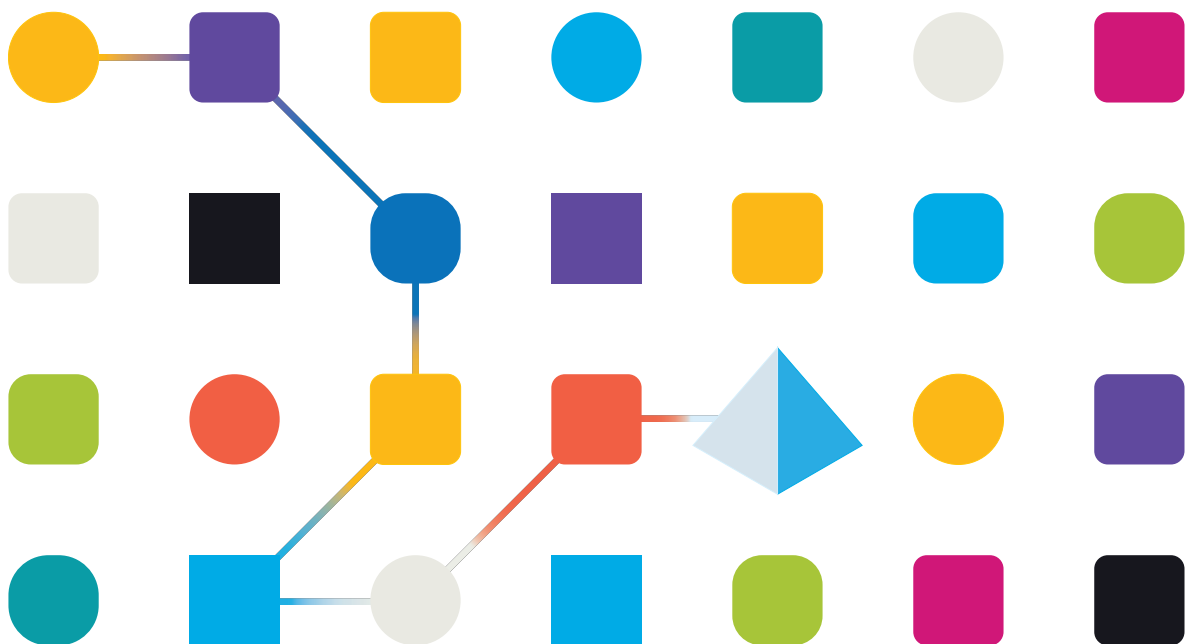




Interact Controller EER4

Release Notes

Document Revision: 1.0



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Interact Controller EER4 - February 2021

Interact Controller	EER4	The release requires Interact Controller to be this version.
Blue Prism	6.4.3a	The release is compatible with the specified version of Blue Prism version and above.

This release note is for the Evolution Edition Release 4.1, 4.2 and 4.3 releases of Blue Prism Cloud Interact (Interact) Controller.

For further information regarding Interact and the Interact Controller please see the [Interact User Guide](#).

Important notices

Ensure you have reviewed the [upgrade notices](#) for this release.

Release notes

Enhancements

This is the second formal release of the Interact Controller Object.

Blue Prism Cloud Interact provides new and existing Blue Prism users with a collaboration interface for an end users interaction with their digital workforce within a business process. Initiate, verify, receive and authorize varied work related to your business processes. In addition, Blue Prism Cloud Interact reduces the skill criteria required by allowing users to create dynamic web interfaces by using the no-code form designer.

To support the human/digital worker collaboration capabilities of Blue Prism Cloud Interact, an Object has been developed which automation developers can call from their processes. This Object enables developers to update fields in an Interact Form by allowing the changes made by the digital worker to be fed back via the Interact API.

Fixes and minor improvements

This release of the Interact Controller Object resolves the following issues:

- Individual actions to handle different field elements.
- Inclusion for support of Multiline, Radio Groups, Checkboxes and Select elements.
- Added new Raise Submission functionality.

Upgrade notices

Install the required Blue Prism artifacts for Interact Controller

To install the Object import the **Utility - BPC - Interact Controller v2.9** release file into your version of Blue Prism. The release contains the following artefacts:

- Utility – BPC – Interact Controller
- Utility – HTTP
- Utility – JSON
- Utility – Strings
- Four environmental variables

The release is available to download from the [Blue Prism Product Portal](#) – login required. Unzip the file before importing.

Installation

Within the installation package there are two artefacts:

- This document
- A Blue Prism Release for BP version 6.4.3a.

To install the Object import the 'bprelease' file into your version of Blue Prism. The release contains the following artefacts:

- Utility – BPC – Interact Controller;
- Utility – HTTP;
- Utility – JSON;
- Utility – Strings; and
- Four Environmental Variables.

After the release has been installed see the configuration Section on how to configure and utilize the Object.

Configuration

The Interact Controller is a Business Object that has been produced by Blue Prism Cloud to simplify the interaction between Interact and Blue Prism Design Studio.

