



**independIT Integrative Technologies GmbH**

## **New Features Release 2.9**

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## New features

**”Alter job with kill’ is now a job command (was backported to 2.8)** Jobs can now start their kill program using this command. In turn, this allows jobs to be terminated using an asynchronous trigger, e.g. after a runtime overrun.

**The character set for displaying the log file is now configurable** Because logs are generally not written in UTF-8, the character set can now be configured.

**-D flag in the scrolllog set Env. Vars.** With the aid of a “-D” flag, key value pairs can now be specified on the scroll log command line. The scrolllog process then sets these variables to the environment of the process to be monitored.

**Disable job, interval controlled** As an extension of the “disable” functionality in the parent-child hierarchy of job definitions, these can now be better controlled by means of an interval. This controls the timing of the parent-child relationship.

**Disable job (after submit)** If a job is not yet being executed, it can also be subsequently disabled. The big difference compared to the Cancel function is that the dependence chain is not interrupted. In particular, the successors must wait to be executed until the disabled job would have been executed.

**Drop [existing] interval** The keyword ‘existing’ can be specified when deleting intervals. If the interval to be deleted does not exist, this does not trigger an error. This is especially helpful when using multicommands.

**Dynamic Master submit** Dynamic submits by jobs now also permit Master submits.

**Enhanced user profiles** User profiles now also allow icons to be hidden on the main desktop.

**External dependencies** Previously, it was only possible to form dependencies between jobs within the same master. With the introduction of external dependencies, it is now also possible to define dependencies in different masters.

**GUI shell (like sdmsh)** A kind of shell is now available in the web GUI with which any BICsuite commands can be interactively executed. Fans of sdmsh will love this feature.

**Ignore expire on rerun** Jobs that request resources with an expiration can ignore the expiration requirement in the event of a rerun.

**Interval editor in the web GUI** Clicking a new icon on the web GUI desktop opens an interval editor in which intervals can be defined. This allows building blocks for other intervals and the time scheduling, such as holiday calendars and intervals for the likewise new Disable interval in child definitions, to be created and edited.

**Improved environment evaluation in the job server; can now handle shell functions** The job server makes potential changes in the job's execute environment. To do this, it must fetch its own environment, interpret it, and make the corresponding changes. The implementation has been improved so that it can also handle shell functions.

**Interval Dispatcher** A new type of interval, a Dispatcher, has been implemented. The Dispatcher allows complex time controls to be defined easily and clearly.

**Lazy loading of the dependents** To improve the response times when opening batches and jobs that contain large numbers of dependencies, the dependencies are not loaded until the Dependents tabs is opened.

**Nested interval definitions** The syntax for the create interval statement has been extended. Instead of having to define each interval separately with a unique name, help intervals can now be defined inline. On the one hand, this makes the definition of the interval easier to understand, while on the other it prevents a proliferation of interval definitions.

**Node name in scopes can now contain 64 characters** It has been established that in some environments, 32 characters are not sufficient for the node name. The maximum length of the attribute has been increased accordingly.

**nv1() in the expression parser** To make it easier handling parameters that have not (yet) been set, the nv1() function has been added. This function takes two parameters. If the first parameter is not set, the second parameter is returned.

**Performance improvements in the front end** By moving the rendering of long lists (FolderTree, HiddenVariables, etc.) from the back end to the browser, the response times for large volumes of data have been substantially reduced.

**Question mark operator in the expression parser** The question mark operator, familiar from programming languages such as C, C++ and Java, allows case distinctions to be conveniently made in expressions.

**REQUIRED/DEPENDENT qualifier in the expression parser** The introduction of external dependencies is essentially based on the conditions that have to be evaluated to identify the required job. The parameters for the corresponding job can now be addressed more easily with the aid of the REQUIRED or DEPENDENT qualifier.

**Resume At with time zone** A time zone can now be specified when setting the value for the auto resume.

**Server charset can be set with SDMSERVERCHARSET (default: UTF-8)**

**Show/Hide Folder Path can now be set as the default (per user)** Whether or not the folder path is displayed by default can now be selected as a web user property.

**Show/Hide Folder Path to the Folder Resource tab** Whether or not the folder path is displayed for objects can now also be selected in the Folder Resource tab.

**Show Interval shows the interval hierarchy** Since interval definitions can in turn contain interval definitions, the interval hierarchy is displayed in a table.

**Sort descending in master list** The master list can now also be sorted in descending order. Problematic jobs are displayed first. These are followed by the active jobs, starting with the most recent job. The final jobs are listed at the end.

**Standard parameters SUBMITTER, SUBMITGROUP, ENVIRONMENT, SEOWNER added** The parameter SUBMITTER contains the name of the submitting user. The parameter SUBMITGROUP contains the name of the owner group for the sequence. The ENVIRONMENT parameter contains the name of the environment that is being used. The parameter SEOWNER contains the name of the owner group for the job definition.

**Task files are encoded with SDMSCHARSET. Allows special characters** To be able to use special characters like German umlauts in the run program, the character set to be used for the task files can be specified.

