



Information Engineering Technology



Release Notes

Release 8.8.8

CONTENTS

INTRODUCTION	3
GENERAL	3
CR12124 RPD CLIENT INCORRECT RC IF INITIAL SEND FAILS.....	3
CR12129 LOGON ENHANCEMENT FOR CSE	3
CR12135 RPD SECURITY EXIT ENHANCEMENT.....	3
CR12141 IMS SECURE CONNECTION SUPPORT	3
CR12140 GD48 RELEASE PARAMETER.....	3
CR12143 SERVICE LOG FILE LOCATION CHANGE	3
WEB CLIENT UPDATE	3
STUDIO	3
JAKARTA SUPPORT FOR EJB BASED REST SERVICE	3
ACTION DIAGRAM EXPORT	3
ACTION DIAGRAM IMPORT	4
BOOLEAN SUPPORT FOR REST SERVICES.....	4
REST SERVICE RIGHT TRIM STRINGS	4
REST SERVICE PARAMETER HANDLING	4
REST SERVICE OPENAPI “REQUIRED” ELEMENTS AND PROPERTIES	4
OPTIMISE ICM FOR OPSLIBS UTILITY NOW CONTROLLED BY GENERATION OPTION.....	5
EXPORT ENTITY TYPES, WORK SETS, COMMANDS AND EXIT STATES	5
PSTEP INTERFACE RENAME FUNCTION	5
JSON FORMAT FOR REST SERVICE ERROR MESSAGE	5
RESOURCE LEVEL OPENAPI DOCUMENTS	5
PAD EDITOR ALLOWED IMPORT/EXPORT VIEW TO BECOME PERSISTENT WITH NULLABLE ATTRIBUTES	5
PAD EDITOR ALLOWED IS_VALID TEST ON ATTRIBUTES WHERE IT SHOULDN’T BE ALLOWED	5
PAD EDITOR ALLOWED INVALID COMPARATORS ON GUIOBJECTS	5
REST SERVICE EXPORT NULL DATE/TIME/TIMESTAMP VALUES	5
PAD IMPORT NOT CREATING NESTED GROUP VIEWS CORRECTLY.....	6
EXITSTATE MESSAGE AND TYPE IN REST RESPONSE	6
RAPIDE 5 SUPPORT.....	6
SEARCH TEXT INCLUDES SYSTEM ATTRIBUTES	6
SEAMLESS CHECKOUT WITHOUT USING TOOLSET	6
SYSTEM UPDATING.....	6
CR12118 ENCYCLOPAEDIA NAT IP ADDRESS FOR REMOTE MVS INSTALLS	6
CR12130 RAPIDE CSE GENERATION ENHANCEMENTS	6
CR12133 LONGER ENCYCLOPAEDIA CONNECT STRING SUPPORT	6
SUBSET ASSISTANT	6
CR12127 PROTECTION LEVELS INCORRECTLY UPDATED	6
SYSTEM ADMINISTRATION	7
CR12128 VARIOUS ENHANCEMENTS TO ENTIRE SYSTEM IMPORT.....	7
PROJECT ADMINISTRATION	7
CR12119 PROJECT IMPORT FIX	7
XOS.....	7
CR12137 XOS EXPAND TO NEW FILES CONFUSED WITH FOLDERS	7
VERIFIER	7
CR12134 IET171 CHECK.....	7

Introduction

Changes marked with a ‘***’ indicate fixes to high severity issues and it is highly recommended that the service pack is installed if you are likely to be affected by these issues.

Changes marked with a ‘**’ indicates fixes to medium severity issues or a change in behaviour and again it is recommended that the service pack is installed if this issue is likely to affect you.

General

CR12124 RPD Client incorrect RC if initial send fails

The RPD client incorrectly returns a return code of 0 (success) if the initial send transaction fails implying a successful action.

CR12129 Logon enhancement for CSE

If the GDN_BYPASS_LOGON environment variable is set, the userid is not obtained on the client before the logon is attempted on the assumption that the server will return the userid. On a CSE platform the server will not, so the userid is obtained on the client prior to invoking the server to cater for this.

CR12135 RPD Security Exit Enhancement

The example RPDSECEX security exit for Windows has been enhanced to include TLS/SSL LDAP connections.

CR12141 IMS Secure Connection Support

The server select utility now supports the option to specify secure connections for IMS TCPIP. Note that the Gen runtimes will also need to be updated to a version that supports secure connections.

CR12140 GD48 Release Parameter

The GD48 extract background task now accepts RELEASE as a parameter to filter models by environment and release.

