



How to manage lists

Project name: List management

Package version: 1.0.3

Version	Date	Description
1	March 31, 2021	Document created

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INTRODUCTION

This document describes the SAP Build Process Automation sample **List management** and provides the following information:

- Description (functional and technical)
- Version used to generate this sample

It also contains information on prerequisites, such as the steps to follow before launching the agent.

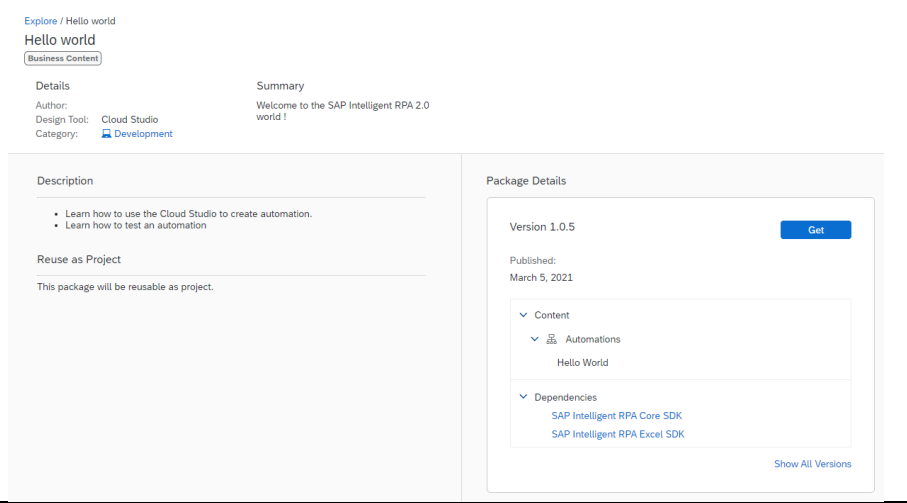
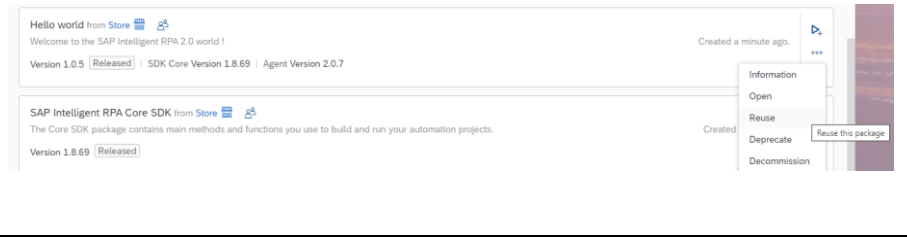
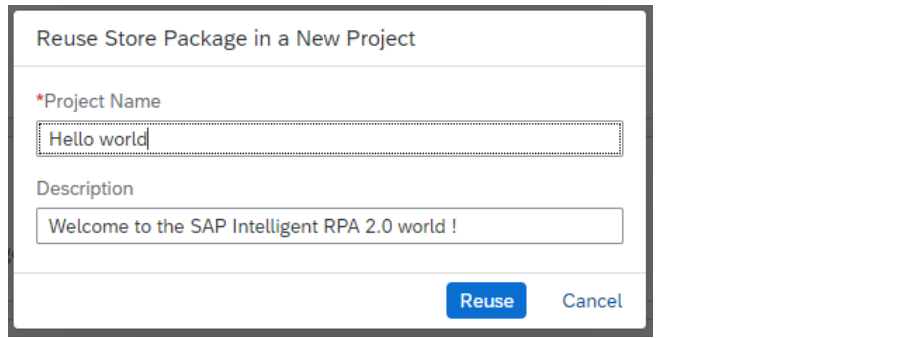
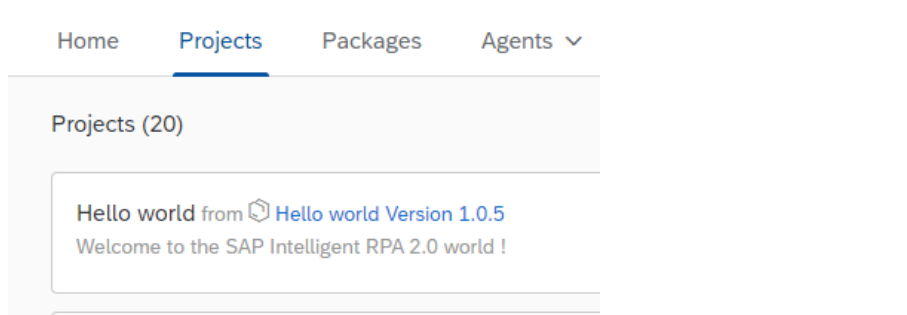
IMPORTANT RECOMMENDATION

