

Information Engineering Technology

# Rapide Release Notes



Release 2.0.2

# Contents

<b>New Functionality</b>	<b>8</b>
Keep EAB proxy DLL Loaded .....	8
Interrupt Support.....	8
Exclude OPSLIB from Assemble .....	8
Popup Field Dialog .....	8
MessageBox support for custom buttons.....	9
NEXTTRAN_PREFIX token .....	9
Screen to GUI Transformation Enhancements .....	9
isLetterOrDigit method .....	9
Support loading Transfer Flow PSteps into Frame .....	9
New event methods postEventByName and postEventToSelf .....	9
Fire-and-forget background USE .....	9
Auto-Suggest drop-downs for Browser .....	9
Support Custom Fonts in Browser .....	10
<NONE> row to unset a permitted value drop-down.....	10
New RFL methods to dynamically change Min Width/Height of window .....	10
Option MINSIZE_DESIGNERED_IF_NOT_SPECIFIED width/height separate control .....	10
Auto-width listbox columns to proportionally fit space available .....	10
Blockmode conversion selection character override .....	10
Z Order for fields can be defined .....	10
Start Protected option for controls .....	10
ScrollTop and ScrollBottom support .....	11
Enter key with no default button .....	11
Minor performance enhancement .....	11
<NONE> row to unset a permitted value drop-down – enhanced further.....	11
FileSelector Extensions parameter .....	11
Listbox auto-check option.....	11
Window/Dialog Transparency .....	11
Window/Dialog No Title Bar .....	11
Fields and Prompts Vertical Alignment.....	12
RAP MakeData support in modified block-mode conversions .....	12
Override all Date Edit Patterns .....	12
Customise colour of auto-new-row cells .....	12

New UserExit to validate NEXTTRAN permission.....	12
Clearable Date Entry Fields.....	12
Provided alternative small checkbox images for browser theme .....	12
Mechanism to intercept browser keys .....	13
Minimum size for checkbox control .....	13
Use Edit Pattern as Hint for Date/Time/Timestamp fields .....	13
RAP Make Data support to tolerate imperfect view matching.....	13
Option to give mandatory import field mandatory indicator .....	13
Mandatory fields to prevent execution .....	13
Tab into listbox entry field will auto-select whole of current value .....	13
Override default numeric edit pattern for block-mode behaviour .....	13
Designer Filter Keep Structure.....	13
Mandatory fields to prevent execution – exclude event from check.....	14
setBitmap method to support Windows/Dialogs .....	14
USE_EDPAT_AS_FIELD_HINTS for Time fields and Overlays.....	14
Designer P-Step Filter .....	14
EDPAT_DATE_OVERRIDE specify edit patterns to apply to .....	14
NEXTTRAN invalid – new popup .....	14
Block Mode Re-transformation of Edit Patterns .....	14
Client-Side Auto-Tab for Browser .....	14
NEXTTRAN with Clear Screen Input .....	14
New control type – Listboxes displayed as Dynamic Menus for browser .....	15
Field with Markup supports content from file .....	15
NEXTTRAN with Clear Screen Input .....	15
Select & Copy of listbox data .....	15
Block Mode Transformation – custom video properties .....	15
Block Mode Transformation – custom edit patterns.....	15
Provide override auto-fit column width option for individual list boxes.....	16
Auto-Height/Width for containers in Browser .....	16
Auto-Tab in overlay field of list boxes .....	16
Auto-Check in Auto-New-Row Listboxes to add new row .....	16
Permitted value drop-downs implementation as read-only fields or auto-suggest.....	16
New API methods for processing child psteps and trancodes.....	16
New API methods to retrieve application assembly time .....	17
Change tracking control programmatically .....	17
New Position-Tracking option to track relative to centre of window.....	17
Disabled overlay controls able to be unprotected by MAKE .....	17
Overlay HTML properly configurable for Checkboxes .....	17

Explicit overridden of Gen Comms Type for Coop.....	17
Add specific support for TUXEDO coop flows.....	17
New Rapide API method to set Custom Theme on the fly.....	17
Overlay HTML properly configurable for Radio Buttons.....	17
New API Props/Methods for PStep Generation Date, Time and Rapide Version.....	18
Protected fields option to not show error markers.....	18
Restrict number of tab sessions in a client browser.....	18
Custom XML template folder.....	18
Diagnostics added for tracking hangs/crashes better.....	18

**Fixes** **18**

EAB proxy error.....	18
Text fields vertically clipped.....	18
EAB proxy trim.....	18
Regional Edit Patterns.....	19
Loss of precision beyond 3 decimal places.....	19
Secondary dialog control placement and sizing.....	19
Screen to GUI Transformation Duplicate Screen Area Group Box.....	19
Incorrect default edit pattern for timestamp fields.....	19
Edge tracking for DropDown prompts incorrect.....	19
Support poorly sized and parented Radio Buttons and Group Boxes.....	19
Fix AppSvr Assemble when model path contains spaces.....	19
NEXTTRAN may cause flow twice.....	19
MessageBox width unpredictable.....	19
Rapide Check of Browser Keys.....	19
Transparency fix for Checkboxes.....	19
ENTER with Multi-Line Fields and Default Buttons.....	20
Position tracking of Combos incorrect.....	20
Moving Sash in scrolled windows incorrect.....	20
Exit States set in Pstep USE.....	20
Block Mode Transformation Fixes & Enhancements.....	20
Non-repeating Group Views don't move from Imports to Exports.....	20
Sending Current Exit State on Flow wiped out by TIREVENT.....	20
Listbox Select/Deselect All did not trigger Click event.....	20
Busy mouse cursor on MessageBox.....	20
Stored Sash position negative.....	20
Tiled Bitmaps.....	21
DragOver not triggered unless mouse over existing listbox row.....	21
MAKE protected in drop-down support.....	21

EDGE tracking of fields to the bottom of the window not preserving height .....	21
RAPSVSPP fix for long view names .....	21
Client/Server split fails for large procedure steps .....	21
Listbox column widths more accurate calculation .....	21
Case insensitive text data in listboxes .....	21
Default Date edit pattern.....	21
Date values auto-fixed incorrectly .....	21
Auto-Add New Row – selection char not populated .....	21
Support permitted value ranges in fields .....	21
Table/Tree initial column widths/positions sometimes lost .....	22
System Console messaging exceptions.....	22
Command auto-flow should not execute PStep logic.....	22
Support permitted value ranges in fields for Double values .....	22
Alternative Select Character values not retained .....	22
Ignore Tab support for Multi-Line Fields .....	22
MAKE with reverse video not setting foreground colour .....	22
Support for short Date & Timestamp edit patterns .....	22
Browser issue with prompt background colour inheritance .....	22
AUTOFLOW return flows not triggered for HyperLink Buttons .....	22
Cell overlays with leading spaces badly formatted with markup .....	22
DB2 Packaging copied when converting block mode .....	22
Double events for default button ENTER press .....	23
SPP post-processor for C Servers to fix MAKE DATA incorrect.....	23
Cell overlays honour field length .....	23
‘X’ of a Clearable Date Entry Field not disabled when field is disabled .....	23
Clear MAKE Data not always applied.....	23
PStep stack incorrect after frame, link and reframe combination .....	23
Block Mode Transformation for default edit patterns .....	23
Typing letters into a date field highlighted in yellow .....	23
AutoTab and Tab don’t consistently select the value in the next field.....	23
Window-Packaged PStepUSE display not locked.....	23
Exception on flow back with auto-flow .....	23
Support Radios from different Groups in same Parent .....	24
Issue view matching similar view names .....	24
NEXTTRAN and DigFlow Return issues clearing up PStep hierarchy.....	24
Default Button lost on return flow for PSteps in Frames .....	24
Truncation of entry field overlays.....	24
Row Template Designer Crash.....	24

Negative Edit Patterns incorrect length supported .....	24
Auto-Tab to Multi-Line Field Exception .....	24
Font inheritance.....	24
Overlay controls for first column .....	24
Overlay data lost on auto-add new listbox row.....	24
Fix to recent change on Default Button processing.....	25
System Attributes lost on NextTran.....	25
Cell Overlays display Markup characters .....	25
Improved Focus in Overlay tables with New Row .....	25
PV DropDowns not supporting <NONE> value correctly .....	25
Centred pictures not centred for browser.....	25
Open listbox data in report – unique report file name.....	25
PSteps loaded into Frames after TRANSFER flows have wrong parent .....	25
Auto-New Row listboxes sometimes lose data.....	25
Numeric edit patterns allow 1-char too many.....	25
Nullable Date controls in Overlays not providing Calendar drop-down .....	26
DATE/TIME values in listbox overlay fields not honouring edit pattern .....	26
Timestamps not supported in listbox overlays.....	26
Block-mode transformation incorrectly sets column field lengths.....	26
Number fields with permitted ranges and default values .....	26
Hanging in JS with AutoTab behaviour .....	26
Auto-create new row happens when not wanted.....	26
NEXTTRAN with clear screen and prefix .....	26
Popup Field on listbox data give data for wrong cell.....	26
Date entry fields as listbox overlay – formatting exception .....	26
Detect overflow of RAP MAKE DATA attribute in Server SPP .....	27
Crash in Debug Console displaying Timestamp data in Group Views.....	27
Edit Pattern longer than numeric attribute length should be truncated .....	27
Incorrectly positioned menus for action bars.....	27
Gen 8.5 Doubles in auto-new-row listboxes lose data .....	27
Support for Decimal Precision Big Numbers in overlay fields .....	27
Cell Popups on listboxes with double-click display issue.....	27
Dates/Calendars in Cells of Listboxes lose value or get incorrect month.....	27
Browser-side error on auto-tab from PV cell field.....	27
Numerics with more than 6 decimal figures problem .....	27
AutoSuggest field lose values in other views.....	27
Radio Buttons and Default Values .....	27
Invalid NEXTTRAN clash with mandatory fields.....	28