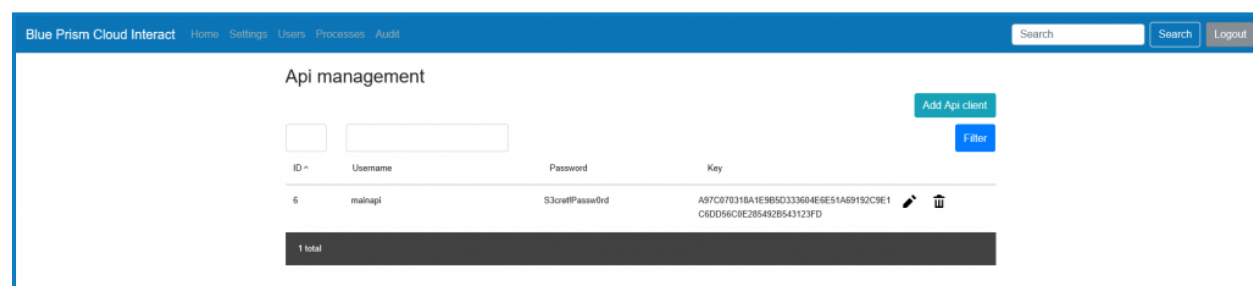
The Business Object utilizes Environmental Variables to control its operation. It makes available a number of actions which can be provided with a data item as an input along with the submission ID (Request ID) to identify the Interact submission and field that it will be updating. There are no outputs from the Interact Controller though there is exception handling should an error occur during processing.

There are four Environmental Variables that need to be established to operate the Interact Controller, these are:

- EV-Interact-API-Key;
- EV-Interact-API-Username;
- EV-Interact-API-Password; and
- EV-Interact-API-URL.

The first three of these Environmental Variables are obtained when the API is set up within Interact.

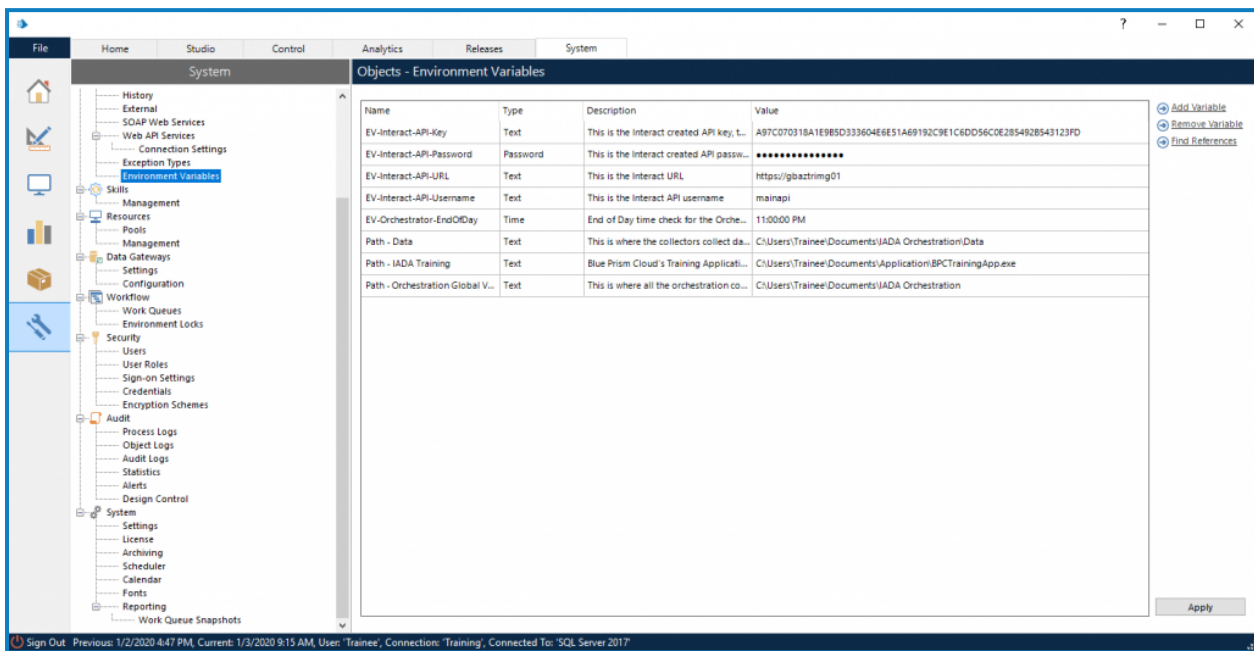
The image below shows the API that has been established for our example process.



