



University of Colorado

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## **OnBase Guide - Workflow - Service Indicator Integration**

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**Goal:** To use OnBase to place and/or release Service Indicators in Campus Solutions using OnBase workflow

**Complexity Level:** Departmental Workflow Developers

*7/25/2022*

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## Table of Contents

Background .....	3
Prerequisites.....	3
Steps to Complete in OnBase Studio & Example Life Cycle .....	4
Processing Life Cycle .....	10
Testing the Solution.....	11



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## Background

This process exists in order to place and release Service Indicators on student accounts in Campus Solutions.

This guide outlines the steps performed by a common processing life cycle that completes the processing using a web service to update CS and an example life cycle that you can copy from to incorporate this into your department's life cycles.

The basic process is:

1. Departmental life cycle creates a Unity form that supplies the necessary information for the SI placement/release.
2. The form is processed by a shared life cycle configured and maintained by UIS. A web service uses the information from the form to perform the requested action.
3. The departmental life cycle checks the result of the web service processing to determine if it was successful.
4. The form used for processing is purged after 10 minutes.

There are many options for how to customize this in your life cycle, so use this guide as a starting point to build a solution that fits your department's needs.

**NOTE:** This process will allow workflow users to initiate placement/removal of service indicators without the limitations of their Campus Solutions SACR/access. Please be aware of this and use caution.

Service Indicators placed using this web service will have a Placed Process/Released Process of "ONBASE."

Contact Information	
Contact ID	Contact Person
Placed Person ID	Placed By
Placed Method	Background
Placed Process ONBASE	Release Process

These transactions can also be reviewed in Audit Service Indicators.

When a request is sent to add a Service Indicator, a check for duplicates will be performed based on matching Student ID (Emplid), Institution, SI Code, SI Reason, Start Term, Start Date. If a matching Service Indicator is found, the response will be "ERROR: DUPLICATE SI".

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## Prerequisites

You will need to use OnBase Studio and be familiar with workflow design and configuration, in addition to having the necessary permissions to do so.

Please reference other [UIS guides](#) for installation instructions and configuring each of the products. The Workflow and System Administration MRGs also provide further details. Contact [UIS\\_DM\\_Support@cu.edu](mailto:UIS_DM_Support@cu.edu) for assistance if needed.

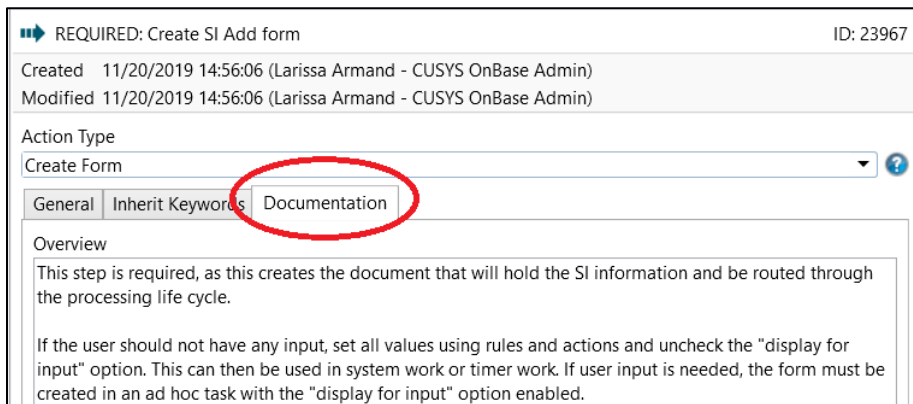
## Steps to Complete in OnBase Studio & Example Life Cycle

OnBase Studio is the tool where you can create Workflow life cycles, queues, tasks, actions, timers and notifications for your business processes.

Service indicator processing may be incorporated into one of your existing life cycles or done in a separate life cycle from the rest of the business process depending on the circumstances. Here we will walk through the example life cycle available in Studio. You can copy all or portions of this life cycle and modify to fit your need.

In our example life cycle, **X - SI01 - Service Indicator Example (SIE)**, the placement and release are initiated by an ad hoc task. This allows the user completing the tasks an opportunity to supply values (ex, the service indicator type, comments to add to the service indicator) for processing. If the values can all be set without user interaction, the processing can be initiated by system or time work instead of an ad hoc task.

In Studio, check the “Documentation” tab for more details about each rule, action, task, etc.



REQUIRED: Create SI Add form ID: 23967

Created 11/20/2019 14:56:06 (Larissa Armand - CUSYS OnBase Admin)  
Modified 11/20/2019 14:56:06 (Larissa Armand - CUSYS OnBase Admin)

Action Type  
Create Form

General Inherit Keywords **Documentation**

Overview  
This step is required, as this creates the document that will hold the SI information and be routed through the processing life cycle.  
If the user should not have any input, set all values using rules and actions and uncheck the "display for input" option. This can then be used in system work or timer work. If user input is needed, the form must be created in an ad hoc task with the "display for input" option enabled.

