



OPCON

Agent for IBM i

Automating Export/Import Using Self Service

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Applies to:
LSAM version 18.1

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SMA Technologies makes no representation or warranties with respect to contents hereof. This manual is designed as a user's resource guide to the functions of OpCon and its Agent for IBM i.

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OpCon IBM i Agent Data Export/Import Overview

The OpCon IBM i Agent Data Export/Import documentation provides basic and advanced configuration of Self Service, OpCon, and IBM i LSAM to Export from IBM i LSAM test IBM i machine and Import into one to many IBM i LSAM production IBM i machines.

This document is being offered as-is and is a general guidance document. If you need addition help, please contact SMA Technologies Client Support for help with configuration and implementation of OpCon IBM i Agent Data Export/Import.

Process Guide

The OpCon IBM i Agent Data Export/Import process allows the client to Export LSAM master records groups from a test machine that will be FTPed to one to many production machines based on the configuration of the OpCon Machine Group and imported on that machine using the LSAM Import process.

The list of LSAM master record groups supported includes:

- OPRRPY = Operator Reply scripts, steps and related files
- TRPMSG = Message Management Parameter records and related files
- SCANSPLF = Scan Spool File rules and related records
- CAPJOB = Captured Job definitions and related files
- TRKJOB = Job Tracking and Queuing definitions and related files
- RSTMOD = Restricted Mode script records
- DYNVAR = LSAM Dynamic Variable table records (these will also appear as a related file to most of the other Groups) Show all = remove Group ID filtering of the control records list

Configuration Pre-requisites

Per the instruction in this document, the list of pre-requisites must be completed before automation of the LSAM Export/Import batches can be performed.

- IBM i LSAM Dynamic Variables
- OpCon Global Properties
- OpCon Machine Groups
- OpCon Schedule
- OpCon Jobs
- Self Service Button

To utilize the OpCon IBM i Agent Data Export-Import automation process, you are required to build LSAM Export batch control records per the IBM i LSAM Administration Chapter 17: Reference Information on How to Export and Import Data. Once these Export batches have been created, the Solutions Manager Self Service web application button will be used to process each named batch by clicking the Self Service button, typing the batch name in the LSAM Batch Name field and click the Submit button. In the Enterprise Manager or Solutions

Manager, you can observe a new schedule being run with the name of the schedule you create in the OpCon IBM i LSAM Export From Test to Production Schedules section of this document.

Configuration Requirements

1. IBM i LSAM Dynamic Variables – dynamic variables are used to return the Export/Import Group Name and Save File Name for a LSAM Batch Name given in the Solution Manager Self Service web application.
2. OpCon Global Properties – global properties are used to configure the variables used by multiple jobs.
3. OpCon Machine Groups – machine groups are used to control one to many production machines as targets for FTP and Import processing.
4. OpCon Schedule – the OpCon schedule is a single schedule required to contain all 8 jobs for Export, FTP and Import to the production machine(s).
5. OpCon Jobs – 8 jobs in the schedule are used to initialize variables, LSAM Export to a save file, Web Connector to retrieve the username and password of the Export machine, retrieve the Save File name, delay 5 seconds for event processing to complete, create save files on target machine(s) in the machine group, FTP save file to the target machine(s) in the machine group and LSAM Import save file on each machine(s) in the machine group.
6. Self Service Button – the Solution Manager Self Service web application is the location to enter the LSAM Batch Name to be processed by the schedule. The button will process a \$SCHEDULE:ADD to create the new schedule for processing.

Exported Information

Schedule Extract XML– SMADDI Schedule Extract XML file is provided as an extract of the IBM LSAM Export From Test to Production Schedules and can be imported per the instruction in the Enterprise Manager User Guide Opening Import Export section. File Name - SMADDI_20200508144159_IBM LSAM Export From Test to Production.xml

WS Connector Template – Web Services Connector exported templated is provided to assist in the configuration. File Name - Web_Services_Connector_20200508144159_IBM LSAM Export From Test to Production.json

IBM i LSAM Configuration

Dynamic Variables

From the IBM i LSAM Main Menu, sub-menu 3, option 6, to define these variables. The LSAM menu system must be used for Dynamic Variables that use Function Codes depending on the second page of Dynamic Variables maintenance.

Configure Dynamic Variables with the Agent

1. In the command line, type SMAGPL/STRSMA to proceed to the LSAM menu system.
2. Type 3 to choose the Event Managements and Utilities menu in the LSAM Main Menu.
3. Type 6 to choose the Maintain dynamic variables option in the Event and Utilities Menu.
4. Press F6 to add a new Dynamic Variable.
5. Configure EXIBATCH, EXIGROUP and EXISAVF per the screen shots provided below.

EXIBATCH – User Provided Exp/Imp Batch Name

EXIBATCH Dynamic Variable is populated by the Schedule Instance variable on the variable tab of job LSA_EXPDTA - Export LSAM Batch from Test Machine.

Change Dynamic Variable		3/31/20
LSAVARR2	Variable: EXIBATCH	09:26:55
USERNAME	Sequence: 000	
Sequence: 000		
Variable type : V		L=LDA, V=general variable
Char trim/LDA Str,Len : 0000 0000		/PGM+LIB names, or: *HEX *DB2
Value calc pgm/Fn Code: _____		*LIBL / *DTAARA *DATE *TIME *SYSVAL
Description : USER PROVIDED EXP/IMP BATCH NAME		
Current/default value : _____		
(numeric definition fields are not applicable)		
F1=Help F3=Exit F5=Refresh F12=Cancel		

EXIGROUP – Returns Exp/Imp Group

EXIGROUP Dynamic Variable populates and return the Export/Import Group from the DB2 database table for the EXIBATCH Dynamic Variable entered on Self Service web application.

Change Dynamic Variable		3/31/20
LSAVARR2	Variable: EXIGROUP	09:57:49
USERNAME	Sequence: 000	
Sequence: 000		
Variable type : V		L=LDA, V=general variable
Char trim/LDA Str,Len : 0000 0000		/PGM+LIB names, or: *HEX *DB2
Value calc pgm/Fn Code: *DB2 _____		*DTAARA *DATE *TIME *SYSVAL
Description : RETURNS EXP/IMP GROUP		
Current/default value : _____		
(numeric definition fields are not applicable)		
F1=Help F3=Exit F5=Refresh F12=Cancel		

Press the Enter to proceed to page 2.

