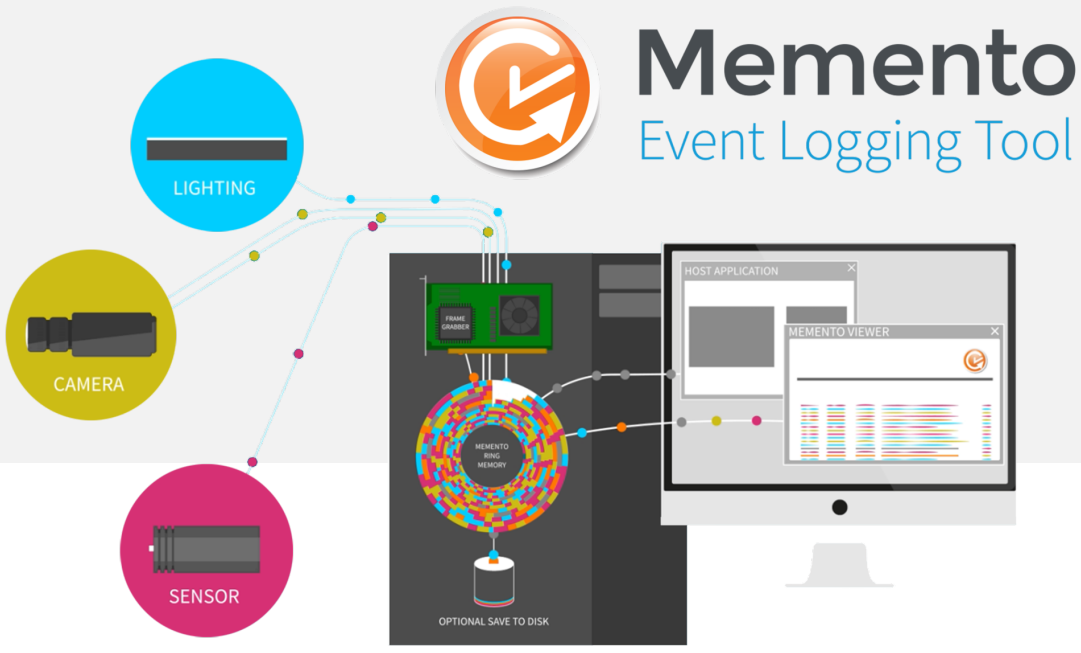


Memento

Memento 12.3.1



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Documentation Changes

Release 12.3

The Memento 12.3 release does not require updates for this manual.

1. Command Line Structure

Memento is a multi-mode application program that can be invoked using a command line.

```
memento [COMMAND] ... [OPTIONS]
memento gui [OPTIONS] [FILE]
memento config [OPTIONS] [FILE]
memento view [OPTIONS] [FILE]
memento dump [OPTIONS] [FILE]
memento xperf [OPTIONS]
```

The command line may include:

- 0 or 1 COMMAND argument: `gui`, `config`, `view`, `dump`, `xperf`
- 0 or more OPTION flags
- 0 or 1 FILE argument

2. COMMAND

The COMMAND argument determines the operation mode of the Memento application.

Command	Description
gui	<p>Start Memento Graphical User Interface</p> <p><i>This single-window graphical user interface application allows to:</i></p> <ul style="list-style-type: none"> • <i>Show/change the Memento Configuration</i> • <i>Monitor graphically the input activity of the Memento ring buffer</i> • <i>View a selected set of messages of the Memento ring buffer</i> • <i>Control interactively the selection of messages to display</i> • <i>Dump the Memento ring buffer data to disk</i>
config	<p>Show/change Memento Configuration</p> <p><i>Select this mode to show and possibly modify the Memento configuration using a command line.</i></p>
view	<p>View Memento messages</p> <p><i>Select this mode to view a selected set of messages of the Memento ring buffer using a command line.</i></p>
dump	<p>Dump Memento data into file</p> <p><i>Select this mode to dump Memento data from the Memento ring buffer to files on disk using a command line.</i></p>
xperf	<p>Record Memento and XPerf data into file</p> <p><i>Select this mode to record Memento and XPerf data to a disk file using a command line.</i></p>

The COMMAND argument is optional. When it is omitted, a default operation mode is selected:

- gui for Windows
- view for Linux

3. OPTIONS

3.1. Common Options

Option flags applicable to all COMMAND values

Flag	Description
<code>-h</code> or <code>--help</code>	Display the help message
<code>-V</code> or <code>--version</code>	Display the version information
<code>--numeric-version</code>	Display just the version number

3.2. GUI Options

Option flags applicable when `COMMAND=gui` or when, for Windows only, the `COMMAND` argument is missing

Flag	Description
<code>--dir=DIR</code>	Path to the trace definition directory. Default directory : <code>Public Documents\Euresys\Memento</code>
<code>--goback[=N]</code>	Go back N messages in history. Default: ignore past messages.
<code>--limit[=N]</code>	Stop after N messages. Default: don't stop.
<code>--pastboot[=N]</code>	Go back N boot sessions in history. Default: ignore past boot sessions.
<code>--verbosity=LEVEL</code>	Set the verbosity level. Possible values: <code>None, Critical, Error, Warning, Notice, Info, Debug, Verbose</code> Default: <code>Notice</code> .
<code>--history=INT</code>	Number of history lines. Default number: 250,000.