The following steps must be configured:

1. Clear property values (especially if using the session property bag, so that each item processed has its own values and none carry over between documents) and ensure the [correct property bag](#) is used throughout all steps involving property values.
2. Set static property values that do not require user input.
  - Current User OperID:
    - i. A property value must be set to the Operator ID for the current user.

- ii. If the current user performing the action is an OnBase service account (ex. S\_UNITYSCHEDULER) that username will need to be replaced with the default username, PRDSVSYs. OnBase service account names will be replaced with PRDSVSYs in the processing life cycle. Optionally, this can also be done in your life cycle with a “Set Property to Expression” action and the expression:

**`Iif(IsMatch(%VpropOperID;"\w{4}\d{6}";true);%VpropOperID;"PRDSVSYs")`**

- The example for adding a SI also sets a start date to the current date and an end date 120 days from now. These steps are optional but note that [certain values are required](#) for adding/releasing a SI (a value will need to be provided for either the Start Date or Start Term to add a SI for example).

Action Type  
Set Property Value

General Documentation

Property Name  
propStartDate

Property Value

Keyword

Target  
Current Document

Work item property

Current date/time

Current user name

Action Type  
Set Property to Expression

General Documentation

Property Name  
SIEndDate

Expression  
AddDays(Now());120)

- Though not included in the example life cycle, this could also include the SI Code, SI Reason and/or comments if the user is not providing any of that information ad hoc.
3. Create the processing form.
- Create a “Create Form” action and choose the **S - UIS - Service Indicator Place/Release** form.
  - Inherit Keywords from the originating document to the form where applicable. At minimum, this should generally include the Student ID and Campus Code.

The screenshot shows the 'Action Type' configuration window for 'Create Form'. The 'Inherit Keywords' tab is selected. Under 'Inherit Keywords', the 'Inherit Selected' radio button is chosen, and the 'Fill Document Handle Keyword(s)' checkbox is checked. A modal window titled 'Inherited Keyword Types' is open, displaying a list of keywords with checkboxes: 'Campus Code', 'Date of Birth', 'First Name', 'Last Name', and 'Student ID'. All these checkboxes are checked.

- Select the option to “**Fill Document Handle Keyword(s).**” This is needed in order to identify the related SI form to check the result.

The screenshot shows the 'REQUIRED: Create SI Add form' configuration window. The 'Action Type' is 'Create Form'. The 'Inherit Keywords' section is active, and the 'Fill Document Handle Keyword(s)' checkbox is checked and highlighted with a red box.

- Map the Operator ID property set in step 2 to the OperID keyword on the form.
- For adding a service indicator, set the Service Indicator Action form keyword value to a constant value of “N”. For removing an existing active service indicator, set this constant value to “Y”.
  - Only one service indicator can be added/removed per request.
  - If more than one service indicator exists on the student’s account with the specified code/reason, an error will be returned that removal must be done manually.
- Map any other keyword/property values (such as start/end date) that are set on the document to the applicable form field until all required values are populated on the form.
  - OPTIONAL: If using an ad hoc task to initiate processing, check the “Display for input” box if the user should be given an opportunity to add values to the form directly.

- i. Any fields with values pre-set by rules/actions will remain read-only on the form.

Action Type  
Create Form

General | Inherit Keywords | Documentation

Form Type  
X - X - Service Indicator Place/Release

Add Keywords

<b>Keyword Type:</b> OperID <b>Source:</b> Property <b>Value:</b> propOperID
<b>Keyword Type:</b> Service Indicator Action <b>Source:</b> Constant <b>Value:</b> N
<b>Keyword Type:</b> Service Indicator End Date <b>Source:</b> Property <b>Value:</b> SIEndDate
<b>Keyword Type:</b> Service Indicator Start Date <b>Source:</b> Property <b>Value:</b> propStartDate

Remove

Keyword Type  
Campus Code

Constant

Property Name

Add

Copy document handle to property

Display for input

Allow user to discard changes and continue execution

Allow user to discard changes and cancel execution

Use Session Property Bag

Disable  Enable Debug Breakpoint  Log Execution

#### 4. Check for response.

- It is recommended this is done using a timer to allow the web service time to process (this should take less than a minute). The processing form is only kept for 10 minutes, so don't wait longer than that to check the response.
- A successful placement/release will result in the response of "SUCCS".
- Any non-successful transaction will result in a response starting with ERROR, with more details about the issue.





