mini Mixer windows, if any Aux Send modules are visible, but the selected Aux Send’s module was not displayed prior to the Aux Send’s selection, the module will automatically be scrolled into view.

- To activate the sending of audio on the selected Aux Bus, hold down the Aux Send button for 2-3 seconds—if you have the SubMix’s Mixer or Mini Mixer windows open, you’ll see the selected Aux Send’s on/off switch engage. To de-activate the sending of audio on the Aux Send, press and hold the Aux Send button again for 2-3 seconds.
- To set the amount of the Channel’s audio to be sent out on the Aux Send, turn the Channel controls’ Amount knob.

Channel Pan Knob

The Channel Pan knob allows you to set or adjust the stereo placement of the selected Channel’s audio. To use this control, turn the knob in the desired direction to move the Channel’s audio leftward or rightward.

Fine Button

The Fine button allows a finer degree of precision when making edits to Pan or EQ Frequency. Normally these controls jump in coarse increments to allow quick adjustment. Press and hold the Fine button while adjusting the Pan or EQ Frequency controls to make fine adjustments.

The Play Selection Button



Click the Play Selection button to audition all currently selected Objects in the current SubMix's Editor Window.

Tip: To apply a specified pre-roll or post-roll time to the Play Selection feature, OPTION-click (Mac OS) or right-mouse-click (Windows) the Play Selection button in the SubMix's Editor Window (see page 68).

The Edit Controls



Undo and Redo Buttons

You can reverse up to 99 Object edits you've performed in the current SubMix's Editor and Automation Editor windows by bringing the desired window to the front and clicking the Undo button once for each edit you want to undo. While viewing the window, you can restore up to 99 of your edits by clicking the Redo button once for each edit you wish to reinstate.

Tip: You can also undo and redo edits using the Undo and Redo Edit Menu items in the Editor and Automation Editor windows (Pages 49 and 148), or via keyboard shortcuts (Appendix 3).

Left/Right Arrow Buttons

The Left/Right buttons can be used for the selection of an Editor Window Track/FlexTrack or Automation Editor Window Automation Track in the SubMix. When a Track/FlexTrack or Automation Track is selected:

- it can be used as the destination for pasting operation.
- In the Editor Window, you can use the Left/Right Arrow buttons to navigate between the Objects on the selected Track or FlexTrack.

To select a Track/FlexTrack or Automation Track, hold down the Left Arrow button and click the Right Arrow button to select the next-lower Track/FlexTrack or Automation Track—the Now Line will be shown in yellow as it crosses the currently selected Track/FlexTrack or Automation Track. To select a higher-placed Track/FlexTrack or Automation Track, hold down the Right Arrow button and click the Left Arrow button.

You can also select a Track/FlexTrack or Automation Track by clicking it in its window, or by using your computer keyboard’s up and down arrow keys.

Appendix 1 - The C16 Pro

Select the type of Control Surface you are using

To use the Left/Right buttons to quickly navigate between the Objects on the currently selected Track or FlexTrack:

Click the:	to move the Now Line to:
Left arrow button	the last Object start located prior to the Now Line's current location.
Right arrow button	the next Object start located after the Now Line's current location.

Tip: Your keyboard's left/right arrow buttons mirror the Object-start selection functionality of the C16 Pro's Left/Right Arrow buttons, and can perform additional functions in conjunction with the keyboard's SHIFT key. See Appendix 3.

Jog/Shuttle Wheel Mode Buttons and Jog/Shuttle Wheel

The C16 Pro's Jog/Shuttle Wheel can perform a variety of editing and navigational functions, as set using the Jog/Shuttle Wheel Mode buttons. The Edit Object button and its LED serve as a master switch for the Jog/Shuttle Wheel Mode buttons.

When the Edit Object button's LED is lit, turning the Jog/Shuttle Wheel clockwise or counter-clockwise will nudge all currently selected Objects in the current SubMix's Editor Window backward or forward in time, respectively:

Press the:	so that rotating the Jog/Shuttle Wheel:
Start button	nudges the start time of all selected Objects.
Position button	nudges the placement of all selected Objects.
End button	nudges the end time of all selected Objects.

When the Edit Object's LED is not lit, turning the Jog/Shuttle Wheel clockwise or counter-clockwise will move the Now Line (page 44) in the SubMix's Editor Window backward or forward in time, respectively. The Jog/Shuttle Wheel can move the Now Line in coarse or fine increments:

Press the:	LED status	Mode	so that rotating the Jog/Shuttle Wheel
Shuttle	Solid	Coarse	moves the Now Line in large increments
Shuttle	Flashing	Fine	moves the Now Line in smaller increments
Jog	Solid	Track	If a single track is selected, Jog plays only the single track. If multiple tracks are selected, Jog plays the track that was selected last.
Jog	Slowly Flashing	Select	Jog plays all selected tracks.
Jog	Rapidly Flashing	Submix	Jog always plays all tracks.

Note: The Data button is reserved for future implementation.

Select the type of Control Surface you are using

Either the C16 Pro control surface (blue) or the classic Ensoniq Control 16 (black) can be used with PARIS 3.0 (and above). Each EDS-1000 PCI card can be assigned to use either type of control surface. A checkbox in the C16 Setup function, located under "Settings" in the Project window, allows you to select the new C16 control surface for each EDS-1000 card in your system. Changes do not take effect until you restart PARIS.

The Ensoniq Control 16 can be used in either of the two modes, although you may want to re-label several of the button labels in C16 Pro mode (see the chart below).