Change Dynamic Variable DB2 Access		3/31/20
LSAVARR6		10:02:54
USERNAME		

Variable name . : EXIGROUP	Sequence: 000	Type: V	LDA Pos: 0000 0000
Type *WHERE in SELECT field/col to build whole SQL in WHERE field.			
SELECT field/col: ECGROUP			
FROM library: SMADTA			
file/table: EXICTLF00			
WHERE... Include "WHERE" verb. Other SQL allowed before/after, if valid.			
WHERE ECBATCH = '{EXIBATCH}'			
Trim Start, Length . : 0 0 Optional trim returned value			
F3=Exit F4=Prompt F5=Refresh F8=DynVar F12=Return			

EXISAVF – Returns Exp/Imp Save File

EXISAVF Dynamic Variable populates and return the Export/Import Save File from the DB2 database table for the EXIBATCH Dynamic Variable entered on Self Service web application.

LSAVARR2	Change Dynamic Variable	3/31/20
USERNAME	Variable: EXISAVF	10:08:22
	Sequence: 000	
	Sequence: 000	
Variable type	V	L=LDA, V=general variable
Char trim/LDA Str,Len :	0000 0000	/PGM+LIB names, or: *HEX *DB2
Value calc pgm/Fn Code:	*DB2	/ *DTAARA *DATE *TIME *SYSVAL
Description	RETURNS EXP/IMP SAVE FILE	
Current/default value :		

Press the Enter Key to proceed to page 2.

LSAVARR6	Change Dynamic Variable DB2 Access	3/31/20
USERNAME		10:10:55
Variable name . : EXISAVF	Sequence: 000	Type: V LDA Pos: 0000 0000
Type *WHERE in SELECT field/col to build whole SQL in WHERE field.		
SELECT field/col: ECLIBSVF		
FROM library: SMADTA		
file/table: EXICTLF00		
WHERE... Include "WHERE" verb. Other SQL allowed before/after, if valid.		
WHERE ECBATCH = '{EXIBATCH}'		
Trim Start, Length . : 0 0 Optional trim returned value		
F3=Exit F4=Prompt F5=Refresh F8=DynVar F12=Return		

OpCon Enterprise Manager Configuration

Global Properties

Adding Global Properties

To add a global property:

1. Double-click on Global Properties under the Administration topic. The Global Properties screen displays.

2. Click Add on the Global Properties toolbar.
3. Enter an alphanumeric property name in the Name text box.
4. (Optional) Enter the documentation in the Documentation text box.
5. (Optional) Select the Encrypted checkbox.
6. Enter an alphanumeric property value in the Value text box.
7. Click Save icon Save on the Global Properties toolbar.
8. Click Close ☒ (to the right of the Global Properties tab) to close the Global Properties screen.

IBMEXI_API_PASSWORD

Name Text Box: EBMEXI_API_PASSWORD

Documentation Text Box: OpCon API user ID password encrypted for access via RESTful connector

Encrypted Checkbox: Click to check

Value Text Box: Type API Password

IBMEXI_API_USER

Name Text Box: EBMEXI_API_USER

Documentation Text Box: OpCon API User name to obtain RESTful access token

Value Text Box: Type IBMIEVENT

IBMEXI_JOB

Name Text Box: EBMEXI_API_JOB

Documentation Text Box: IBM Export/Import Job Description

Value Text Box: Type IBM i job description

IBMEXI_JOBDLIB

Name Text Box: EBMEXI_API_JOBDLIB

Documentation Text Box: IBM Export/Import Job Description Library

Value Text Box: Type IBM i job description library

IBMEXI_SAMID

Name Text Box: EBMEXI_API_SAMID

Documentation Text Box: URL name of the SAM server hosting the OpCon API access.

Value Text Box: Type the machine name of the host OpCon server

IBMEXI_SMALOG

Name Text Box: IBMEXI_SMALOG

Documentation Text Box: SMALOG Library

Value Text Box: Type the SMALOG library name

IBMEXI_SAVF

Name Text Box: EBMEXI_SAVF

Documentation Text Box: IBM LSAM Export/Import SAVF name (20)

Value Text Box: Value will be initialized during the Initialization Null Job

Machine Group

Create a Machine Group for one to many production machine(s).

To add a machine group:

1. Double-click on the Machine Groups under the Administration topic. The Machine Group screen displays.
2. Click Add on the Machine Group tool bar.
3. Type in the Machine Group name in the Name text box.
4. (Optional) Type any text in the Documentation text box.
5. Click the Machine Type drop-down and select IBM i.
6. Select a production machine by clicking the machine in the Machine Assignment section Unassigned Machines.
7. Click the green arrow between the Unassigned Machine and the Assigned Machines to add to the Machine Group.
8. Click the Green check in the upper right hand to save the Machine Group.

Name Text Box: Name the Machine Group

Documentation: Type the document Machine Group information

Machine Type Drop-down: Click IBM i from the Machine Type drop-down

Machine Assignment: Select a production machine by clicking the machine in the Machine Assignment section Unassigned Machines.

OpCon IBM LSAM Export From Test to Production Schedules

Appendix: Attached is the OpCon Workflow Diagram for IBM LSAM Export From Test to Production Schedules

To add a master schedule:

1. Double-click on Schedule Master under the Administration topic. The Schedule Master screen displays.
2. Click Add on the Schedule Master tool bar.
3. Type a schedule name in the Name text box.
4. (Optional) Type any text in the Documentation text box.

** Note in the documentation section that this schedule is designed to be run from the Solutions Manager Self Service button.

Name Text Box: IBM i LSAM Export From Test to Production

Documentation Text Box: This a schedule is designed to be run from Self Service. It requires the LSAM export Batch Name in an OpCon Global Property.

Workdays per Week: click all days

Configure OpCon Jobs

To add a job:

1. Double-click on Job Master under the Administration topic. The Job Master screen displays.
2. Click Add on the Job Master toolbar.
3. Type a job name in the Name textbox.

Initialization Job

The Initialization Job initializes all global variables values from the previous run to INZ.

Selection

Name Text Box: Initialization Job

Job Properties/Job Details Tab

Job Type: Null Job

Job Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

Job Properties/Events Tab

Click the Add button

Select the Job Status toggle

Select Finished OK from the Job Status drop-down selection

Select \$PROPERTY:SET,<property name>,<initial value> from the Event Template drop-down selection

Replace the Event Paramerters with IBMEXI_SAVF,INZ

LSA_EXPDTA – Export LSAM Batch from Test Job

The LSA_EXPDTA export job can export batches into save files that can be transported to another LSAM environment. The list below shows the completed list data that can be exported:

- OPRRPY = Operator Reply scripts, steps and related files
- TRPMSG = Message Management Parameter records and related files
- SCANSPLF = Scan Spool File rules and related records
- CAPJOB = Captured Job definitions and related files
- TRKJOB = Job Tracking and Queuing definitions and related files
- RSTMOD = Restricted Mode script records
- DYNVAR = LSAM Dynamic Variable table records (these will also appear as a related file to most of the other Groups) Show all = remove Group ID filtering of the control records list

Selection

Name Text Box: LSA_EXPDTA – Export LSAM Batch from Test Machine

Job Properties/Job Details Tab

Job Type: IBM i

Primary Machine: select your test machine from the drop-down.

