



Software Module Description Document

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1. **General**

Log module is a wrapper for Log4r module.

Logging streams:

Logging can be enabled\disabled for following types of outputs:

- File – default
- Console – not default
- email – not default (sent on system crush)

Logging levels:

- INFO < DEBUG-1 < DEBUG-2 < DEBUG-3 – User sets the level
- WARN and ERROR - are always logged

Logging format:

- [level] [time] [file:line:msg]
- Example:
[INFO] [2013-05-01 17:30:24] [monitor_path.rb:112:Writing
to event queue]

2. **Assumption**



Any module which uses logging should include Log in its 'require' list.

Log is recommended to be initialized: Log.init during the executable initialization phase. Else, log will be initialized during the first logging attempt.

3. **Block diagram**

BBFS

Log Module

Wrapper methods:

Log4r.debug

Log4r.info

Log4r.warn

Log4r.error

BBFS

Some module

require 'log'

Log.debug3('msg')

Log.debug2('msg')

Log.debug1('msg')

Log.info('msg')

Log.warning('msg')

Log.error('msg')

System crush

BBFS

Executable

require 'log'

Log.init



Log4r GEM

Actual logging:

Log to file
Log to console
Log to email

Actual Init

BBFS Log Module

Init:

Log to file
Log to console
Log to email

Log level:

Params['log_debug_level'] = **2**

4. **Input/Output**

Input parameters:

*see Params module doc for parameters settings examples

1. Logging level param:

- Param name: 'log_debug_level'
 - value 0 = Info – User friendly notifications.
 - value 1 = Debug 1 -Info and debug 1 messages – debug logic basic data.
 - value 2 = Debug 2 – info, debug 1 and debug 2 messages – debug logic extensive data.
 - value 3 = Debug 3 – info, debug 1 , debug 2 and debug 3 messages – debug logic extensive data plus code wise data (enter methods etc..).



2. Logging streams parameters:

- File stream (enabled by default):
 - Parameter: '**log_write_to_file**'. Default is 'true'. If 'false', then log is not written to log file.
 - Parameter: '**log_file_name**' – Path to file. Default path is: '~.bbfs/log/<executable name><rotation counter>.log4'
 - Parameter: '**log_rotation_size**'. Default is 1M. max log file size. When reaching this size, a new file is created for rest of log. Note that rotation counter is added to the file name right before the '.' Char.
- Console stream (disabled by default):
 - Parameter: '**log_write_to_console**'. Default is 'false'. If 'true', then log is written to console.
- email stream (disabled by default. sent on system crush)
 - Parameter: '**log_write_to_email**'. Default is 'false'. If 'true', then log is written to email on system crush..
 - Parameter: '**from_email**'. From who to send the mail.
 - Parameter: '**from_email_password**'. Mail password of sender.
 - Parameter: '**to_email**'. To who to send the mail.
- Flush each message parameter (enabled by default):
 - Parameter: 'log_flush_each_message'. Default is 'true'. If 'false' then log messages will be written to file and console each several messages.

Input messages which come from modules:

1. Interface of coming messages is based on logging levels:

- Log.warning(msg)
- Log.error(msg)
- Log.info(msg)
- Log.debug1(msg)
- Log.debug2(msg)



- `Log.debug3(msg)`

Output:

- Logging to File, console and email based on inputs configuration.