PV Drop-Downs and Default Values .....	28
Issues with Locale Edit Patterns, Numerics and Currency .....	28
Crash on enable/disable when closing dialog.....	28
Hyperlink exception after transfer flow.....	28
Placed repeating group view fields do not update import view.....	28
Potential exception using listMultiInstTabs API method.....	28
Fix exception with Timers after Pstep Close.....	28
PV Drop Downs with trailing spaces on their prompt do not work .....	28
Scroll listbox with keyboard hangs if cell selection enabled.....	28
Cater for more view name duplicate situations .....	28
Exception on session start ConcurrentModificationException.....	29
Resource conflict when multiple sessions start closely together .....	29
Exception in Auto-Suggest Drop-Downs.....	29
Incorrect inheritance of fonts from business system .....	29
Improved CMIDEBUG Support.....	29
NEXTTRAN gives 2 copies of requested pstep .....	29
Auto check row with blanked editable cells not flagging .....	29
Decimals in listbox cell entry fields sometimes lose values.....	29
TextButton cell overlays with leading spaces .....	29
Minor memory leak fix – failed images .....	29
Listbox Auto-Check Column Width Not Set Correctly.....	29
Load Module .jar contains unnecessary server IA/OA classes.....	29
AutoCheck columns not getting correct width initially .....	30
AutoCheck columns should not be adjusted proportionally with AutoSize .....	30
Disabled Overlay Columns are not disabled .....	30
Autoflow back picks wrong flow.....	30
<b>Known Issues</b> .....	<b>31</b>
Rapide Designer enhancements not honouring Design Mode .....	31
Tabs on BROWSER do not show focus.....	31
Numeric edit patterns with formatting characters.....	31
First column in tables alignment not honoured .....	31
<b>Fixes</b> .....	<b>32</b>

## New Functionality

---

The following features have been added in Release 2.0.1

### Keep EAB proxy DLL Loaded

---

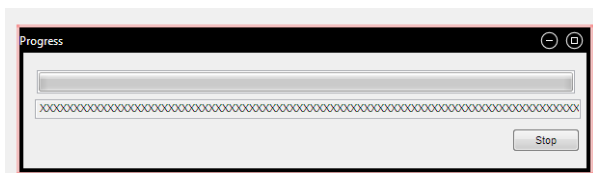
The Rapide EAB Proxy uses Java Native Access (JNA) to invoke a C function contained within the DLL. By default the DLL library will be loaded on first access and then the reference to it will be eligible for garbage collection by the JVM and the DLL unloaded. This means that any static variables defined in the C code will lose their value on a subsequent call to the DLL if it has been re-loaded.

A new Rapide generator property for a proxy EAB (Keep Loaded) can be set to ensure that a reference to the DLL is maintained by the Rapide runtime so that static variables are retained between calls to the EAB function.

### Interrupt Support

---

A new property specified for a modal dialog box allows a progress style dialog box to be interrupted with a Pause/Cancel button. When enabled, the dialog box should only have read-only controls apart from one or more push buttons that the user can press to interrupt processing. If the user presses the button, the Rapide Function Library interruptControl property is set to the name of the control pressed. Your logic determines the action taken, for example to stop processing or provide a pause/start function.



```
554 | | | +-->IF temp.rapide.object . interruptControl = "CancelGenerate"  
555 | | | | CLOSE Dialog Box RAPIDE_GENERATOR_PROGRESS  
556<-----ESCAPE
```

### Exclude OPSLIB from Assemble

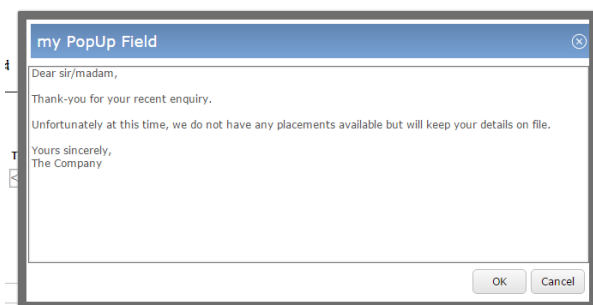
---

A new property can be specified for an OPSLIB to exclude it from the assemble when defining the opslib properties in the Rapide Generator plug-in. If the exclude property is set, then the opslib .jar will not be included in the application .war and you must ensure that the .jar file is available separately in the application server context.

### Popup Field Dialog

---

An in-built API has been made available for editing/displaying multi-line text fields in a larger dialog. This can be useful where limited space on a UI results in the text value being hard to read/edit. The new API is accessed from a Rapide Function Library method popupField, and displays a modal dialog with a single multi-line text field which is bound to a specified export view. Buttons can be chosen, as well as various other visual aspects.





This API is only support for BROWSER targets, where visual appearance of the dialog can be customised with CSS.

---

## **MessageBox support for custom buttons**

The standard Gen MessageBox function implementation in Rapide now supports custom buttons by simply passing in a string of button texts separated by semi-colons e.g. “Ready;More Info;Cancel” etc. The text of the button selected is returned by the function.

---

## **NEXTTRAN\_PREFIX token**

Automatic prefixing and un-prefixing of NEXTTRAN and TRANCODE values can be achieved with this token – potentially useful for Block Mode conversion projects where online screens have been split into separate client and server PSteps. See Rapide Developer guide for more information.

---

## **Screen to GUI Transformation Enhancements**

- 1) A new property allows you to remove specified characters from the prompt, for example trailing ‘.’ Characters.
- 2) The window control help description property can be set based on the field helpid from help descriptions placed in the RapideTransformationHelpDesc.txt file.

---

## **isLetterOrDigit method**

Rapide Function Library provides new method to determine if a character is a valid letter or digit (returning True), including national language characters, or returns False otherwise e.g. punctuation character etc.

---

## **Support loading Transfer Flow PSteps into Frame**

Additional support is now provided for loading PSteps that are launched via a Transfer Flow into the same parent as the PStep that initiated the flow. Works with normal Frames and windows that have the ‘loadIntoParent’ property set.

---

## **New event methods postEventByName and postEventToSelf**

New method postEventToSelf is provided for convenience – it is the same as postEventToPStep but with a blank PStep i.e. post to self. Also added new method postEventByName which also queues an event in the current PStep, but using the event name from the Action Diagram, and NOT the UI design’s Event Type. This means you don’t even need to define an event in the UI Design – you just create the event itself in the logic.

---

## **Fire-and-forget background USE**

An experimental method has been provided to allow a USE statement to be started as fire-and-forget, so it executed in the background in a separate thread. This allows for a style of asynchronous processing, although no return values can be managed. It has been created with the new AutoSuggest drop-down support primarily in mind (see next item). The new method nextUSEFireAndForget is available for this purpose in the Rapide Function Library.

---

## **Auto-Suggest drop-downs for Browser**

Many websites provide auto-suggest drop-downs, attached to entry fields, which provide lists of possible value matches for the text entered so far. This is now possible in Rapide for browser applications by creating a user event called “AutoSuggest” for an entry field. Rapide will automatically provide calls to that event whenever the value in the field is modified (as the user types). It is anticipated that this event will make use of the nextUSEFireAndForget method described above to execute logic to populate the drop-down list of possible values, calling new methods in the Rapide Function Library autoSuggestClearItems, autoSuggestAddItem and

autoSuggestShow. Note that this is currently an experimental feature, as the effects of potential multiple threads of Gen logic on the same GlobData/UI may have some unexpected effects.

---

## **Support Custom Fonts in Browser**

Normally for browser applications, any fonts used must be already installed and available on the client machine. Rapide now provides a facility to allow use of external fonts, either hosted elsewhere (such as Google's WebFonts) or supplied packaged into your application. This is by use of CSS and font file resources, and a new token in rapide.properties which instructs Rapide to load a CSS file locally to the browser (LOAD\_CLIENT\_FILE). See the Rapide Developer Guide documentation for more information.