Control Surface Differences

Ensoniq Control 16 Button	C16 Pro Button
Marker	Auto
View	Marker
Data	View
Function	Data
Enter/Save	Recall/Function
Recall	Cancel/Clear
Cancel/Clear	Enter/Save
Submix	Submix/Master
Track Record Enable	Fine

Appendix 1 - The C16 Pro

Select the type of Control Surface you are using

Appendix 2-Synchronization

Synchronization Overview

PARIS achieves synchronization with other applications and devices using MIDI Time Code (MTC). MTC is SMPTE time code that has been converted from standard Linear Time Code audio into MIDI-format data. If an application or device is MTC-compliant, you can synchronize it to PARIS. You can synchronize PARIS to any MTC-compliant application or external device that generates MTC.

Tip: The PARIS Notes & FAQ PDF file in the Important Info folder inside your PARIS folder contains specific instructions for various synchronization scenarios.

Synchronizing Other Applications and External Devices to PARIS

Mac OS

Applications and OMS

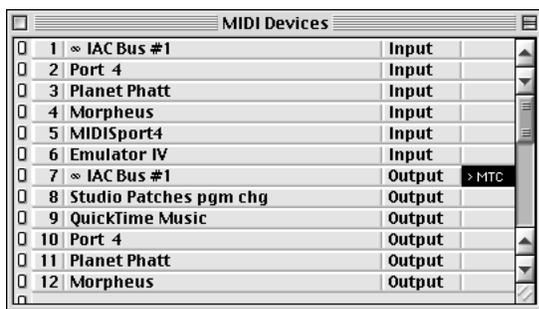
Mac OS applications can be synchronized to PARIS using OMS (Open Music System) from Opcode. OMS is a free program—you can download it from Opcode’s Web site: <http://www.opcode.com>. OMS provides an Inter-Application Communication tool called the IAC driver. When installing OMS, utilize the Custom install option to add the IAC driver to your system. If you have questions regarding the installation and use of OMS, contact Opcode.

Note: The default names for the IAC busses are used in this appendix though they can be re-named.

If you have specific questions about the use of external sync and MIDI Time Code (MTC) with your sequencer program, consult the documentation that came with the application or contact the manufacturer directly.

 To synchronize another application to PARIS:

1. Run the PARIS application.
2. From the Project Window, choose MIDI Time Code Setup... from the Settings menu (*or type: 14.*).
3. This will open the MIDI Devices Window.



4. Select “IAC Bus #1” as the the MTC Output by clicking in the box shown above. PARIS will send MTC to this destination.
5. Run your MIDI sequencer application.
6. In its sync setup dialog, choose “IAC Bus #1” as the source of external MTC sync.
7. Set the time base of the sequencer to MTC. (consult your sequencer's documentation for more information.)
8. Select the same SMPTE frame rate as shown in the PARIS Project Window. PARIS’ default frame rate is 30 fps.
9. Press the Play button on the MIDI sequencer. (Some sequencers do not require this step; they will automatically go into play mode when external sync is received.)

When you begin playback from the PARIS transport controls (in the Transport Window, from your keyboard or from the C16 Pro hardware), PARIS will generate MTC. The MIDI sequencer will follow the Transport and Marker location commands (location, stop and start) from PARIS.

Appendix 2 - Synchronization

Synchronizing Other Applications and External Devices to PARIS

Note: Make sure your MIDI sequencer is capable of being run while in the background. This is usually a preference that can be set within the application. This allows either PARIS or the MIDI sequencer to be the top-most window on the desktop. You'll probably find it most convenient to keep PARIS in front.

Windows

When you install PARIS, it places a custom MIDI driver in the System folder in your Windows directory. This driver enables synchronization between PARIS and other MIDI applications.

If you have specific questions about the use of external sync and MIDI Time Code (MTC) with your sequencer program, consult the documentation that came with the application or contact the manufacturer directly.

 To synchronize another application to PARIS:

1. Run the PARIS application.
2. From the Project Window, choose MIDI Time Code Setup... from the Settings menu (*or type: 14.*).
3. This will open the MIDI Devices Window."



4. Select "PARIS MIDI Out" as the the MTC Output by clicking in the box shown above. PARIS will send MTC to this destination.
5. Run your MIDI sequencer application.
6. In its sync setup dialog, choose "PARIS MIDI In" as the source of external MTC sync.
7. Set the time base of the sequencer to MTC. (consult your sequencer's documentation for more info.)
8. Select the same SMPTE frame rate as shown in the PARIS Project Window. PARIS' default frame rate is 30 fps.
9. Press the Play button on the MIDI sequencer. (Some sequencers do not require this step; they will automatically go into play mode when external sync is received.)

When you begin playback from the PARIS transport controls (in the Transport Window, from your keyboard or from the C16 Pro hardware), PARIS will generate MTC. The MIDI sequencer will follow the Transport and Marker location commands (location, stop and start) from PARIS. Some Windows PC sequencers perform better when minimized to the Task Bar. Try this if you are experiencing irregular timing of your MIDI playback. See page 10 for configuration tips that can help MIDI operations perform more smoothly.

Note: Make sure your MIDI sequencer is capable of being run while in the background. This is usually a preference that can be set within the application. This allows either PARIS or the MIDI sequencer to be the top-most window on the desktop. You'll probably find it most convenient to keep PARIS in front.

Synchronizing External MTC-Compliant Devices to PARIS

The steps for setting up PARIS for this purpose are the same as those described in this Appendix for synchronizing another application to PARIS on your computer, with the following exceptions:

- In Step 5 on a Mac OS computer, select the external device or the MIDI interface to which it's connected.
- Steps 7 through 11 will depend on the external device you're using—consult the manufacturers' documentation.

