SPDRM

June 26, 2023

BETA CAE Systems announces the release of SPDRM v1.9.1

About this Release

BETA CAE Systems announces the release of SPDRM v1.9.1.

This version delivers a number of enhancements and fixes to the users of the most advanced Simulation Process Data and Resources Management software.

The most important enhancements and fixes are listed below.

Contents

Enhancements and known issues resolved

Enhancements

Modular Run Management

This version brings considerable performance gains for users of the ANSA Modular Environment with SPDRM back-ends. More specifically, with server-side improvements, DM Update Status calculation in ANSA is now much faster (up to 6x) and especially in cases of base Modules with a big number of alternatives in DM, this improvement may even reach 50x.

Additionally, considerable performance improvement (appr. 20% faster) was achieved during Subsystems Save in environments using Oracle DB.

Data Search

Through Search > HandleID it is now possible to search for multiple DM Items providing their Handle Ids comma separated.

It is now possible to search for DM objects that are associated with SPDRM Issues using the Filter Rule: Issues not equal .

Data Lifecycle

It is now possible to configure SPDRM so that when a Data Alert is raised from an SPDRM Issue, the Alert Comment will display the Issue Summary. This can be defined in the dm_alerts.json server configuration file.

Furthermore, in the Lifecycle Graph of the Simulation Runs it is now possible to include attributes of the contained Simulation Model or Loadcase. This can be defined in the data_views.xml server configuration file.

The new server configuration option "DMStatus_Values_Allowing_OverWrite" has been added to allow overwriting of a data object (e.g. Subsystem) that is used by a compound entity (e.g. Simulation Run) under particular status. The default behavior enables overwrite when the status of the compound entity is WIP (Work In Progress) .

MultiSite

A new mechanism has been introduced that identifies and transfers to the central vault (firstDir) files that have been imported successfully through a remote site, but failed to be transferred to the central firstDir via the async transfer mechanism.

The system administrator is enabled to have an overview of the size of all configured vaults per site (i.e. total number of files and total size of each firstDir). This option is available through the 'Vaults' section in the SPDRM Admin web page.

Process Design / Execution

A dedicated handling has been added to deal with the cases where the action Reset or Execute is applied to a node which is connected with a subsequent running node.

- In case both the running and the node being reset are assigned to the current user, a warning message informs the user about the running subsequent nodes, providing the options to either proceed, cancelling the running node, or abort the reset action.
- In case the running node is assigned to another user, the current user can request the cancellation of the running node from the other user. Both users are informed accordingly and are provided with relevant options.

Observer Node / HPC submission

The 'Start', 'End' and 'Last Update' dates of submitted jobs are now listed out-of-the-box in the 'Submitted Jobs' workspace.

Registered Applications

From now on, the type and version of BETA Suite applications (ANSA, META, KOMVOS) can be automatically detected or set manually in their Registered Application card.

MIMEtypes

Using an already running ANSA session to edit a file is now possible for all file extensions known by ANSA for Nastran, LS-Dyna, Pam-Crash, Abaqus, ANSA and Stereo-Lithography files. These file extensions are the ones listed in the ANSA.defaults file.

Script API

The following script functions can now also accept as input a part instance id:
- dm.getSPDRMAttributes
- dm.getDMItemAdditionalAttributes
- dm.downloadFileById.

Script Actions

The new global variable "_script_action" is now available during script action execution that holds a json string with the name of script action and the function.

Users Management - Security

It is now possible to view and set the privileges of a "standalone" node definition through the respective context menu option in the "Search Node Definitions" workspace.

The "Fetch LDAP users" functionality has been enhanced so as to update the user fields in SPDRM that deviate from the ones in LDAP, instead of skipping the import in case of conflict.

Issue Management

The new Boolean key "action.myAction.raiseAlert" has been introduced in the Issue Management configuration file (issues.dat) to control whether a workflow action will automatically raise a DM Alert for the Issue DM Item and the Root Cause DM Item, or not. The default value is "false", meaning that no DM Alerts will be raised.

Web Services - API

Access to the log files of no-GUI Clients running on registered BAL services is now available directly through the SPDRM Admin web page.