Flag	Description
<code>--duration=SEC</code>	Stop the application after the specified number of seconds.
<code>--hide-console</code>	Don't show the application console.
<code>--filter=FILTER</code>	Define filters with the following BNF syntax: <pre><FILTER> ::= <CARD> ':'<CONNECTORS> <CARD>':'<CONNECTORS></pre> where <pre><CARD> ::= <INTEGER> '+', <CONNECTORS> ::= <LETTER> <LETTER><CONNECTORS> '+', <LETTER> ::= 'A' 'B' 'C' 'D'</pre> with '+' to match empty card or connector information

3.3. Config Options

Option flags applicable when `COMMAND=config`

Flag	Description
<code>--reset</code>	Reset the Memento Configuration to the Default profile. <i>This is performed before any other action.</i>
<code>--verbosity=LEVEL</code>	Set the verbosity level. Possible values: None, Critical, Error, Warning, Notice, Info, Debug, Verbose Default: Notice.
<code>--kind=KIND</code>	Show/change configuration of one of the following kinds: API, Acquisition, CoaXPress, DMA, DPC, Descriptors, EEPROM, Event, FPGA, Flash, GenAPI, Hardware, I2C, IOCTL, IRQ, Memento, OperationM, PCIExpress, PnP, Power, Profiling, SPI, Script, Serial Line, Thread, Unknown, User.

Flag	Description
<code>--header</code>	Show Memento header including main and kind configurations.
<code>--profile=PROFILE</code>	<p>Load a configuration profile.</p> <p>Possible values: <code>Default</code>, <code>Verbose</code></p> <p>Default Memento configuration</p> <p>The default Memento configuration defines the following rule filters:</p> <ul style="list-style-type: none"> • For Profiling kind, all messages with verbosity level Notice and higher are injected by default. • For DPC, IOCTL, IRQ and Memento kinds, all messages with verbosity level Info and higher are injected by default. • For CoaXPRESS, GenApi and PnP kinds, all messages with verbosity level Debug and higher are injected by default. • For all other kinds, the default rule applies: all messages with verbosity level Verbose and higher are injected.

3.4. View Options

Option flags applicable when `COMMAND=view` or when, for Linux only, the `COMMAND` argument is missing

Flag	Description
<code>--dir=DIR</code>	<p>Path to the trace definition directory.</p> <p>Default directory: <code>:Public Documents\Euresys\Memento</code></p>
<code>--goback[=N]</code>	<p>Go back N messages in history.</p> <p>By default, past messages are ignored.</p>
<code>--limit[=N]</code>	<p>Stop after N messages.</p> <p>Default: don't stop.</p>
<code>--pastboot[=N]</code>	<p>Go back N boot sessions in history.</p> <p>Default: ignore past boot sessions.</p>
<code>--verbosity=LEVEL</code>	<p>Set the verbosity level.</p> <p>Possible values: <code>None</code>, <code>Critical</code>, <code>Error</code>, <code>Warning</code>, <code>Notice</code>, <code>Info</code>, <code>Debug</code>, <code>Verbose</code></p> <p>Default: <code>Notice</code>.</p>
<code>--color</code>	Enable or disable colors.

Flag	Description
	Default: automatic detection.
<code>--latency=L</code>	Chronologically sort traces using a sliding window of L seconds. Default: 0.5 second.
<code>--buffering=B</code>	Limit internal buffering of traces to B seconds. Default: 0.6 second.
<code>--filter=FILTER</code>	Define filters with the following BNF syntax: <pre><FILTER> ::= <CARD> ':'<CONNECTORS> <CARD>':'<CONNECTORS></pre> where <pre><CARD> ::= <INTEGER> '+', <CONNECTORS> ::= <LETTER> <LETTER><CONNECTORS> '+', <LETTER> ::= 'A' 'B' 'C' 'D'</pre> with '+' to match empty card or connector information
<code>-- tsv</code>	Allow a tab-separated display of Memento messages

3.5. Dump Options

Option flags applicable when `COMMAND=dump`

Flag	Description
<code>-o --output=FILE</code>	Output file name. Existing files are rotated if necessary. Default: <code>memento.out</code> .
<code>--goback[=N]</code>	Go back N messages in history. Default: ignore past messages.
<code>--pastboot[=N]</code>	Go back N boot sessions in history. Default: ignore past boot sessions.
<code>--split[=MB]</code>	Split dump into several files, rotating files as necessary. Default: dump all messages to a single file.
<code>--keep=N</code>	Keep the N most recent dump files and delete the others. Default: keep all files.
<code>--follow</code>	Wait for new messages

3.6. Xperf Options

Option flags applicable when `COMMAND=xperf`

Flag	Description
<code>-o --output=FILE</code>	Output file name. Existing files are rotated if necessary. Default: <code>memento-xperf.zip</code> .
<code>--keep=N</code>	Keep the N most recent dump files and delete the others. Default: keep all files.
<code>--duration=SEC</code>	Stop the application after the specified number of seconds
<code>--group=GROUP FLAGS</code>	XPerf group or flags Default: <code>DiagEasy</code>
<code>--show-in-explorer</code>	Show <code>memento-xperf</code> archive in Windows Explorer
<code>--pause-on-error</code>	

4. FILE

The FILE argument specifies the file name and the file path of a **Memento** dump file.

The FILE argument is optional. It is required only when the COMMAND has to be executed on an existing dump file.

When it is omitted, the COMMAND is executed on the **Memento** ring buffer.

5. Samples

Start the Memento Graphical User Interface

```
memento gui --hide-console
```

Reset Memento to Default Verbosity Level

```
memento config --reset
```

Set Memento to Highest Verbosity Level

```
memento config --reset --verbosity=verbose
```

Start Memento Logging

```
memento --goback --follow --split=100 --keep=20
```

Record Memento and XPerf traces

```
memento xperf  
--output="%USERPROFILE%\memento\memento-xperf.zip"  
--keep=20 --show-in-explorer
```