Synchronizing PARIS to Other Devices

Synchronizing PARIS to SMPTE

Synchronizing to an External Tape-Based SMPTE or MTC Device

PARIS can be synchronized to an MTC-compliant external device such as a video deck, MDM device, or analog multi-track.

Note: When synchronizing PARIS to an external device, the conversion of SMPTE to MTC must be accomplished by external hardware, such as a MIDI interface.

 To synchronize PARIS to an MTC device:

1. In PARIS' Project Window, open the MIDI Setup... dialog.
2. Select the source supplying MTC from the Select MIDI Time Code Input pop-up menu.
3. Click OK to confirm the selection; the dialog box will close.
4. Open the Transport Window.
5. Press the "Lock" button in the Transport Window.
6. Click Play in the Transport Window, hit the spacebar on your computer keyboard or the Play button on the C16 Pro.
7. Start playback on the device that is supplying SMPTE Time Code.
8. PARIS will wait until SMPTE starts before playing back. The red LED in the Lock button will light when PARIS receives SMPTE.

Synchronizing PARIS to Another Application

PARIS can be synchronized to any application that generates MTC. To synchronize PARIS to another application:

1. In PARIS' Project Window, open the MIDI Setup... dialog.
2. Select the source supplying MTC from the Select MIDI Time Code Input pop-up menu. On a Mac OS computer, select the IAC bus (page 223).
3. Click OK to confirm the selection; the dialog box will close.
4. Open the Transport Window.
5. Press the "Lock" button in the Transport Window.
6. Click Play in the Transport Window, hit the spacebar on your computer keyboard or the Play button on the C16 Pro.
7. Start playback on the device that is supplying SMPTE Time Code.
8. PARIS will wait until SMPTE starts before playing back. The red LED in the Lock button will light when PARIS receives SMPTE.

ASIO Support for PARIS Hardware

PARIS includes an ASIO driver that allows you to use PARIS' hardware with any ASIO-compliant application, such as a MIDI sequencer that supports the recording and playing back of audio. ASIO, for "Audio Stream Input Output," is a technology developed by Steinberg. With this driver, an ASIO-compliant application can utilize PARIS' high-quality inputs and outputs.

Installing the PARIS ASIO Driver

- On a Mac OS computer, move the ASIO driver from the ASIO driver folder inside your PARIS folder to the ASIO Drivers folder associated with the ASIO application with which you want to use PARIS' hardware.
- On a Windows PC, the PARIS Version 2.20 installer automatically places the PARIS ASIO driver in the proper location for you (Windows\System\).

Using the PARIS ASIO Driver

The ASIO driver allows you to route audio to the inputs and outputs associated with the PARIS interface(s) you're using. The following table shows how each PARIS interface input and output appears within an ASIO application:

Interface	Inputs	Shown in ASIO application as:	Outputs	Shown in ASIO application as:
442, MEC	Main L, R	MainIn L, R	Main L, R	MainOut L, R
	Aux L, R	AuxIn L, R	Aux L, R	AuxOut L, R
	S/PDIF L, R	DigIn L, R	S/PDIF L, R	DigOut L, R
IF-2	L, R	PodIn L, R	L, R	PodOut L, R

Note: Only one application at a time can use PARIS' hardware.

Note: ASIO provides for a control panel within the ASIO application that allows additional options for the corresponding hardware. There is no PARIS ASIO control panel at this time.

Appendix 3—Special Actions and Shortcuts

This chapter describes special actions that can be performed in PARIS' windows using your keyboard and mouse, and lists the keyboard shortcuts available for many of the commands you'll find in PARIS menus.

Tip: The most common computer commands—cut, copy and paste—have been double-mapped in PARIS' windows so that users who move between the Mac OS and Windows platforms can use the same physical fingerings for these commands on either platform. When using these common commands, Mac OS users will find that the Windows ALT key acts like the Mac OS COMMAND key; Windows users will find that the Mac OS CONTROL key acts just like the Windows CONTROL key.

Tip: PARIS provides a set of commands for managing its windows—these are described in Chapter 3.

Global Window access

In View mode (page 27), you can type numbers on your computer's or the C16 Pro's keypad to view or close windows in the default SubMix.

You can also view any of the following PARIS windows by typing the letter shown in the last column in the following table.

To:	Enter on either keypad:	Or you can type
view the Project Window	1.	P
view the Editor Window	2.	E
view the Mixer Window	3.	M
view the Transport Window	4.	T
view the Locator Window	5.	L
view the Instruments Window	6.	I
view the Patch Bay Window	7.	B
view the Audio Window	8.	A
view the Mini Mixer Window	9.	SHIFT-M
view the Automation Editor Window	10.	SHIFT-E
view the Big Display	11.	SHIFT-T
view the Master Mixer Window	12.	G
view the Markers Window	13.	K
view the MIDI Devices Window	14.	
view the MIDI Instruments Window	15.	
view the MIDI Chunks Window	16.	

Note: If you've installed MEC expansion modules, your PARIS system will have additional windows available for configuration and control of your modules. These appear in the Project Window's Shortcuts Menu (page 23). You can access these windows by typing numbers on a keypad as well. The first window in the Shortcuts Menu can be viewed by typing "30."; the second can be viewed by typing "31." and so on.

Tip: You can close the front-most window by typing "0." on the keypad of your computer or C16 Pro. This feature is available in all windows except the Project Window, which is always open when PARIS is running.