---

## **<NONE> row to unset a permitted value drop-down**

By setting new rapide.properties token PVDROPDOWN\_INCLUDE\_UNSET\_ROW=True, any Permitted Value Drop-Down control that does not already include SPACES as one of its' PVs, will have a <NONE> row provided at the top, similar to existing behaviour for Drop-Down List controls (COMBO\_LISTBOX\_INCLUDE\_UNSET\_ROW token). The text for the <NONE> row is taken from Rapide's runtime strings for the Locale, the same as the Combo functionality.

---

## **New RFL methods to dynamically change Min Width/Height of window**

New methods setMinimumWindowWidth/Height are provided to allow dynamic changing of the minimum window width/height. This can be used to affect when scrollbars start to appear during resizing of windows.

---

## **Option MINSIZE\_DESIGNERED\_IF\_NOT\_SPECIFIED width/height separate control**

The existing rapide.properties token MINSIZE\_DESIGNERED\_IF\_NOT\_SPECIFIED affected both width and height, but sometimes it is useful to use just the width, or just the height of the designed window as the minimum, so 2 alternative tokens are now provided MINWIDTH\_DESIGNERED\_IF\_NOT\_SPECIFIED and MINHEIGHT\_DESIGNERED\_IF\_NOT\_SPECIFIED. The original token MINSIZE\_DESIGNERED\_IF\_NOT\_SPECIFIED should be set to False or commented out in order to use these alternative tokens.

---

## **Auto-width listbox columns to proportionally fit space available**

A new rapide.properties token LISTBOX\_AUTO\_WIDTH can be set to True, which will automatically fill the available width of a listbox proportionally with its' columns, if the listbox is wider than the total width of the columns. This applies to all listboxes, not just those with no column headers.

---

## **Blockmode conversion selection character override**

By default, repeating group views translated into listboxes by the blockmode conversion utility will have their selection character set to '\*', the same as a normal Gen GUI window. A new token BLOCKMODE\_SELECT\_CHAR may be defined to override this character, as it is common to use 'S' (for example) as the selection character in blockmode design.

---

## **Z Order for fields can be defined**

The Z Order of a field can now be defined in the Rapide Designer to be TOP or BOTTOM, similar to existing functionality for pictures and literals.

---

## **Start Protected option for controls**

Any editable singleton control may not be specified as 'Start Protected' which is equivalent to using a MAKE PROTECTED statement on that attribute on initial display of the window.

For SCREENs converted to Rapide, any field defined as Protected in the screen's design will automatically now have the 'start protected' property switched on. When using the 'Clear Make' option (should be default for block-mode conversion), the 'Start Protected' property will be reapplied for every execution of the PStep's logic, which is consistent behaviour with Gen's block-mode runtime.

This enhancement has also affected the RAPSVSP source code post-processor. Source code will need to be re-compiled using the updated post-processor.

---

## **ScrollTop and ScrollBottom support**

Rapide now supports ScrollTop and ScrollBottom events on standard listboxes and trees on all DESKTOP and BROWSER.

---

## **Enter key with no default button**

When there is no Default Button on a window design, the ENTER key will normally do nothing. This behaviour can be overridden with a new rapide.properties token ENTER\_NO\_DEFAULT\_BUTTON\_ACTION which will cause the PStep logic to be executed if set, with the COMMAND set to the value defined by this token. Special value <CURRENT> will allow the COMMAND value to be taken from a COMMAND field (for block-mode converted designs), and a special value of <SPACES> will blank the COMMAND before execution of the PStep logic. This is designed primarily for applications converted from block-mode designs.

---

## **Minor performance enhancement**

A general change has been applied to many areas of the Rapide runtime, relating to string handling for logging, which improves performance slightly.

---

## **<NONE> row to unset a permitted value drop-down – enhanced further**

The token PVDROPDOWN\_INCLUDE\_UNSET\_ROW=True in rapide.properties has been further enhanced to provide an option that works similarly to WebGen. By setting to 'W' (or WebGen), any permitted value drop-down control that uses an attribute that does not have a 'default' value defined in the attribute definition, will include a <NONE> row. This could of course result in having 2 rows that relate to a value of ' ', but that's how WebGen works. It is recommended to use the True value instead, which adds a <NONE> row only if there is no other included value of ' ' in the control's definition.

---

## **FileSelector Extensions parameter**

The client file selector method now comes in an alternative form with an extra argument for taking a list of file extensions for the dialog to present. This will work with DESKTOP targets only, as it requires the RAP runtime to be upgraded to a future version (3.2), which will happen with the next Rapide major release.

---

## **Listbox auto-check option**

Any listbox may now be defined as Checkable, even where the first designed column is also an overlay (was previously a restriction). In addition, where the listbox contains overlay controls, the checkbox for the row can be automatically switched on (RAPIDE.ROW\_CHECKED view = "Y") whenever a cell value is changed or entered, including in an auto-new row. The group view must contain either a RAPIDE.ROW\_CHECKED attribute or a RAPIDE\_ROW\_CHECKED attribute in any entity view.

---

## **Window/Dialog Transparency**

For BROWSER, a transparency can be specified for a whole window/dialog in the Designer.

---

## **Window/Dialog No Title Bar**

A window/dialog can be specified with no title bar in the Designer – ignored for full-screen windows/dialogs.

## **Fields and Prompts Vertical Alignment**

---

By default, all entry fields and their prompts are vertically aligned to the top of the control's rectangle, which is consistent with Gen's behaviour. A new Designer property can be defined for fields and their prompts independently to specify bottom or middle vertical alignment instead.

Alternatively, new rapide.properties tokens VERT\_ALIGN\_FIELDS and VERT\_ALIGN\_PROMPTS may be used to define the default behaviour of vertical alignment to BOTTOM or CENTRE if the individual control does not explicitly define alignment.

## **RAP MakeData support in modified block-mode conversions**

---

When a block-mode pstep is converted into client and server co-operative psteps, initially there will only be a single pstepUSE to the new co-op server, but if the client pstep logic is enhanced later to include calls to other server psteps, then Rapide MakeData and NextTran support populated from the original server will only support one server pstep – which one is unpredictable. Therefore, this MakeData and NextTran support has been enhanced to support pstepUSES to multiple co-op servers, with the restriction that if the same server is used in multiple pstepUSES, then entire export view mapping is identical in every call. A regeneration of the Rapide GUI XML for any such client psteps is required for any psteps that pstepUSE multiple servers.

## **Override all Date Edit Patterns**

---

A new rapide.properties token, EDPAT\_DATE\_OVERRIDE, may be set as an override to be used for all date edit patterns in listboxes and standard date entry fields. This will not affect Date/Time pickers or Calendar controls, which always take their edit pattern from the Locale. A special value of 'LOCALE' may be used for the token which will deduce the edit pattern to use from the current Locale, meaning that all date fields/ columns will use the same format as Date pickers etc.

## **Customise colour of auto-new-row cells**

---

When using the auto-new-row option in listboxes, the cells for the new row are by default a medium grey (192,192,192 RGB). This colour can now be overridden with a new rapide.properties token NEW\_ROW\_CELL\_COLOUR.

## **New UserExit to validate NEXTTRAN permission**

---

A new exit method in UserExits is available called determinelfNextTranAllowed, which allows you to prevent access to specific PSteps when triggered by a NEXTTRAN request. The member name of the requested PStep is provided to the method.

## **Clearable Date Entry Fields**

---

Standard date entry fields can now be enhanced with a 'clear date' button, which appears as a small 'X' on the right side of the control. Clicking on this will cause the value in the date entry field to be set to a 'zero' date i.e. "0001-01-01". This enhancement is enabled by setting a new rapide.properties token DATE\_ENTRY\_FIELDS\_CLEARABLE=True (default is False). Setting to True will cause ALL date entry fields to get the new feature. This does not affect Date picker or Calendar controls.

## **Provided alternative small checkbox images for browser theme**

---

Rapide's default images for checkbox controls are quite large in comparison to Gen's C/GUI/WINDOWS runtime. Alternative smaller checkbox images are supplied in the CSS resources, which you may point the theme CSS to if you prefer.

## **Mechanism to intercept browser keys**

---

Some browser shortcuts may be undesirable in a Rapide application, so a new mechanism is provided to allow trapping and intercepting of specified keys, such as F5 Refresh. Various actions are possible when intercepted including ignore, process as an application accelerator key, run pstep logic with a specified command, or trigger a UI event. This feature is defined by adding BROWSER\_INTERCEPT\_KEY tokens to the rapide.properties file – see the documentation for more information.

## **Minimum size for checkbox control**

---

To support UI designs where checkboxes have been designed too small to fit the checkbox itself into, a minimum pixel width and height may be specified in rapide.properties with new tokens CHECKBOX\_MIN\_WIDTH and CHECKBOX\_MIN\_HEIGHT.

## **Use Edit Pattern as Hint for Date/Time/Timestamp fields**

---

New token USE\_EDPAT\_AS\_FIELD\_HINTS=True to have the edit pattern of date, time and timestamp fields used as the Hint.