IBM i Definition/Job Information

Job Type: Select Batch Job from the drop-down selection.

User ID: Select your configured User ID from the drop-down selection.

Job Description Name: [[IBMEXI_JOBID]] Global Property

Job Description Library: [[IBMEXI_JOBDLIB]] Global Property

Call: LSAEXPDTA GROUP({EXIGROUP}) BATCH([[SI.IBMEXIBATCH]]) REPORT(1)

Dynamic Variables

EXIGROUP – The dynamic variable uses the *DB2 function code to derive its value at run time from the LSAM's database tables that defines the returns Export/Import Group.

Schedule Instance Variable

IBMEXIBATCH – Configuration of the Schedule Instance Input Variable happens during the configuration of the Self Service button and is passed to the schedule using the predefined External Event command \$SCHEDULE:BUILD.

IBM i Definition/Variables

Variable Name: EXIBATCH

Value: [[SI.IBMEXIBATCH]]

Click the ADD button

Schedule Instance Variable

IBMEXIBATCH – Configuration of the Schedule Instance Input Variable happens during the configuration of the Self Service button and is passed to the schedule using the predefined External Event command \$SCHEDULE:BUILD.

Job Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

Frequency Definition Wizard

Editing the frequency rules for : Unisys-L4200

When to Schedule

- ☐ On Occurrence
- ☐ Odd Weeks
- ☐ Even Weeks
- ☒ All Weeks
- ☐ On Request
- ☐ On Day
- ☐ Annual Plan
- ☐ Beg of Period
- ☐ Mid of Period
- ☐ End of Period
- ☐ On Intervals

Day of the Week

- ☒ Sunday
- ☒ Monday
- ☒ Tuesday
- ☒ Wednesday
- ☒ Thursday
- ☒ Friday
- ☒ Saturday

Calendar

<None>

A/O/B/N

- ☐ After Date
- ☒ On Date
- ☐ Before Date
- ☐ Not Schedule

Day Type

- ☒ Working
- ☐ Any

On Intervals

☐ 5 ☐ 10 ☐ 15
☐ 20 ☐ 25 ☐ 30

Every 0 days

Start 3/29/20

☐ Every Year

On Occurrence

- ☐ 1st ☐ 2nd
- ☐ 3rd ☐ 4th
- ☐ 5th ☐ last

Periods

- ☐ Week
- ☐ Month
- ☐ Quarter
- ☐ Year

Forecast **Reset**

< Back Next > **Finish** Cancel

Job Properties/Events Tab

Click the Add button
Select the Job Status toggle
Select Finished OK from the Job Status drop-down selection
Select \$PROPERTY:ADD,<property name>,<initial value> from the Event Template drop-down selection
Replace the Event Parameters with SI.IBMEXI_SRC_MACHINE,[[\$MACHINE NAME]]

Job Properties/Dependencies Tab

Click the Add button to add a job dependency
Select Initialization Job from the Job drop-down selection
Click Requires from the Dependency Type toggle
Options: Select Finished OK from the options drop-down selection

Web Services Connector

The Web Services Connector job uses the OpCon API web services to fetch the username and password of the test machine from the OpCon database.

Selection

Name Text Box: Web Services Connector

Job Properties/Job Details Tab

Job Type: select Webservices from the drop-down.
Primary Machine: select your OpCon machine from the drop-down.

Webservices Definition

User Id: Use Service Account
Connector Location: [[WS_PATH]]
Template ID: OpConAPI-GETIBMEXISRCIP

Webservices Definition/Variables Tab

Type Variables in the Variables Text Box and click the Add Button:

\$User=[[IBMEXI_API_USER]]
\$Password=[[IBMEXI_API_PASSWORD]]
\$Machine=[[SI.IBMEXI_SRC_MACHINE]]

Type Properties in the Properties Text Box and click the Add Button:

SI.IBMEXISRCIP.[\$SCHEDULE DATE].[\$SCHEDULE NAME]=\$PropertyValue

Webservices Definition/Steps Tab

Step 1 Tab

POST: Select POST from the drop-down selection

Text Box: [https://\[\[IBMEXI_SAMID\]\]:9010/api/tokens](https://[[IBMEXI_SAMID]]:9010/api/tokens)

Request Tab

Message Body Text Box: {"id":null,"user":{"id":-1,"loginName":"\$User","password":"\$Password"},"tokenType":{"id":null,"type":"User"}}

Response Tab

Type Variables in the Variables Text Box and click the Add Button:

\$Token=\$.id

Step 2 Tab

GET: Select GET from the drop-down selection

Text Box: [https://\[\[IBMEXI_SAMID\]\]:9010/api/machines?name=\\$Machine&extendedProperties=true](https://[[IBMEXI_SAMID]]:9010/api/machines?name=$Machine&extendedProperties=true)

Webservices Definition/Failure Criteria Tab

Comparison Operation: Select Not Equal To from the drop-down selection

Value Text Box: Type 200

Result: Select Fail from the drop-down selection

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select LSA_EXPDTA - Export LSAM Batch from Test Machine from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

CPYTOMSGIN - IBMEXI FETCH SAVF NAME

The CPYTOMSGIN - IBMEXI FETCH SAVF NAME job fetches the save file name from the LSAM Dynamic Variable and sets the global property IBMEXI_SAVF.

Selection

Name Text Box: CPYTOMSGIN - IBMEXI FETCH SAVF NAME

Job Properties/Job Details Tab

Job Type: select IBM i from the drop-down.

Primary Machine: select your test machine from the drop-down.

IBM i Definition/Job Information Tab

Job Type: Select Batch Job from the drop-down.

User ID: Select your configured User ID from the drop-down selection.

Job Description Name: [[IBMEXI_JOBID]] Global Property

Job Description Library: [[IBMEXI_JOBDLIB]] Global Property

Call: CPYTOMSGIN CPYMSGIN('\$PROPERTY:SET,IBMEXISAVF,{EXISAVF}')

Dynamic Variables

EXISAVF – This dynamic variable uses the *DB2 function code to derive its value at run time from the LSAM's database table that define the Exort batch, based on the Export Batch Name IBMEXISAVF that was typed into the Self Service data entry field.