Project Window

Project Window Keyboard Shortcuts

Project Window File Menu

Menu Item:	Mac OS:	Windows:
New Project	COMMAND-N	CONTROL-N
Open Project...	COMMAND-O	CONTROL-O
Close Project	SHIFT-COMMAND-W	CONTROL-SHIFT-W
Save	COMMAND-S	CONTROL-S
Save As...	SHIFT-COMMAND-S	CONTROL-SHIFT-S
Revert	SHIFT-COMMAND-R	CONTROL-SHIFT-R
Quit	COMMAND-Q	CONTROL-Q

Project Window Settings Menu

Menu Item:	Mac OS:	Windows:
Configuration...	SHIFT-COMMAND-N	CONTROL-SHIFT-N
MIDI Setup...	COMMAND-M	CONTROL-M
Set VST Path...	COMMAND-T	CONTROL-T
Set Record Path...	COMMAND-R	CONTROL-R

Editor Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Select all Objects on Track/FlexTrack	Click Track/FlexTrack number	Click Track/FlexTrack number
Add to or remove from the current selection	SHIFT-click	SHIFT-click
Add or remove from selection group	SHIFT-drag	SHIFT-drag
Set an Object's Instrument assignment	CONTROL-click Object	CONTROL-click Object
Copy Object	OPTION-drag Object	Right-mouse drag Object
Zoom in (time)	PAGE UP	PAGE UP
Zoom out (time)	PAGE DOWN	PAGE DOWN
Zoom in (waveform height)	SHIFT-PAGE UP	SHIFT-PAGE UP
Zoom out (waveform height)	SHIFT-PAGE DOWN	SHIFT-PAGE DOWN
Start/pause/resume playback	SPACEBAR	SPACEBAR
Record/stop recording	SHIFT-SPACEBAR	SHIFT-SPACEBAR
Return to zero during play, and resume play	RETURN	RETURN
Go to the Now Line position	CONTROL-HOME	CONTROL-HOME
To add fade without changing Object length	OPTION-drag Crossfade handle on Object	Right-mouse-drag Crossfade handle on Object
Load a Marker time into Locate Time counter	OPTION-click Marker Bar "-" or + arrow	Right mouse-click Marker Bar "-" or + arrow
Move forward through Objects on Track/FlexTrack	Click Data Present LED	Click Data Present LED
Move backward through Objects on Track/Flex-Track	OPTION-click Data Present LED	Right-mouse-click Data Present LED
Move to first Object on Track/FlexTrack	OPTION-SHIFT-click Data Present LED	SHIFT-right-mouse-click Data Present LED
Move to last Object on Track/FlexTrack	SHIFT-click Data Present LED	SHIFT-click Data Present LED
Start play from any Ruler position	OPTION-click in Ruler	Right-mouse-click in Ruler
Snap Now Line to Grid lines	SHIFT-drag in Ruler	SHIFT-drag in Ruler
Split Object(s) at Grid lines	SHIFT-click with Split Object tool	SHIFT-click with Split Object tool

Editor Window Keyboard Shortcuts

Editor Window Edit Menu

Menu Item:	Mac OS:	Windows:
Undo	COMMAND-Z	CONTROL-Z
Redo	SHIFT-COMMAND-Z	SHIFT-CONTROL-Z
Cut	COMMAND-X	CONTROL-X
Snip	SHIFT-COMMAND-X	SHIFT-CONTROL-X
Copy	COMMAND-C	CONTROL-C
Paste	COMMAND-V	CONTROL-V
Paste At...	SHIFT-COMMAND-V	SHIFT-CONTROL-V
Paste Multiple...	COMMAND-L	CONTROL-L
Clear	COMMAND-B; DELETE/BACKSPACE	CONTROL-B; DELETE/BACKSPACE
Clear and Close	SHIFT-COMMAND-B	CONTROL-SHIFT-B
Select All	COMMAND-A	CONTROL-A

Appendix 3 - Special Actions and Shortcuts

Editor Window

Menu Item:	Mac OS:	Windows:
Select None	COMMAND-D	CONTROL-D
Insert Time	SHIFT-COMMAND-I	CONTROL-SHIFT-I
Delete Time	SHIFT-COMMAND-D	CONTROL-SHIFT-D
Break Objects at Now Line	COMMAND-K	CONTROL-K
Set Markers From Object	COMMAND-M	CONTROL-M
Break Objects at Markers	SHIFT-COMMAND-M	CONTROL-SHIFT-M

Editor Window Audio Menu

Menu Item:	Mac OS:	Windows:
Add Audio File	SHIFT-COMMAND-A	CONTROL-SHIFT-A

Editor Window Settings Menu

Menu Item:	Mac OS:	Windows:
Show Object Names	COMMAND-N	CONTROL-N
Show Object Instruments	COMMAND-I	CONTROL-I
Auto Scroll to Now Position	SHIFT-COMMAND-N	CONTROL-SHIFT-N

Editor Window View Menu

Menu Item:	Mac OS:	Windows:
Information Bar	CONTROL-1	ALT-1
Crossfade Bar	CONTROL-2	ALT-2
Settings Bar	CONTROL-3	ALT-3
Grid & Snap Bar	CONTROL-4	ALT-4
Tools Bar	CONTROL-5	ALT-5
Nudge & Slip Bar	CONTROL-6	ALT-6
Object Jails	CONTROL-7	ALT-7
Marker Bar	CONTROL-8	ALT-8
SMPTE Ruler	SHIFT-CONTROL-1	ALT-SHIFT-1
M:S:mS Ruler	SHIFT-CONTROL-2	ALT-SHIFT-2
Seconds Ruler	SHIFT-CONTROL-3	ALT-SHIFT-3
Sample Ruler	SHIFT-CONTROL-4	ALT-SHIFT-4
Bars & Beats Ruler	SHIFT-CONTROL-5	ALT-SHIFT-5
Audio Bin	SHIFT-CONTROL-6	ALT-SHIFT-6
Instruments Bin	SHIFT-CONTROL-7	ALT-SHIFT-7