REST API

The endpoint "api/dm/dmobjects/files/import" has been introduced to enable the import of simple files in the DM.

System Configuration

The boolean key "local_script_path_enabled" is now supported in SPDRM Client/PEX configuration file (taxisprops.xml) to enable caching of the SPDRM script API files to a local directory, in order to improve the performance of process execution. The default value is false, which means that the caching is disabled.

In addition, the key "local_script_path" is also introduced to set (optionally) a custom path to be used as caching directory. The default value is the SPDRM Client/PEX User Directory.

The new server configuration option "batch_size_on_hierarchy_persist" has been introduced to improve the robustness and performance of the server while saving large hierarchies of Subsystems. This option controls the native batch size for insert sql statements during the bulk insert of attributes and ACLs of part instances, while saving Subsystem's hierarchy through ANSA. The default value is 2000.

Known issues resolved

Data Management

For DM Items generated through ANSA, META or KOMVOS with empty values for attributes that had a generation rule defined in the Data Model, SPDRM server would erroneously skip filling these attributes based on the generation rule.

Data Tree

Generation rule for the file name of Subsystems would erroneously fail to be applied for Subsystems created through the "Add Subsystem" dialog.

Data Search

Relationship queries raised from KOMVOS (e.g to find Subsystems used by Simulation Models of CRASH discipline "any Simulation_Models with Discipline = CRASH") might fail to return the expected results.

Queries that involved 'DM Path' could return incomplete results.

Data Migration / Archival

In some cases the DM Import operation would fail to import all data to the target environment, although it would return a success signal.

Script API

It was not possible to create a Report under a Simulation Model through the script function dm.createDMItem, due to the empty Loadcase field.

The Properties window would not open when the script function dm.showProperties was used for Part without representation file.

Users Management - Security

Granting Modify permissions to a user or role on a DM Item, triggers the assignment of Modify and Delete permissions on all the attachments of the DM Item. Similarly, denying Modify permissions to a user or role on a DM Item, triggers the removal of Modify and Delete permissions on all the attachments of the DM Item.

A user connected from ANSA with a Role that had no Modify privilege on folder batch_mesh_sessions, would be able to save a batch meshing scenario from the Batch Mesh Manager, while he/she shouldn't.

Issue Management

Transition action applied on issue would fail with no information provided, when e-mail was not properly configured in the environment. From now on, the action is successfully applied and a warning message is given that emails to the related users have not been sent due to improper e-mail configuration.

Web Services - API

In some cases the SPDRM Client would fail to display the DM Attributes of DM items on Data Tree (under the "Structure" container) after the execution of the Create Structure web service.

REST API

In case a versioningPolicy value was set and the uploading file did not exist, an unexpected error would occur in the "api/dm/dmobjects/files/import" endpoint.

For more details about the new software features, enhancements and corrections please, refer to the Release Notes document.

Supported Platforms and System Requirements

From this version onward, the server application of SPDRM is available only for Linux 64bit.
<u>NOTE:</u> Installation of SPDRM server application on MS Windows is not supported anymore.

The client application of SPDRM is running under 64bit flavours of Linux and MS Windows.

The software requires a different license key to the rest of the products of BETA CAE Systems. This license key should be incorporated into the same license file, if such is already installed, and requires beta_lm, the proprietary license manager of BETA CAE Systems.

For details, refer to the System Requirements document.

Download

Where to download from

Customers who are served directly by BETA CAE Systems, or its subsidiaries, may download the new software and documentation from their account on our server. They can access their account through the "sign in" link at our web site.
Contact us if you miss your account details. The Downloads menu items give you access to the public downloads.
Customers who are served by a local business agent should contact the local support channel for software distribution details.

What to download

All files required for the installation of this version reside in the folder named: "**SPDRM_v1.9.1**" and are dated as of **June 26, 2023**.

These files should replace any pre-releases or other files downloaded prior to that date.

The distribution of this version of SPDRM is packaged in one, single, unified installation file that invokes the respective installer and guides the procedure for the installation of the required components (i.e. SPDRM server and client).

Earlier software releases are also available in the sub-directory called "Previous_Versions" or in a folder named after the product and version number.