

File Alteration Monitor

Introduction

FAM monitors files and directories, notifying interested applications of changes. More information about FAM is available at [» http://oss.sgi.com/projects/fam/](http://oss.sgi.com/projects/fam/).

A PHP script may specify a list of files for FAM to monitor using the functions provided by this extension.

The FAM process is started when the first connection from any application to it is opened. It exits after all connections to it have been closed.

Note
This extension has been moved to the » PECL repository and is no longer bundled with PHP as of PHP 5.1.0.

Note
This extension is not available on Windows platforms.

Installing/Configuring

Requirements

This extension uses the functions of the [» FAM](#) library, developed by SGI. Therefore you have to download and install the FAM library.

Installation

To use PHP's FAM support you must compile PHP `--with-fam[=DIR]` where DIR is the location of the directory containing the lib and include directories.

Runtime Configuration

This extension has no configuration directives defined in *php.ini*.

Resource Types

There are two resource types used in the FAM module. The first one is the connection to the FAM service returned by [fam_open\(\)](#), the second a monitoring resource returned by the *fam_monitor_XXX* functions.

Predefined Constants

The constants below are defined by this extension, and will only be available when the extension has either been compiled into PHP or dynamically loaded at runtime.

FAM event constants

Constant	Description
FAMChanged (integer)	Some value which can be obtained with <code>fstat(1)</code> changed for a file or directory.
FAMDeleted (integer)	A file or directory was deleted or renamed.
FAMStartExecuting (integer)	An executable file started executing.
FAMStopExecuting (integer)	An executable file that was running finished.
FAMCreated (integer)	A file was created in a directory.
FAMMoved (integer)	This event never occurs.
FAMAcknowledge (integer)	An event in response to fam_cancel_monitor() .
FAMExists (integer)	An event upon request to monitor a file or directory. When a directory is monitored, an event for that directory and every file contained in that directory is issued.
FAMEndExist (integer)	Event after the last FAMEExists event.

FAM Functions

fam_cancel_monitor

fam_cancel_monitor -- Terminate monitoring

Description

bool **fam_cancel_monitor** (resource \$fam, resource \$fam_monitor)

Terminates monitoring on a resource.

In addition an **FAMAcknowledge** event occurs.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

fam_monitor

A resource returned by one of the *fam_monitor_XXX* functions

Return Values

Returns **TRUE** on success or **FALSE** on failure.

See Also

- [fam_monitor_file\(\)](#)
- [fam_monitor_directory\(\)](#)
- [fam_monitor_collection\(\)](#)
- [fam_suspend_monitor\(\)](#)

fam_close

fam_close -- Close FAM connection

Description

void fam_close (resource *\$fam*)

Closes a connection to the FAM service.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

Return Values

No value is returned.

See Also

- **fam_monitor_open()**

fam_monitor_collection

fam_monitor_collection -- Monitor a collection of files in a directory for changes

Description

resource **fam_monitor_collection** (resource \$fam, string \$dirname, int \$depth, string \$mask)

Requests monitoring for a collection of files within a directory.

A FAM event will be generated whenever the status of the files change. The possible event codes are described in detail in the [constants part](#) of this section.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

dirname

Directory path to the monitored files

depth

The maximum search *depth* starting from this directory

mask

A shell pattern *mask* restricting the file names to look for

Return Values

Returns a monitoring resource or **FALSE** on errors.

See Also

- [fam_monitor_file\(\)](#)
- [fam_monitor_directory\(\)](#)
- [fam_cancel_monitor\(\)](#)
- [fam_suspend_monitor\(\)](#)
- [fam_resume_monitor\(\)](#)

fam_monitor_directory

fam_monitor_directory -- Monitor a directory for changes

Description

resource **fam_monitor_directory** (resource *\$fam*, string *\$dirname*)

Requests monitoring for a directory and all contained files.

A FAM event will be generated whenever the status of the directory (i.e. the result of function [stat\(\)](#) on that directory) or its content (i.e. the results of [readdir\(\)](#)) changes.

The possible event codes are described in detail in the [constants part](#) of this section.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

dirname

Path to the monitored directory

Return Values

Returns a monitoring resource or **FALSE** on errors.

See Also

- [fam_monitor_file\(\)](#)
- [fam_monitor_collection\(\)](#)
- [fam_cancel_monitor\(\)](#)
- [fam_suspend_monitor\(\)](#)
- [fam_resume_monitor\(\)](#)

fam_monitor_file

fam_monitor_file -- Monitor a regular file for changes

Description

resource **fam_monitor_file** (resource \$fam, string \$filename)

Requests monitoring for a single file. A FAM event will be generated whenever the file status changes (i.e. the result of function [stat\(\)](#) on that file).

The possible event codes are described in detail in the [constants part](#) of this section.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

filename

Path to the monitored file

Return Values

Returns a monitoring resource or **FALSE** on errors.

See Also

- [fam_monitor_directory\(\)](#)
- [fam_monitor_collection\(\)](#)
- [fam_cancel_monitor\(\)](#)
- [fam_suspend_monitor\(\)](#)
- [fam_resume_monitor\(\)](#)

fam_next_event

fam_next_event -- Get next pending FAM event

Description

array **fam_next_event** (resource *\$fam*)

Returns the next pending FAM event.

The function will block until an event is available which can be checked for using [fam_pending\(\)](#).

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

Return Values

Returns an array that contains a FAM event code in the ' *code* ' element, the path of the file this event applies to in the ' *filename* ' element and optionally a hostname in the ' *hostname* ' element.

The possible event codes are described in detail in the [constants part](#) of this section.

See Also

- [fam_pending\(\)](#)

fam_open

fam_open -- Open connection to FAM daemon

Description

resource **fam_open** ([string \$appname])

Opens a connection to the FAM service daemon.

Parameters

appname

A string identifying the application for logging reasons

Return Values

Returns a resource representing a connection to the FAM service on success or **FALSE** on errors.

See Also

- [fam_close\(\)](#)

fam_pending

fam_pending -- Check for pending FAM events

Description

int **fam_pending** (resource *\$fam*)

Checks for pending FAM events.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

Return Values

Returns non-zero if events are available to be fetched using [fam_next_event\(\)](#), zero otherwise.

See Also

- [fam_next_event\(\)](#)

fam_resume_monitor

fam_resume_monitor -- Resume suspended monitoring

Description

bool **fam_resume_monitor** (resource \$fam, resource \$fam_monitor)

Resumes monitoring of a resource previously suspended using [fam_suspend_monitor\(\)](#).

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

fam_monitor

A resource returned by one of the *fam_monitor_XXX* functions

Return Values

Returns **TRUE** on success or **FALSE** on failure.

See Also

- [fam_suspend_monitor\(\)](#)

fam_suspend_monitor

fam_suspend_monitor -- Temporarily suspend monitoring

Description

bool **fam_suspend_monitor** (resource \$fam, resource \$fam_monitor)

[fam_suspend_monitor\(\)](#) temporarily suspend monitoring of a resource.

Monitoring can later be continued using [fam_resume_monitor\(\)](#) without the need of requesting a complete new monitor.

Parameters

fam

A resource representing a connection to the FAM service returned by [fam_open\(\)](#)

fam_monitor

A resource returned by one of the *fam_monitor_XXX* functions

Return Values

Returns **TRUE** on success or **FALSE** on failure.

See Also

- [fam_cancel_monitor\(\)](#)
- [fam_resume_monitor\(\)](#)