Editor Window Grid & Snap Menu

Menu Item	Mac OS:	Windows:
Grid On	COMMAND-G	CONTROL-G
Snap On	COMMAND-P	CONTROL-P

Editor Window Go To Menu

Menu Item:	Mac OS:	Windows:
Start Time	HOME	HOME
End Time	END	END
Now Line	CONTROL-HOME	CONTROL-HOME
Start Track	SHIFT-HOME	SHIFT-HOME
End Track	SHIFT-END	SHIFT-END
Previous Marker	COMMAND-"-"	ALT-"-"
Next Marker	COMMAND-+	ALT-+

Mixer Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Name a Channel strip	click channel name label, then type, followed by RETURN	click channel name label, then type, followed by RETURN
Center a numeric value (pan, EQ, etc.)	OPTION-click on knob (expanded) or value readout (collapsed)	Right-mouse-click on knob (expanded) or value readout (collapsed)
Select a Channel	SHIFT-click channel name	SHIFT-click channel name
Show a Channel's Instruments pop-up	CONTROL-click name	CONTROL-click name
Show or hide an Aux strip	Drag divider bar	Drag divider bar
Clear the Headroom meter	COMMAND-H	CONTROL-H
Un-solo all Channels	CONTROL-L	CONTROL-L
Un-mute all Channels	CONTROL-M	CONTROL-M

Mixer Window Keyboard Shortcuts

Mixer Window Edit Menu

Menu Item:	Mac OS:	Windows:
Copy Channel Settings	COMMAND-C	CONTROL-C
Copy All Channel Settings	SHIFT-COMMAND-C	CONTROL-SHIFT-C
Paste Channel Settings	COMMAND-V	CONTROL-V
Paste All Channel Settings	SHIFT-COMMAND-V	CONTROL-SHIFT-V

Mixer Window Functions Menu

Menu Item:	Mac OS:	Windows:
Reset Channel	COMMAND-R	CONTROL-R
Reset All Channels	SHIFT-COMMAND-R	CONTROL-SHIFT-R
Reset All Channels to Current	COMMAND-T	CONTROL-T
Normalize Mix...	COMMAND-N	CONTROL-N

Mixer Window Settings Menu

Menu Item:	Mac OS:	Windows:
Show Native Inserts	COMMAND-J	CONTROL-J
Show EDS Inserts	COMMAND-I	CONTROL-I
Show EQ Section Above Aux	COMMAND-E	CONTROL-E
Show Meters as Post Fader	COMMAND-P	CONTROL-P
Show Instrument Assignment	SHIFT-COMMAND-I	CONTROL-SHIFT-I

Mixer Window Aux Menu

Menu Item:	Mac OS:	Windows:
Hide Aux Section	SHIFT-CONTROL-`	ALT-SHIFT-`
Show 1 Aux section	SHIFT-CONTROL-1	ALT-SHIFT-1
Show 2 Aux sections	SHIFT-CONTROL-2	ALT-SHIFT-2
Show 3 Aux sections	SHIFT-CONTROL-3	ALT-SHIFT-3
Show 4 Aux sections	SHIFT-CONTROL-4	ALT-SHIFT-4
Show 5 Aux sections	SHIFT-CONTROL-5	ALT-SHIFT-5
Show 6 Aux sections	SHIFT-CONTROL-6	ALT-SHIFT-6
Show 7 Aux sections	SHIFT-CONTROL-7	ALT-SHIFT-7
Show 8 Aux sections	SHIFT-CONTROL-8	ALT-SHIFT-8

Mixer Window EQ Menu

Menu Item:	Mac OS:	Windows:
Hide EQ Section	CONTROL-`	ALT-`
Show 1 EQ section	CONTROL-1	ALT-1
Show 2 EQ sections	CONTROL-2	ALT-2
Show 3 EQ sections	CONTROL-3	ALT-3
Show 4 EQ sections	CONTROL-4	ALT-4
Show EQ Master Section	CONTROL-5	ALT-5

Transport Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Start/pause/resume playback	SPACEBAR	SPACEBAR
Record/stop recording	SHIFT-SPACEBAR	SHIFT-SPACEBAR
Return to zero during playback & resume playback	RETURN	RETURN
Jump to Project start	Double-click Rewind button	Double-click Rewind button
Jump to Project end	Double-click Fast Forward button	Double-click Fast Forward button
Go to the Now Line position	CONTROL-HOME	CONTROL-HOME
Copy Previous Marker time to Locate Time counter	OPTION-click P button	Right-mouse-click P button
Copy Next Marker time to Locate Time counter	OPTION-click N button	Right-mouse-click N button
Jump to Project start	Double-click Rewind button	Double-click Rewind button
Jump to Project end	Double-click Fast Forward button	Double-click Fast Forward button
Toggle lock button on and off	COMMAND-L	CONTROL-L

Special C16 Pro Action

Action:	Mac OS:	Windows:
Clear Locate Time counter	On C16 Pro or Control 16: Recall-Cancel•Clear	On C16 Pro or Control 16: Recall-Cancel•Clear