- i. One potential response is "ERROR: DUPLICATE SI" if the service indicator you are attempting to add already exists on the account. Please keep this in mind when handling error responses if your process should proceed/ignore this error.
- ii. Other error responses include:
  - "ERROR: CU\_ONBASE\_SRVC\_IND\_SYNC Service is inactive"
  - "ERROR: invalid values in message"
  - "ERROR: Emplid does not exist"
  - "ERROR: OPRID does not exist"
  - "ERROR: SRVC\_IND\_CD missing"
  - "ERROR: No SI exists for keys provided"
  - "ERROR: End Date is earlier than Start Date"
  - "ERROR: A Start Date and Start Term value is required."
  - "ERROR: This SI includes at least one Term based impact. A Start Term value is required."
  - "ERROR: This SI includes at least one Date based impact. A Start Date value is required."
  - "ERROR: action unsuccessful"
  - "ERROR: action successful, but audit failed"
- The response is stored as a keyword value on the SI form, so you'll need to check the value from the related document.

The screenshot shows the configuration for a rule named "check WS Response on Related Doc SUCCS" (ID: 9839). The rule was created and modified on 11/20/2019 at 14:56:06 by Larissa Armand - CUSYS OnBase Admin. The rule type is "Check Keyword Value". The "General" tab is active, showing the following configuration:

- Target:** Related Document (highlighted with a red box)
- Located By:** Document Handle
- Keyword Type:** Web Service Response
- Currency Format:** (empty)
- Operator:** =
- Compare To:** SUCCS (with "Allow Wildcards" checkbox unchecked)

- In the example life cycle, non-successful responses are copied to a property to be added to a note to determine what needs to be done for re-processing.
- If you are adding or removing more than one SI, you may also want to use the **GEN - ICS - Check for SI** script to verify whether each specific SI was successfully added or removed prior to continuing with your processing. Please note this script uses data from a materialized view that is refreshed from the equivalent Campus Solutions environment on a 10-minute interval.

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## Processing Life Cycle

The web service processing is completed by the **X - SI - Service Indicator Integration (SI)** life cycle. This life cycle can only be modified by UIS. Contact [UIS\\_DM\\_Support@cu.edu](mailto:UIS_DM_Support@cu.edu) if you need assistance or if modification may be necessary.

When forms are created in the **S - UIS - Service Indicator Integration Form** document type, they are added to this life cycle for processing.

1. Forms will be routed to either the **Processing - Add SI** queue or **Processing - Remove SI** queue depending on which action is being performed.
2. At that point, values are replaced if needed.
  - If the Campus Code value is CUAMC, it will be replaced with CUDEN.
  - If the OperID keyword value on the form is an OnBase service account, it will be replaced with PRDSVSYs.
3. For SI Removals only, a script (**GEN - ICS - Get SI Release Properties**) will be run to get the active date/time for the specified service indicator (set to property SISetDate). If this fails, the Web Service Response keyword value will be set to "ERROR: COULD NOT OBTAIN SI SET DATE" and processing will end.
4. A rule will check that all required values have been supplied. If any required values are missing, the Web Service Response keyword value will be set to



“ERROR: KEYWORD/PROPERTY VALUES MISSING” and processing will end.

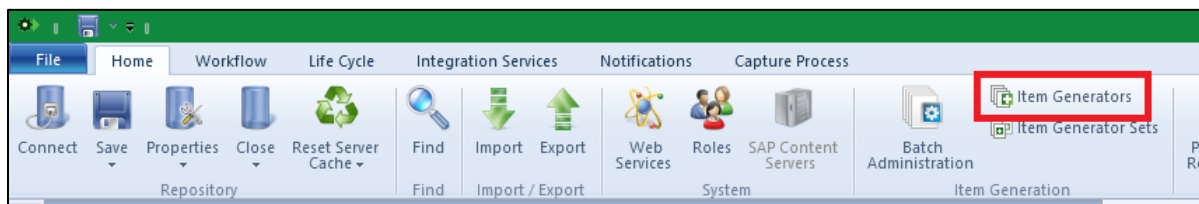
- Add:
  - Required Values
    - Student ID
    - SI Code
    - SI Reason
    - Campus Code/Institution
    - Start Date or Start Term
    - Operator ID
  - Optional Values
    - End Date or End Term
    - Comments
- Remove:
  - Student ID
  - SI Code
  - SI Reason
  - Campus Code/Institution
  - SI Active Date/Time (retrieved by script)
  - Operator ID

5. Once all values are set and validated, the web service will be run according to which environment is in use.
6. The response will appear on the processing form and be saved as a keyword on the processing form so that it can be checked in a related item rule from the primary document.
7. Every 10 minutes, a timer checks for items that have been in the queue longer than 10 minutes and purges those processing forms.

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## Testing the Solution

Item Generators can be configured to create documents (or other items) in the desired document types and with the desired keyword values. These let you test life cycles in a variety of ways and even specify keyword and property values and the starting queue and entry date. Refer to the Studio MRG for more information on Item Generators.



Feel free to create your own Item Generators to suit your needs with your own document types, life cycles, queues and values.