Schedule Instance Variable

IBMEXIBATCH – Configuration of the Schedule Instance Input Variable happens during the configuration of the Self Service button and is passed to the schedile using the predefined External Event command \$SCHEDULE:BUILD.

Configure the Job Properties/Frequency tab:

Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select Web Services Connector from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

5 Sec Delay for Event Processing

The 5 Sec Delay for event processing job delays for 5 seconds to wait for the events to be process in the previous job CPYTOMSGIN - IBMEXI FETCH SAVF NAME.

Selection

Name Text Box: 5 Sec Delay for Event Processing

Job Properties/Job Details Tab

Job Type: select Windows from the drop-down.

Primary Machine: select your OpCon machine from the drop-down.

Windows Definition/Job Information Tab

Job Action: select Run Program from the drop-down selection

User ID: select User Service Account from the drop-down selection

Command Line: Type GENERICP.exe -t5 in the command line text box

Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select CPYTOMSGIN - IBMEXI FETCH SAVF NAME from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

CRTIMPSAVF - Create save file on Production Machines

The CRTIMPSAVF - Create save file on Production Machines job creates an empty save file on each target machine(s) in the machine group.

Selection

Name Text Box: CRTIMPSAVF – Create save file on Production Machines

Job Properties/Job Details Tab

Job Type: select IBM i from the drop-down.

Machine Group: select your Machine Group from the drop-down.

IBM i Definition/Job Information Tab

Job Type: Select Batch Job from the drop-down.

User ID: Select your configured User ID from the drop-down selection.

Job Description Name: [[IBMEXI_JOBD]] Global Property

Job Description Library: [[IBMEXI_JOBDLIB]] Global Property

Call: CRTSAVF [[IBMEXI_SMALOG]]/[[IBMEXI_SAVF]]

Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

Frequency Definition Wizard
Editing the frequency rules for : Unisys-L4200

When to Schedule

- ☐ On Occurrence
- ☐ Odd Weeks
- ☐ Even Weeks
- ☒ All Weeks
- ☐ On Request
- ☐ On Day
- ☐ Annual Plan
- ☐ Beg of Period
- ☐ Mid of Period
- ☐ End of Period

Day of the Week

- ☒ Sunday
- ☒ Monday
- ☒ Tuesday
- ☒ Wednesday
- ☒ Thursday
- ☒ Friday
- ☒ Saturday

Calendar

<None>

Day Type

- ☒ Working
- ☐ Any

A/O/B/N

- ☐ After Date
- ☒ On Date
- ☐ Before Date
- ☐ Not Schedule

On Intervals

- ☐ 5 ☐ 10 ☐ 15
- ☐ 20 ☐ 25 ☐ 30

On Occurrence

- ☐ 1st ☐ 2nd
- ☐ 3rd ☐ 4th

Periods

- ☐ Week
- ☐ Month

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select 5 Sec Delay for Event Processing from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

FTP Transfer from Test to Production

The FTP Transfer from Test to Production job ftp the save file from the test machine to one to many machine(s) that are configured in the machine group.

Selection

Name Text Box: FTP Transfer from Test to Production

Job Properties/Job Details Tab

Job Type: select IBM i from the drop-down.

Machine Group: select your Machine Group from the drop-down.

IBM i Definition/Job Information Tab

Job Type: Select FTP from the drop-down.

User ID: Select your configured User ID from the drop-down selection.

Job Description Name: [[IBMEXI_JOBD]] Global Property

Job Description Library: [[IBMEXI_JOBDLIB]] Global Property

Call Information/Transfer Information Tab

Action Type: Select GET from the drop-down selection.

Transfer Type: Select BIN from the drop-down selection.

User: type the named user that was configured on the IBM i LSAM.

** From the LSAM Main Menu Navigate to the LSAM sub-menu 4, option 1: User management

** F6=Add, Type the user profile in the User Name field, type the password in the Password field and retype the password in the Password (to verify) field.

** Press the ENTER key to confirm.

Call Information/Remote Information Tab

Remote System: [[SI.IBMEXISRCIP]]

Remote File System: *LCLFILNAM

Remote Library or Directory: [[IBMEXI_SMALOG]]

Call Information/Location Information Tab

Local File Name: [[IBMEXI_SAVF]]

Local Library or Directory: [[IBMEXI_SMALOG]]

Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

The screenshot shows the 'Frequency Definition Wizard' dialog box, titled 'Editing the frequency rules for : Unisys-L4200'. The dialog is divided into several sections:

- When to Schedule:** A list of radio buttons including 'On Occurrence', 'Odd Weeks', 'Even Weeks', 'All Weeks' (selected), 'On Request', 'On Day', 'Annual Plan', 'Beg of Period', 'Mid of Period', 'End of Period', and 'On Intervals'.
- Day of the Week:** A list of checkboxes for 'Sunday' through 'Saturday', all of which are checked.
- Calendar:** A dropdown menu currently set to '<None>'.
- A/O/B/N:** A group of radio buttons for 'After Date', 'On Date' (selected), 'Before Date', and 'Not Schedule'.
- Day Type:** A group of radio buttons for 'Working' (selected) and 'Any'.
- On Intervals:** A section with checkboxes for intervals of 5, 10, 15, 20, 25, and 30 days. Below these is a text input 'Every 0 days' and a date picker set to '3/29/20'. There is also an unchecked checkbox for 'Every Year'.
- On Occurrence:** A section with radio buttons for '1st', '2nd', '3rd', '4th', '5th', and 'last'.
- Periods:** A section with radio buttons for 'Week', 'Month', 'Quarter', and 'Year'.

At the bottom left are 'Forecast' and 'Reset' buttons. At the bottom right are '< Back', 'Next >', 'Finish' (highlighted with a blue border), and 'Cancel' buttons.

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select CRTIMPSAVF – Create save file on Production Machines from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

LSA_IMPGET - IBM IMP GETSAVF

The LSA_IMPGET job calls the IBM i LSAM program LSAIMPGET to import the save file into the target machine.

Selection

Name Text Box: LSA_EXPDTA - Export LSAM Batch from Test Machine

Job Properties/Job Details Tab

Job Type: select IBM i from the drop-down.

Machine Group: select your Machine Group from the drop-down.

IBM i Definition/Job Information Tab

Job Type: Select Batch Job from the drop-down.

User ID: Select your configured User ID from the drop-down selection.