Locator Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Switch modes (Marker, View, Data, Function)	*	*
Set a Loop or Punch Marker	OPTION-click button	Right-mouse-click button
Change the time units in the counters	Click time unit name	Click time unit name

Special C16 Pro Action

Action:	Mac OS:	Windows:
Clear Locate Time counter	On C16 Pro or Control 16: Recall-Cancel•Clear	On C16 Pro or Control 16: Recall-Cancel•Clear

Instruments Window

Instruments Window Keyboard Shortcuts

Instruments Window Edit Menu

Menu Item:	Mac OS:	Windows:
New	COMMAND-N	CONTROL-N
Delete	COMMAND-B	CONTROL-B
Duplicate	COMMAND-D	CONTROL-D
Select All	COMMAND-A	CONTROL-A
Select Unused	COMMAND-U	CONTROL-U

Patch Bay Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Select all patches that connect to an Object	OPTION-click Object	Right-mouse-click Object
Clear the selected patches	DELETE/BACKSPACE	DELETE/BACKSPACE
Clear all patches	COMMAND-SHIFT-U	CONTROL-SHIFT-U
Name a patch configuration	OPTION-click name, then re-type	Right-mouse-click name, then re-type
Recall a configuration	Double-click configuration name	Double-click configuration name
Delete all patch configurations	OPTION-click Delete Configuration button	Right-mouse-click Delete Configuration button

Patch Bay Window Keyboard Shortcuts

Patch Bay Window Edit Menu

Menu Item:	Mac OS:	Windows:
Clear Patches	COMMAND-B	CONTROL-B
Clear All Patches	SHIFT-COMMAND-U	CONTROL-SHIFT-U
Select All Patches	COMMAND-A	CONTROL-A

Patch Bay Window Functions Menu

Menu Item:	Mac OS:	Windows:
Configure Object	COMMAND-F	CONTROL-F

Audio Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Show Instrument pop-up	Select Audio File or Segment and CONTROL-click its name	Select Audio File or Segment and CONTROL-click its name
Rename an Audio File or Segment	OPTION-click the name, then re-type	Right-mouse-click the name, then re-type

Audio Window Keyboard Shortcuts

Audio Window Edit Menu

Menu Item:	Mac OS:	Windows:
Clear Items	COMMAND-B	CONTROL-B
Delete Files	SHIFT-COMMAND-B	CONTROL-SHIFT-B
Duplicate Items	COMMAND-D	CONTROL-D
Select All	COMMAND-A	CONTROL-A
Select Unused	COMMAND-U	CONTROL-U
Select Locked	COMMAND-K	CONTROL-K
Select Missing	COMMAND-M	CONTROL-M

Audio Window Functions Menu

Menu Item:	Mac OS:	Windows:
Add Audio File	SHIFT-COMMAND-A	CONTROL-SHIFT-A
Save Audio Files As...	CONTROL-F	CONTROL-F
Export Audio Objects...	COMMAND-E	CONTROL-E
Export Stereo File...	SHIFT-COMMAND-E	CONTROL-SHIFT-E
Reset File Path...	COMMAND-R	CONTROL-R
Search for Files...	COMMAND-H	CONTROL-H
Lock Files	COMMAND-L	CONTROL-L
Unlock Files	SHIFT-COMMAND-L	CONTROL-SHIFT-L
Compact Files	COMMAND-T	CONTROL-T

Menu Item:	Mac OS:	Windows:
Import File and Segment List...	COMMAND-I	CONTROL-I
Export File and Segment List...	COMMAND-X	CONTROL-X

Mini Mixer Window

Mini Mixer Window Keyboard Shortcuts

Mini Mixer Window Show Menu

Menu Item:	Mac OS:	Windows:
Aux Sends	COMMAND-A	CONTROL-A
EQs	COMMAND-E	CONTROL-E
EQ Masters	COMMAND-M	CONTROL-M
Pans	COMMAND-P	CONTROL-P
Faders	COMMAND-F	CONTROL-F

Automation Editor Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Select all automation data on Automation Track	Click Track's number	Click Track's number
Un-select all data on Automation Track	SHIFT-click Track's number	SHIFT-click Track's number
Show/hide Volume data	SHIFT-CONTROL-6	CONTROL-SHIFT-6
Show/hide Pan data	SHIFT-CONTROL-7	CONTROL-SHIFT-7
Show/hide Mute data	SHIFT-CONTROL-8	CONTROL-SHIFT-8

Automation Editor Keyboard Shortcuts

Automation Editor Window Edit Menu

Menu Item:	Mac OS:	Windows:
Undo	COMMAND-Z	CONTROL-Z
Redo	SHIFT-COMMAND-Z	CONTROL-SHIFT-Z
Clear	COMMAND-B; DELETE/BACKSPACE	CONTROL-B; DELETE/BACKSPACE
Cut	COMMAND-X	CONTROL-X
Copy	COMMAND-C	CONTROL-C
Paste	COMMAND-V	CONTROL-V
Paste At...	SHIFT-COMMAND-V	CONTROL-SHIFT-V
Select All	COMMAND-A	CONTROL-A
Select None	COMMAND-D	CONTROL-D
Data Density...	SHIFT-COMMAND-D	CONTROL-SHIFT-D

Appendix 3 - Special Actions and Shortcuts

Mini Mixer Window

Automation Editor Window Functions Menu

Menu Item:	Mac OS:	Windows:
Reset to Default Value	COMMAND-R	CONTROL-R
Change Value...	COMMAND-E	CONTROL-E
Interpolate...	COMMAND-I	CONTROL-I
Simplify...	COMMAND-Y	CONTROL-Y
Normalize Volume...	COMMAND-N	CONTROL-N

