

Glossary.hyper ii

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Glossary.hyper iii

# **Contents**

1	Glos	sary.hyper	1
	1.1	Glossary (Wed Jul 15 15:32:26 1992)	1
	1.2	Glossary: abbreviations	5
	1.3	Glossary: active logical window	5
	1.4	Glossary: address operator	6
	1.5	Glossary: aliases	6
	1.6	Glossary: alias string	6
	1.7	Glossary : ARexx port	6
	1.8	Glossary : ARexx scripts	7
	1.9	Glossary: auto output snap	7
	1.10	Glossary: autodefault	7
	1.11	Glossary: autoscalable	8
	1.12	Glossary: box	8
	1.13	Glossary: breakpoint node	9
	1.14	Glossary: breakpoints	9
	1.15	Glossary: code	9
	1.16	Glossary: commandline	10
	1.17	Glossary : conditional breakpoints	10
	1.18	Glossary: conditional expressions	10
	1.19	Glossary : constants	10
	1.20	Glossary: contents operator	11
	1.21	Glossary: crash node	11
	1.22	Glossary: current debug node	11
	1.23	Glossary: current list	11
	1.24	Glossary: current list indicator	12
	1.25	Glossary: current logical window	12
	1.26	Glossary: current tag list	12
	1.27	Glossary: debug nodes	13
	1.28	Glossary: debug tasks	13
	1.29	Glossary : double quotes	13

Glossary.hyper iv

1.30	Glossary: dummy debug task	13
1.31	Glossary: expression	13
1.32	Glossary : fancy mode	14
1.33	Glossary: FD-files	14
1.34	Glossary: feedback mode	14
1.35	Glossary : fullscreen debugger	14
1.36	Glossary: function definitions	14
1.37	Glossary: function monitor	15
1.38	Glossary: functions	15
1.39	Glossary: group operator	15
1.40	Glossary: history buffer	16
1.41	Glossary: hold mode	16
1.42	Glossary: home position	16
1.43	Glossary: hot key	16
1.44	Glossary: interrupt key	17
1.45	Glossary: IntuiTick	17
1.46	Glossary: key attacements	17
1.47	Glossary: key code	17
1.48	Glossary: led monitor	18
1.49	Glossary: linenumber operator	18
1.50	Glossary: list	18
1.51	Glossary: list element	18
1.52	Glossary: list operator	18
1.53	Glossary: log file	19
1.54	Glossary: logical window	19
1.55	Glossary: LW	19
1.56	Glossary: machinelanguage scripts	20
1.57	Glossary: macro	20
1.58	Glossary: masterbox	20
1.59	Glossary: ML-scripts	20
1.60	Glossary: MMU tree	21
1.61	Glossary: monitor functions	21
1.62	Glossary: MORE checking	21
1.63	Glossary: names	21
1.64	Glossary: nofancy mode	22
1.65	Glossary: normal breakpoints	22
1.66	Glossary: output log	22
1.67	Glossary: pause key	22
1.68	Glossary: pen	22

Glossary.hyper v

1.69 Glossary: physical window	22
1.70 Glossary : PortPrint	23
1.71 Glossary : PowerVisor device	23
1.72 Glossary : PowerVisor screen	23
1.73 Glossary : PowerVisor scripts	23
1.74 Glossary : PowerVisor startup file	24
1.75 Glossary : PowerVisor window	24
1.76 Glossary : prefix operators	24
1.77 Glossary : private breakpoints	24
1.78 Glossary : profiler breakpoint	25
1.79 Glossary : prompt	25
1.80 Glossary: PVDevice	25
1.81 Glossary: PVSD file	25
1.82 Glossary: PW	26
1.83 Glossary : qualifier	26
1.84 Glossary : quote operator	26
1.85 Glossary : quotes	26
1.86 Glossary : real-top windows	
1.87 Glossary : recursive aliases	27
1.88 Glossary : resident breakpoints	28
1.89 Glossary : resident commands	28
1.90 Glossary : resident ML-scripts	28
1.91 Glossary : scripts	28
1.92 Glossary : single quotes	28
1.93 Glossary : singlestep mode	29
1.94 Glossary : size bar	29
1.95 Glossary : snapping	29
1.96 Glossary : special operator	29
1.97 Glossary : special variables	29
1.98 Glossary: stack checking	30
1.99 Glossary: stack fail level	30
1.100Glossary : standard logical window	30
1.101Glossary : startup file	31
1.102Glossary: string expansion	31
1.103Glossary : string pointers	31
1.104Glossary: strings	31
1.105Glossary : structure definition	32
1.106Glossary : strong quote	32
1.107Glossary : symbols	32

Glossary.hyper vi

1.108Glossary : tag	33
1.109Glossary : tag file	33
1.110Glossary: tag list	33
1.111Glossary: task accounting	33
1.112Glossary: Task Control Block (or TCB)	34
1.113Glossary: task list	34
1.114Glossary : TCB	34
1.115Glossary: templates	34
1.116Glossary: temporary breakpoint	34
1.117Glossary: timeout breakpoints	35
1.118Glossary: top-visible windows	35
1 119Glossary : variables	35