Job Description Name: [[IBMEXI_JOBID]] Global Property

Job Description Library: [[IBMEXI_JOBDLIB]] Global Property

Call: LSAIMPGET SAVFIL([[IBMEXI_SAVF]]) REPORT(1)

Global Property

IBMEXI_SAVF – This global property is used to store the Save File name from the CRTIMPSTAVF - Create save file on Production Machines job.

Properties/Frequency Tab

Click the Add Frequency button to add a frequency configured like below:

The screenshot shows the 'Frequency Definition Wizard' dialog box for 'Unisys-L4200'. The wizard is titled 'Editing the frequency rules for : Unisys-L4200'. It contains several sections for configuring the frequency:

- When to Schedule:** Radio buttons for 'On Occurrence', 'Odd Weeks', 'Even Weeks', 'All Weeks' (selected), 'On Request', 'On Day', 'Annual Plan', 'Beg of Period', 'Mid of Period', 'End of Period', and 'On Intervals'.
- Day of the Week:** Check boxes for 'Sunday' (checked), 'Monday' (checked), 'Tuesday' (checked), 'Wednesday' (checked), 'Thursday' (checked), 'Friday' (checked), and 'Saturday' (checked).
- Calendar:** A dropdown menu set to '<None>'.
- A/O/B/N:** Radio buttons for 'After Date', 'On Date' (selected), 'Before Date', and 'Not Schedule'.
- Day Type:** Radio buttons for 'Working' (selected) and 'Any'.
- On Intervals:** Check boxes for intervals of 5, 10, 15, 20, 25, and 30 days. Below these is a text box 'Every 0 days' and a 'Start' date field set to '3/29/20'. There is also an 'Every Year' checkbox.
- On Occurrence:** Radio buttons for '1st', '2nd', '3rd', '4th', '5th', and 'last'.
- Periods:** Radio buttons for 'Week', 'Month', 'Quarter', and 'Year'.

Job Properties/Dependencies Tab

Click the Add button to add a job dependency

Select FTP Transfer from Test to Production from the Job drop-down selection

Click Requires from the Dependency Type toggle

Options: Select Finished OK from the options drop-down selection

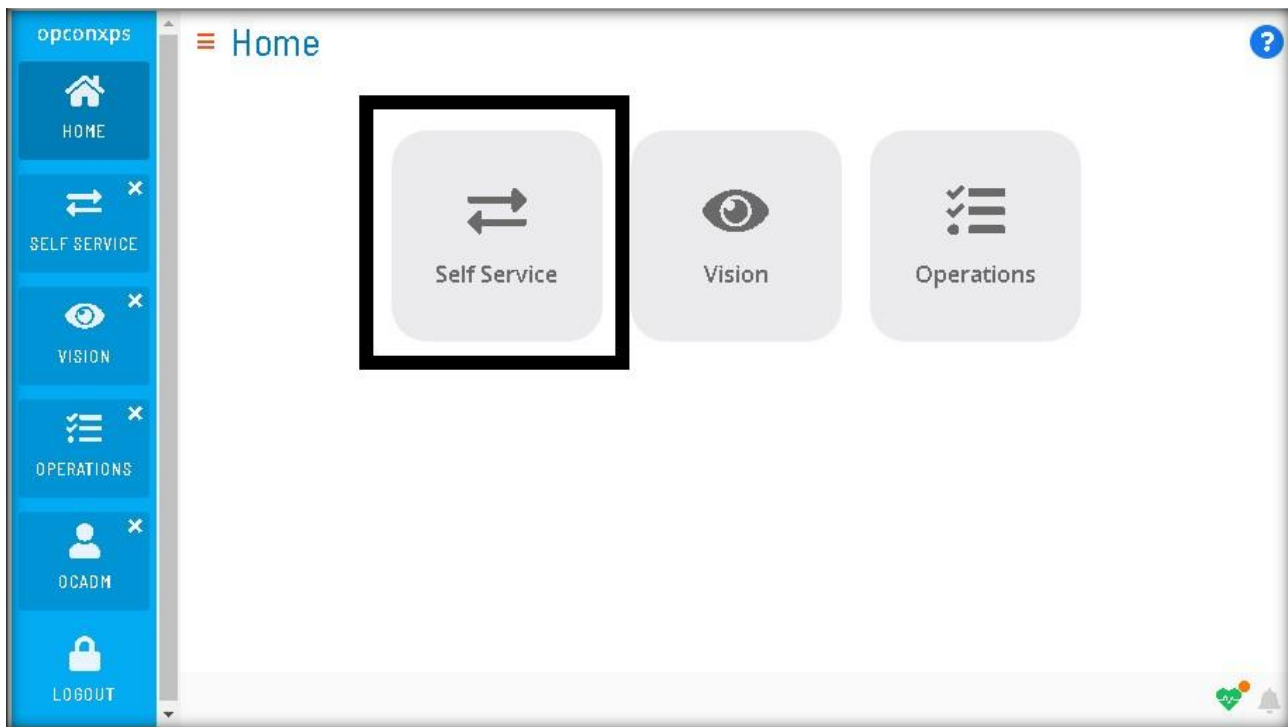
Solution Manager Self Service

Create a Self Service Button to Export IBM i batches from TEST to PROD.

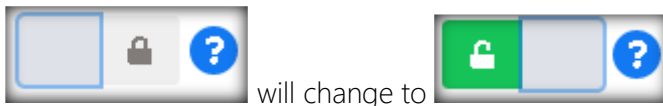
SMA Solution Manager is an application platform designed to host and give access to User Interface (UI) modules called Solutions. Users will see and have access only to the solution(s) to which they have privileges.

Configure Self Service button with the OpCon Solution Manager

1. Start supported web browser. (Note: Solution Manager User Guide provides a list of supported browsers)
2. Type the URL of the Solution Manager (i.e. <https://server:port/#!/home>)
3. Sign into Solution Manager.
4. Click the Self Service button.