**Text areas for editing parameters** In the GUI, parameters can now be edited in TEXTAREAS instead of in INPUT fields to also allow the editing of long parameters with line breaks.

**TRIGGERBASE also for asynchronous triggers** In the case of asynchronous triggers (UNTIL\_FINISHED, UNTIL\_FINAL), the parameter TRIGGERBASE is now also set.

**Trigger parameters** Parameters that are evaluated when the trigger is activated can be added to a trigger. The values of the parameters are expressions.

**Inherit check box automatically cleared after changes** When editing the scope configuration, if any changes are made, the Inherit flag is now deleted automatically.

**Time zone can be specified for submits** The time zone that plays a role when evaluating the Disable intervals can be specified for the submit. If a time zone is not specified, the time zone of the server is used.

**Zope as proxy for displaying log files** The Zope server (but in principle other web servers as well) can be used as a proxy for displaying log files. This means that only one port has to be opened between the user and the scheduling system. Apart from the simplified and better firewall configuration, it is also guaranteed that only authenticated users can use the function. The log file patterns in the Scope configuration are retained.

## Changes

The following changes cause the system to behave in a slightly different way. In two cases, this has an influence on the web GUI and therefore does not impact the process control. In exceptional cases, the third change can alter the process control since `BROKEN_FINISHED` jobs now have to be restarted manually.

**Audit trail non-recursive by default** For performance reasons, the audit trail is outputted non-recursively by default.

**`BROKEN_FINISHED` jobs are no longer restarted by an auto restart.** If a job is set to the status `BROKEN_FINISHED` with a restart trigger, it is no longer automatically restarted.

**No Keep mode for static resources in the GUI** Since Keep mode is irrelevant for static resources , it is no longer displayed.

## Bug fixes

**Query for JDBC driver is now case-insensitive** Depending on the JDBC driver that is being used and its version of the driver, the name of the driver can vary in the upper and lower cases. For this reason, the verification of the name is now case-insensitive.

**"Alter Trigger" allows options that remain the same to be omitted**

**The executed statement is now correctly displayed for "connect with statement"** The output of the class name in the list of workers has been improved. When a connect statement is executed with a directly attached additional statement, the name of the attached statement is displayed.

**Cleanup folder also removes job resources and triggers** The cleanup erroneously failed to remove all old objects.

**Clear calendar when a scheduled event is "retired"** If an exception occurs when valuating a scheduled event, the calendar that may be associated with it is now also cleared.

**Enable Update button when "Set Timestamp" has been changed** The Update button is enabled when setting a timestamp for a resource.

**Fixed bug in the GUI if all the comments are removed**

**Fixed broken custom formats due to the new URL style** Custom-defined formats for the display in the monitoring were no longer found after the conversion to the new URL style. This has been fixed.

**Fixed lost updates after rolling back subtransactions** After a subtransaction rollback, sometimes the change vector was not zero, but had the size 0. In this case, a change list entry was not created if a change was made after rolling back a subtransaction. This has been fixed.

**Fixed race condition in the scheduling thread** If a scope has been removed and no reschedule has run yet, the scheduling thread could run into an exception.

**Always add a user to his default group** If a default group is specified for Create User that is not included in the group list, the default group is now automatically added to the list.



**Under some circumstances, entries could be missing from the calendar** The next trigger date was forgotten when creating a new calendar.

**JobsRestartable flag is now cleared when transitioning to FINAL** Although the flag is no longer relevant for final jobs, in the transition to FINAL it is now reset. This facilitates valuations with SQL.

**Length of multi-line entries containing multi-byte characters in the task file now calculated correctly** The length (in bytes) of multi-line entries in the task file used to be calculated incorrectly.

**Under some circumstances, parents became final after an IMMEDIATE MERGE trigger** Before the trigger was activated, a check was run to establish whether the job could be finalised. However, this may have become untrue after the trigger valuation with the subsequent triggering.

**Postgres, timestamps in views can now handle DST** `timestampz()` is now used in the views instead of `timestamp()`. This allows the distinction to be made between summer and winter time.

**Remove resource triggers when a resource is deleted; orphans can be removed by the administrator** Resource triggers are now deleted as well. If any triggers from the past still exist, these can be removed by an administrator.

**Rerun for batch in error** After rerunning a batch in ERROR, dependents and dependencies were not verified correctly. This has been fixed.

**Security enhancements (hide passwords)** In some places, passwords used to be unnecessarily transferred. This has been eliminated.

**Do not specify a user clause for Create or Alter Group in the dump** When creating groups (in the dump output), no users should be specified. Otherwise, a chicken-and-egg problem arises.

**Table REPOSITORY\_LOCK transactional in MySQL** The table used to be created during the installation without the entry `innodb`. Since the table is decisive for guaranteeing exclusive access, this is important. In older MySQL/MariaDB installations, this should be done afterwards.

**Triggers on folder resources were not found** The List Trigger statement did not output triggers on folder resources.

**Prevent overwriting the FinishTs** With Cancel, in some cases the FinishTs would be set again. This has been suppressed.