Appian RPA - IBM 3270 Workflow Library - Keyboard

The IBM 3270 Workflow Library is a low code workflow library to ease the management of an IBM3270 terminal using Appian RPA. These low code methods handle:

- Entering special characters into the emulator for both regular text and credentials
- Typing with character pauses to ensure proper data entry
- Navigating to input fields using calculations and keystrokes
- Extracting text on the current screen via various selection parameters

Methods

- IBM Set Emulator
- IBM Maximize Window
- IBM Enter Credential
- IBM Find Text
- IBM Get Text at Line
- IBM Get Text at Coordinate
- IBM Go to Text Position (with Offset)
- IBM Go to Coordinates
- IBM Write Here
- IBM Write at Coordinates
- IBM Bulk Write at Coordinates
- IBM Write at Label (with Offset)

Tips

- Use Appian keyboard low-code module method 'Types windows key + letter' (R) to start the application
- Use Appian low-code methods 'Activate Window' and 'Types alt + function key' (4) to close the application
- The X coordinate in these methods corresponds to the column number, starting at 1 and incrementing by 1 moving from left to right
- The Y coordinate in these methods corresponds to the row number, starting at 1 and incrementing by 1 moving from top to bottom
- The emulator will show the coordinate position (y,x) in the bottom right of the app and inside the OIA info bar if shown (View > Expanded OIA)
- To consolidate actions, use IBM Write at Coordinates instead of IBM Go to Coordinates then IBM Write Here
- To consolidate actions, use IBM Bulk Write at Coordinates when entering lots of data on the same screen

Method Details

IBM Set Emulator

- This method must be called at the beginning of the RPA workflow, before calling any other IBM methods in the workflow library.
- The emulator type (PCOMM or WC3270) must be passed because different logic is used by the workflow library depending on the emulator.
- The window xpath for the emulator window title (example: .*Session.*) must be passed because the workflow library activates the window before every interaction

IBM Maximize Window

- Maximizes the emulator window

IBM Enter Credential

- This method will get credentials from the Appian RPA Console and enter them into the emulator at the current cursor position, hanlding for special characters.
- This method will reserve the credentials and release them once the robotic execution is complete (same as the OOTB credentials methods), which only matters if the credentials have a "max use" value set in the Appian RPA Console

IBM Find Text

- Returns the XY coordinate location (Appian data type of multiple number integer) of the search string

IBM Get Text at Line

- Returns the full text string on the specified line number

IBM Get Text at Coordinate

- Returns the text string of specified length starting at the speciified coordinate
- This only returns text on the same line as the coordinate (stops at the end of the row)

IBM Go to Text Position (with Offset)

- Navigates to the location of the first character of the search string
- Accepts offset for moving to the right of the search string (x offset of len(pv!searchString)+1)
- Case sensitive
- Designed to retry search 3 times, then exception if text not found (use IBM Find Text to check if text exists on screen as it handles nulls)

IBM Go to Coordinates

- Navigates to the specified XY location

IBM Write Here

- Writes text at the current cursor position
- Handles special character entry and character pauses

IBM Write at Coordinates

- Writes text at the specified XY location
- Handles special character entry and character pauses
- Combination of IBM Go to Coordinates and IBM Write Here

IBM Bulk Write at Coordinates

- Writes multiple text strings at the specified XY locations
- Handles special character entry and character pauses
- Useful when entering lots of data on the same page
- Expects fields: text, x, y
- Example is a!toJson({{text:"test1",x:1,y:1},{text:"test2",x:5,y:5}}

IBM Write at Label (with Offset)

- Writes text at the location of the first character of the search string
- Accepts offset for writing the text to the right of the label (x offset of len(pv!searchString)+1)
- Case sensitive
- Designed to retry search 3 times, then exception if label not found (use IBM Find Text to check if text exists on screen as it handles nulls)