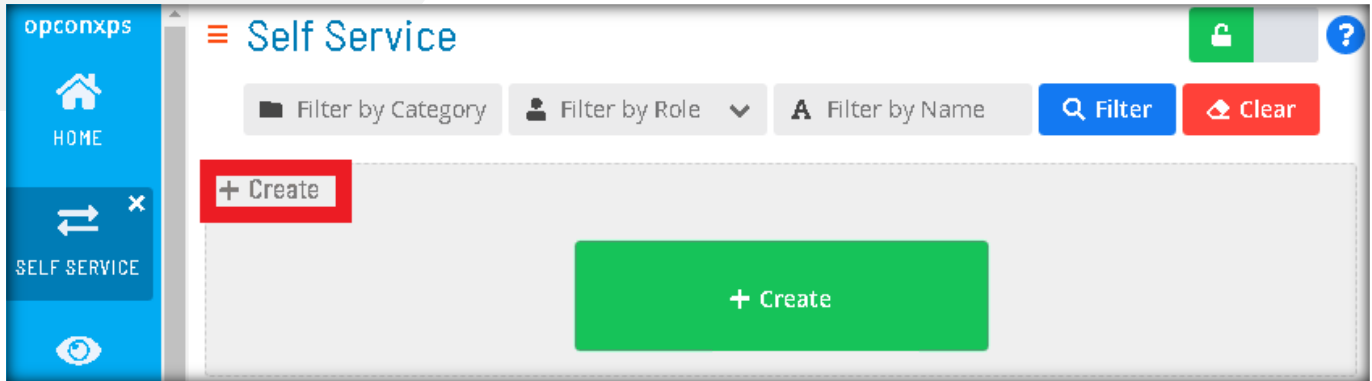


5. Change your mode to Admin Mode by clicking the lock in the upper right of the screen.

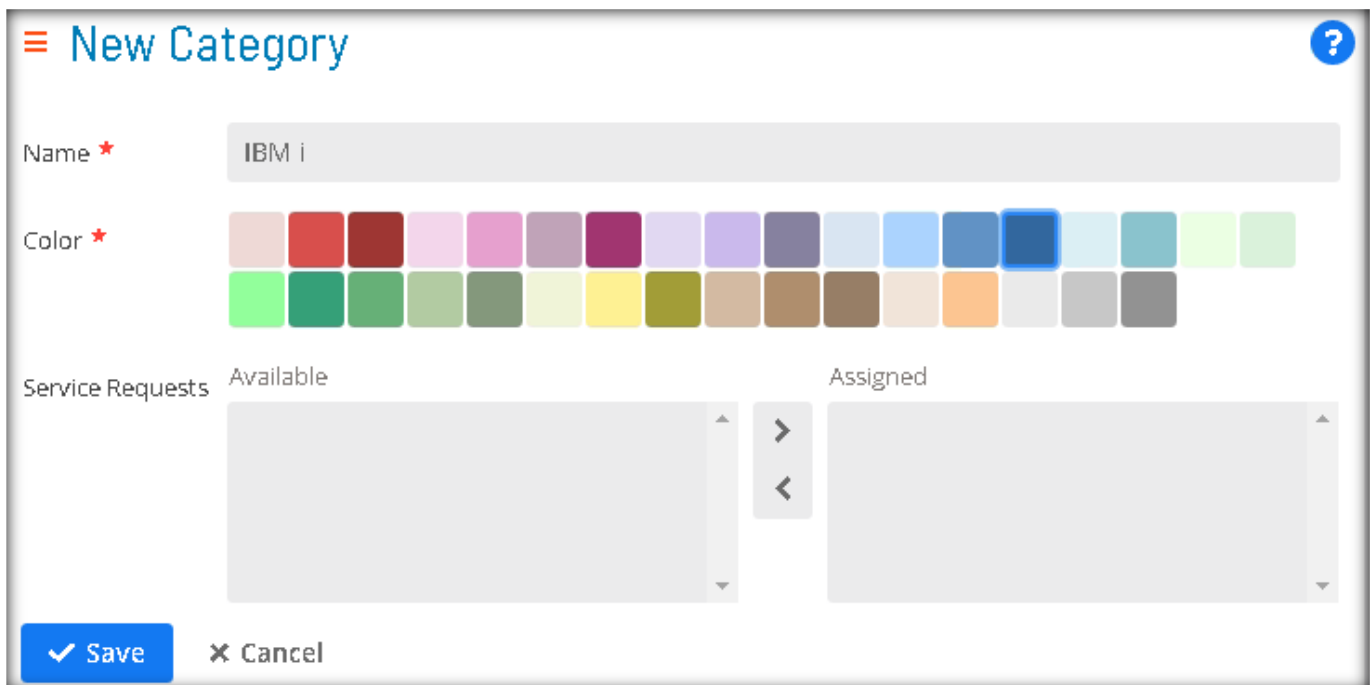


6. Create a New Category by press

+ Create



7. For our purpose "IBM i" select a color and press the save.



New Category

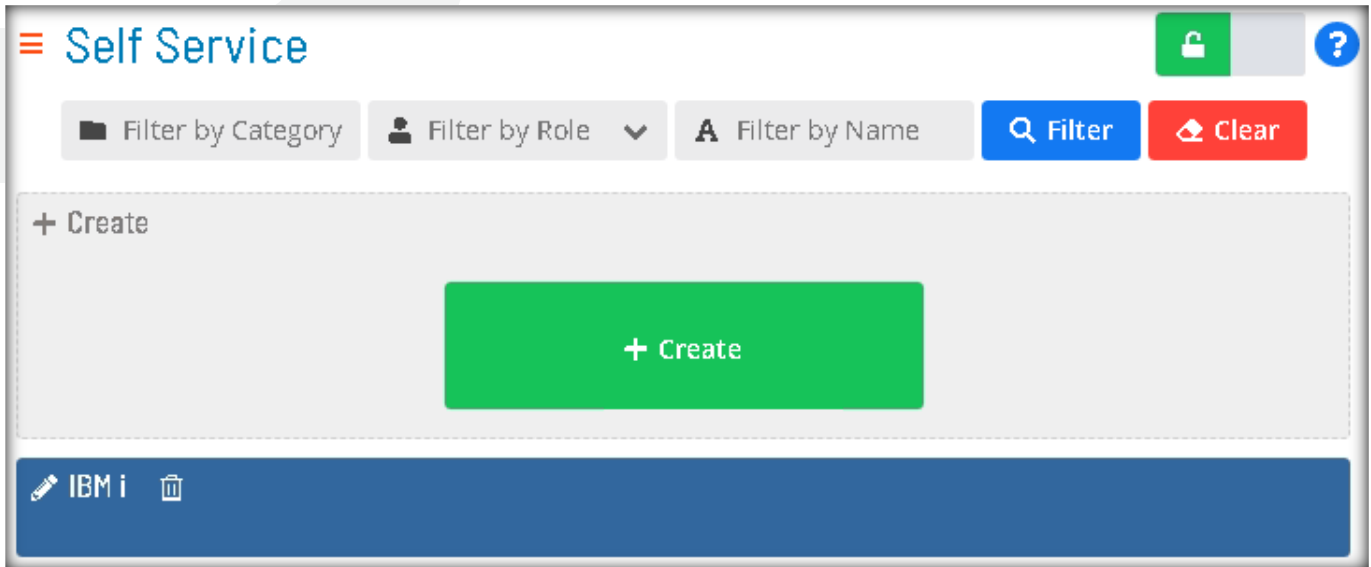
Name ★ IBM i

Color ★

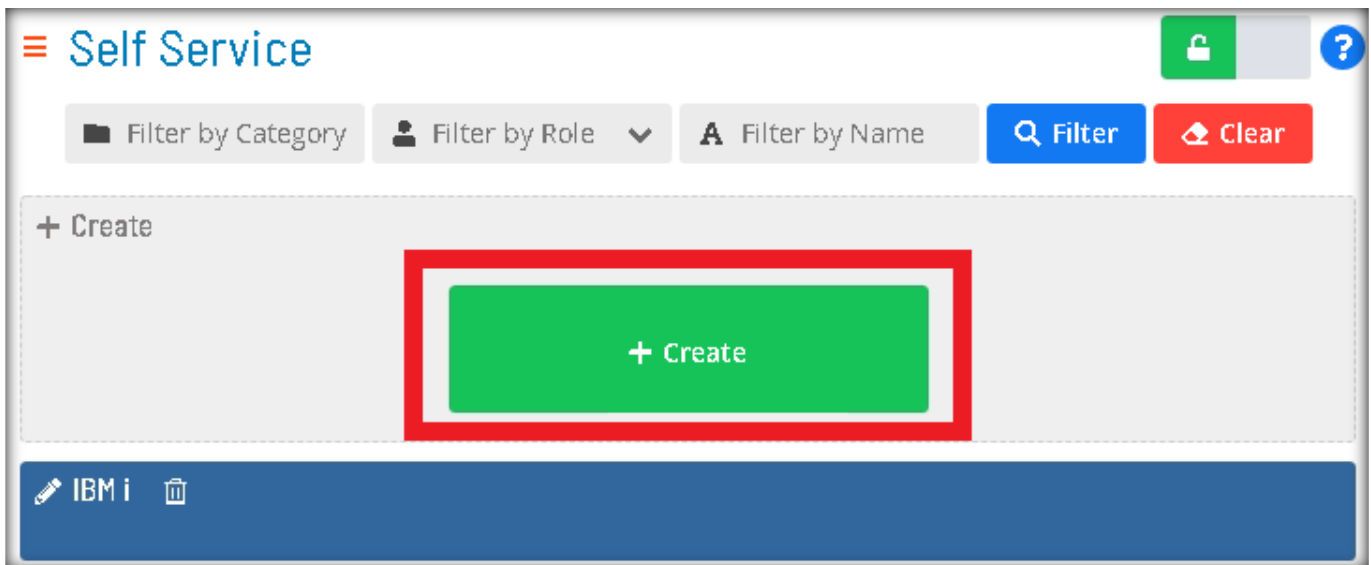
Service Requests Available Assigned

✓ Save ✕ Cancel

8. The following Category has been created:



9. Click on the green "+ Create" Button:



The New Service Request configuration will appear:

New Service Request

Service Request Name ★ Export Schedule from TEST to PROD

Documentation Please Enter the Export Batch Name you are working with

Category IBM i

Fill in the following info:

Service Request Name : "Export Schedule from TEST to PROD"

Documentation : "Please Enter the Export Batch Name you are working with"

Pull Down Category "IBM i"

Events: Click The green "+"

New Service Request

Service Request Name ★ Export Schedule from TEST to PROD

Documentation Please Enter the Export Batch Name you are working with





Category IBM i

Confirmation Message ☒

Custom Html ☐

Disable Rule ☐

Hide Rule ☐

Events ★ +    

Event Template (Pull Down):