CR12143 Service log file location change

The TE, TD, pathvIEW and RPD service control programs previously wrote the log file to the current working directory which for a service was c:\windows\syswow64. This might not be accessible to the user that runs the service, so the log files are now written to TEMP.

Web Client Update

The version of Rapide used for the web clients has been updated to 5.0. This requires Java 17. If it is deployed as a war file to an application server, this must support Jakarta.

Studio

Jakarta support for EJB based REST service

REST services that access EJB servers can now use the jakarta namespace instead of javax, thus supporting more recent application servers that require Jakarta. To build a REST service for Jakarta, amend the generation options and set the JEE Namespace value to ‘jakarta’. See the REST Build Environment chapter in the Studio Developer Web Services manual for details of environment setup. Note that the default rsbldenv.bat file has been updated, so if you have applied customisations to the default file, these will need to be reapplied.

Action Diagram Export

Action Diagrams can be exported to a special .pad format which is optimised for compatibility with the new import feature. The export is either performed from the Model Explorer with the Actions->Export PADs menu or from the action diagram editor using the Actions->Export to PAD file menu option.

The Studio Developer Preferences specify whether the exported file is encoded in UTF-8 or the default ANSI charset. For compatibility with AI coding tools, UTF-8 is recommended.

Action Diagram Import

A new action diagram import feature is available – either for an entire new action block or selected statements.

To import one or more statements from the clipboard, use the Actions->Import PAD Statements from clipboard menu function within the action diagram editor.

To import an entire action diagram from a text file, specify the import file name when adding a new action block. If the file is UTF-8 encoded, tick the relevant checkbox.

The import statements should be in Studio Developer PAD export format, including nesting levels and statement numbers.

The import function is designed to be tolerant of missing references. For example, if the statements reference an invalid view, command, exit state or similar object, a placeholder is included with the name of the missing referenced object, providing you with an opportunity to create the necessary objects(s) and complete the statement.

Boolean support for REST services

For REST services, a numeric or text variable can be defined as Boolean in the p-step interface definition. Numeric attributes can only be Boolean if they have a length of less than 10, do not have decimal places defined and are not defined as using decimal precision. For numeric attributes, a json value of true equates to an attribute value of 1, otherwise 0. For text attributes, the default mapping is for true to equate to “Y” in the view, otherwise “N”. However, you can specify non-default values in the Literal column in the format <true value>;<>false value>, for example true:false or Yes;No.

Note that support for Boolean data types is only available for Java generated REST services, not COBOL.

REST service right trim strings

For REST services on a Java platform, text strings in the response body can now right trimmed. A new web service property option specifies whether the strings are trimmed or not. Specify ‘Fixed’ to only trim fixed length attribute values (default). Specify ‘Both’ to trim both fixed and varying attribute values. Whilst varying length attributes should not normally need to be trimmed, they might contain trailing spaces where the data originates from a fixed length string and is not trimmed in the action diagram code.

A new generation option specifies the Java version that will be used for executing the application since the generated code to trim the strings differs between Java 8 and later releases.

REST service parameter handling

By default, if an attribute is defined as a REST parameter it’s value can also be included in the request body. The REST parameter can now be excluded from the request body by unticking the ‘Include in Request Body’ checkbox in the parameter definition. The OpenAPI specification will now reference a custom request body schema that does not include the properties that can only be populated from a REST parameter, and they are also not included in the sample json file.

REST service OpenAPI “required” elements and properties

The generated OpenAPI for a REST service now includes a “required” section to list the mandatory elements and properties.

The generated code for the Java REST service now validates the existence of non-blank entries in the request body:

- If the group view or entity view is defined as mandatory, it must be specified if it contains mandatory attribute(s) not also specified as a rest parameter
- If an attribute is mandatory (and not a rest parameter) within a mandatory entity view

Optimise ICM for OPSLIBs utility now controlled by Generation option

The Optimise ICM for OPSLIBs utility was previously invoked via an environment variable SD_FIX_ICM. It is now specified via a code generation option to make this functionality more visible. Consult the documentation for details on the purpose of the utility.

Export entity types, work sets, commands and exit states

To assist with using AI tools, entity types, work sets, commands and exit states can be exported to an xml file using the Model Explorer Actions->Export to file menu option. To export entity types and work sets, either select the top-level node to export all objects or select individual entity types / work sets. To export commands and exit states, select the top-level Command / Exit State Editor nodes.

Pstep Interface Rename function

A rename button is now provided in the import and export mapping tabs and can be used to update the parameter names change the naming standard to use one of the following naming conventions:

- camelCase
- PascalCase
- kebab-case

To rename one or more views, select the views and press rename. If no views are selected, they are all selected by default.

The chosen naming standard is then remembered for any future views added to an existing or a new interface. If the naming standard is not selected, it defaults to camelCase.

