

OctaMED

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Chapter 1

OctaMED

1.1 Memory, Display Options, Information / Memory Types (Chip/Fast)

HOW TO...

Load instruments into Chip or Fast memory

Play instruments from Fast memory

Move instruments between memory types

OVERVIEW

There are two types of Amiga memory: Chip memory and Fast memory. Graphics and sound must normally be stored in Chip memory, while other information can be stored in either memory type.

As its name implies, the advantage of Fast memory is its speed, so it's preferable to store things in there. Even so, unless you have bought a memory expansion board for your Amiga, all of its memory is probably Chip. The first 2 megabytes in modern Amigas is Chip memory; older Amigas may have 1 megabyte or half a megabyte.

So the Amiga usually needs all samples to be stored in Chip memory. In OctaMED, however, you can store samples in Fast memory as well. Depending on the channel mode of your song, you may have to use the 'FastMemPlay' feature to play instruments in Fast memory.

It's advisable to store instruments either entirely in Chip or entirely in Fast memory. For this reason, OctaMED can move all instruments to either type of memory.

NOTES

* In the Main Control window and Instrument List, an apostrophe is displayed after the sample size if the instrument is in Fast memory (e.g. 42650'). If the apostrophe isn't there, the instrument is in Chip memory.

1.2 Memory Types / How To Load Instruments Into Chip Or Fast Memory

HOW TO LOAD INSTRUMENTS INTO CHIP OR FAST MEMORY

INTRODUCTION

The Amiga usually needs all samples to be stored in Chip memory. In OctaMED, however, you can store samples in Fast memory as well: Simply switch on Instr menu -> Load Samples to Fast Mem.

Any instruments subsequently loaded will be stored in Fast memory if possible. If there is not enough Fast memory to contain the loaded instrument, it will be stored in Chip memory as usual.

Depending on the channel mode of your song, you may have to use the 'FastMemPlay' feature to play instruments in Fast memory. Storing

More

instruments in Fast mem in Mix mode is so positively encouraged ←

More

that Load Samples to Fast Mem is automatically switched on in this mode.

STEPS

1) EITHER Choose to store instruments loaded in future in Fast memory.

> Switch off Instr menu -> Load Samples to Fast Mem

OR Choose to store instruments loaded in future in Chip memory.

> Switch off Instr menu -> Load Samples to Fast Mem

1.3 Memory Types / How To Play Instruments From Fast Memory

HOW TO PLAY INSTRUMENTS FROM FAST MEMORY

INTRODUCTION

Although OctaMED can store instruments in either Chip or Fast memory, you may need to activate the 'FastMemPlay' feature to play Fast memory instruments.

This depends on the channel mode of your song. FastMemPlay must be switched on if the song is in:

1) 4-channel mode

More

2) 5 to 8-channel mode, and uses non-paired tracks

More

So in 5 to 8-channel mode where all used tracks are paired, and in Mix mode, instruments in Fast memory can be played without using FastMemPlay. FastMemPlay uses a small amount of processor time, but doesn't noticeably slow down operation (even on my A500!).

Instruments in Chip memory are also played when FastMemPlay is active. There is usually little or no loss of sound quality with FastMemPlay, but a small FastMemPlay 'buffer size', perhaps 16 or 32, is recommended to minimise distortion if your song contains synthetic sounds. The size can be 16 to 400.

STEPS

1) If your song needs to use FastMemPlay, open the FastMemPlay window.

> Settings menu -> FastMemPlay

2) Switch on FastMemPlay.

> Switch on Active

3) Set the buffer size if appropriate.

> Type a number into Buffer Size

NOTES

* Increasing the buffer size slightly decreases the load on the processor. Technically, the number of interrupts are reduced.

1.4 Memory Types / How To Move Instruments Between Memory Types

HOW TO MOVE INSTRUMENTS BETWEEN MEMORY TYPES

INTRODUCTION

It's advisable to store instruments either entirely in Chip or entirely in Fast memory. For this reason, OctaMED can move all instruments to either type of memory.

