



University of Colorado

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OnBase Guide - Workflow - Service Indicator Integration

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

Complexity Level: Departmental Workflow Developers

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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 deleted after 24 hours.

There are many options for customizing 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".

NOTE: Web services perform updates in the Campus Solutions environment corresponding to the OnBase environment (DMODEV connects to ICSDEV, DMOTST to ICSTST, etc.). Certain conditions may need to exist in the corresponding Campus Solutions environment for successful testing.

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 for assistance if needed.

Required and Optional Values

- To add a Service Indicator:
 - 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
- To remove a Service Indicator:
 - Student ID
 - SI Code
 - SI Reason
 - Campus Code/Institution
 - SI Active Date/Time (retrieved by script)
 - Operator ID

Steps to Complete in OnBase Studio & Example Life Cycle

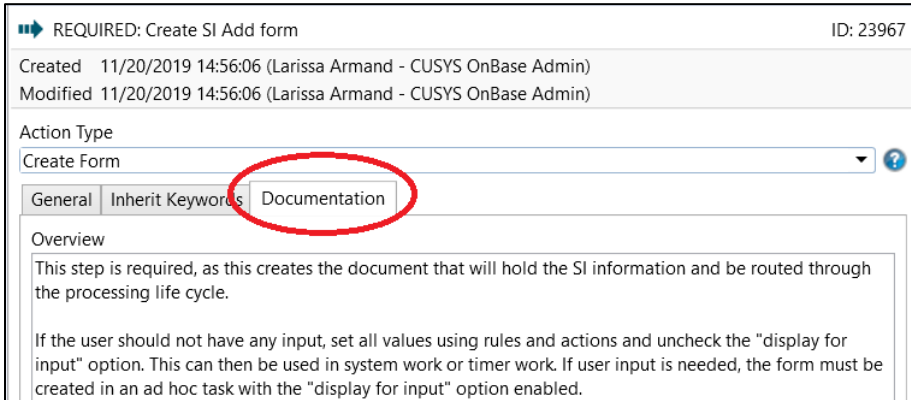
OnBase Studio is the tool where you can create Workflow life cycles, queues, tasks, actions, timers and notifications for your business processes.

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.



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, PRDSVSY. OnBase service account names will be replaced with PRDSVSY 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 screenshot shows the configuration for the 'Set Property to Expression' action. The 'Action Type' is set to 'Set Property to Expression'. The 'General' tab is active, showing the 'Property Name' as 'propOperID' and the 'Expression' as `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).

The screenshot shows the configuration for the 'Set Property Value' action. The 'Action Type' is set to 'Set Property Value'. The 'General' tab is active, showing the 'Property Name' as 'propStartDate'. Under 'Property Value', the 'Current date/time' radio button is selected. The 'Target' is set to 'Current Document'.

The screenshot shows the configuration for the 'Set Property to Expression' action. The 'Action Type' is set to 'Set Property to Expression'. The 'General' tab is active, showing the 'Property Name' as 'SIEndDate' and the 'Expression' as `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 - ICS 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, showing a list of keywords with checkboxes: Campus Code, Date of Birth, First Name, Last Name, and Student ID.

- 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 '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. This checkbox is 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

Keyword Type: OperID Source : Property Value : propOperID
Keyword Type: Service Indicator Action Source : Constant Value : N
Keyword Type: Service Indicator End Date Source : Property Value : SIEndDate
Keyword Type: Service Indicator Start Date Source : Property Value : 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.
- The response is stored as a keyword value on the SI form, so you'll need to check the value from the related document.



? check WS Response on Related Doc SUCCS ID: 9839

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

Rule Type
 Check Keyword Value

General Related Documentation

Target
 Related Document
Located By Document Handle

Keyword Type
 Web Service Response

Currency Format

Operator
 =

Compare To
 Allow Wildcards
 SUCCS

? check WS Response on Related Doc SUCCS ID: 9839

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

Rule Type
 Check Keyword Value

General Related Documentation

Find related documents by
 Document Handle
 Document Type

- 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.

Processing Life Cycle

The web service processing is completed by the **X - ICS - Web Service Processing** life cycle. This life cycle can only be modified by UIS. Contact UIS_DM_Support@cu.edu if you need assistance or if modification may be necessary.



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

1. Forms will be validated to confirm all required values are present. Any issues will be recorded as the Web Service Response and those forms will be moved to the Exceptions queue.
2. 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.
 - 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.
3. Once all values are set and validated, the web service will be run according to which environment is in use.
4. 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.
5. A timer checks for items that have been in the queue longer than 15 minutes with no response, and they will be reprocessed.
6. Forms will be deleted after 24 hours unless they have not received a response.

Potential Responses

This may not be a comprehensive list, but outlines some potential responses.

Response Message	Description
SUCCS	If the Service Indicator is successfully updated
ERROR: DUPLICATE SI	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.
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	
ERROR: MULTIPLE SI MEET CRITERIA	More than one SI exists that matches removal criteria; these need to be manually updated
<i>ERROR: MISSING ONE OR MORE REQUIRED VALUES</i>	Required values are not set on processing form
<i>ERROR: HTTP Status = *</i>	Indicates issue accessing web service
<i>ERROR: Service Unavailable/Inactive</i>	Usually due to application maintenance

Testing the Solution

It is important to thoroughly test your solution prior to migration to production. Testing should not be done in production since these processes will make updates to student records.

Certain conditions may need to exist in the corresponding Campus Solutions environment for successful testing.

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.