## **RAP Make Data support to tolerate imperfect view matching**

---

MAKE DATA mapping from server back into the client is now tolerant of views not matching perfectly – it will match based on view names, so any additional attributes in the client's views will not cause the MAKE DATA to be thrown away.

## **Option to give mandatory import field mandatory indicator**

---

The Rapide Mandatory indicator can be applied automatically to any control where the import view attribute is defined as mandatory. To do this, set new rapide.properties token MAND\_IMPORT\_AUTO\_MAND=True. This gives some level of consistency with block-mode applications.

## **Mandatory fields to prevent execution**

---

A new rapide.properties token PREVENT\_LOGIC\_WHEN\_MAND\_INCOMPLETE=True will prevent any PAD logic (and certain other event types, such as flows) from executing until all fields marked as Mandatory are filled. This is consistent behaviour with block-mode applications. When execution is attempted, and there are incomplete Mandatory fields, a pop-up message box is displayed to tell the user.

## **Tab into listbox entry field will auto-select whole of current value**

---

When you tab the cursor into a listbox entry field (overlay control), previous it would place the caret at the end of the current value, which was inconsistent with tabbing into a normal entry field where the whole of the current value would be highlighted. Listbox entry field highlighting is now the same as normal entry fields. Note that this does not apply to MOBILE targets, where the cursor always goes at the end, with no highlighting.

## **Override default numeric edit pattern for block-mode behaviour**

---

By default, where a numeric field does not specify an edit pattern explicitly, Gen GUI (and Rapide) will default to ZZZZZZ9 style edit patterns. Block-mode's default is all 9s and no Zs, so to get this behaviour a new token is provided in rapide.properties EDPAT\_DEFNUM\_9\_NOT\_Z=True.

## **Designer Filter Keep Structure**

---

When using the Rapide Designer Filter in search mode, a new checkbox allows you to keep the p-step/window/control structure so that you can identify the parent for a displayed window/control.

## **Mandatory fields to prevent execution – exclude event from check**

---

The `rapide.properties` token `PREVENT_LOGIC_WHEN_MAND_INCOMPLETE=True` will prevent any PAD logic from executing until all fields marked as Mandatory are filled. When execution is attempted, and there are incomplete Mandatory fields, a pop-up message box is displayed to tell the user. Individual events may now be marked so that this check is not performed for them, so their logic will be executed regardless of mandatory fields being filled or not.

## **setBitmap method to support Windows/Dialogs**

---

Previously, Rapide's `setBitmap` method only supported changing the bitmap of a control. Now you can pass in simply the name of the window and this will change the background bitmap of the window/dialogbox itself.

## **USE\_EDPAT\_AS\_FIELD\_HINTS for Time fields and Overlays**

---

The `rapide.properties` token `USE_EDPAT_AS_FIELD_HINTS=True` was only previously being applied for single field Date attributes. It now applies to Time and Timestamp fields, as well as overlay fields of the same types in a listbox.

## **Designer P-Step Filter**

---

A new filter field has been added to the Designer to filter the list based on procedure step name.

## **EDPAT\_DATE\_OVERRIDE specify edit patterns to apply to**

---

`EDPAT_DATE_OVERRIDE` was previously added to cause ALL date fields to take on a specific edit pattern – usually based on the LOCALE of the running system. However, in some fields it may be preferable to continue using the override edit pattern specified in the model instead. A new token `EDPAT_DATE_OVERRIDE_CASES` is now provided where you can list the edit patterns that will be overridden. If a date field uses an edit pattern NOT specified in this list, then it will use the edit patterns as defined in the model. The list is separated by semi-colons, an example provided in `rapide.properties` (commented by default).

## **NEXTTRAN invalid – new popup**

---

Previously, if a `NEXTTRAN` value specified an unknown `TRANCODE`, a console message would be logged, but nothing would be visible to the end user. A pop-up messagebox will now appear to inform the user of their mistake. Strings for the popup's title and text are provide in the standard translation properties file.

## **Block Mode Re-transformation of Edit Patterns**

---

A new option in the Rapide Designer is available to re-transform field edit patterns from the block mode screen field equivalents.

## **Client-Side Auto-Tab for Browser**

---

A new JavaScript-based auto-tab listener is now used by default on `BROWSER` to support auto-tab when an entry field is completed. This is much faster than Java-side (in AppServer) which caused a lag between completing the field and typing in the next field (meant that some typed characters were often lost). All previous functionality, including Changed events on the fields should still work, but this new feature is partly experimental still, so if problems are encountered, it can be deactivated by setting `rapide.properties` token `BROWSER_AUTOTBA_IN_JS=False`.

## **NEXTTRAN with Clear Screen Input**

---

Clear Screen Input is now partially supported with `NEXTTRAN` – passing the input into `COMMAND`.

## New control type – Listboxes displayed as Dynamic Menus for browser

Rapide listboxes can now be enhanced to render as Dynamic Menus for BROWSER targets, using the same structure and data views as for trees.

## Field with Markup supports content from file

A field that is enhanced with Markup (BROWSER only) now supports loading the HTML content from a physical file by prefixing the field value with “[FILE]” and specifying the fully-qualified location, including as resources shipped within the application

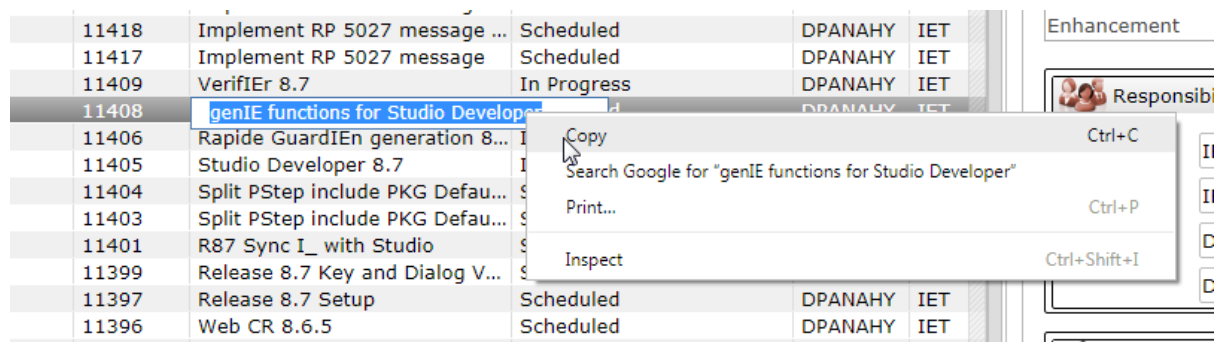
## NEXTTRAN with Clear Screen Input

Clear Screen Input now fully supports NEXTTRAN – passing the input according to the target PStep’s Clear Screen Input, if defined.

## Select & Copy of listbox data

By default, listbox data is not selectable, so you cannot highlight the value in a cell and copy-to-clipboard, for example. The “Open as Report” feature is available to present the entire listbox content in HTML, but for listboxes with many rows it can be hard to then locate the specific data you want.

Therefore a new option, enabled with a rapide.properties token ENABLE\_CELL\_SELECTION=True is now provided which will automatically enhance every table/tree so that a 2<sup>nd</sup> click on a cell in a row that is already selected will result in a popup of the cell, preselected so you can copy-to-clipboard:



While the cell popup value is visible, nothing else can be done in the application. Clicking outside the value, or pressing Escape will remove it and return to normal operation again.

Individual listboxes may override the token with a new property in the Designer.

## Block Mode Transformation – custom video properties

A new option for Screen to GUI Transformation and re-Transformation enables you to set a GUI control’s custom foreground colour based off the screen field’s video property, either as a custom video property or custom theme name.

## Block Mode Transformation – custom edit patterns

If a screen field uses a default edit pattern but the field length specified in the screen design is not the same as the attribute length, i.e. the screen design truncates the attribute, on transformation to a GUI widget, a custom edit pattern is defined with the same length as the screen field length. This only applies to text and numeric fields.

## **Provide override auto-fit column width option for individual list boxes**

---

The existing rapide.properties LISTBOX\_AUTO\_WIDTH token affects all horizontally-scrolling listboxes, causing the columns to be proportionally resized in width to fit the available width of the listbox. A new property is provided on individual listbox controls to allow override of this aspect.

## **Auto-Height/Width for containers in Browser**

---

It is expected that most applications in BROWSER targets will design windows to specific sizes which will either fit full-screen into the browser, or apply minimum design widths/heights.

However, in traditional web sites, the entire page will often be scrolling (particularly vertically) adjusting automatically to the content of the page. For example, a long list of results will cause the page to be vertically much taller, and therefore the browser's native scrolling is provided.

A similar effect can now be achieved with Rapide applications, but relies on any control with a potentially varying height to auto-adjust itself according to its' content. For example, listboxes or fields with markup. For any such control which may vary in size, the runtime can be left to automatically adjust its' size either horizontally, vertically, or in both directions. The parent container of the control should then also do the same, such as a Frame, or the Window/Dialog box itself. Properties are provided on almost every type of control to allow this.