General

To use this sample, you need to have a basic knowledge and understanding of SAP Build Process Automation tool. At the very least you need to know how to build an automation, add and modify activities and generate a package.

Reuse the sample as a new project

Note: screenshot might display a different name than the one of this sample.

<p>From the Cloud Factory, open the Store tab and select the sample you want to retrieve.</p> <p>Click on the Get button.</p>	 <p>Explore / Hello world Hello world (Business Content)</p> <p>Details Author: Cloud Studio Design Tool: Cloud Studio Category: Development</p> <p>Summary Welcome to the SAP Intelligent RPA 2.0 world !</p> <p>Description</p> <ul style="list-style-type: none"> Learn how to use the Cloud Studio to create automation. Learn how to test an automation <p>Reuse as Project This package will be reusable as project.</p> <p>Package Details</p> <p>Version 1.0.5 Get</p> <p>Published: March 5, 2021</p> <p>Content</p> <ul style="list-style-type: none"> Automations <ul style="list-style-type: none"> Hello World <p>Dependencies</p> <ul style="list-style-type: none"> SAP Intelligent RPA Core SDK SAP Intelligent RPA Excel SDK <p>Show All Versions</p>
<p>Once the package is retrieved, open the Packages tab of the Cloud Factory.</p> <p>Click on the Options button of the package you just retrieved and select the option Reuse.</p>	 <p>Hello world from Store Welcome to the SAP Intelligent RPA 2.0 world ! Version 1.0.5 (Released) SDK Core Version 1.8.69 Agent Version 2.0.7 Created a minute ago.</p> <p>SAP Intelligent RPA Core SDK from Store The Core SDK package contains main methods and functions you use to build and run your automation projects. Version 1.8.69 (Released) Created</p> <p>Information Open Reuse Deprecate Decommission</p> <p>Reuse this package</p>
<p>Set a name for the project to be created.</p>	 <p>Reuse Store Package in a New Project</p> <p>*Project Name Hello world</p> <p>Description Welcome to the SAP Intelligent RPA 2.0 world !</p> <p>Reuse Cancel</p>
<p>Open the project that has just been created.</p>	 <p>Home Projects Packages Agents</p> <p>Projects (20)</p> <p>Hello world from Hello world Version 1.0.5 Welcome to the SAP Intelligent RPA 2.0 world !</p>
<p>If needed, update the content of this project, and generate a new package from it.</p>	

You need to execute this procedure to be able to open the project and see all its content (the captured applications, the declared items, the automations, etc.).

DESCRIPTION

This package contains captures, datatype and automations that are described below. See chapter Version for more details about the version of the Desktop Agent and the SDK dependencies.

Settings

This section describes the settings of the project such as environment variables or dependent packages that are used in the automation.

Environment variables

N/A

Dependent packages

N/A

Captures

This section describes the captures which were made to pilot the application in this sample. It will also describe the different methods which were used to capture the pages and declare the items.

N/A

Datatypes

This section describes the datatype used in this sample. It describes the structure of the datatype and where it is used in the automations.