If there is not enough free Fast memory to move some of the instruments in Chip memory across to Fast, OctaMED asks you to free some Fast memory and try again. The same applies for moving to Chip

How?
memory.

STEPS

1) EITHER Move all instruments to Fast memory.

> Instr menu -> Move Samples To Fast Mem

OR Move all instruments to Chip memory.

> Instr menu -> Move Samples To Chip Mem

1.5 Memory, Display Options, Information / Freeing memory

HOW TO...

Check how much memory is free

Free as much memory as possible

OVERVIEW

On occasion, especially if your song uses many instruments, you can run out of memory. But don't panic! There are ways of freeing memory, many of which are not immediately apparent. Of course, there are also more obvious ways such as clearing the entire song.

In the Information window, OctaMED shows how much memory (in bytes) of either type - Chip and Fast - is free. Even though instruments can now be stored in either type of memory, the main type to watch is Chip.

But be warned: Appearances can be deceptive! If the Information

window shows 'Chip: 20000', this means that IN TOTAL, there are 20000 bytes free in Chip memory. This memory won't be in one large block, it will be scattered about. So the real number to watch is the 'largest' amount of Chip memory available; in other words, the largest continuous block of free Chip memory.

OctaMED shows the total and largest amounts of free memory of both types on the screen's title bar, when you press Ctrl-F.

1.6 Freeing memory / How To Check How Much Memory Is Free

HOW TO CHECK HOW MUCH MEMORY IS FREE

INTRODUCTION

There are many occasions when you may need to check how much memory you have available. The most common need is probably before loading a song or a particularly long instrument.

In the Information window, OctaMED shows how much memory (in bytes) of either type - Chip and Fast - is free. When a file is loaded into memory, however, it requires a continuous block of memory at least as long as the file to be available. To display the largest continuous block of Chip and Fast memory, press Ctrl-F.

STEPS

1) EITHER In the Information window, observe the free memory display (bottom-left corner).

OR Display the total free and largest continuous block of each each type of memory, on the screen's title bar.

> Press Ctrl-F (F stands for Free)

1.7 Freeing memory / How To Free As Much Memory As Possible

HOW TO FREE AS MUCH MEMORY AS POSSIBLE

INTRODUCTION

On occasion, especially if your song uses many instruments, you can run out of memory. But don't panic! There are ways of freeing memory, many of which are not immediately apparent.

Of course, there are also more obvious ways such as clearing the entire song together with its instruments, but such drastic measures may be inappropriate.

STEPS

1) Just about anything that can be loaded can be removed from memory. Do you really need any of the following?

- * Song * Instruments * Sample list
- * Keyboard shortcuts * Song annotation text
- * MIDI messages * Input maps

2) Remove all instruments unused by your song from memory.

- > Instr menu -> Flush All Unused
- 3) Free the memory occupied by copy buffers.
 - > Edit menu -> Discard Copy Buffers
 - > Sample editor's Tools menu -> Discard Copy Buffer
- 4) Try closing down Workbench (i.e. remove its screen). On some systems, this can free as much as 120K of Chip memory. On my modest system, it frees about 40K.
 - > Settings menu -> Miscellaneous Options
 - > Switch off Close Workbench
 - * Workbench can't be closed if any programs are running on it. Save settings with Close Workbench off to automatically close Workbench when OctaMED starts up.
- 5) As a last resort, free about 5K by sacrificing the sample editor's 'fast graphics' feature. The sample waveform is drawn more slowly, but it's worth it for a whole 5K!
 - > Display menu -> Sample Editor
 - > Sample editor's Settings menu -> Display Settings
 - > Switch off Fast Graphics

1.8 Memory, Display Options, Information / Display Options

HOW TO...

Change the screen mode

Change the screen colours

Change the font

'Snapshot' windows

OVERVIEW

Normally, OctaMED adopts the screen mode, font and colours used by Workbench. If you so desired, these can be changed; in particular, there can be separate fonts for screen and window title bars, window contents and the Tracker editor.

'Snapshotting' a window is storing its position in memory. The window can be closed and later reopened at its stored position. OctaMED usually snapshots windows whenever they are moved, but this behaviour can be switched off. Various windows can be snapshot or 'unsnapshot' (forgetting the stored position) at will.