Glossary.hyper 1 / 36

# **Chapter 1**

# Glossary.hyper

# 1.1 Glossary (Wed Jul 15 15:32:26 1992)

```
Contents:
 abbreviations
active logical window
address operator
aliases
alias string
ARexx port
ARexx scripts
auto output snap
 autodefault
 autoscalable
box
breakpoint node
breakpoints
 code
 commandline
 conditional breakpoints
 conditional expressions
 constants
```

Glossary.hyper 2 / 36

contents operator

crash node

current debug node

current list

current list indicator

current logical window

current tag list

debug nodes

debug tasks

double quotes

dummy debug task

expression

fancy mode

FD-files

feedback mode

fullscreen debugger

function definitions

function monitor

functions

group operator

history buffer

hold mode

home position

hot key

interrupt key

IntuiTick

key attacements

key code

led monitor

Glossary.hyper 3 / 36

```
list
list element
list operator
log file
logical window
LW
machinelanguage scripts
macro
masterbox
ML-scripts
MMU tree
monitor functions
MORE checking
names
nofancy mode
normal breakpoints
output log
pause key
pen
physical window
PortPrint
PowerVisor device
PowerVisor screen
PowerVisor scripts
PowerVisor startup file
PowerVisor window
prefix operators
```

linenumber operator

Glossary.hyper 4 / 36

```
private breakpoints
profiler breakpoint
prompt
PVDevice
PVSD file
ΡW
qualifier
quote operator
quotes
real-top windows
recursive aliases
resident breakpoints
resident commands
resident ML-scripts
scripts
single quotes
singlestep mode
size bar
snapping
special operator
special variables
stack checking
stack fail level
standard logical window
startup file
string expansion
string pointers
strings
structure definition
```

Glossary.hyper 5 / 36

```
strong quote
              symbols
              tag
              tag file
              tag list
              task accounting
              Task Control Block (or TCB)
              task list
              TCB
              templates
              temporary breakpoint
              timeout breakpoints
              top-visible windows
              variables
             Various:
Back to main contents
```

## 1.2 Glossary: abbreviations

PowerVisor allows you to abbreviate several things. You can abbreviate command names and names for list elements

Tutor chapters: Expresions Getting Started

# 1.3 Glossary: active logical window

The active logical window is the logical window where you can  $\ensuremath{\hookleftarrow}$  scroll

with the keyboard. You can see if a logical window is active by looking at the titlebar. A full (blue in AmigaDOS 2.0) titlebar indicates that the logical window is active. Note that the active logical window is NOT the same as the current logical window.

Starting at V1.10, the active logical window is also used for pending input (see the Screens and windows chapter for more info)

Commands : scroll active
Tutor chapters : Screens and windows
Related terminology :

Glossary.hyper 6 / 36

```
current logical window logical window
```

#### 1.4 Glossary: address operator

```
The address operator ('&') can be used to ask the address of an ← element
in the current list. You can only use this operator for the exec ,
graf and intb lists. An address operator always precedes a
list operator

Tutor chapters: Expressions
Related terminology:
contents operator

list operator
```

## 1.5 Glossary : aliases

```
An alias in its simpliest form is another name for a command. ←
PowerVisor

aliases are a bit more powerful than normal aliases. You can actually construct whole new commands with them

Commands: alias unalias
Tutor chapters: Installing PowerVisor
Related terminology:
alias string

recursive aliases
```

## 1.6 Glossary: alias string

```
The alias string is the string that is used instead of the 
commandline

when an alias command is entered. It is in fact the definition of the 
alias

Commands: alias unalias
Tutor chapters: Installing PowerVisor
Related terminology:
aliases
```

# 1.7 Glossary: ARexx port

Glossary.hyper 7 / 36

The ARexx port is used by ARexx to send commands to. The name  $\ \hookleftarrow$  of

the PowerVisor ARexx port is REXX\_POWERVISOR

Commands : rx

Tutor chapters : Scripts
Related terminology :
ARexx scripts

## 1.8 Glossary: ARexx scripts

An ARexx script is a ASCII script file containing ARexx  $\ \leftarrow$  commands.

ARexx is a versatile script language for the Amiga. With ARexx you can interface PowerVisor to any other program supporting ARexx or you can write powerful scripts making life easier for you and other users of PowerVisor. ARexx scripts must begin with a comment  $(/\star \ \star /)$ 

 ${\tt Commands} \; : \; \; {\tt rx}$ 

Tutor chapters : Scripts
Related terminology :

PowerVisor scripts

scripts

ML-scripts

ARexx port

## 1.9 Glossary: auto output snap

This feature is an optional setting for logical windows. When '  $\leftarrow$ 

output snap' is on, the logical window will automatically scroll to the place where output appears. 'auto output snap' is on by default for the 'Main' logical window. You can change this behaviour with the setflags or prefs commands

Commands : setflags prefs

Tutor chapters : Screens and windows Related terminology : logical windows

MORE checking

home position

#### 1.10 Glossary : autodefault

Glossary,hyper 8 / 36

Autodefault is a method provided to make life easier for the  $\leftrightarrow$  user.