Object

Name of attribute	Type	Description
propertyString	String	
propertyBoolean	Boolean	
propertyNumber	Number	

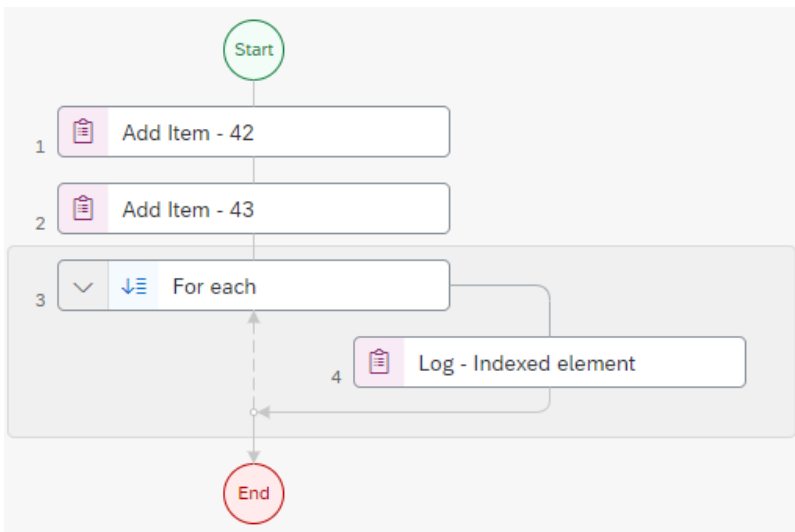
Automations

Add an item in an input list

Type: Nested automation

Input: List of objects

Output: List of objects



The agent simply adds objects in the list and display a log for each item.

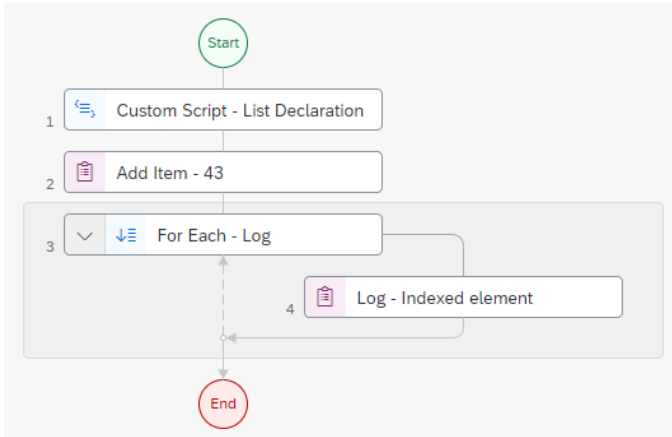
This automation is used in another one.

Add an item in a custom script list

Type: Attended

Input: None

Output: List of objects



In this automation, the list of objects is created in the Custom Script activity, using the following piece of code:

The content of the Generate JS object activity is the following:

```
return [{propertyString: "FortyTwo",  
propertyBoolean: true, propertyNumber: 42}];
```

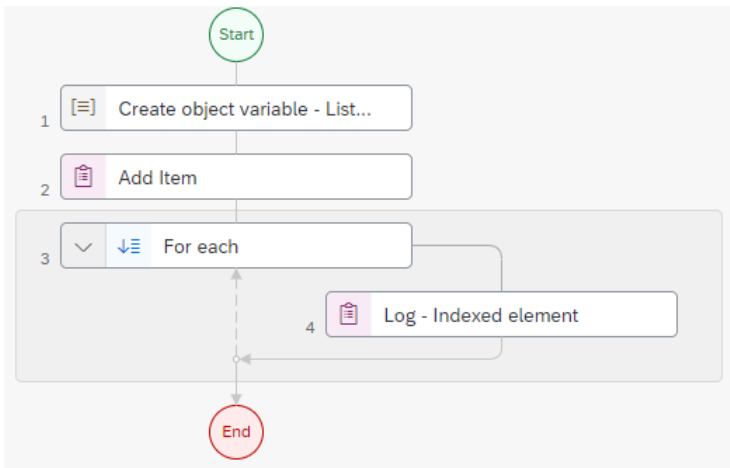
The agent will display the value of each item of the list.