In addition, the application needs to instruct the browser that it should use native browser scrolling. This is controlled at assemble time by the Rapide assembly process scanning the rapide.properties file for a token called PAGE\_OVERFLOW, and values scrollX, scrollY, or scrollB.

## **Auto-Tab in overlay field of list boxes**

---

A new rapide.properties token AUTOTAB\_IN\_CELLS is provided which enables AutoTabbing out of overlay fields in listboxes when the maximum number of characters have been typed into them.

Default behaviour is to NOT enable AutoTab on overlay fields. Set to True to enable it.

## **Auto-Check in Auto-New-Row Listboxes to add new row**

---

With auto-new-row listboxes, new rows are normally only added when some actual data is typed into an overlay field and focus moves out of that field. However, with a new rapide.properties token AUTO\_CHECK\_AUTO\_ADDS\_ROW=True, new rows are also added when just the auto-check checkbox is switched on.

## **Permitted value drop-downs implementation as read-only fields or auto-suggest**

---

A Permitted Value drop-down control may now be implemented as a read-only field (with or without border), or an auto-suggest field. The displayed/entered values will be the prompts (with translation as appropriate), but the values in the view will be the actual permitted values.

## **New API methods for processing child psteps and trancodes**

---

Added new methods to the Rapide Function Library:

- PStepInstanceList = getChildInstancesForPStep(ParentPStepInstance)
- Trancode = getTrancodeForInstanceCLRSCRN(PStepInstance)
- Trancode = getTrancodeForInstanceDLGFLOW(PStepInstance)



## **New API methods to retrieve application assembly time**

---

A new file called `assemble_timestamp.properties` is now created by the assembly processes and placed in the root of the application. The Rapide runtime parses this file if it exists to extract the assemble timestamp, which can then be retrieved by application logic using a new Rapide Function Library property `assembleTimestamp`.

## **Change tracking control programmatically**

---

Where EDGE tracking is defined for a control which is relative to another control, you may now change which control it is relative to on-the-fly with a new API method `trackChangeRelativeControl`. This is useful if you have a number of 'stacked' controls which are not always visible.

## **New Position-Tracking option to track relative to centre of window**

---

When specifying position-tracking of controls, you can now specify that a control is tracked relative to the centre of the window either horizontally, vertically, or both. This is particularly useful for groups of controls whose overall position needs to stay centred in the window, rather than each control being exactly in the centre (though that can also be achieved with this feature). The new option is specified in the Designer by setting its' relative Horz or Vert as the window centre.

## **Disabled overlay controls able to be unprotected by MAKE**

---

Previously, if an overlay control on a listbox was designed as 'disabled', it always stayed disabled, even if a `MAKE UNPROTECTED` statement was executed on it. This is now enhanced so that certain types of overlay controls may be unprotected by a `MAKE` statement, including: fields, checkboxes, pv drop-downs, date pickers and time pickers.

## **Overlay HTML properly configurable for Checkboxes**

---

A new `rapide.properties` token, `CHECKBOX_OVERFLOW_CLIP`, controls whether the HTML Overflow property is applied to checkbox controls to enable the choice between clipping if the checkbox's design size is too small to contain the full text of its' prompt. Default is `False`, which means that the text will NOT be clipped.

## **Explicit overridden of Gen Comms Type for Coop**

---

A new token `COMMS_TYPE` may be specified in `rapide.properties` to explicitly override the Gen comms type classes to use for Co-Operative calls to servers. Default is `TCPIP`, but other values can be `ECI`, `EJBRMI`, `ITPIP`, `J2CSRmi`, `J2CS`, `MQS`, `TUX` and `WS`.

## **Add specific support for TUXEDO coop flows**

---

Enhance Rapide runtime to support Tuxedo co-operative flows. Regenerate of GUI XML for clients will be required if using overrides for server pstep Tuxedo Service Names.

## **New Rapide API method to set Custom Theme on the fly**

---

Added method `setControlCustomTheme` to Rapide Function Library to allow BROWSER applications to change the theme of a specific control at run-time.

## **Overlay HTML properly configurable for Radio Buttons**

---

A new `rapide.properties` token, `RADIO_OVERFLOW_CLIP`, controls whether the HTML Overflow property is applied to radio button controls to enable the choice between clipping if the radio's design size is too small to contain the full text of its' prompt. Default is `False`, which means that the text will NOT be clipped.

## **New API Props/Methods for PStep Generation Date, Time and Rapide Version**

---

New Rapide API Properties are available to retrieve the generation date, time and Rapide generator Version for the calling PStep instance: generationDate; generationTime; generationRapideVersion. In addition, methods are provided to return the same date, but passing in the Member Name of any PStep in the application.

## **Protected fields option to not show error markers**

---

When a field has an error in its' input, such as not adhering to the attribute's permitted values, an error marker is tagged to the field and an appropriate tooltip is attached to indicate what the problem is. If the field is disabled/protected (not the same as read-only), the error marker is still displayed. A new option controlled by rapide.properties token PROTECTED\_CONTROLS\_NEVER\_SHOW\_ERROR\_MARKERS can be set to True which will suppress these error markers for protected/disabled controls.

## **Restrict number of tab sessions in a client browser**

---

A new rapide.properties token, MAX\_SESSIONS\_PER\_CLIENT, allows you to restrict the maximum number of tabs that can contain sessions pointing to the same Rapide application. This is because it has been found that different browsers have different limitations on resources and too many sessions can cause the browser to freeze, which also knocks on to the AppServer, thus affecting other users on different clients. In the GuardIEn WebCR application, as an example, we found that IE11 could handle around 42 session tabs, Chrome and FireFox could only handle 6. Default limit remains unrestricted.

## **Custom XML template folder**

---

A new CustomXML folder is provided beneath the main Rapide software folder where you may copy and customised any of the template XML skeleton files, and if they exist there, these will be used in preference to the default versions of the XML files.

## **Diagnostics added for tracking hangs/crashes better**

---

New tokens are available in rapide.properties (MUTEX\_DANGER\_TIME and MUTEX\_DANGER\_GIVEUP) which can be enabled with IET Support's guidance to help in diagnosing occasional hangs/crashes in an application.

## **Fixes**

---

The following issues have been fixed in Release 2.0.1

### **EAB proxy error**

---

If an entity action view is placed after a group view, the EAB proxy class contains invalid view references and will not compile.

### **Text fields vertically clipped**

---

In browser, text fields that were defined not tall enough to fit the content would get clipped at the bottom. The HTML attribute 'overflow' is now defined for the containing control so text no longer gets clipped so vigorously.

### **EAB proxy trim**

---

The generated EAB proxy java has been modified to only trim varying length text fields on return from the C DLL. Both fixed and varying length strings are truncated at the null character.

## **Regional Edit Patterns**

---

When running an AppServer on a machine that has non-English Regional (Locale) settings where decimal and thousands separators are different from English defaults, this could cause problems with formatting where conversion of separators was occurring twice, thus values would get parsed incorrectly.

## **Loss of precision beyond 3 decimal places**

---

Fields with edit patterns containing greater than 3 decimal places could become rounded.

## **Secondary dialog control placement and sizing**

---

A secondary dialog box without a dialog border will sometimes be sizes slightly to small (width and height) and all controls offset too high so might overlap the top of the dialog thus getting truncated. Fixed this issue so that such dialogs are slightly larger and controls are shifted down a little to compensate.

## **Screen to GUI Transformation Duplicate Screen Area Group Box**

---

The Screen to GUI Transformation plug-in creates a duplicate screen area group box.

## **Incorrect default edit pattern for timestamp fields**

---

Corrected the default edit pattern used for timestamp fields from “YYYY-MM-DD HH:MI:SS.NNNNNN” to “YYYYMMDDHHMISSNNNNNN”.

## **Edge tracking for DropDown prompts incorrect**

---

If you track a dropdown control to the edge of another control, the prompt was not being placed correctly.

## **Support poorly sized and parented Radio Buttons and Group Boxes**

---

Previously Rapide would ignore any control that had a size of 0,0. However, some UI designs exists in Gen models that have this, albeit unknown to the developer, and this can cause other child controls, such as radio buttons, to also be hidden, even though they may visually be located in the bounds of another group box. By default, Rapide will still hide any control (and potentially its' children) that has size 0,0, but you can override this behaviour by setting rapide.properties token HIDE\_SIZELESS\_CONTROLS=False.

## **Fix AppSvr Assemble when model path contains spaces**

---

The AppSvr assemble failed to copy application jar files when the Gen model path contains spaces

## **NEXTTRAN may cause flow twice**

---

Sometimes, a NEXTTRAN can cause 2 instances of the new PStep to be loaded or initialised.

## **MessageBox width unpredictable**

---

Pop-up MessageBoxes on BROWSER/MOBILE were not always of the expected size, with the message, title or buttons getting truncated.

## **Rapide Check of Browser Keys**

---

The Rapide Check to ensure that accelerator keys do not conflict with common browser keys did not work when the Rapide software path contained spaces.