Normally when PowerVisor parses some sequence of characters, several steps occur. In one of these steps PowerVisor tests if the sequence of characters could be an abbreviation for a name of a 'list element' in the current list.

But some commands are only useful for specific list elements. For example: the freeze command to freeze a task is only useful for tasks. Therefor 'freeze' uses 'autodefault' to the 'task' list. This means that the parsing of the sequence of characters is not done for the current list but for the task list. In practice this means that you can simply use the name of the task even if the task list is not the current list. Many commands use this feature (see the Command Reference chapter if you want to know if a certain command uses 'autodefault'). Some functions also use 'autodefault'

Related terminology : list element

current list

## 1.11 Glossary: autoscalable

When a logical window is autoscalable for one or both  $\ \hookleftarrow \$  directions

(vertical or horizontal) the visible size will always be equal to the real size (in that direction) (see 'logical window' for more info). This means that when you change the visible size (by opening or closing another logical window or by dragging the size bar) the logical window will be cleared and the real size will be recomputed. The 'Main' logical window is NOT autoscalable by default

Commands : fit colrow

Tutor chapters : Screens and windows

Related terminology :

logical window

box

#### 1.12 Glossary: box

A box is used by the physical window to manage the space for  $\ensuremath{\hookleftarrow}$  logical

windows. A box has a parent (unless it is the root box for the physical window) and two children (unless it is a leaf of the box tree). A box with no children (a leaf box) corresponds with a logical window.

Tutor chapters : Screens and windows Related terminology :

logical window

Glossary.hyper 9 / 36

physical window

masterbox

## 1.13 Glossary: breakpoint node

A breakpoint node is the internal data structure used by  $\ensuremath{\hookleftarrow}$  PowerVisor

to hold information about a breakpoint. Each breakpoint has its own breakpoint node. You can use info for a debug node to see a list of all breakpoint nodes

Commands: info debug Tutor chapters: Debugging

Related terminology : breakpoints

debug nodes

## 1.14 Glossary: breakpoints

A breakpoint is a location in memory where a debug node should  $\leftrightarrow$ 

(sometimes depending on some condition). They are implemented using 'ILLEGAL' instructions (so don't use them in shared memory)

Commands: break trace debug

Tutor chapters : Debugging

Related terminology:

debug nodes

normal breakpoints

timeout breakpoints

conditional breakpoints

temporary breakpoints  $\;\;$  profile  $\;\leftrightarrow\;$ 

breakpoints

resident breakpoints

private breakpoints

## 1.15 Glossary: code

See key code Glossary.hyper 10 / 36

## 1.16 Glossary: commandline

The commandline of PowerVisor is a stringgadget. This means ← that you

can use all stringgadget editing facilities supported by the operating system. You can also use some extra facilities provided by PowerVisor like the 'history buffer'.

By default the commandline is 400 bytes long but you may decrease or increase this value with the prefs command

Commands: prefs
Tutor chapters: Getting Started Related terminology:
 history buffer

## 1.17 Glossary: conditional breakpoints

Conditional breakpoints only break when a certain condition ( ← expression)
is true

Commands: break trace debug
Tutor chapters: Debugging
Related terminology:
 breakpoints
 debug node

## 1.18 Glossary: conditional expressions

Using the if() function you can make conditional expressions ← like in

C

Tutor chapters: Expressions
Related terminology:
expression

### 1.19 Glossary: constants

```
A constant is just like a PowerVisor variable. The only difference is that you can't change the value (obvious :-)

'version' is the only constant in the current version of PowerVisor

Commands: vars
Tutor chapters: Expressions
Related terminology:
variables
```

Glossary.hyper 11 / 36

functions

special variables

## 1.20 Glossary : contents operator

The contents operator ('\*') can be used to read from memory  $\hookleftarrow$  locations.

You can use it in expressions or before the assignment operator

## 1.21 Glossary: crash node

A crash node (in the crsh list) corresponds with a crashed task. When a task crashes and PowerVisor traps the crash, PowerVisor will create a crash node and halt the task. This crash node contains some extra information about the crash

## 1.22 Glossary: current debug node

The current debug node is the debug node that you are currently debugging. All trace and breakpoint commands use the current debug node. You can have more than one debug node in memory at the same time

Commands: with duse Tutor chapters: Debugging

Related terminology: debug node

## 1.23 Glossary: current list

When PowerVisor parses some sequence of characters, several steps occur. In one of these steps PowerVisor tests if the sequence of characters could be an abbreviation for a name of a 'list element' in a certain list. This list is the current list. In the bottom left corner of the PowerVisor window you can see the name of the current list. If you want to change the current list to some other list, just type the name of the other list (task, lock, wins, ...). Note that some commands do not use the current list for parsing sequences of characters (see 'autodefault')

Commands: task lock wins ...
Tutor chapters: List Reference
Related terminology:

Glossary.hyper 12 / 36

```
list
list element
autodefault
current list indicator
```

## 1.24 Glossary: current list indicator

```
The current list indicator is located in the left-bottom corner ← of

the 'Main' physical window (the PowerVisor window). It displays the name of the current list ('Task', ...).

Right from the current list indicator is the prompt

Related terminology:

current list

prompt
```