Automation Editor Window Settings Menu

Menu Item:	Mac OS:	Windows:
Show Waveform	COMMAND-F	CONTROL-F
Show Edit Text	COMMAND-T	CONTROL-T
Auto-scroll to Now Position	SHIFT-COMMAND-N	CONTROL-SHIFT-N

Automation Editor Window View Menu

Menu Item:	Mac OS:	Windows:
Streams Bar	CONTROL-2	ALT-2
Show-Hide Bar	CONTROL-3	ALT-3
Tools Bar	CONTROL-4	ALT-4
Information Bar	CONTROL-1	ALT-1
Show Master	SHIFT-CONTROL-6	CONTROL-SHIFT-6
Show Tracks	SHIFT-CONTROL-7	CONTROL-SHIFT-7
Show Effects	SHIFT-CONTROL-8	CONTROL-SHIFT-8
Sample Ruler	SHIFT-CONTROL-4	CONTROL-SHIFT-4
Seconds Ruler	SHIFT-CONTROL-3	CONTROL-SHIFT-3
M:S:mS Ruler	SHIFT-CONTROL-2	CONTROL-SHIFT-2
SMPTE Ruler	SHIFT-CONTROL-1	CONTROL-SHIFT-1
Bars & Beats Ruler	SHIFT-CONTROL-5	CONTROL-SHIFT-5
Markers Bar	CONTROL-8	CONTROL-8

Automation Editor Window Grid Menu

Menu Item:	Mac OS:	Windows:
Grid On	COMMAND-G	CONTROL-G

Automation Editor Window Go To Menu

Menu Item:	Mac OS:	Windows:
Start Time	HOME	HOME
End Time	END	END
Now Line	CONTROL-HOME	CONTROL-HOME
Selection Start	COMMAND-[ALT-[
Selection End	COMMAND-]	ALT-]

Menu Item:	Mac OS:	Windows:
Previous Marker	COMMAND--	"ALT--"
Next Marker	COMMAND+	ALT+

Master Mixer Window

Master Mixer Keyboard Shortcuts

Master Mixer Window Submix Menu

Menu Item:	Mac OS:	Windows:
Create Submix	SHIFT-COMMAND-M	CONTROL-SHIFT-M
Delete Submix	SHIFT-COMMAND-B	CONTROL-SHIFT-B
Update All Changed	SHIFT-COMMAND-U	CONTROL-SHIFT-U
Force Update All	SHIFT-COMMAND-F	CONTROL-SHIFT-F

Master Mixer Window Settings Menu

Menu Item:	Mac OS:	Windows:
Show Inserts	COMMAND-I	CONTROL-I

Markers Window

Special Mouse/Keyboard Actions

Action:	Mac OS:	Windows:
Scroll Markers Window downward by a page	PAGE DOWN	PAGE DOWN
Scroll Markers Window upward by a page	PAGE UP	PAGE UP
Set Current Time to selected Marker's location	TAB	TAB
Set Locate Time to selected Marker's location	SHIFT-TAB	SHIFT-TAB
Move selection up, down	Up arrow, down arrow	Up arrow, down arrow

Markers Window Keyboard Shortcuts

Markers Window Edit Menu

Menu Item:	Mac OS:	Windows:
New Marker	COMMAND-N	CONTROL-N
Clear	COMMAND-B	CONTROL-B
Select All	COMMAND-A	CONTROL-A
Select None	COMMAND-D	CONTROL-D
Lock Selected	COMMAND-L	CONTROL-L
Unlock Selected	SHIFT-COMMAND-L	CONTROL-SHIFT-L
Re-number...	COMMAND-R	CONTROL-R

Markers Window Show Menu

Menu Item:	Mac OS:	Windows:
Lock	SHIFT-CONTROL-6	ALT-SHIFT-7
Position & Recall	SHIFT-CONTROL-7	ALT-SHIFT-8
Number	SHIFT-CONTROL-8	ALT-SHIFT-6
Association	SHIFT-CONTROL-9	ALT-SHIFT-9
Name	SHIFT-CONTROL-0	ALT-SHIFT-0
SMPTE	SHIFT-CONTROL-1	ALT-SHIFT-4
M:S:m	SHIFT-CONTROL-2	ALT-SHIFT-3
Seconds	SHIFT-CONTROL-3	ALT-SHIFT-2
Samples	SHIFT-CONTROL-4	ALT-SHIFT-1
Bars & Beats	SHIFT-CONTROL-5	ALT-SHIFT-5
Show All	SHIFT-CONTROL-`	ALT-SHIFT-`

Markers Window Filter Menu

Menu Item:	Mac OS:	Windows:
Show All Markers	COMMAND-9	ALT-9
Universal	COMMAND-`	ALT-`
SubMix 1	COMMAND-1	ALT-1
SubMix 2	COMMAND-2	ALT-2
SubMix 3	COMMAND-3	ALT-3
SubMix 4	COMMAND-4	ALT-4
SubMix 5	COMMAND-5	ALT-5
SubMix 6	COMMAND-6	ALT-6
SubMix 7	COMMAND-7	ALT-7
SubMix 8	COMMAND-8	ALT-8

Markers Window Options Menu

Menu Item:	Mac OS:	Windows:
Large Font	SHIFT-COMMAND-F	CONTROL-SHIFT-F
Small Font	COMMAND-F	CONTROL-F
Auto-Scroll to Marker	COMMAND-M	CONTROL-M
Show Last Marker	SHIFT-COMMAND-M	CONTROL-SHIFT-M
Reverse Sort	SHIFT-COMMAND-R	CONTROL-SHIFT-R