## **Transparency fix for Checkboxes**

---

In BROWSER, transparency of Checkboxes was not being inherited by default in all cases – this now works the same as Radio Buttons.

---

## **ENTER with Multi-Line Fields and Default Buttons**

For DESKTOP applications, the ENTER key would perform processing for the Default Button (if there was one) even if the focus was in a Multi-Line Field. This is now changed so that the ENTER key goes to the field for a new line, rather than to the Default Button, making behaviour similar to BROWSER.

---

## **Position tracking of Combos incorrect**

The height of tracked Combo controls was incorrect – they would be too tall. This included Drop-Down Lists, Enterable Drop-Down Lists and Enterable Lists.

---

## **Moving Sash in scrolled windows incorrect**

For Sashes that are tracking to the bottom or right of the window, dragging the sash and storing/retrieving of its' position is done incorrectly if the window in which they exist is scrolling.

---

## **Exit States set in Pstep USE**

If a server invoked via a Pstep USE did not set an exit state, the exit state set on the client after the Pstep USE was set to 0. Default Gen behaviour for Pstep USE statements is to return any set exit state after a Pstep USE so that the client can check for its' value, and if the server does not set any exit state at all, then the prior exit state set before the Pstep USE was retained. Rapide has been fixed to use the same behaviour as Gen, but this may cause a change in behaviour if your application relies on the exit state being set to 0 if the Pstep does not set an exit state. Therefore the behaviour can be overridden with a new rapide.properties token PSTEPUSE\_EXITSTATE\_UNAFFECTED which can be set to True (never set the exit state in the client that is returned by the Pstep USE), False (always set, even if it is null), or Update (default behaviour – set if available, but otherwise don't change).

---

## **Block Mode Transformation Fixes & Enhancements**

- 1) The ENTER key can now be defined as hidden when it is not assigned to a COMMAND.
- 2) The selection character workset does not need to be retained in the conversion defaults panel.
- 3) Video properties and Rapide properties defined for controls on the block mode template window are copied to the transformed window.

---

## **Non-repeating Group Views don't move from Imports to Exports**

Non-Repeating Group Views do not have their data moved from Imports to Exports on event processing.

---

## **Sending Current Exit State on Flow wiped out by TIREVENT**

If a dialog flow defines that the Exit State should be sent to the called PStep, it is lost if a TIREVENT is processed in the calling PStep between the detection of the flow and the actual processing to bring that called PStep up.

---

## **Listbox Select/Deselect All did not trigger Click event**

The Select All and Deselect All right-click options on a Listbox did not always trigger a Click event on the Listbox.

---

## **Busy mouse cursor on MessageBox**

If a MessageBox (or similar pop-up dialog) appeared during the processing of a Listbox's Click event logic, the mouse cursor present while the pop-up was shown was the system busy cursor.

---

## **Stored Sash position negative**

On start-up of a window, if a contained Sash control has a remembered position that would put it off the relative edge of the containing window/frame, this is now reset to the designed position of the Sash.

## **Tiled Bitmaps**

---

Rapide previous had no support for TILED bitmaps. Support has been added for tiling of picture controls, as long as Rapide's alpha transparency is not also used.

## **DragOver not triggered unless mouse over existing listbox row**

---

When a listbox is the target for a drop event, the DragOver event is only triggered if the mouse is dragged over an existing row in the listbox – it is now also triggered (without subscript=0) if you drag over an empty portion of the listbox too.

## **MAKE protected in drop-down support**

---

Rapide now supports MAKE PROTECTED statements on drop-down listboxes. Behaviour is that if any row has a MAKE PROTECTED applied, then the whole drop-down is disabled, which is the same as Gen's GUI behaviour.

## **EDGE tracking of fields to the bottom of the window not preserving height**

---

The designed height of fields is not preserved when the field is tracked to the bottom of the window.

## **RAPSVSPP fix for long view names**

---

The RAPSVSPP source code post processor created COBOL statements longer than 80 characters when long view names were used.

## **Client/Server split fails for large procedure steps**

---

When splitting a block mode procedure step into separate client and server steps, the process fails if the p-step has more than 25,000 associations. This limit has been increased to 100,000.

## **Listbox column widths more accurate calculation**

---

The default algorithm for column widths in listboxes has been further improved to be closer to Gen UI and WebGen sizes.

## **Case insensitive text data in listboxes**

---

Columns in listboxes of attributes that are case-insensitive were not being automatically displayed in uppercase.

## **Default Date edit pattern**

---

When no edit pattern is specified, Rapide now uses the same default edit pattern of "DD-MM-YYYY" instead of "DD.MM.YY".

## **Date values auto-fixed incorrectly**

---

Date values of less than year 1000 were automatically having 1000 or 2000 added to their value on the assumption they were entered as 2-digit years. This assumption is no longer made, as it made it impossible to enter 'zero' date into fields e.g. "0001-01-01".

## **Auto-Add New Row – selection char not populated**

---

When using the auto-add new row functionality for listboxes, the selection character was not being populated in all situations where a value was being entered somewhere on the new row.

## **Support permitted value ranges in fields**

---

Rapide was not supporting ranges of permitted values for entry fields.

---

## **Table/Tree initial column widths/positions sometimes lost**

---

Another recent change may cause initial position/size of columns in tables and trees to be incorrect, in some situations meaning that a column may actually start hidden completely, and 'reset' to original design does not bring it back either.

---

## **System Console messaging exceptions**

---

When using the Rapide System Console, the recipient session for any messages would crash with an exception.

---

## **Command auto-flow should not execute PStep logic**

---

When a COMMAND triggers an auto-flow (forward or return), it was executing the PStep logic before the flow was being processed, which it should not do.

---

## **Support permitted value ranges in fields for Double values**

---

Added support for Permitted Value ranges of Double/Decimal attribute.

---

## **Alternative Select Character values not retained**

---

If you have specified an alternative selection character value (different from the default '\*' character for a selected row in a listbox), a second click on a row that is already selected resulted in the selection character value becoming '\*' rather than the override value.

---

## **Ignore Tab support for Multi-Line Fields**

---

The *Ignore Tab* property for Multi-Line Fields was not being honoured fully – it now properly allows tabbing to the next control if specified.

---

## **MAKE with reverse video not setting foreground colour**

---

When a MAKE statement sets a field to have an reverse video effect, the foreground colour of the text was not always being set to the window's background colour.

---

## **Support for short Date & Timestamp edit patterns**

---

If a date or timestamp field uses a shortened edit pattern, such as 'MM' for month only, this was not supported by Rapide and the field would be displayed in error.

---

## **Browser issue with prompt background colour inheritance**

---

Fixed an issue with background colour inheritance for prompts when running in BROWSER.

---

## **AUTOFLOW return flows not triggered for HyperLink Buttons**

---

Hyperlink buttons that cause a return flow via an AUTOFLOW Command were not being detected.

---

## **Cell overlays with leading spaces badly formatted with markup**

---

In BROWSER, if you have a table with cell overlay field controls, and the value entered started with a space character, this was being translated using markup with html tags rather than just the plain text value.

---

## **DB2 Packaging copied when converting block mode**

---

When using the Block Mode Client/Server conversion, the DB2 packaging data is copied from the online to the co-operative server load modules if the settings specify that the servers use the online packaging.

---

## Double events for default button ENTER press

---

When a button is defined as Default, and you also have the token ENTER\_NO\_DEFAULT\_BUTTON\_ACTION set, you could get both the click action for the button as well as the pstep logic executed.

---

## SPP post-processor for C Servers to fix MAKE DATA incorrect

---

The SPP program to modify generated C Servers to add support for MAKE DATA was incorrect for group views, and could result in a crash within the server.

---

## Cell overlays honour field length

---

Field controls in table/cell overlays were unlimited in their length, although the value would be truncated correctly on losing focus, it now prevents more than the max field length from being typed to begin with.

---

## 'X' of a Clearable Date Entry Field not disabled when field is disabled

---

For date/time/timestamp fields that are clearable (via token DATE\_ENTRY\_FIELDS\_CLEARABLE=True) did not have the 'X' button disabled when the field itself was disabled, so you could clear the value in a disabled field. The 'X' is now hidden when the field is disabled.

---

## Clear MAKE Data not always applied

---

MAKE Data should be cleared whenever PStep logic is executed (not events), and the window/dialog is defined with the Clear Make Data flag switched on. However, a mismatch in imports vs exports could cause some fields not to have their MAKE Data cleared.

---

## PStep stack incorrect after frame, link and reframe combination

---

Where a frame is loaded with a child pstep, and that child link flows to another child pstep, if a combination of nexttran followed by a top-level reload (which should replace everything currently stacked inside the frame) occurs, the pstep stack is not cleared correctly.