#### 1.25 Glossary: current logical window

```
The current logical window is the logical window that receives \leftarrow all output from most commands. This is 'Main' by default. Note that the current logical window is NOT the same as the active logical window

Commands: current on Tutor chapters: Screens and windows Related terminology:

active logical window

logical window
```

#### 1.26 Glossary: current tag list

```
The current tag list is the tag list that is used by all the tag commands. There are sixteen possible tag lists (0..15)

Commands: tg usetag
Tutor chapters: Looking at things
Related terminology:
tag list

tag
```

Glossary.hyper 13 / 36

## 1.27 Glossary: debug nodes

See debug tasks

## 1.28 Glossary: debug tasks

(or debug nodes) A debug task is a task you are debugging. When it is called a debug task, we are talking about the real task. When it is called a debug node (which is logically the same) we are also talking about the task in most cases, but sometimes the term debug node is used for the internal structure needed by PowerVisor to debug the task (this last meaning is actually more exact than the first one). All debug nodes are in the dbug list

Commands : dbug debug
Tutor chapters : Debugging

#### 1.29 Glossary : double quotes

See quotes

## 1.30 Glossary : dummy debug task

With a dummy debug task you can make symbols without having to  $\ensuremath{\hookleftarrow}$  create

a real debug task. This makes it more easy to disassemble programs. You can't trace or set breakpoints with a dummy debug task, but you can create and show symbols

Commands: debug symbol
Tutor chapters: Debugging
Related terminology:
debug nodes

#### 1.31 Glossary: expression

A sequence of characters corresponding with some algebraic or other operations on integers  $% \left( 1\right) =\left( 1\right) +\left( 1\right)$ 

Tutor chapters : Expressions

Glossary.hyper 14 / 36

## 1.32 Glossary: fancy mode

Fancy mode is another name for two-bitplane mode. PowerVisor is in fancy mode when the PowerVisor screen uses two bitplanes (default). Otherwise PowerVisor is in 'nofancy' mode

Commands : mode

Tutor chapters : Screens and windows

Related terminology : nofancy mode

#### 1.33 Glossary: FD-files

A fd-file (function definition file) contains definitions for  $\ \leftarrow$  the

functions defined in a shared library (you can find these files on the Extras 1.3 disk). PowerVisor uses these files for several purposes (to make the disassembly more readable when you are debugging for example, the addfunc command also uses FD-files). All loaded FD-files are in the fdfi list

## 1.34 Glossary: feedback mode

When feedback mode is on (default) PowerVisor will first print each command on the PowerVisor window before executing it. That way you have an easy way to know which command caused which output

Commands : mode

Tutor chapters : Getting Started

## 1.35 Glossary: fullscreen debugger

Normally debugging in PowerVisor is commandline based. Using the fdebug alias (or the 'db' script) you can install a fullscreen debugger. This fullscreen debugger uses the 'Debug' logical window for output

Commands: debug fdebug dwin Tutor chapters: Debugging

## 1.36 Glossary: function definitions

Glossary.hyper 15 / 36

```
A function definition is a definition for a library function (the name, registers, ...). Function definitions are part of an FD-file

Commands: loadfd libinfo libfunc
Related terminology:
```

# 1.37 Glossary: function monitor

FD-files

The function monitor is the device in PowerVisor that monitors library functions (monitor functions)

### 1.38 Glossary: functions

A function is a routine you may include in expressions. It has some arguments (or none) and most often a result. Note that PowerVisor always expects brackets after the function name even if there are no arguments (like in C). Functions live in the same list as variables. This is why you can't have a variable with the same name as a function

# 1.39 Glossary : group operator

The group operator ( $('\{'\ldots'\}')$ ) can be used to group several  $\leftarrow$  commands

together. You can do this because you want to execute several commands at once or because you are interested in the return code of the last executed command in the list. Group operators can be used as stand alone command or in expressions. The commands in the group are seperated by  $\prime$ ; $\prime$ .

The group operator is also useful if you want to create recursive aliases

Glossary.hyper 16 / 36

## 1.40 Glossary : history buffer

To make editing easier PowerVisor supports a history buffer.  $\hookleftarrow$  Using

the arrow up/down keys you can move in this history buffer and make changes to previous commands.

