

# Appian RPA - IBM 3270 Workflow Library

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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

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- 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

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- 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

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### IBM Set Emulator

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- 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

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- Maximizes the emulator window

### IBM Enter Credential

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- This method will get credentials from the Appian RPA Console and enter them into the emulator at the current cursor position, handling 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

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

### IBM Get Text at Line

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- Returns the full text string on the specified line number

### IBM Get Text at Coordinate

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- Returns the text string of specified length starting at the specified 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)

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- 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

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- Navigates to the specified XY location

## IBM Write Here

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

## IBM Write at Coordinates

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- 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

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- 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 `altToJson({{text:"test1",x:1,y:1},{text:"test2",x:5,y:5}})`

## IBM Write at Label (with Offset)

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- 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)