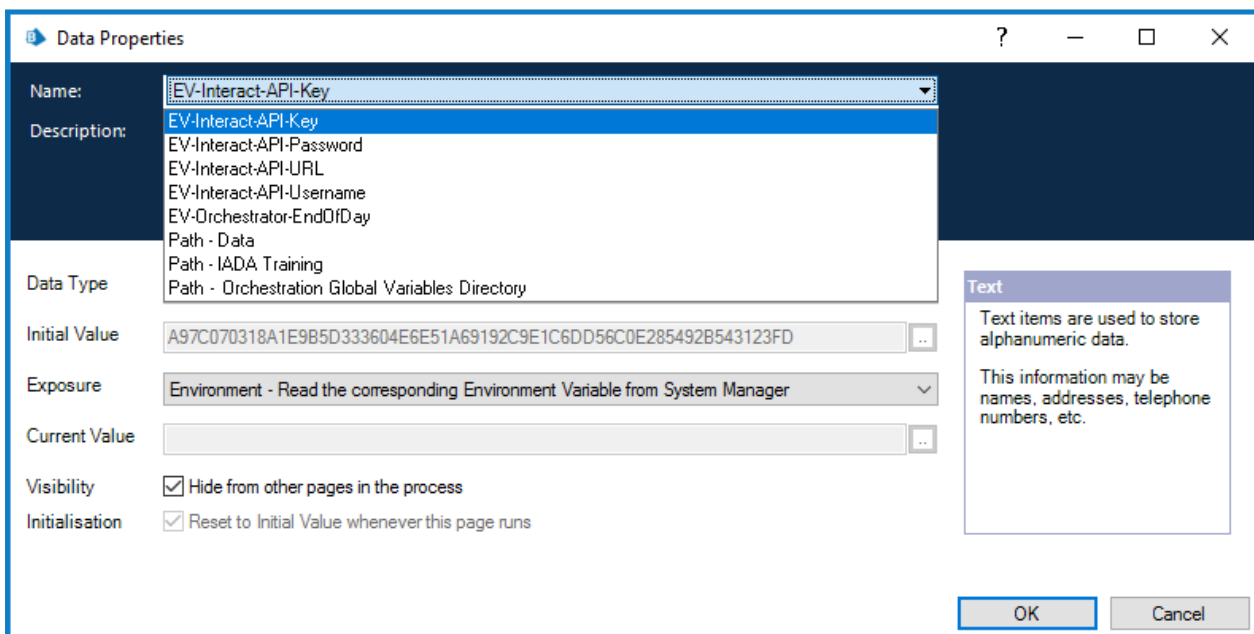
The same API can be used by multiple processes.

The last Environmental Variable the 'EV-Interact-API-URL' is the URL used to access the Interact Web Server.

The Environmental Variables are set in the System area of Blue Prism as illustrated below.



Data Items are then set changing the exposure to the 'Environment' setting and selecting the appropriate Environment Variable from the dropdown.



Operation

The Interact Controller butoperates in on a per element basis so that the developer can update specific fields whilst ignoring others that do not need updating. It operates for each element in a similar way which is:

- Obtaining a Bearer Token Header to enable authentication with the Interact API service.
- Obtain the process submission details using the Request ID.
- Then updating the process submission using the Request ID and the data item fed into the Interact Controller.

Bearer Token

The API connection is used to get bearer authentication from Interact. Bearer authentication is an HTTP authentication scheme that involves security tokens called bearer tokens. The name “bearer authentication” can be understood as “give access to the bearer of this token.” The Bearer Token is a cryptic string, usually generated by the server in response to a login request

This Bearer Token is then used as authorization to retrieve and update information in Interact.

The Bearer Token has a limited time span, which is 15 minutes. If the retrieval and update doesn't complete within this period, a new Bearer Token will be required.

Get Process Submission by Request ID

This part of the business object uses the Bearer Token as authentication and the Request ID to retrieve from Interact the submission data and form structure. This is returned in a raw JSON format.

Update Process Submission by Request ID

The final part of the business object takes the raw JSON that has been retrieved, reformats it into an acceptable JSON, updates the value that is being requested to be changed using the Data item that has been submitted and then posts the updated information back into Interact.

Configuring the Interact Controller

To utilize the Interact Controller in your automations. Add a new Action to your process and select from the drop down the 'Action' from the 'Utility – BPC – Interact Controller' that you wish to use.

There are 12 actions that can be called from the Object. These are:

- Raise Submission to Inbox
- Update Checkbox Single and Multiple
- Update Date
- Update Email Address
- Update Multiline
- Update Number Field
- Update Password
- Update Radio Group
- Update Select
- Update Text Area

- Update Text Field
- Update Time

The parameters that need to be configured are illustrated in the following sections for each of these actions.

The ‘_requestId’ is the key parameter to link the update to the Interact submission ID.

Object Actions

The following sections detail the Object actions and their associated parameters:

- [Raise Submission to Inbox](#)
- [Update Checkbox Single and Multiple](#)
- [Update Date](#)
- [Update Email Address](#)
- [Update Multiline](#)
- [Update Number Field](#)
- [Update Password](#)
- [Update Radio Group](#)
- [Update Select](#)
- [Update Text Area](#)
- [Update Text Field](#)
- [Update Time](#)

A few considerations should be adhered to when using the actions.

- When submitting a form with hidden fields, a value must be sent back to the hidden fields. Since there is not a way to find out whether the field is hidden or not in the JSON, default values are given to blank fields that are not checkboxes, radio buttons and select boxes. The following values are sent by defaults from the object:
 - Text Field – “Default”
 - Text Area – “Default”
 - Password – “Default”
 - Date – “0001/01/01”
 - Time – 00:00:00
 - Number – 0
- If you submit a form with hidden file upload and image upload that have empty values, this will throw also an error and will not allow any other fields to be updated. These fields must be populated even when hidden.

Raise Submission to Inbox

This action creates a new submission in an individual's inbox within Interact, this could be the existing user or an alternative user. Raising a submission puts the submission in the inbox but does not submit the submission to Blue Prism for processing.