NOTES

- * When Auto-Freeze Screen (Settings menu) is switched on, the screen is automatically 'frozen' whenever OctaMED's screen is pushed to the back. The Tracker editor and various other screen properties stop updating. This frees processor time for multitasking.
 - * In some countries, the note between A# and C is called H rather than B. To display H's instead of B's in the Tracker editor,
-

switch on Miscellaneous Options window -> H -> B.

1.9 Display Options / How To Change The Screen Mode

HOW TO CHANGE THE SCREEN MODE

INTRODUCTION

The screen mode is a combination of the screen resolution, the available width and height, the number of colours and the AutoScroll status.

Normally, OctaMED adopts the screen mode used by Workbench. It may be changed through the Settings menu, and saved with settings for use whenever OctaMED is loaded in the future. How?

Often the screen resolution and available width and height are the same. A good technique to increase the amount of room on the screen, however, is to make the screen wider and higher than its resolution. With AutoScroll switched on, you can reveal the hidden parts of the screen by dragging the mouse to the screen's extremes.

The range of screen modes available to you depends on your model of Amiga and the amount of free Chip memory. Generally, the 'better'

More
the screen mode appears, the more memory it requires. (Yet another of life's trade-offs.)

STEPS

EITHER Set a new screen mode.

- 1) Open the screen mode requester.
 > Settings menu -> Screen -> Screen Mode
- 2) Select a resolution.
 > Click on a resolution in the list
- 3) Select the available width and height.
 > Type values into Width and Height
- 4) Select the number of colours on the screen.
 > Adjust the Colors slider
- 5) Switch AutoScroll on or off.
- 6) Click OK. The screen closes and reopens in its new mode.
- 7) If desired, save the new screen mode with settings. How?

OR Revert to the screen mode used by Workbench.

- 1) Select Settings menu -> Screen -> Like WB.

NOTES

* When Like WB is switched on, the screen mode is not saved with settings.

* OctaMED's screen is public (name OCTAMED).

1.10 Display Options / How To Change The Screen Colours

HOW TO CHANGE THE SCREEN COLOURS

INTRODUCTION

Use the Palette window to change the screen's colours (or its 'palette'). The number of colours on the screen is set as part of its screen mode.

How?

There are three sliders in the Palette window: Red, Green and Blue ↔

Colours are a combination of red, green and blue light, and these sliders set the intensity of the three primary colours in each screen colour.

For example, to set bright red, move the Red slider right up and the Green and Blue sliders right down (similarly for bright green and blue). Yellow is a mixture of red and green light, so set bright yellow by dragging Red and Green right up and Blue right down. The best way to learn about colour combinations is through experimenting, and sliders are great to experiment with!

Normally, OctaMED adopts Workbench's screen colours. Before you can change the colours, you must switch off WB Palette in the Palette window. When WB Palette is on, the screen colours are not saved with settings.

Older models of Amiga can display 4,096 different colours, while newer models (A1200 and A4000) can display a whopping 16,777,216! If you have an older model of Amiga, set Palette Type to the cryptically-named 4-Bit. If you're blessed with a newer model, set it to 8-Bit. The setting affects the number of colours you may select with the three sliders.

STEPS

- 1) Open the Palette window.
 - > Settings menu -> Palette
- 2) Select the appropriate palette type.
 - > Set Palette Type to 4-Bit [older machines] OR
 - > Set Palette Type to 8-Bit [newer machines]
- 3) EITHER Prepare to change the colours.
 - > Switch on WB Palette

 - OR Revert to Workbench's colour scheme.
 - > Switch off WB Palette
- 4) If WB Palette is now off, select and change a colour.
 - a) Select a colour.
 - > Click on a colour in the palette strip (top of window)

- b) Change the colour.
 - > Adjust the Red, Green and Blue sliders

7) If desired, save the new colours with settings. How?

NOTES

- * Either Palette Type value can be used with any model of Amiga.
If wrongly set, either 1 in every 4096 colours can be selected, or the colour changes once every 16 slider values!