Add an item in a declared datatype variable list

Type: Attended

Input: None

Output: List of objects



In this automation, the list of objects is created in the Custom Script activity, using the following piece of code:

The content of the Generate JS object activity is the following:

```
return [{propertyString: "FortyTwo",  
propertyBoolean: true,  
propertyNumber: 42}];
```

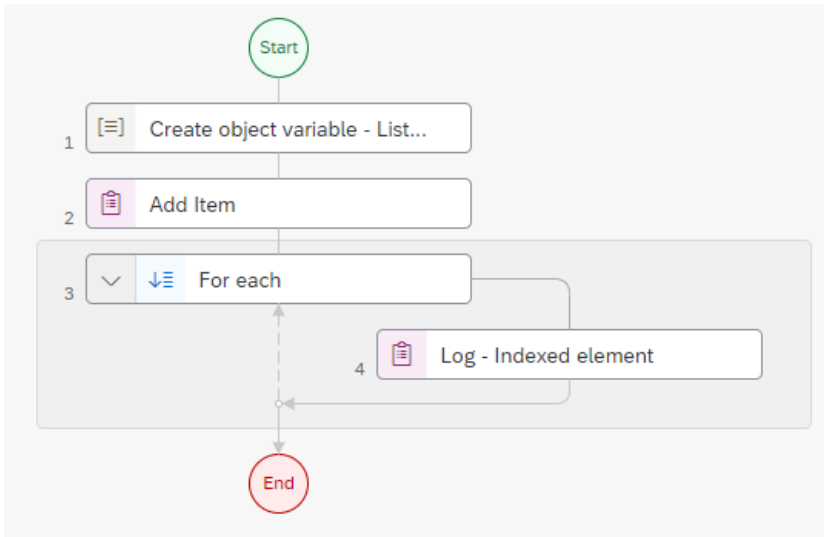
The agent will display the value of each item of the list.

Add an item in a declared datatype variable list

Type: Attended

Input: None

Output: List of objects



In this automation, the list of objects is created and initialized using the generic activity. An

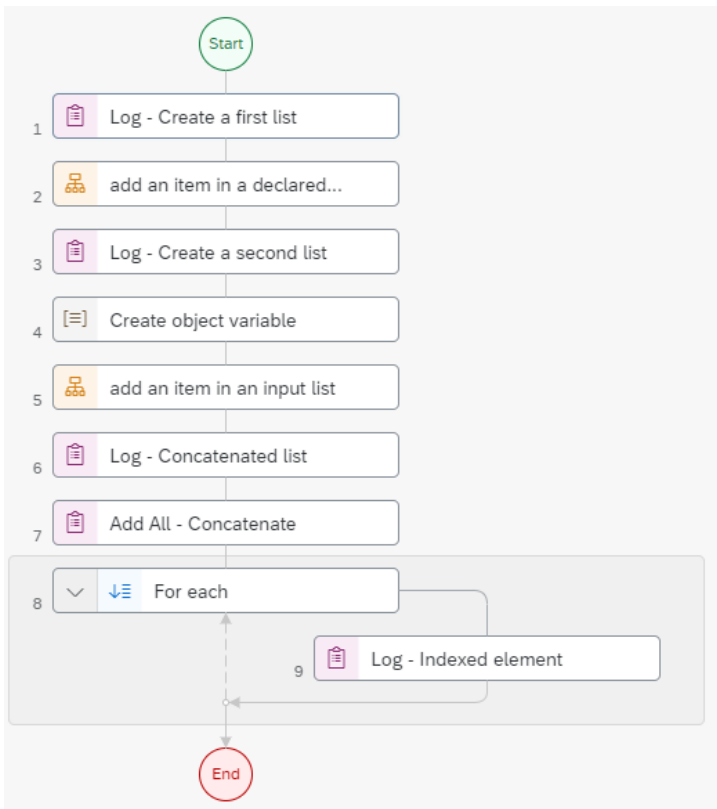
Then an item is added to this list and the agent displays the content of the list using the Log activity.

Concatenate lists

Type: Attended

Input: None

Output: List of objects



This automation uses the ones described above to :

- Create 2 lists of object using different ways
- Add the content of the second list to the first one.