To raise a submission, a submission ID is required as an input to this action. Therefore, you can't raise a new submission, it is moving an existing submission either back to the original submitter or a new submitter for the next part of the process.

The action itself does not require field values as an input. It just takes the existing submission and places in the user's inbox, for them to update and resubmit as required.

You can update values to a submission first, using update actions, and then use raise submission to send it to another user.

- Inputs
 - User ID – this is the User ID of the person who's inbox the submission is going to. This information is available in the Users settings when logged into Interact as an administrator. It has to be retrieved manually, there is no API call to retrieve this information.
 - Request ID – current submission ID. Retrieved manually or from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
- Outputs
 - New Request ID – the new ID of the submission after being moved to user's inbox.

The image below displays the properties of the Raise Submission to Inbox action.

The screenshot shows the 'Action Properties' dialog box for the 'Raise Submission to Inbox' action. The dialog is titled 'Action Properties' and has a dark blue header. Below the header, there are fields for 'Name' (Utility - BPC - Interact Controller::Raise Submission to Inbox) and 'Description'. The 'Business Object' is set to 'Utility - BPC - Interact Controller' and the 'Action' is 'Raise Submission to Inbox'. The 'Inputs' tab is selected, showing a table with columns 'Name', 'Data Type', and 'Value'. The table lists the following inputs: 'User ID' (Text), 'Request ID' (Text), 'Key' (Text), 'Password' (Password), 'URL' (Text), and 'Username' (Text). To the right of the table is a 'Group' section with checkboxes for 'Page' and 'Data Type' (checked), and a 'View All Items' button. Below the 'Group' section is a list of data types: 'Binaries', 'Collections', 'Dates', 'DateTimes', 'Flags', 'Images', 'Numbers', 'Passwords', 'Text', 'Times', and 'TimeSpans'. At the bottom of the dialog, there are settings for 'Stage logging' (Errors only) and 'Warning threshold' (System Default, 5 minutes). The 'OK' and 'Cancel' buttons are at the bottom right.

Name	Data Type	Value
User ID	Text	
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	

Update Checkbox Single and Multiple

The update Checkbox Single and Multiple action allows the digital worker to update checkbox elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – this matches to the 'Name' value within the Interact form designer that is used to recognize the element. This is not the 'Label' field which is a title.
 - Field Value – the new value for the element being updated within the Interact submission. When updating multiples, the values should be separated by a comma. This is not free text but must match the values you set in the Interact form designer.

The image below displays the properties of the Checkbox Single and Multiple action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Checkbox Single and Multiple

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Checkbox Single and Multiple

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group: ☐ Page ☒ Data Type ☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: ☐ Errors only ☐ Don't log parameters on this stage

Warning threshold: ☐ System Default Number of minutes: 5 (0 to disable)

OK Cancel

Update Date

The update Date action allows the digital worker to update date elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value, which is a text value, for the element being updated within the Interact submission and must be in the format 'YYYY/MM/DD'.

The image below displays the properties of the Date action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Date

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Date

Inputs Outputs Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group:
☐ Page ☒ Data Type
☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Update Email Address

The update Email Address action allows the digital worker to update Email elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission.

The image below displays the properties of the Email action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Email Address

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Email Address

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group: ☐ Page ☒ Data Type ☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Update Multiline

The update Multiline action allows the digital worker to update Multiline, or table elements within a specified submission.

When updating a Multiline element, a collection is required. This collection is called from the Table Replacements collection. The Multiline collection must match the Multiline element that is configured in the Interact Form.

The following applies:

- Multiline elements can be updated if an input is sent to the Multiline replacements collection.
- When defining the Multiline in the form designer within Interact, you need to ensure that the Multiline columns have different names.
- The collection you are sending in must match the columns of the Multiline Table Replacements collection.
- Name (text) is the “name” of the field, not the label. This is unique for each field. A label is not necessarily unique.
- The values (Table Replacement collection):
 - Each field in this collection must have the same name as the columns on the Multiline.
 - Each row represents a row of the Multiline to update. The values are free text.
- Empty Multiline elements cannot be updated. Only Multiline elements that have values in them already can be updated.
- Any values sent override the whole Multiline. So, if the current Multiline has 3 rows, and the values input collection has 2 rows, the previous Multiline will be overridden with these 2 rows.
- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Table Replacements – this is the collection with the new data that will be entered into the Multiline element within the designated Interact submission.

The image below displays the properties of the Multiline action.

The screenshot shows the 'Action Properties' dialog for the 'Update Multiline' action. The 'Name' field is 'Utility - BPC - Interact Controller::Update Multiline'. The 'Business Object' is 'Utility - BPC - Interact Controller' and the 'Action' is 'Update Multiline'. The 'Inputs' tab is selected, showing a table with columns 'Name', 'Data Type', and 'Value'. The table contains the following rows:

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Table Replacements	Collection	

On the right, the 'Group' section has 'Page' unchecked and 'Data Type' checked. Below it, a tree view shows categories: Binaries, Collections, Dates, DateTimes, Flags, Images, Numbers, Passwords, Text, Times, and TimeSpans. At the bottom, 'Stage logging' is set to 'Errors only' and 'Warning threshold' is 'System Default' with a value of 5 minutes. 'OK' and 'Cancel' buttons are at the bottom right.