You can change the maximum number of lines in the history buffer with the prefs command

Commands : prefs

Tutor chapters : Getting Started

Related terminology : commandline

#### 1.41 Glossary: hold mode

When PowerVisor is in hold mode, the screens and windows of  $\leftarrow$  PowerVisor

are all closed. This is useful to preserve memory. You can reopen PowerVisor with the hot key

## 1.42 Glossary: home position

The home position for a logical window depends on whether the  $\,\leftrightarrow\,$  logical

window is a top-visible window or a real-top window

Tutor chapters : Screens and windows Related terminology :

top-visible windows

real-top windows

## 1.43 Glossary : hot key

The PowerVisor hot key is the key combination used to bring the PowerVisor screen to the front. Normally the hot key is  $\mbox{right-shift}>+\mbox{right-alt}>+'?'$  but you can redefine it to any other key you want with the prefs command

Commands : prefs

Tutor chapters : Getting Started

Related terminology : hold mode

Glossary.hyper 17 / 36

```
interrupt key
pause key
```

#### 1.44 Glossary: interrupt key

```
The interrupt key (<esc> by default) can be used to interrupt a PowerVisor command. You can use any key you want for the interrupt key with the prefs command

Commands: prefs
Tutor chapters: Installing PowerVisor
```

Related terminology :

hot key

pause key

## 1.45 Glossary: IntuiTick

An IntuiTick is one tenth of a second. It is used by the refresh command to measure the refresh rate

Commands : refresh

## 1.46 Glossary: key attacements

See macro

## 1.47 Glossary: key code

A key code is some quantity used by the Amiga operating system  $\leftrightarrow$  to tween different keys on the keyboard. PowerVisor uses

distinguish between different keys on the keyboard. PowerVisor uses key codes in several cases (in conjunction with qualifiers) in order to install some commands on keys or other things

Commands: attach prefs
Tutor chapters: Installing PowerVisor
Related terminology:
code

qualifier

Glossary.hyper 18 / 36

## 1.48 Glossary: led monitor

This is a (older) name for the function monitor

Related terminology : function monitor

#### 1.49 Glossary: linenumber operator

The linenumber operator ('#') is useful when debugging. Directly after the operator follows a linenumber in the currently loaded source. The result is the address in memory for that linenumber

Tutor chapters: Expressions Debugging Releated terminology: 'special operator'

## 1.50 Glossary: list

A list contains some list elements (structures or nodes). You  $\ \hookleftarrow$  can look

at a list with the list command. You can ask more information about a list element in a list with the info command. For example the task list contains all processes and tasks. The list is called 'task' and each list element in the list is either a process or a task.

Commands : list info

Tutor chapters: List Reference Looking at things

Related terminology : list element

current list

## 1.51 Glossary: list element

See list

## 1.52 Glossary: list operator

```
The list operator (':') is a binary operator with both \hookleftarrow arguments for the operator optional. You can use it to search some item in a list Tutor chapters: Expressions List Reference
```

Related terminology:

list

Glossary,hyper 19 / 36

list element

address operator

#### 1.53 Glossary: log file

A log file is a file used to store all output appearing in a  $\leftrightarrow$  logical

window. You can only have one log file at a time and only for one logical window

Commands : log to

Tutor chapters : Screens and windows Related terminology : logical windows

output log

## 1.54 Glossary: logical window

A logical window is the primary output device used by  $\ \leftarrow$  PowerVisor. It

corresponds with a visible rectangle on a physical window (or Intuition window). You can have more than one logical window on each physical window. A logical window has an internal size and a visible size. The internal size is the number of columns and rows that PowerVisor really remembers for that logical window. The visible size is the part of the logical window that you can see. Using commands or keys you can scroll the visible logical window region in the real logical window region.

The most important logical window is the 'Main' logical window. This logical window is always open and receives all output (by default) for most commands. All logical windows can be found in the lwin list

Commands: openlw closelw rwin dwin awin owin xwin Tutor chapters: Screens and windows Related terminology:

physical window

T.W

standard logical window

#### 1.55 Glossary: LW

An abbreviation for logical window Related terminology: logical window

Glossary.hyper 20 / 36

## 1.56 Glossary: machinelanguage scripts

See ML-scripts

## 1.57 Glossary: macro

A macro is another (and better) name for a key attachement. I hope to remove the term 'key attachement' from all documentation and use 'macro' instead. A macro is a command that is attached to a key. When you press that key the command is executed.

Commands: attach remattach
Tutor chapters: Installing PowerVisor
Related terminology: key attachement

#### 1.58 Glossary: masterbox

The masterbox is the box that is always present in a physical  $\leftrightarrow$  window

It is the root of the box tree. The masterbox is the only box that can have no children while containing no logical window

#### 1.59 Glossary: ML-scripts

ML-scripts (or machinelanguage scripts) are scripts written in  $\ \hookleftarrow$  an external language (like C or machinelanguage). They are useful

for more specialized tasks. Some examples can be found in the 's/pv' subdirectory

Commands: script pvcall
Tutor chapters: Scripts The wizard corner
Related terminology:

PowerVisor scripts

ARexx scripts

scripts

Glossary,hyper 21 / 36

## 1.60 Glossary: MMU tree

The MMU tree (or Memory Management Unit tree) is used by the 68851, 68030 or 68040 for memory management. On the Amiga the MMU is only marginally used. In future PowerVisor may be able to protect memory using the MMU. At this moment you can list the MMU tables and the MMU registers

Commands : mmutree mmuregs specregs
Tutor chapters : Looking at things

## 1.61 Glossary: monitor functions

Monitor functions are library functions you are monitoring with the addfunc command. Using this command provides a powerful way to debug some programs

Commands : addfunc

## 1.62 Glossary: MORE checking

MORE checking is an optional setting for logical windows. When MORE checking is on, PowerVisor will wait for a key press after a full page of output has appeared (a full page is measured by the real size of the logical window and not by the visible size). MORE checking is on by default for the 'Main' logical window