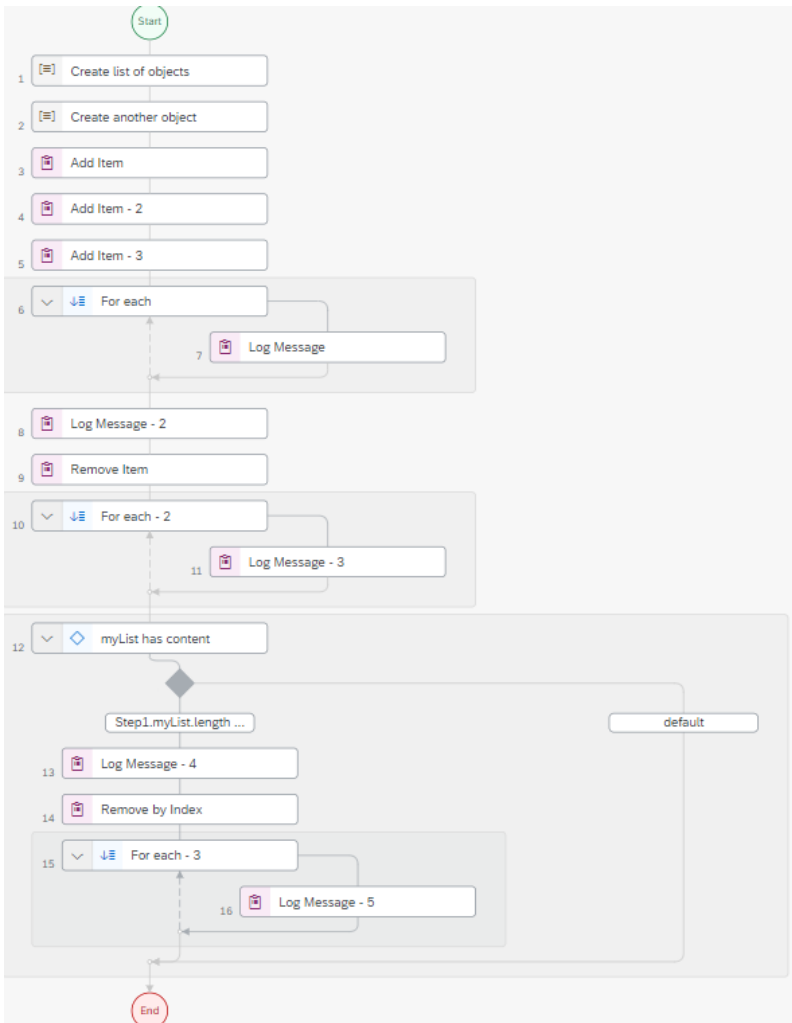
The agent displays the value of each item of the list.

Remove item from list

Type: Attended

Input: None

Output: List of objects



This automation presents 2 ways to remove an item from a list.

The **Remove Item** activity removes the item passed in parameter.

Note: the item in parameter MUST BE in the list as we are dealing with reference and not copies.

The **Remove by Index** activity removes the item at the given position (first item in the list having position 0)

VERSION

The product versions used to generate this sample are detailed below. This sample is provided “as is”, with no warranty that it will work correctly with other versions. If some versions of your software are different (such as the tool version or the target application version), you may need to recapture the application and/or update the workflow activities.

SAP Build Process Automation

This sample targets the Desktop Agent **2.0.9** or higher.

The following SDK dependencies were used to generate this sample:

irpa_core	1.9.66
irpa_excel	1.9.66
irpa_outlook	N/A
irpa_pdf	N/A
irpa_ui5	N/A
irpa_word	N/A

See [documentation](#) for more details about the compatibility between SDK version and Desktop Agent.

Target application

N/A

PREREQUISITES

Global setup

SAP Build Process Automation must be installed in accordance with the installation guide available [here](#). An SAP Build Process Automation Factory must be available with a suitable environment (containing an agent). All information can be found in the “Getting Started” section accessible via the above link.

Specific steps to follow before launching the agent

N/A

EXPECTED OUTPUT

The logs should contain the result of each automation, such as:

```
i 0: Hello world ! | true | 2
i 1: This is the Answer | true | 42
i 2: Another value | false | 7
i 3: Value to remove | true | 0
i 4: Some value | false | 1
i 5: Value to remove | true | 0
i ----- Remove Item -----
i 0: Hello world ! | true | 2
i 1: This is the Answer | true | 42
i 2: Another value | false | 7
i 3: Some value | false | 1
i 4: Value to remove | true | 0
i ----- Remove last item in list -----
i 0: Hello world ! | true | 2
i 1: This is the Answer | true | 42
i 2: Another value | false | 7
i 3: Some value | false | 1
```

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