The image below illustrates the Replacements Collection with a Multiline element defined.

The screenshot shows the 'Collection Properties' dialog for 'Coll1'. The 'Name' field is 'Coll1'. The 'Fields' tab is selected, showing a table with columns 'Initial Values' and 'Current Values'. The table contains the following row:

Initial Values	Current Values
multiline-1611067801884	Row 1 of 2

At the bottom right, there are 'Add Row' and 'Remove Row' buttons. At the bottom left, there are checkboxes for 'Reset to Initial Value whenever this page runs' (checked), 'Hide from other pages in the process' (checked), and 'Single Row' (unchecked). 'OK' and 'Cancel' buttons are at the bottom right.

The Multiline or value collection is illustrated below.

The 'Collection Properties' dialog box shows the configuration for a 'Value' collection named 'Coll1'. The 'Name' field is 'Coll1' and the 'Description' field is empty. The 'Coll1 Value' section contains a table with two columns: 'columnDefinition1 (Text)' and 'columnDefinition2 (Text)'. The table has two rows: 'Harry' and 'Potter' in the first column, and 'Weasley' in the second column. The 'Add Row' button is visible. At the bottom, there are checkboxes for 'Reset to Initial Value whenever this page runs' (checked), 'Hide from other pages in the process' (checked), and 'Single Row' (unchecked). The 'OK' and 'Cancel' buttons are at the bottom right.

Fields	Initial Values	Current Values
columnDefinition1 (Text)	columnDefinition2 (Text)	
Harry	Potter	
Ron	Weasley	

These image directly above correlate to the following image, which is the Interact form from where the Multiline element has been called from. The Name of the element, red box, matches the name within the Replacements Collection, which calls the Value collection. The columns names, green boxes, are defined within this Value collection, that match the column names in this collection.

The 'Multiline' form configuration dialog box shows the configuration for a 'Multiline' element. The 'Label' field is 'Multiline'. The 'Help Text' field is empty. The 'Purge upon submission' checkbox is unchecked. The 'Class' field is 'space separated classes'. The 'Name' field is 'multiline-1611067801884', which is highlighted with a red box. The 'Columns' section contains two columns: 'Column name 1' and 'Column name 2'. The 'columnDefinition1' and 'columnDefinition2' fields are highlighted with green boxes. The 'Add Column +' button is visible. The 'Close' button is at the bottom right.

Column name 1	Column name 2
columnDefinition1	columnDefinition2

Update Number Field

The update Number action allows the digital worker to update Number elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission.

The image below displays the properties of the Number action.

The screenshot shows the 'Action Properties' dialog box for the 'Update Number Field' action. The 'Name' field is 'Utility - BPC - Interact Controller::Update Number Field'. The 'Description' field is empty. The 'Business Object' is 'Utility - BPC - Interact Controller' and the 'Action' is 'Update Number Field'. The 'Inputs' tab is selected, showing a table with columns 'Name', 'Data Type', and 'Value'. The table contains the following rows:

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

The 'Group' section on the right has 'Page' unchecked and 'Data Type' checked. Below it is a 'View All Items' button. A list of categories is shown on the right: Binaries, Collections, Dates, DateTimes, Flags, Images, Numbers, Passwords, Text, Times, and TimeSpans. The 'Numbers' category is highlighted. At the bottom, the 'Stage logging' section has 'Errors only' selected and 'Don't log parameters on this stage' unchecked. The 'Warning threshold' is set to 'System Default' with a value of 5 minutes. 'OK' and 'Cancel' buttons are at the bottom right.

Update Password

The update Password action allows the digital worker to update Password elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission.

The image below displays the properties of the Password action.

Action Properties

Name: Utility - BPC - Interact Controller: Update Password

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Password

Group: ☐ Page ☒ Data Type ☐ View All Items

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Password	

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Update Radio Group

The update Radio Group action allows the digital worker to update Radio Group elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission. This is not free text but must match the values you set in the Interact form designer.

The image below displays the properties of the Radio Group action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Radio Group

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Radio Group

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group:
☐ Page ☒ Data Type
☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Update Select

The update Select action allows the digital worker to update Select elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission. This is not free text but must match the values you set in the Interact form designer.

The image below displays the properties of the Select action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Select

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Select

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group: ☐ Page ☒ Data Type ☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Update Text Area

The update Text Area action allows the digital worker to update Text Area elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission.

The image below displays the properties of the Text Area action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Text Area

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Text Area

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group: ☐ Page ☒ Data Type ☐ View All Items

- Binaries
- Collections
- Dates
- DateTimes
- Flags
- Images
- Numbers
- Passwords
- Text
- Times
- TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes: 5 (0 to disable)

OK Cancel

Update Text Field

The update Text action allows the digital worker to update Text elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission.

The image below displays the properties of the Text action.