JSON format for REST service error message

The format of the error message for a Java REST service can now be set to JSON instead of the default of plain text. When it is set to JSON, the error message is in the format:

```
{ "error" : "<error message>" }
```

Resource level openAPI documents

The generated openAPI document for a REST service contains specifications for every resource and schema in the REST service definition. To assist in only publishing specific resources to certain consumers, additional openAPI documents are generated for each resource, named <resource_name>_openapi.json.

PAD Editor allowed Import/Export View to become Persistent with Nullable Attributes

The PAD Editor allowed you to change an Import/Export View from Transient to Persistent even if it contained Nullable attributes. This combination is not permitted in Gen, so such an edit is no longer possible.

PAD Editor allowed IS_VALID test on attributes where it shouldn't be allowed

The IS_VALID test on an attribute should only be permitted on numeric & text attributes (checks against permitted values), or date, time and timestamp attributes. BLOB and GUIObject attributes should not be supported for IS_VALID. This is now flagged in the PAD as an error if such an instance is found using BLOB or GUIObject.

PAD Editor allowed invalid comparators on GUIObjects

It was possible to code invalid comparators on GUIObject attributes, but only EQUALS and NOT_EQUALS should be permitted. This is now flagged as an error in the PAD.

REST Service export null date/time/timestamp values

By default, if a date, time, or timestamp attribute does not have a value, no value is output in the response body. A new web service property "Export Null Date/Time/TS" can be set to export a 'zero' value in the response body, for example a date value of 0001-01-01 for a string format or 1970-01-01T00:00:00.000Z for a dateTime format.

PAD Import not creating nested group views correctly

Nested group views were not associated with their parents correctly when using the Import PAD function.

Exitstate Message and Type in REST response

Studio Developer now supports including the exitstate message and type within a procedure step interface definition and including the values in a REST service response.

Rapide 5 support

Added support for Rapid 5 in block mode conversion utilities.

Search Text includes system attributes

The Search and Replace Text function accessed from the Model Explorer now also searches action diagrams for usages of system attributes. For example, if your search text is CURRENT_DATE, then action diagrams that reference CURRENT_DATE will be displayed. If you search for CURRENT_ then it will display action diagrams that reference CURRENT_DATE, CURRENT_TIME and CURRENT_TIMESTAMP.

Seamless Checkout without using toolset

Previous releases of Studio Developer have used the Gen toolset to prepare the local model from the checkout.trn. This has required the toolset to be opened and the interaction managed from Studio. Whilst it usually completed successfully if the user did not attempt to interact with the toolset or other programs whilst the operation was in progress, there can be occasions when a timeout or other error occurred requiring the checkout to be retried. Studio Developer now uses an alternate utility to prepare the local model which does not require the toolset to be used and is thus more reliable and seamless. You can use the previous approach of using the toolset by setting an environment variable SD_CHECKOUT_METHOD=TOOLSET. The seamless checkout is also used by the automatic generation utility.

System Updating

CR12118 Encyclopaedia NAT IP Address for remote MVS installs

The CSE->MVS remote install jobs transfer results back to the CSE using the IP address specified for the encyclopaedia. For remote installs on a machine on a different network, the internal IP address might not be accessible and need NAT translation. An alternate IP address can be specified using the ENCYNAT system parameter.

CR12130 Rapide CSE Generation enhancements

Rapide CSE generation now supports generation of Proxy EAB code and block mode screen design-based applications. Consult the updated Rapide CSE generation guide for new target properties.

CR12133 Longer encyclopaedia connect string support

Whilst the length of the ency connect string can be up to 256 characters in the GuardIEn encyclopaedia definition, it was limited to 64# for code generation. Longer 256# connect strings are now supported.

Subset Assistant

CR12127 Protection levels incorrectly updated

If the protection levels of one or more objects are changed (say from modify to delete) and then one of them is changed to a different value, all of the objects originally incorrectly changed have their protection changed to the new value.

System Administration

CR12128 Various enhancements to Entire System Import

Various enhancements to the System Import process for CSE platforms were added to improve the reliability of the process.

Project Administration

CR12119 Project Import fix

The project import function stops at the last section and does not close the progress dialog.

XOS

CR12137 XOS expand to new files confused with folders

When expanded folders in XOS to show XOs not yet registered to XOS, if there is a mixture of slash and backslash characters in the path, this can confuse the folder expansion, resulting in incorrect branches.

VeriflEr

CR12134 IET171 Check

New check IET171 checks a SET statement of the form SET <attr1> TO <attr2> to ensure that the length of <attr1> is not less than the length of <attr2> where <attr1> is text.