Commands : mode

Tutor chapters : Screens and windows

Related terminology :

auto output snap
logical windows

home position

#### 1.63 Glossary: names

Names are actually strings but without the single quotes. There  $\hookleftarrow$ 

no other significant difference. Note however, that names are NOT always interpreted in the same way as a normal string (with single quotes). For example, you cannot use single quotes when you want the name to use as a variable

single quotes

Glossary.hyper 22 / 36

## 1.64 Glossary: nofancy mode

See fancy mode

## 1.65 Glossary: normal breakpoints

See breakpoints

## 1.66 Glossary: output log

See log file

## 1.67 Glossary: pause key

The pause key ('<right-alt>+<help> by default) can be used to ← pause
the output of a command

Commands: prefs
Tutor chapters: Installing PowerVisor
Related terminology:
hot key

interrupt key

# 1.68 Glossary: pen

A pen is a graphical object. A pen in PowerVisor has a name and a value. For all graphic operations PowerVisor uses a pen. This means that you can customize all colors you see on the PowerVisor screen (and not only with RGB values)

Commands : prefs

Tutor chapters: Installing PowerVisor Screens and windows

## 1.69 Glossary: physical window

A physical window directly corresponds with a normal Intuition window. A physical window can contain one or more logical windows. The visible size for logical windows is managed by the physical windows using the 'Box' concept. The most important physical

Glossary.hyper 23 / 36

window is the 'Main' physical window. This physical window contains the 'Main' logical window. All physical windows can be found in the pwin list

Commands: openpw closepw

Tutor chapters : Screens and windows

Related terminology :

logical window

box

ΡW

## 1.70 Glossary: PortPrint

PowerVisor supports a PortPrint feature. This means that you can print debug information (using the powervisor.library) on the PowerVisor screen. This is useful for tasks for example because they normally can't easily print output. The name PortPrint is derived from the way this feature works. A message is send to the PowerVisor message port containing the output string (or some other data because PowerVisor supports more types of output). Note that the output of the portprint commands appears on the 'PPrint' logical window if this window is open

Commands : owin

## 1.71 Glossary: PowerVisor device

See PVDevice

#### 1.72 Glossary: PowerVisor screen

This is the screen where all PowerVisor windows (physical  $\leftarrow$  windows)

live. It is possible that this screen does not exist. This happens when you have opened PowerVisor on the WorkBench screen or on any other screen in the system

Commands : screen

Tutor chapters : Screens and windows Related terminology : physical windows

PowerVisor window

## 1.73 Glossary: PowerVisor scripts

Glossary.hyper 24 / 36

PowerVisor scripts are simple script containing only sequential PowerVisor commands. They are useful for installing things. Some examples scripts can be found in the 's/pv' subdirectory. The PowerVisor startup script (s/PowerVisor-startup) is also a PowerVisor script. For more complex scripts you should use ARexx

Commands : script
Tutor chapters : Scripts
Related terminology :
ARexx scripts

scripts

ML-scripts

## 1.74 Glossary: PowerVisor startup file

See startup file

#### 1.75 Glossary: PowerVisor window

The PowerVisor window is another name for the 'Main' physical  $\leftrightarrow$  window.

This physical window contains at least the 'Main' logical window for standard output

## 1.76 Glossary: prefix operators

Prefix operators are operators you can put in front off the commandline before you execute it (press enter). These prefix operators have some effect on the output of the command or on other things

Tutor chapters: Screens and windows Technical information

#### 1.77 Glossary: private breakpoints

Glossary.hyper 25 / 36

Private breakpoints are used by PowerVisor to skip an  $\ \leftarrow$  instruction or

for other purposes

Commands: break debug trace

Tutor chapters : Debugging

Related terminology:

debug nodes

breakpoints

## 1.78 Glossary: profiler breakpoint

A profiler breakpoint never breaks, but only increments a  $\leftarrow$ 

everytime the breakpoint is passed. This is useful to gather usage statistics

Commands: break trace debug

Tutor chapters : Debugging

Related terminology :

breakpoints

debug nodes

## 1.79 Glossary: prompt

The prompt is the '>' symbol right from the current list  $\hookleftarrow$  indicator.

It indicates the stringgadget or commandline where you can type PowerVisor commands

Related terminology :

current list indicator

# 1.80 Glossary: PVDevice

(or PowerVisor device) A PVDevice is a data structure used by some commands. With a PVDevice you can open any device in the system and send commands to it. This is useful to test selfmade devices or to learn about other devices

Commands: opendev devcmd

#### 1.81 Glossary: PVSD file

Glossary.hyper 26 / 36

#### 1.82 Glossary: PW

An abbreviation for physical window Related terminology : physical window

## 1.83 Glossary : qualifier

```
A qualifier is used together with a key code to distinguish ← between

different key presses. A qualifier says something about some special keys pressed at the same time with the key (shift, alt, ...)

Commands: attach prefs
Tutor chapters: Installing PowerVisor
Related terminology:
    key code
```

