

# Calculate Client Security Hash

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## 1. Prerequisites

The automation will need to process Data Rows for each transaction so the data type for Transaction Item will be DataRow.

## 2. Configuration in UiPath Studio

### 2.1. Create a new project

Create a new project using the Robotic Enterprise Framework template. Set a proper name for the project. Provide a proper description.

### 2.2. Whiteboard your workflows

| Module Name                        | Description  | Pre-condition                              | Post-action   | Arguments  |
|------------------------------------|--|--|---|--|
| System1_Login                      | Opens a Microsoft Edge browser to access System 1 and log in using provided credentials                                | N/A  | Opens Edge System 1 Dashboard if credentials are correct. | in_System1URL - String<br>in_System1Credential - String                        |
| System1_Close                      | Closes System 1 in Microsoft Edge browser  | System 1 Opened, Log Out button accessible | Logs Out and Closes the browser                           | N/A  |
| System1_Navigate To_WIDetails      | Navigates to the WI Details Page using the WIID input argument   | System 1 is open at any page               | WI Details opened   | in_WIID - string<br>in_System1_WorkItemURL - String                            |
| System1_Navigate To_WorkItems      | Navigates to Work Items Page   | System 1 Dashboard is opened               | Work Items Page opened                                    | N/A  |
| System1_Navigate To_UpdateWorkItem | Navigates to Update Work Item Page   | System 1 Work Items Page is opened         | Update Work Item Page opened                              | in_WIID - String<br>in_System1_UpdateWorkItemURL - String                      |
| System1_Extract_WIsDataTable       | Extracts the entire Table of all Work Items in the output argument   | Work Items Page is opened                  | None  | out_DataTable - DataTable  |
| System1_Extract_ClientInformation  | Extracts the ClientID, ClientName and ClientCountry and writes to the output arguments                                 | Work Item Details Page is opened           | None  | out_ClientID - String<br>out_ClientName - String<br>out_ClientCountry - String |
| System1_UpdateWorkItem             | Updates the Work Item to the Status and Comment using input arguments. Status can be "Open", "Completed" or "Rejected" | System 1 Update Work Item Page is opened   | None  | in_Comment - String<br>in_Status - String<br>in_WIID - String                  |
| SHA1_Open                          | Opens SHA1 generator from the URL argument   | None                                       | Opens Edge SHA1 generator                                 | in_SHA1URL - String  |
| SHA1_Close                         | Closes SHA1 generator  | SHA1 generator Main Page is opened         | Closes Edge SHA1 generator                                | N/A  |
| SHA1_ProcessHash                   | Retrieves the HashResult based on the input HashFormula  | SHA1 generator is opened                   | None  | in_HashFormula - String  |

| Module Name | Description   | Pre-condition | Post-action | Arguments   |
|-------------|---|---------------|-------------|---|
|             |   |               |             | out_HashResult - String                                   |
| SendEmail   | Sends Exception Email using Outlook and the Input Arguments | None          | None        | in_To - String<br>in_Subject - String<br>in_Body - String |

## 2.3. Develop your workflows

Create three new folders in the project folder. Name them **System1**, **SHA1** and **Common**. Inside the three folders, develop sequence-based workflows for each application, based on the process whiteboard. Use the Common folder for SendEmail.xaml.

## 2.4. Edit the Configuration file

In the Settings sheet of Config.xlsx, store the important settings for your project:

- The URLs for System 1
- The System1 credentials stored in Orchestrator or Windows Credential Manager
- The URL for SHA1 generator
- The Business Process Name

In the Constants sheet, set the MaxRetryNumber to 2.

## 3. Change the TransactionItem Data Type

In Main, update the datatype for the TransactionItem variable to DataRow. Make the remaining changes indicated in the REF without Queue Items checklist. You should resolve all validation errors and update all argument mappings which use TransactionItem.

## 4. Applications Used: open/close/kill

### 4.1. Edit the InitAllApplications.xaml workflow

Invoke the workflows used to log into System 1 and to open the SHA1 generator. Pass the URLs and credential values to the workflows.

### 4.2. Edit the Framework/CloseAllApplication.xaml workflow

Invoke the workflows used to close System 1 and the SHA1 generator.

### 4.3. Edit the Framework/KillAllProcesses.xaml workflow

Use a Kill Process activity here to indicate the browser you want to force-close.

## 5. Business Process: Transaction Data and Process

### 5.1. Edit GetTransactionData.xaml workflow

Change the data type for the out\_TransactionItem argument from QueueItem to DataRow and delete the Get Transaction Item activity.

Use an If activity to check if this is the first run of the workflow. Note that io\_dt\_TransactionData should be empty only on the first run. If it is the first run, then invoke the workflows used to navigate to the Work Items page and extract the DataTable.

Filter the DataTable using a Filter Data Table activity or the Select method to keep only the items with the Type WI5 and the Status 'Open'. Log the total number of transactions.

Use an If activity to assign the correct value to the Transaction Item if the Transaction Number is lower or equal to the number of available transactions or assign Nothing to the TransactionItem if the Transaction Number exceeds the number of available transactions.

### 5.2. Edit Process.xaml workflow

Set the correct datatype for in\_TransactionItem. Invoke the workflows to navigate to the Work Item Details page, extract client information, process the Hash code, and update the Work Item.