# Log settings

This form lets you define the **way logging works** with precision. You can specify for which users and for which screen actions logging should take place. You can also specify which program parts should log.

Where the logs are written can be set via so-called appenders. Webdesk EWP provides 4 appenders by default:

| Appender | Description |
|---|---|
| Database | This appender is the most convenient log medium; here every event is written to a log per action and user. This log applies for the entire time spent within an action (which means that paging within an action also counts!). The disadvantage is that this type of logging is also the most expensive, since write access to the database occurs constantly. |
| Console | This appender writes to the console of the servlet container (e.g., Tomcat) in which the Webdesk EWP server runs. It is a text file with a chronological structure. It is naturally difficult to filter out log events of individual users here. |
| Error-File | This is a special appender that accepts only events of type ERROR or FATAL. The target is a file in the Webdesk directory (webdesk3/WEB-INF/logs/error.log) |
| Log-File | This appender writes to a log file within the Webdesk application. Unlike the console log, only log events from Webdesk are written to this log, whereas with the console appender other web applications in the same container could also log to this appender. (webdesk3/WEB-INF/logs/log4j.log) |

- **Log all actions**
  Clicking the checkbox logs (records) all actions (menu items)
- **Actions to be logged**
  Select a specific action to be logged
- **Log all users** (Log All Users?)
  Clicking the checkbox logs (records) all users
- **Log the following users**
  Select the users from the "Available Users" overview
  - **Available Users** - shows the available users
  - **Your Selection** - shows the selected users
    - Restriction to a specific number of users (click a user in the selection list, then click the single arrow - the selected users are then added. If you click the double arrow, all users are added)
- **Loglevel of Jobs**
  **Debug, Info, Warn, Error, Fatal, All**
  Definition of the priority of error messages (where ***Debug*** is the lowest level and outputs the most messages - e.g., "loading record with number...". ***Info*** - only messages with a higher priority than Info are output. ***Error / Fatal*** - only error messages are output)
- **Loglevel of Connectors**

Analogous to the log level of the jobs

- **Category**
  Here the logger can be defined at Java module level (e.g.: at.workflow.webdesk > logs the specified module)
- **Additivity**
  - **true** / **false**
    Defines whether the log events should also be passed on to all parent log appenders. Example: There is a root logger that logs to the console; if a subordinate logger now logs to the DB and this flag is set to true, all events are also forwarded to the console appender!
- **Loglevel**
  **Debug, Info, Warn, Error, Fatal, All**
  Definition of the priority of error messages
  - **Debug -** represents the lowest level of logging and outputs the most messages. E.g., "loading record with number...".
  - **Info -** only messages with a higher priority than Info are output.
  - **Error / Fatal -** only error messages are output
  - **All -** Output of all messages
- **Appender**
  The appender defines where a category is logged (recorded) (see add category) > specifies where the output is redirected to:
  - **Database -** Output is redirected to the database (and can be viewed later in the Log entries view!)
  - **Console -** the output is written to the console (found in tomcat5/logs/stdout.log)
  - **Log File -** the output is written to a special log file
  - **Error File -** only the actual error messages should be logged in this file (File: webdesk3/WEB-INF/logs/error.log)
- **add Appender**
  Add a new appender
- **delete Appender**
  The definition is deleted
- **add Category**
  Attach a log to a package (name must match the package)
- **delete Category**
  The category is deleted

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Database logging (Appender = DATABASE) is only enabled if the **logged-in user and the called action** have been enabled for logging. The correct configuration of the upper part of the form is essential here!

## Important loggers:

| Logger name | Description |
|---|---|
| shark | Logger for the workflow engine |
| at.workflow.webdesk | Logger for all Webdesk classes and services |
| org.hibernate.SQL | Logger for all SQL-generating classes in Hibernate |
| DatabaseManager | Logger for DODS (O/R mapping tool used by Shark) |
| Persistence | Logger for DAOs of the workflow engine |

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Conversely, it is not necessary to enable actions or users for logging if logging is done to media other than the database. (Example: CONSOLE, FILE, ERROR-FILE)

If you have questions about the detailed functioning of the parameters, please contact Workflow EDV GmbH.

## Verweise

Log4j Manual
http://logging.apache.org/log4j/docs/manual.html