The screenshot shows the 'Action Properties' dialog box for the 'Update Text Field' action. The dialog is titled 'Action Properties' and has a dark blue header. Below the header, there are fields for 'Name' (Utility - BPC - Interact Controller::Update Text Field) and 'Description'. The 'Business Object' is set to 'Utility - BPC - Interact Controller' and the 'Action' is 'Update Text Field'. The 'Inputs' tab is selected, showing a table with columns 'Name', 'Data Type', and 'Value'. The table contains the following rows:

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

On the right side of the dialog, there is a 'Group' section with checkboxes for 'Page' and 'Data Type' (checked). Below this is a 'View All Items' button. A tree view on the right lists various data types: Binaries, Collections, Dates, DateTimes, Flags, Images, Numbers, Passwords, Text, Times, and TimeSpans. At the bottom of the dialog, there are settings for 'Stage logging' (Errors only) and 'Warning threshold' (System Default, 5 minutes). The 'OK' and 'Cancel' buttons are at the bottom right.

Update Time

The update Time action allows the digital worker to update Time elements within a specified submission.

- Inputs
 - Request ID – the submission ID. Retrieved from the queue item.
 - Key – the API key generated during setup of the API, configured as an environment variable.
 - Username – for the API configured, configured as an environment variable.
 - Password – for the API configured, configured as an environment variable.
 - URL – the URL to the web server where Interact is installed, configured as an environment variable.
 - Field Name – the name given within the Interact form that is used to recognize the element.
 - Field Value – the new value for the element being updated within the Interact submission This must be a text value and in the format 'hh:mm:ss'.

The image below displays the properties of the Time action.

Action Properties

Name: Utility - BPC - Interact Controller::Update Time

Description:

Business Object: Utility - BPC - Interact Controller

Action: Update Time

Inputs | Outputs | Conditions

Name	Data Type	Value
Request ID	Text	
Key	Text	
Password	Password	
URL	Text	
Username	Text	
Field Name	Text	
Field Value	Text	

Group:
☐ Page ☒ Data Type
☐ View All Items

Binaries
Collections
Dates
DateTimes
Flags
Images
Numbers
Passwords
Text
Times
TimeSpans

Stage logging: Errors only ☐ Don't log parameters on this stage

Warning threshold: System Default Number of minutes 5 (0 to disable)

OK Cancel

Interact Controller EER4 - April 2020

Interact Controller	EER4	The release requires Interact Controller to be this version.
Blue Prism	6.4.3a	The release is compatible with the specified version of Blue Prism version and above.

This release note is for the Evolution Edition Release 4.1, 4.2 and 4.3 releases of Blue Prism Cloud Interact (Interact) Controller.

Important notices

Ensure you have reviewed the [upgrade notices](#) for this release.

Release notes

Enhancements

This is the first formal release of the Interact Controller Object.

Blue Prism Cloud Interact provides new and existing Blue Prism users with a collaboration interface for an end users interaction with their digital workforce within a business process. Initiate, verify, receive and authorize varied work related to your business processes. In addition, Blue Prism Cloud Interact reduces the skill criteria required by allowing users to create dynamic web interfaces by using the no-code form designer.

To support the human/digital worker collaboration capabilities of Blue Prism Cloud Interact, an Object has been developed which automation developers can call from their processes. This Object enables developers to update fields in an Interact Form by allowing the changes made by the digital worker to be fed back via the Interact API.

Fixes and minor improvements

N/A – This is the first formal release of the Interact Controller Object.

Plugin updates

A number of plugins are provided in a Blue Prism Cloud release – new and/or updated plugins are listed below.

Updated plugins

As part of this release all existing plugins have been updated to support a new form structure that has been introduced. New plugins also support this new structure.

New plugins

Plugin	Description
Live Access	<p>Live Access allows operators to access their digital workforce from within Hub. Users can browse to Hub and from there launch Live Access to the required digital worker. There are two modes available:</p> <ul style="list-style-type: none">• View – User can only watch what is happening.• Control – Allows users to interact and perform routine maintenance on the digital worker. Live Access relies on Virtual Network Computing (VNC) to operate and a certificate is required to be installed on the client's web browser to ensure a secure connection from a trusted source.
Upload	<p>The Upload Plugin function is Blue Prism Cloud's start to open Hub to allow users to build and install their own plugins.</p>

Upgrade notices

Install the required Blue Prism artifacts for Interact Controller

To install the Object import the **Utility - BPC - Interact Controller v0.04** release file into your version of Blue Prism. The release contains the following artefacts:

- Utility – BPC – Interact Controller
- Utility – HTTP
- Utility – JSON
- Utility – Strings
- Four environmental variables

Installation

Within the installation package there are two artefacts:

- This document
- A Blue Prism Release for BP version 6.4.3a.

To install the Object import the 'bprelease' file into your version of Blue Prism. The release contains the following artefacts:

- Utility – BPC – Interact Controller;
- Utility – HTTP;
- Utility – JSON;
- Utility – Strings; and
- Four Environmental Variables.

After the release has been installed see the configuration Section on how to configure and utilize the Object.

Configuration

The Interact Controller is a Business Object that has been produced by Blue Prism Cloud to simplify the interaction between Interact and Blue Prism Design Studio.

The Business Object utilizes Environmental Variables to control its operation, it requires a Collection as an input along with the submission ID (Request ID) to identify the Interact submission that it will be updating. There are no outputs from the Interact Controller though there is exception handling should an error occur during processing.