# 1.84 Glossary: quote operator

```
The quote operator (or backslash '\') can be used to put ← integers,

characters or other strings in one way or another in a string or string pointer. The quote operator is actually quiet powerful

Tutor chapters: Expressions
Related terminology:
strings

string pointers

quotes
```

#### 1.85 Glossary : quotes

Glossary,hyper 27 / 36

Quotes are used to define a string or string pointer. A single  $\ \hookleftarrow$  quote

is used for real strings and a double quote is used for string pointers. For commands expecting a string there is no difference between using the single quote or the double quote. But if a command expects an integer as an argument there is a difference. A double quoted string (or string pointer) is in fact a pointer to that string while a single quoted string will be parsed according to several steps (variable, list element, symbol, function, ...)

strings

string pointers

## 1.86 Glossary: real-top windows

A real-top window is a logical window with the home position  $\ \hookleftarrow \$  set

to location (0,0). This means that when the logical window is cleared the current cursor position is automatically set to that position and the logical window is scrolled to the top-left visible corner in the real region of the logical window. The 'Refresh' and 'Debug' logical windows are real-top windows by default. See 'top-visible windows' for the other way to set the home position

logical window

home position

## 1.87 Glossary: recursive aliases

Using the group operator you can make recursive aliases. This  $\,\leftrightarrow\,$  is

because alias expansion is done again in a new group

Tutor chapters : Installing PowerVisor Related terminology : aliases

group operator

Glossary.hyper 28 / 36

## 1.88 Glossary: resident breakpoints

A resident breakpoint is a breakpoint that you can put in your program even before PowerVisor is running. You put it in your program before compiling or assembling it. Resident breakpoints (like all breakpoints) are simply 'ILLEGAL' instructions

Commands: debug
Tutor chapters: Debugging
Related terminology:
debug nodes

breakpoints

#### 1.89 Glossary: resident commands

See resident ML-scripts

## 1.90 Glossary: resident ML-scripts

(or resident commands) For faster execution you can make ML- ← scripts

resident. Note that they must be reentrant

Commands: resident unresident
Tutor chapters: Scripts
Related terminology:
 resident commands

ML-scripts

# 1.91 Glossary: scripts

See
ARexx scripts

PowerVisor scripts
or
ML-scripts

# 1.92 Glossary: single quotes

See quotes Glossary.hyper 29 / 36

## 1.93 Glossary: singlestep mode

When you are tracing a program (a debug node), PowerVisor can  $\leftarrow$ 

two modes: 'singlestep mode' or 'execute mode'. In singlestep mode each instruction is executed step by step. After each instruction an exception handler is called and some action is taken (you can control this action with the trace command). In execute mode the program is running at full speed. The program only stops when a breakpoint or other exception occurs

Commands: trace break debug
Tutor chapters: Debugging
Related terminology:
debug nodes

#### 1.94 Glossary: size bar

The size bar is the (mostly horizontal) bar between two logical windows. You can use this bar to resize the logical windows

Tutor chapters : Screens and windows Related terminology : logical windows

## 1.95 Glossary: snapping

Snapping is the process of moving the mouse to a position in a logical window and clicking on the word under the mouse pointer. The word will be copied to the stringgadget

Tutor chapters : Getting Started

#### 1.96 Glossary: special operator

The special operator ('@') is useful when debugging. It returns the value of the registername directly after the operator character

Tutor chapters: Expressions Debugging Releated terminology: 'linenumber operator'

#### 1.97 Glossary: special variables

Special variables are a bit special :-) Special variables  $\ \ \ \hookrightarrow \$  behave

like normal variables in that you can assign values to them. But when you assign something to a special variable, a certain routine is called. The 'mode' variable is an example of a special variable.

Glossary.hyper 30 / 36

When you change something in the mode variable PowerVisor will automatically adapt all internal settings to the new settings provided in the assignment

Commands : vars mode

Tutor chapters : Looking at things

Related terminology : variables

constants

functions

## 1.98 Glossary: stack checking

PowerVisor has two stack checkers (not counting the internal  $\leftarrow$  stack

checker for PowerVisor). These stack checkers check if a certain task (with the stack command) or all tasks (with the account command) have enough room left on the stack. The minimum amount of room allowed on the stack is called the 'stack fail level'

Commands : stack account Related terminology : stack fail level

#### 1.99 Glossary: stack fail level

The stack fail level is the minimum size of the stack that  $\leftrightarrow$  PowerVisor

allows before it will halt a task. It is used both by the  $\mbox{account}$  and the  $\mbox{stack}$  commands

## 1.100 Glossary: standard logical window

A standard logical window is a logical window with a predefined meaning for PowerVisor. In the current version there are seven standard logical windows: Main, Extra, Debug, Refresh, Rexx, PPrint and Source

Commands: rwin awin dwin xwin owin swin Tutor chapters: Screens and windows

Related terminology :

logical window

Glossary.hyper 31 / 36

## 1.101 Glossary: startup file

## 1.102 Glossary: string expansion

```
String expansion is sometimes used to refer to the process of \leftrightarrow parsing
a string (a sequence of characters) while assigning special meanings
to some characters (like the quote operator and strong quote operator)

Tutor chapters: Expressions
Related terminology:
strings

quote operator

strong quote
```