---

## Block Mode Transformation for default edit patterns

---

- 1) If a screen field uses a default edit pattern this usage is not carried over to the transformed window control. This is now fixed.
- 2) For numeric fields that use a default edit pattern rather than a named edit pattern, the default edit patterns used by Gen do not use leading zero suppression (for example 99999.99). In the GUI window design, the default numeric edit patterns use leading zero suppression (for example ZZZZ9.99). A new option in the transformation plugin (*Retain Block Mode Default Numeric Edit Patterns*) is available. See the Rapide Developer guide for details.

---

## Typing letters into a date field highlighted in yellow

---

Removed yellow highlighting on date fields when typing invalid keys for a date.

---

## AutoTab and Tab don't consistently select the value in the next field

---

When tabbing from one field to another, or when a tab is triggered by an AutoTab (field is full), the next field to get focus did not always get the current value selected.

---

## Window-Packaged PStepUSE display not locked

---

If using Windows packaging and PStepUSE calls, the display is not always locked for the full duration of the call, so it is possible to interact with the UI, causing events/data to become out-of-sync.

---

## Exception on flow back with auto-flow

---

A return flow trigger by an auto-flow on command may cause an exception.

## **Support Radios from different Groups in same Parent**

---

Where radio buttons from different groups are placed physically within the same parent, previously, selecting any radio inside that parent would cause all other radios in the same parent to be deselected. This no longer happens, so you can place radios more freely.

## **Issue view matching similar view names**

---

Where a Group View has the same 'camel case' name as an Entity View, Rapide was not renaming the subsequent view like Gen's Java generators do, so view matching was failing for any such views. For example, a Group View called "GROUP\_IN\_CUSTOMER" and an Entity View called "GROUP\_IN" of Entity Type "CUSTOMER".

## **NEXTTRAN and DlgFlow Return issues clearing up PStep hierarchy**

---

Some issues occurred where the Instance/PStep hierarchy being replaced after a Dialog Flow return or a NEXTTRAN were not being cleared up fully.

## **Default Button lost on return flow for PSteps in Frames**

---

When returning from a PStep loaded into a Frame of any type, the Default Button (the one that is triggered when you hit ENTER), was not being reset to the next parent window up.

## **Truncation of entry field overlays**

---

Entry fields in listboxes (overlays) could get truncated because the text length limit being enforced was using the attribute length rather than the edit pattern length. In particular, this would affect display/input of TIME, DATE and TIMESTAMP fields, and some NUMERICs.

## **Row Template Designer Crash**

---

If you change the sort order of the columns in the Row Template designer, pressing OK causes a crash. Columns can no longer be sorted in the designer.

## **Negative Edit Patterns incorrect length supported**

---

Where an edit pattern for a numeric field (enterable or read only) allowed the negative symbol, the length permitted for a positive value was restricted by 1 character more than Gen behaviour e.g. "-9" edit pattern would allow single digit positive or negative numbers, but Gen's behaviour would be to allow single negative but 2 positive digits. Rapide has been changed to mimic Gen's behaviour.

## **Auto-Tab to Multi-Line Field Exception**

---

When a field is defined as Auto-Tab, and the next control in sequence is a Multi-Line Field, Rapide will cause exception when the auto-tab is triggered.

## **Font inheritance**

---

Font style/size/type were not being inherited as a unit from the window (where not specified on an individual control). Instead, each element was inherited independently, which was incorrect.

## **Overlay controls for first column**

---

If a listbox is defined as checkable, the first column cannot use an overlay control. However if the listbox also uses an auto-check row, the first column is allowed to be defined as an overlay control.

## **Overlay data lost on auto-add new listbox row**

---

When using listbox overlay controls in a listbox that has the auto-add-new-row feature, when tabbing out of a new-row field having typed some data, that data is lost in the process of adding an additional new row.



## **Fix to recent change on Default Button processing**

---

Fixed a crash that was introduced in Default Button processing when returning from link flows, which occurred in very specific flow conditions with multiple shells and where some parent windows in the flow chain has their own default buttons, and others did not.

## **System Attributes lost on NextTran**

---

When performing a NextTran, system attributes in GlobData are not transferred to the new PStep, including clientId, UserId etc.

## **Cell Overlays display Markup characters**

---

Cell Overlay data on BROWSER was converting special Markup characters like '&' to '&amp;'.

## **Improved Focus in Overlay tables with New Row**

---

Where a table control supports the auto-new-row feature, and overlay fields are used, the focus is not very consistent at the moment the new row is added. This has been improved.

## **PV DropDowns not supporting <NONE> value correctly**

---

Where a PV DropDown has a <NONE> row added automatically (SPACE is not included in the UI's designed list of values, but rapide.properties defines that it should be added), the dropdown was not being allowed to take the SPACES value via logic correctly, and was being reset to the attribute's Default value instead.

## **Centred pictures not centred for browser**

---

A picture control that has the image centred and adjusted to the image size was being rendered slightly left-aligned on BROWSER so the left edge of the bitmap was being cropped.

## **Open listbox data in report – unique report file name**

---

When you use the "open as report" option for a listbox, the intermediate HTML file used was always called "listDataAsReport.html" within a client-specific folder on the AppServer. This meant that if you opened up 2 reports for different listboxes and used REFRESH on the browser for the older report, you would see the later report displayed. On some browsers the old report would be cached, so you would only see the new one with an explicit F5 refresh of the report page.

Instead, the html files generated are not suffixed with a timestamp to make them unique, but it does mean that there will be more cleanup required over time as these html files are not automatically cleaned up.

## **PSteps loaded into Frames after TRANSFER flows have wrong parent**

---

Fixed a bug where child PSteps loaded into Frames/Tabs etc. which were started via TRANSFER flows had the wrong parent, or indeed no recorded parent at all. This affected a number of things, including processing reset of Default Buttons when loading subsequent PSteps, or closing lower-level PSteps in the chain.

## **Auto-New Row listboxes sometimes lose data**

---

An additional issue with adding data to auto-new row listboxes has been fixed where some data would be lost on tabbing away from a cell field.

## **Numeric edit patterns allow 1-char too many**

---

Where a numeric entry field used a default edit pattern, 1-character too many was being allowed as input to the field.

## **Nullable Date controls in Overlays not providing Calendar drop-down**

---

Nullable Date controls should always provide a Calendar as a drop-down, but this was not the case for such controls in overlays of listboxes.

## **DATE/TIME values in listbox overlay fields not honouring edit pattern**

---

When a date or time value is changed in a listbox overlay field, the conversion of the value to numeric (which is how it is stored in the views) is not done correctly according to the edit pattern, so can result in invalid date values in the views.

## **Timestamps not supported in listbox overlays**

---

Timestamp fields were not being supported in listbox overlay fields correctly – they would display ok, but it was not possible to change such a field's value.

## **Block-mode transformation incorrectly sets column field lengths**

---

The block-mode transformation process incorrectly set the FLDLEN property of columns to the length of the edit pattern, but in fact these properties should always be zero for columns. This has a knock-on effect of potentially truncating values such as timestamps where the edit pattern was not the full length of the value, and therefore the timestamp value would be stored incorrectly and was not transferrable on dialog flows to servers. The transformation tool has been fixed, as well as the Rapide GUI XML generation (skips FLDLEN property for columns), and also the Rapide runtime will ignore the attribute if it was already generated, so only a re-assemble is required to resolve the problems at runtime.

## **Number fields with permitted ranges and default values**

---

Where a numeric field with a permitted value range and also a default value defined for the attribute were placed as entry fields, the default value was causing validation to fail, so the entered value would always be reset to the default value.

## **Hanging in JS with AutoTab behaviour**

---

The recently added AutoTab JavaScript enhancement (to make AutoTab faster in BROWSER) can cause the application to hang in the JS when data returned from a server call / PStepUSE results in a field being detected as 'filled'.

## **Auto-create new row happens when not wanted**

---

If you have the focus in a cell overlay field of a listbox that has auto-new-row enabled, and the focus cell is in the current 'new row', losing focus creates another new row even if no value was entered.

## **NEXTTRAN with clear screen and prefix**

---

If you are using the NEXTTRAN\_PREFIX feature and specify a NEXTTRAN using logic that includes clear screen input or parameters on the end, the prefix was not being handled correctly and would result in an 'unknown trancode' error.

## **Popup Field on listbox data give data for wrong cell**

---

If you have auto-checkboxes on listboxes (not real columns with corresponding group view data), then the data presented when you 2<sup>nd</sup>-click a cell is from the cell to its' right.

## **Date entry fields as listbox overlay – formatting exception**

---

Entry fields in listboxes which hold date data are not able to unformat the data from the group view correctly, so an error occurs for each display cycle, and the value defaults (often to current date).

## **Detect overflow of RAP MAKE DATA attribute in Server SPP**

---

When the server PStep code is post-processed for support of RAP MAKE DATA, it is now detected when the total size required for all MAKE DATA exceeds the size available in the MAKE DATA attribute. If this occurs, the SPP will fail.

## **Crash in Debug Console displaying Timestamp data in Group Views**

---

If a group view contains timestamp data the Debug Console crashes.