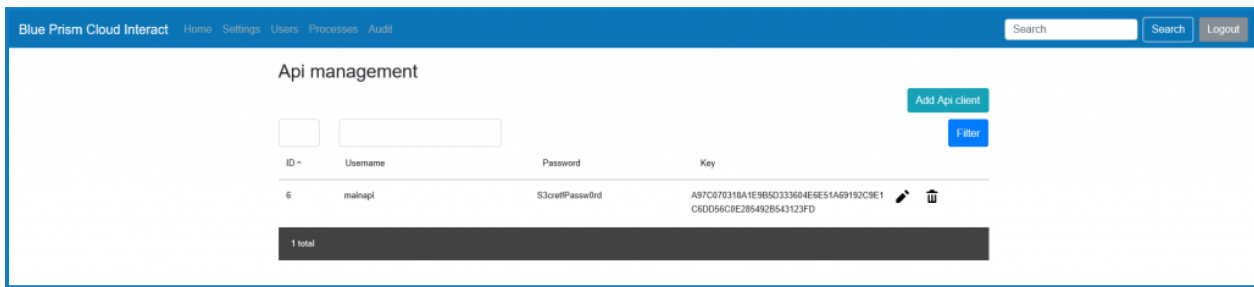
Name	Data Type	Value
Request ID	Text	[Data_requestId]
Replacements	Collection	[Replacements]
API Key	Text	[EV-Interact-API-Key]
API Username	Text	[EV-Interact-API-Username]
API Password	Password	[EV-Interact-API-Password]
API URL	Text	[EV-Interact-API-URL]

There are four Environmental Variables that need to be established to operate the Interact Controller, these are:

- EV-Interact-API-Key;
- EV-Interact-API-Username;
- EV-Interact-API-Password; and
- EV-Interact-API-URL.

The first three of these Environmental Variables are obtained when the API is set up within Interact.

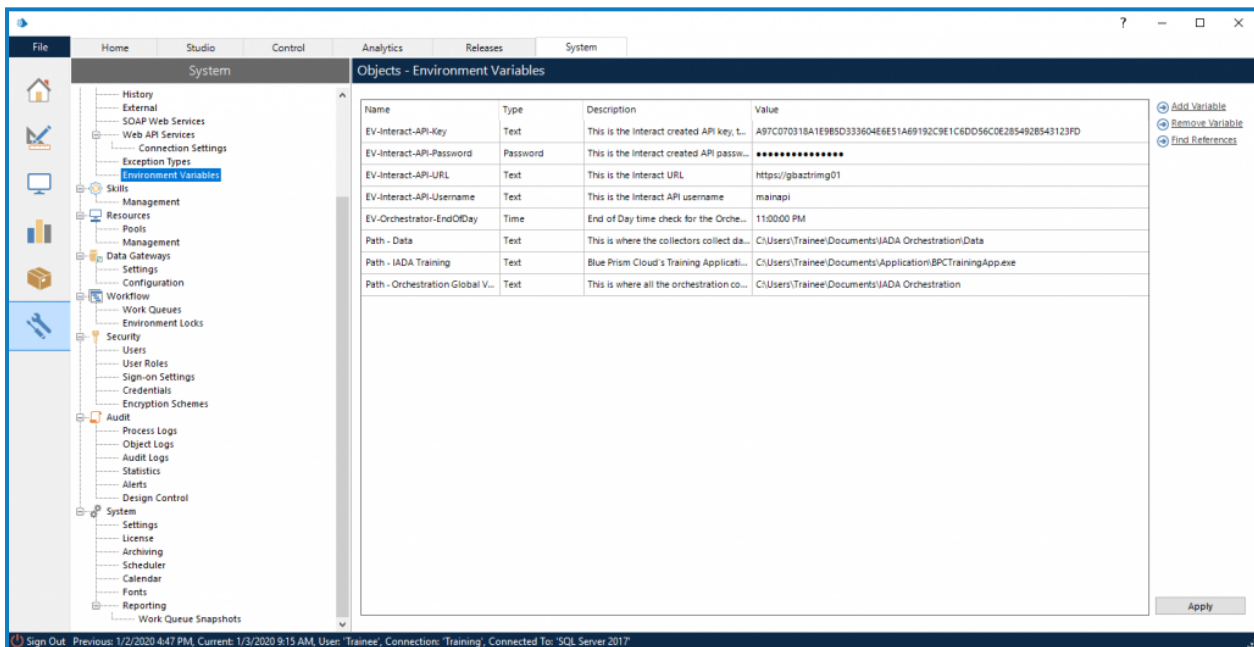
The image below shows the API that has been established for our example process.



The same API can be used by multiple processes. Though it is recommended that a separate API is used for each digital worker to ease communication, rather than all digital workers talking to one interface.

The last Environmental Variable the 'EV-Interact-API-URL' is the URL used to access the Interact Web Server.

The Environmental Variables are set in the System area of Blue Prism as illustrated below.



Data Items are then set changing the exposure to the 'Environment' setting and selecting the appropriate Environment Variable from the dropdown.