MIDI Editor

MIDI Instrument Edit

Action:	Mac OS:	Windows:
New Instrument	COMMAND-N	CONTROL-N
Add Device	SHIFT-COMMAND-A	CONTROL-ALT-A
Clear Items	COMMAND-B	CONTROL-B
Duplicate Items	COMMAND-D	CONTROL-D

Action:	Mac OS:	Windows:
Select All	COMMAND-A	CONTROL-A
Select Unused	COMMAND-U	CONTROL-K
Select Locked	COMMAND-K	CONTROL-K
Select Missing	COMMAND-M	CONTROL-M

MIDI Chunks Edit

Action:	Mac OS:	Windows:
New Chunk	COMMAND-N	CONTROL-N
Clear Chunk	COMMAND-B	CONTROL-B
Duplicate Chunks	COMMAND-D	CONTROL-D
Select All	COMMAND-A	CONTROL-A
Select Unused	COMMAND-U	CONTROL-K

MIDI Tracks Edit

Action:	Mac OS:	Windows:
New Track	COMMAND-N	CONTROL-N
Clear Tracks	COMMAND-B	CONTROL-B
Duplicate Tracks	COMMAND-D	CONTROL-D
Select All	COMMAND-A	CONTROL-A

ADAT Interface Window

ADAT Interface Window Keyboard Shortcuts

ADAT Interface Window Commands Menu

Menu Item:	Mac OS:	Windows:
Locate ADAT to..	COMMAND-L	CONTROL-L
Locate ADAT to Current Time	COMMAND-T	CONTROL-T
Send Now Line to ADAT Time	COMMAND-N	CONTROL-N

ADAT Interface Window Settings Menu

Menu Item:	Mac OS:	Windows:
User Name...	COMMAND-U	CONTROL-U
Send Locate Commands to All ADATs	SHIFT-COMMAND-L	CONTROL-SHIFT-L
ADAT Pre-roll Time...	COMMAND-P	CONTROL-P
Poll ADAT for Status	SHIFT-COMMAND-P	CONTROL-SHIFT-P
Manage ADAT Optical I/O	SHIFT-COMMAND-M	CONTROL-SHIFT-M
Multi-ADAT Transfer	COMMAND-M	CONTROL-M

Warranty

Please read this warranty, as it gives you specific legal rights.

Length of Warranty

This warranty covers all defects in materials and workmanship:

- Two years from the date of purchase, from Emu-Ensoniq, by an authorized dealer for all floorstock units.
- One year from the date of purchase by the original customer, from an authorized dealer, provided that the Warranty Registration Card is filled out and returned to

Emu-Ensoniq within 14 days from the date of purchase. Emu-Ensoniq's Service Department or one of Emu-Ensoniq's authorized service centers will ask for a copy of a customer's sales receipt to facilitate warranty service.

Emu-Ensoniq does not cover:

- Damages due to improper or inadequate maintenance, accident, abuse, misuse, alteration, unauthorized repairs, tampering, or failure to follow normal operating procedures as outlined in the owner's manual.
- Deterioration or damage of the cabinet.
- Damages occurring during any shipment of the Ultra for any reason.
- An Ultra that has in any way been modified by anyone other than Emu-Ensoniq, Inc.

Limitation of Implied Warranties

No warranty is expressed or implied. Emu-Ensoniq specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

Exclusion of Certain Damages

Emu-Ensoniq's liability for an Ultra found defective is limited to repair or replacement of the unit at Emu-Ensoniq's option. In no event shall Emu-Ensoniq be liable for damages based on inconvenience, whether incidental or consequential, loss of use of the unit, loss of time, interrupted operation or commercial loss, or any other consequential damages.

Some states do not allow limitation of the duration of implied warranties or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply.

How To Obtain Warranty Service

All Emu-Ensoniq products are manufactured with the highest standards of quality. If you find that your instrument does require service, it may be done by any authorized Emu-Ensoniq service center. If you are unable to locate a service center in your area, please contact Emu-Ensoniq Service Department at (831) 438-1921. They will either refer you to an authorized service center or ask that you return your Ultra to the factory. When returning an Ultra to the factory, you will be issued a Return Merchandise Authorization number (RMA). Please label all cartons, shipping documents & correspondence with this number.

Emu-Ensoniq suggests you carefully and securely pack your PARIS components for return to the factory. (Do not send the power cord or operation manual.) Mark the outside of the shipping carton clearly with your RMA number. and send to:

Emu-Ensoniq
1600 Green Hills Road
Scotts Valley, California 95066.

You must pre-pay shipping charges to E-mu-Ensoniq. E-mu-Ensoniq will pay return shipping fees. You will be responsible for any damage or loss sustained during shipment in any direction.

PARIS Hardware Serial Numbers

Before installing any of your PARIS hardware—EDS-1000, interface or expansion modules—take a moment to enter the serial number of each item in the spaces provided below. These numbers can help E-MU Customer Service troubleshoot any problems you may experience. Enter the numbers now so that you don't have to open up your computer, rack or interface if you should need to know a serial number later on.

EDS Card

EDS	Serial Number	EDS	Serial Number
Card A	_____	Card E	_____
Card B	_____	Card F	_____
Card C	_____	Card G	_____
Card D	_____	Card H	_____

Interface

Interface	Serial Number	Interface	Serial Number
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Expansion Modules

Module	Serial Number	Module	Serial Number
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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