## **Edit Pattern longer than numeric attribute length should be truncated**

---

When an edit pattern is specified for a numeric field which is longer than the underlying attribute's length, this should be truncated intelligently by the Rapide runtime.

## **Incorrectly positioned menus for action bars**

---

When using Action Bars (Toolbars) to implement menus on browser, if there was a chain of windows/shells before the window that contains the menu appears, the position of the popup menus is incorrectly calculated.

## **Gen 8.5 Doubles in auto-new-row listboxes lose data**

---

Where a numeric column in a listbox is implemented in Java as a Double data type, and the listbox supports auto-row-new, the data may be lost when using Gen 8.5. This is now trapped and data should be retained the same as Gen 8.6.

## **Support for Decimal Precision Big Numbers in overlay fields**

---

Numeric attributes used in overlay fields for listboxes did not support BigDecimal types with Decimal Precision.

## **Cell Popups on listboxes with double-click display issue**

---

If an application provide cell popups where the value pops up after clicking a second time on an already-selected row, and that listbox has a double-click event which opens another dialog or flows to another client, this can lead the cell popup appearing on top of the opened window.

## **Dates/Calendars in Cells of Listboxes lose value or get incorrect month**

---

Various issues relating to the use of date, calendar and nullable date controls have been fixed when used in listbox cells. Including data not reaching the views, month being set incorrectly by 1 and auto-check values not being updated when nullable dates are entered.

## **Browser-side error on auto-tab from PV cell field**

---

Fixed an issue that caused a browser-side JS crash when a field was placed in a listbox as the last column, and that attribute had permitted values, in conjunction with auto-tab and auto-checkable lists.

## **Numerics with more than 6 decimal figures problem**

---

Where attribute that contain or display 7+ decimal places are placed on the screen, their values were being formatted incorrectly.

## **AutoSuggest field lose values in other views**

---

Where an AutoSuggest field is used, on initial open of a dialog box, other view data may be lost which was populated in the logic of the dialog's open event.

## **Radio Buttons and Default Values**

---

Where a Radio Button places an attribute that has a non-space default value, and space was not a permitted value for the attribute, this was not being automatically set by the Rapide runtime (value was left as spaces).

## **Invalid NEXTTRAN clash with mandatory fields**

---

Where a NEXTTRAN field is placed and the user enters an invalid trancode, and there are mandatory fields that must be filled in before any logic execution, these factors conflicts and you can receive multiple pop-up message boxes overlaid on each other. This has been fixed so that only the 1<sup>st</sup> error pops up and execution is halted at that point.

## **PV Drop-Downs and Default Values**

---

Where a PV Drop-Down places an attribute that has a non-space default value, and space was not a permitted value for the attribute, this was not being automatically set by the Rapide runtime (value was left as spaces).

## **Issues with Locale Edit Patterns, Numerics and Currency**

---

Various combinations of edit patterns involving numerics, with currency symbols, thousand/decimal characters and non-default Locales have been fixed and improved.

## **Crash on enable/disable when closing dialog**

---

Specific UI designs can result in an exception when closing a dialog box, where a 'read only' override theme is used for non-enterable fields.

## **Hyperlink exception after transfer flow**

---

A Hyperlink invocation may cause an exception after a transfer flow has been processed.

## **Placed repeating group view fields do not update import view**

---

When a repeating group view attribute is placed on the UI, and the user changes its' value, the Import View is not correctly updated with the new value, so is lost when other view processing is done.

## **Potential exception using listMultiInstTabs API method**

---

Fixed a potential exception that might occur when calling the listMultiInstTabs Rapide API method.

## **Fix exception with Timers after Pstep Close**

---

Fixed an issue with Timers (Rapide API Library methods) where an exception would be caused if the PStep that started a Timer has been closed, even if the Timer was already stopped explicitly.

## **PV Drop Downs with trailing spaces on their prompt do not work**

---

If a Permitted Value Drop Down control has values that use prompt with trailing spaces (on the prompt), the values are not always remembered.

## **Scroll listbox with keyboard hangs if cell selection enabled**

---

If the cell selection feature ("ENABLE\_CELL\_SELECTION=True") is enabled and you use the keyboard up/down arrow keys to scroll a list quickly (hold down the key), it will often hang with the cell selection popping up when it should not.

## **Cater for more view name duplicate situations**

---

If 2 views give similar names in generated code, Gen will suffix subsequent views with a digit to distinguish them. Rapide now detects additional situations more accurately when this might happen, avoiding issues in view mapping which may have picked the wrong view to transfer data over.

## **Exception on session start ConcurrentModificationException**

---

In very rare cases (of timing), if 2 sessions start up extremely close to each other, a ConcurrentModificationException might be issues in one of the sessions as it registers itself with the SystemConsole.

## **Resource conflict when multiple sessions start closely together**

---

Improvements have been made with retry attempts and exception handling which could occur on occasions when 2 or more sessions were started within very close times of each other.

## **Exception in Auto-Suggest Drop-Downs**

---

An exception could occur on window creation if a group-view drop-down control was enhanced as an auto-suggest field.

## **Incorrect inheritance of fonts from business system**

---

When a control has some override font properties defined, Rapide would sometimes inherit part of the font details from the Business System too – font name, size and style must be taken as a group and never treated individually.

## **Improved CMIDEBUG Support**

---

Changes have been made to Rapide's interaction with the Gen Comms Runtime so that comms trace logs (with CMIDEBUG) are more fully supported.

## **NEXTTRAN gives 2 copies of requested pstep**

---

Sometimes, a NEXTTRAN request may result in 2 copies of the requested pstep instance being loaded into a frame.

## **Auto check row with blanked editable cells not flagging**

---

When a listbox has the auto-row-check functionality enabled, and an editable cell has its' value changed from a non-space/zero value to a space/zero value, this was not auto-checking the row.

## **Decimals in listbox cell entry fields sometimes lose values**

---

For some fixed-length decimal number fields that are placed in a listbox as entry fields (overlay cells), the value entered by the user may be lost on the next even logic processed.

## **TextButton cell overlays with leading spaces**

---

On browser, if a cell overlay is defined to be a TextButton (dynamic), and the text value has leading spaces, then the value is displayed with html formatting strings.

## **Minor memory leak fix – failed images**

---

Images that failed to load (could not find resource) could cause small memory leak.

## **Listbox Auto-Check Column Width Not Set Correctly**

---

In some situations, the initial width on an auto-check column of a listbox might be very narrow rather than honouring the width defined by LB\_AUTOCHECK\_DEAFULT\_COLUMN\_WIDTH in rapide.properties.

## **Load Module .jar contains unnecessary server IA/OA classes**

---

When building a client load module .jar, procedure step IA/OA classes are included for servers indirectly invoked by clients. This can cause a problem when the server import or export views are changed and the load modules incorrectly containing the server IA/OA classes are not re-built. With this fix the server IA/OA classes Rapide 3.0.2

are not included in client load modules where the client does not directly flow to the server. It is recommended that client load module .jars are re-built to ensure that they do not contain old versions of the server IA/OA classes.

### **AutoCheck columns not getting correct width initially**

---

When a listbox with an autocheck column is displayed for the first time, the autocheck column is often very narrow and cannot easily be seen.

### **AutoCheck columns should not be adjusted proportionally with AutoSize**

---

When a listbox with an autocheck column is displayed and LISTBOX\_AUTO\_WIDTH is being applied to all listbox columns, it should exclude the autocheck column from the adjustment, keeping the original width, otherwise it is highly likely that the autocheck will end up much smaller than any value defined in LB\_AUTOCHECK\_DEFAULT\_COLUMN\_WIDTH.

### **Disabled Overlay Columns are not disabled**

---

The disabled property of an overlay listbox column was not being honoured by the Rapide runtime (dynamic overlays were ok).

### **Autoflow back picks wrong flow**

---

If there are multiple dialog flows between the same pair of psteps, and they use the same command for autoflow on the return, Rapide runtime may pick the wrong return flow, and thus set command, display-first properties and return flow data mapping incorrectly.

## Known Issues

---

### **Rapide Designer enhancements not honouring Design Mode**

---

Although the Rapide Designer will allow you to store different enhancements for the same control/window for each Design Mode (Window vs. HTML vs. ASP), some of the enhancements are only honoured for the 'Common' (Windows) Design Mode. It is not anticipated that Design Modes will have different enhancements, but if it is a requirement then we will move this support forward.

### **Tabs on BROWSER do not show focus**

---

The focus indicator is not displayed on Tab Items when running on a Browser, although they do take focus and are included in the tab sequence as expected – you just cannot see it. This may change in the future, but relies on rework of the underlying framework that Rapide uses.

### **Numeric edit patterns with formatting characters**

---

Currently, there is no support for special formatting (mask) characters in numeric edit patterns, except at the start and end of the field. For example, you cannot use spaces to separate groups of digits.

### **First column in tables alignment not honoured**

---

Due to a restriction in the underlying runtime, the horizontal alignment of the first column in a listbox is not honoured – it is always left-justified.

## **Fixes**

---

The following issues have been fixed.