## 1.103 Glossary: string pointers

A string pointer (defined with double quotes) is a pointer to a sequence of characters. It is actually an integer is and is used as such by all commands expecting integers as an argument. This means that arithmetic on string pointers is perfectly valid and is equivalent to C pointer arithmetic

#### 1.104 Glossary: strings

```
A string (defined with or without single quotes) is a sequence \hookleftarrow of characters. Normally strings are surrounded by single quotes (or without quotes) but if a command expects a string as an argument double quotes will do as well. Note that this is NOT the case for
```

Glossary,hyper 32 / 36

a command expecting an integer as an argument. Strings (with single quotes) will be parsed according to some steps (variable, function, symbol, list element, ...) while a string pointer (with double quotes) simply corresponds to the pointer to the string

Tutor chapters : Expressions
Related terminology :
string pointers

quotes

#### 1.105 Glossary: structure definition

A structure definition corresponds with a structure (like in C  $\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,$  or

assembler) or a record (like in Pascal). With the external utility 'MStruct' you can make structure definitions to be used by PowerVisor. A structure definition contains a list of names (for the structure fields) and their corresponding types (APTR, BPTR, BSTR, CSTR, BYTE, WORD, LONG, ...). You can interprete a range of memory as a structure or you can use tags to permanently define a region of memory as a structure

Commands: addstruct interprete
Tutor chapters: Looking at things
Related terminology:
 pvsd file

tag

#### 1.106 Glossary: strong quote

The strong quote  $'\cdot'$  (or <alt>+8 on the keyboard) is normally  $\leftarrow$  not

used very often. Using the strong quotes you can easily put all characters in a string expect one. This is the character directly after the string quote. This character is used to end the strong quote region

Tutor chapters : Expressions Related terminology : strings

string pointers

quotes

#### 1.107 Glossary: symbols

Glossary.hyper 33 / 36

Symbols are names for labels and addresses used in programs. Most assemblers and compilers can output symbols in the program hunks. PowerVisor supports these symbols when you are debugging programs

Commands : symbol debug
Tutor chapters : Debugging

#### 1.108 Glossary: tag

A tag is a definition for a region of memory. There are 16 tag  $\,\,\hookleftarrow\,\,$  lists.

Each tag list can contain an arbitrary number of tags. One tag contains a pointer to the start of a memory block, a size in bytes and a type (Byte/Ascii, Code, Structure, ...)

Commands: addtag remtag view
Tutor chapters: Looking at things
Related terminology:
tag list

tag file

current tag list

# 1.109 Glossary: tag file

A tag file contains some tags saved with the savetags command  $\hookleftarrow$ 

Commands: savetags loadtags
Tutor chapters: Looking at things

Related terminology :

tag

tag list

## 1.110 Glossary: tag list

See

tag

# 1.111 Glossary: task accounting

When you enable task accounting (with the account command) PowerVisor counts the number of task switches for each task. This gives a rough indication of the cpu time a task uses. You can see this accounting information in the task list

Glossary.hyper 34 / 36

Commands: account list

## 1.112 Glossary: Task Control Block (or TCB)

The Task Control Block is another name for the task structure.

Related terminolgy : TCB

task list

## 1.113 Glossary: task list

The task list contains all processes and tasks currently in  $\ \hookleftarrow$  the

system.

Commands : task list

Tutor chapters : List Reference

Related terminology :

list

## 1.114 Glossary: TCB

See

Task Control Block (or TCB)

#### 1.115 Glossary: templates

A template is a syntaxical description of a command. If you have the online help files installed (PowerVisor-help and PowerVisor-ctrl) you can get command templates by using '?' as the first argument (just like CLI commands)

## 1.116 Glossary: temporary breakpoint

A temporary breakpoint only breaks once. After the breakpoint  $\ensuremath{\hookleftarrow}$  has done

its work it will automatically disappear

Commands: break trace debug Tutor chapters: Debugging

 Glossary.hyper 35 / 36

debug nodes

## 1.117 Glossary: timeout breakpoints

A timeout breakpoint only breaks after a specified number of  $\leftarrow$  times

debug nodes

#### 1.118 Glossary: top-visible windows

set to the top-left position of the bottom-left visible region of the real region of the logical window. This means that when such a window is cleared, the current cursor position is set to that position and the logical window is scrolled to the bottom visible region. The 'Main' logical window is top-visible by default. See 'real-top windows' for the other way to set the home position

home position

## 1.119 Glossary : variables

A variable can be used to remember some value. PowerVisor only  $\ \ \hookrightarrow \$  has

integer type variables (although a variable may point to a string, this is in fact a C string). There is no limitation (except memory) on the length of the variable name. A variable name must start with a letter or an underscore but may contain digits in the rest of the name.

Note that variables, constants, special variables and functions all live in the same internal list

Commands: vars remvar assign
Tutor chapters: Expressions
Related terminology:
constants

Glossary.hyper 36 / 36

functions

special variables