1.11 Display Options / How To Change The Font

HOW TO CHANGE THE FONT

INTRODUCTION

The font is the style of writing used on the screen. OctaMED can use a different font in three different areas: the main screen (screen and window title bars, requesters), window contents, and the Tracker editor.

Select the fonts used in the Fonts window. The font names and sizes are shown. Normally, OctaMED adopts Workbench's font in all three areas, signified by the Default check boxes. To let you select a new font, OctaMED loads the names of all fonts in your FONTS: directory, usually the Fonts drawer on your system disk.

Windows and gadget names automatically adjust to the new font (this is the short delay before windows are opened). If the font you choose is too big to display a particular window, however, the window will open using Workbench's font or, as a last resort, using topaz 8.

Fonts can be 'proportional' or 'non-proportional'. In proportional fonts, each character (letter, digit or symbol) can be any width. In non-proportional fonts, all characters have a fixed width. While proportional fonts often look more pleasing, only non-proportional fonts can be used in the Tracker editor.

STEPS

- 1) Open the Font window.
 - > Settings menu -> Font
- 2) Set the font used on the main screen, in windows and in the Tracker editor.
 - a) EITHER Select a new font.
 - > Click on a GetFile gadget to the left of a text box THEN
 - > Click on a font name in the left-hand list THEN
 - > Click on a font size in the right-hand list THEN
 - > Click OK
 - b) OR Set the font to 'default' (Workbench's font).
 - > Click Default beside a text box
- 3) Close the window.
 - > Click OK

4) If desired, save the new font settings with settings. How?

NOTES

- * Fonts set to Default will not be saved with settings.
- * If you don't have Kickstart 3.0 or higher, we recommend using non-proportional fonts. Proportional fonts are correctly displayed, but slider values tend to become garbled after a while, and certain parts of the program - MIDI Message Editor, Synth Program - sometimes flicker as they convert the font to be non-proportional.

1.12 Display Options / How To 'Snapshot' Windows

HOW TO 'SNAPSHOT' WINDOWS

INTRODUCTION

'Snapshotting' a window is storing its position in memory. When the window is later reopened, it appears at the stored position.

OctaMED usually snapshots windows whenever they are moved, but this behaviour can be switched off. Also, you can return individual windows, currently open windows or all windows to their usual positions, forgetting their stored positions. This process is called 'unsnapshotting'. Sometimes you can just move windows around too much!

The window positions are saved with settings. In fact, the windows currently open are also saved with settings, and reopened when the settings are loaded. How?

STEPS

- 1) If desired, switch off the automatic snapshotting of windows.
 - > Switch off Settings menu -> Windows -> Auto-Snapshot

If windows are automatically snapshot:

- 2) EITHER Unsnapshot the current window.
 - > Settings menu -> Windows -> UnSnapshot

OR Unsnapshot all windows open on the screen.

 - > Settings menu -> Windows -> UnSnapshot Open

OR Unsnapshot all windows in the program.

 - > Settings menu -> Windows -> UnSnapshot All

If windows are not automatically snapshot:

- 2) EITHER Snapshot the current window.
 - > Settings menu -> Windows -> Snapshot

OR Snapshot all windows open on the screen.

 - > Settings menu -> Windows -> Snapshot Open

1.13 Memory, Display Options, Information / Program Information

OctaMED can provide various information about itself and what it is doing. Some of this information and how to display it is listed here.

- * General program information: Project menu -> About. Particularly, this displays the e-mail addresses of programmer, publisher and documentor. Please write to us!
 - * This on-line help system: Help key OR Project menu -> On-line Help. The usual help viewer is AmigaGuide, but Hyper and XPKGuide can also be used. Set the Help Viewer in the Miscellaneous Options window.
 - * Last message displayed on the screen's title bar: Project menu -> Last Message.
 - * The time elapsed since Song Play or Block Play was last clicked: Information window's timer.
 - * OctaMED's 'current state': Information window's middle information box. Possible states are 'Playing song' or 'block', 'Stopped', 'Loading', 'Saving' and 'Awaiting input'.
-