The screenshot shows the 'Data Properties' dialog box for a Data Item named 'EV-Interact-API-Key'. The dialog has a title bar with a question mark, minus, maximize, and close buttons. The main area is divided into two panes. The left pane contains the following fields:

- Name:** EV-Interact-API-Key (dropdown menu)
- Description:** EV-Interact-API-Key (dropdown menu with options: EV-Interact-API-Password, EV-Interact-API-URL, EV-Interact-API-Username, EV-Orchestrator-EndOfDay, Path - Data, Path - IADA Training, Path - Orchestration Global Variables Directory)
- Data Type:** (dropdown menu)
- Initial Value:** A97C070318A1E9B5D333604E6E51A69192C9E1C6DD56C0E285492B543123FD (text field with a clear button)
- Exposure:** Environment - Read the corresponding Environment Variable from System Manager (dropdown menu)
- Current Value:** (text field with a clear button)
- Visibility:** ☒ Hide from other pages in the process
- Initialisation:** ☒ Reset to Initial Value whenever this page runs

The right pane is titled 'Text' and contains the following text:

Text items are used to store alphanumeric data.

This information may be names, addresses, telephone numbers, etc.

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

Operation

The Interact Controller has three distinct sections detailed below but in summary are:

- Get Bearer Token Header
- Get Process Submission by Request ID
- Update Process Submission by Request ID

Bearer Token

The API connection is used to get bearer authentication from Interact. Bearer authentication is an HTTP authentication scheme that involves security tokens called bearer tokens. The name “bearer authentication” can be understood as “give access to the bearer of this token.” The Bearer Token is a cryptic string, usually generated by the server in response to a login request

This Bearer Token is then used as authorization to retrieve and update information in Interact.

The Bearer Token has a limited time span, which is 15 minutes. If the retrieval and update doesn't complete within this period, a new Bearer Token will be required.

Get Process Submission by Request ID

This section of the business object uses the Bearer Token as authentication and the Request ID to retrieve from Interact the submission data and form structure. This is returned in a raw JSON format.

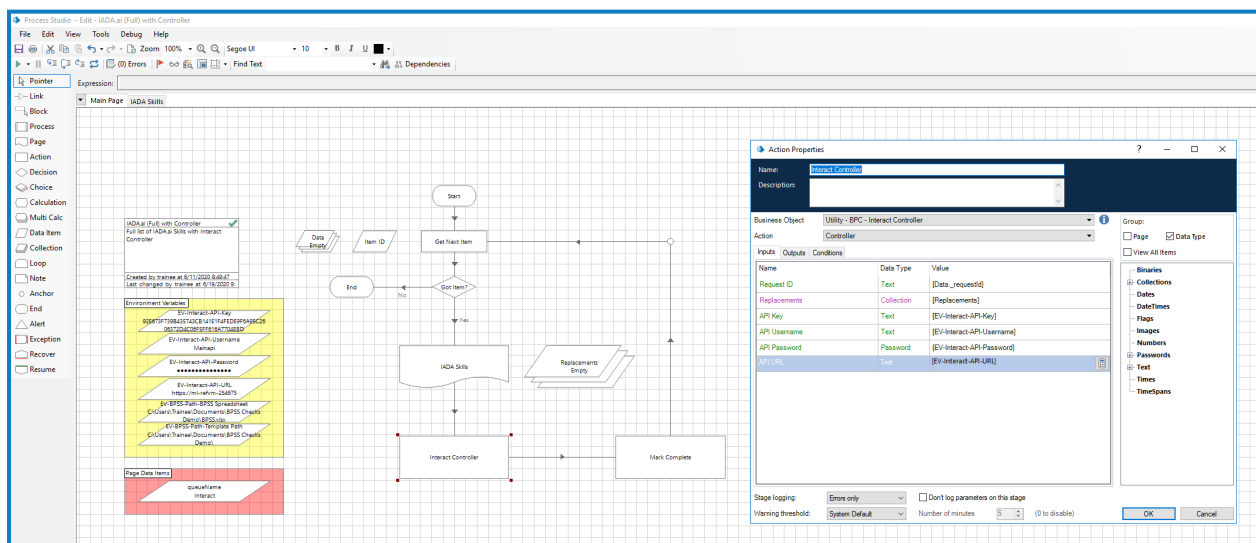
Update Process Submission by Request ID

The final part of the business object takes the raw JSON that has been retrieved, reformats it into an acceptable JSON, updates any values that have been changed using the 'Replacements' Collection that was created when the data was extracted from Excel and then posts the updated information back into Interact.

Configuring the Interact Controller

To utilize the Interact Controller in your automations. Add a new Action to your process and select from the drop down the 'Controller' from the 'Utility – BPC – Interact Controller'.

The parameters that need to be configured are illustrated in the diagram below.



The '_requestId' is the key parameter to link the update to the Interact submission ID.

The replacements collection is the list of items you want updating in the Interact Form. This is a collection that contains two fields, Name and Value.

The Name field is the name used within the Interact Form, the Value is the new value you intend to replace into the Interact Form.

Collection Properties

Name: Replacements

Description:

Fields	Initial Values	Current Values
Name	Type	Description
Name	Text	
Value	Text	

Fields:

Import

Add

Remove

Clear

☒ Reset to Initial Value whenever this page runs ☒ Hide from other pages in the process ☐ Single Row

OK Cancel

For further information regarding Interact and the Interact Controller please see the Interact User Guide.