Create new Event

Manual Edit

i Insert variables within event definition using the notation: \${variable name}. Variables are used to capture user inputs and insert the captured value in place of the referred variable. Variables can be shared across multiple events

Event Template ★

✓ OK ✕ Cancel

Event Template: select \$SCHEDULE:BUILD from the drop-down selection

Type the Schedule date, Schedule Name and Overwrite Flag values:

Schedule date: CURRENT

Schedule name: IBM LSAM EXPORT FROM TEST TO PROD

Overwrite Flag: Pull down : Yes(Y)

Create new Event

Manual Edit

Insert variables within event definition using the notation: \${variable name}. Variables are used to capture user inputs and insert the captured value in place of the referred variable. Variables can be shared across multiple events

Event Template * `$SCHEDULE:BUILD,<schedule date>,<schedule name>,[log file name],[overwrite fla...`

`$SCHEDULE:BUILD,CURRENT,IBM LSAM EXPORT FROM TEST TO PROD,,Y,,`

Schedule date *

Schedule name *

Log file name

Overwrite flag

Schedule instance property definitions

Named instance to build

CURRENT

IBM LSAM EXPORT FROM TEST TO PROD

Yes (Y)

+

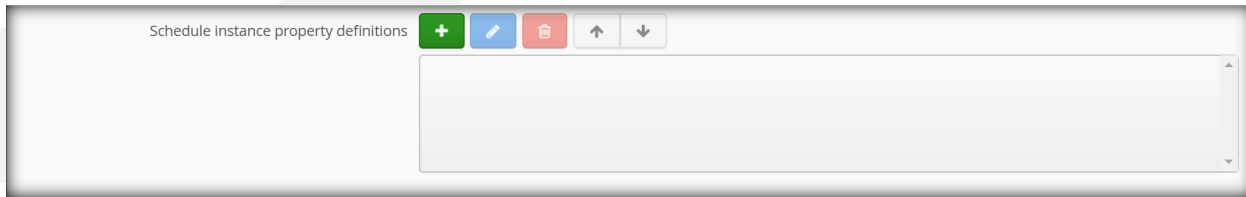
↑

↓

✓ OK

✕ Cancel

Schedule instance property definitions:

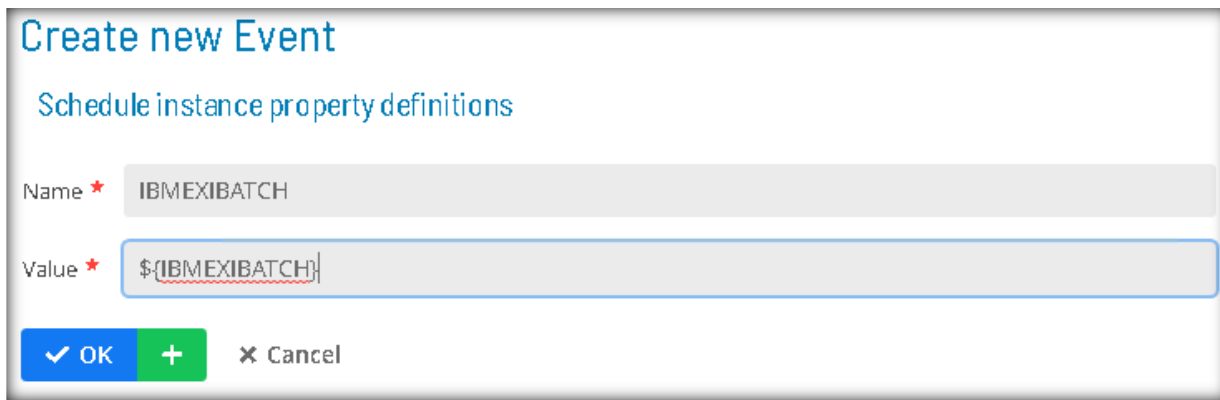


Click The green “+”

Type:

Name: IBMEXIBATCH

Value: \${IBMEXIBATCH}



Click “OK” continue

New Service Request

Category: IBM i

Confirmation Message: ☒

Custom Html: ☐

Disable Rule: ☐

Hide Rule: ☐

Events ★: ☒ ☐ ☐ ☐ ☐

\$SCHEDULE:BUILD,CURRENT,IBM LSAM EXPORT FROM TEST TO PROD,,Y,IBMEXI

Track Event Executions: ☒

Submit Events as OCADM: ☒

User Inputs: ☐ ☐ ☐

IBMEXIBATCH [Text]

Show for Role ★: ☐ ☐ ☐

BAM
Class Scheduler
operator
Reader
Role_><.,/?/";

Role_ocadm

☒ Save ☐ Cancel

Track Event Executions: Check
Submit Events as OCADM: Check
User Inputs: Select "IBMEXIBATCH [Text]" and click the edit icon:

Configure "IBMEXIBATCH" User Input

User Input Caption: LSAM Batch ID

Required Variable: ☒

User Input Type: Text

Secret: ☐

Minimum Characters: 1

Maximum Characters: 20

Invalid Characters: None

Regular Expression: ☐

Output Formatting

Characters to Strip: None

Padding: ☐

User Input Caption: LSAM Batch ID
Required Variable: Check
User Input Type (Pull Down) Select: Text
Minimum Characters: 1
Maximum Characters: 20

Click "OK"

Show for Role ★

Revoked

- BAM
- Class Scheduler operator
- Reader
- Role_><.,/?\";

Granted

- Role_ocadm

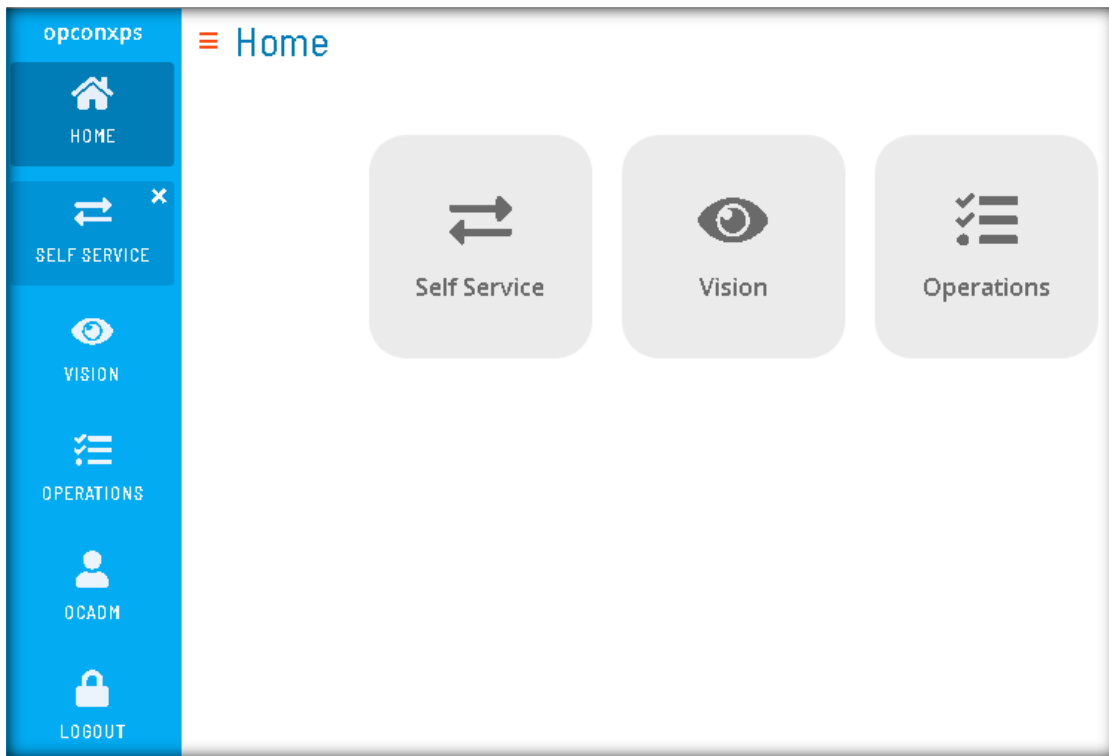
✓ Save ✕ Cancel

Show for Role: (for example)
Granted permission "Role_ocadm":

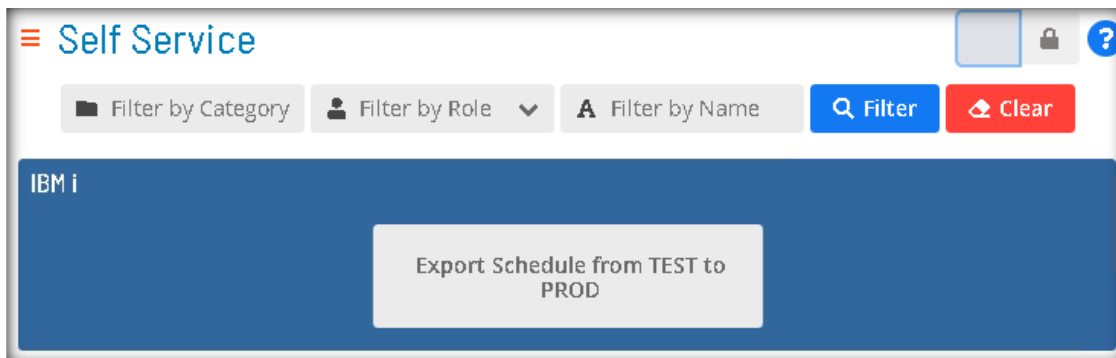
Click "Save" Button

Self Service Job Execution

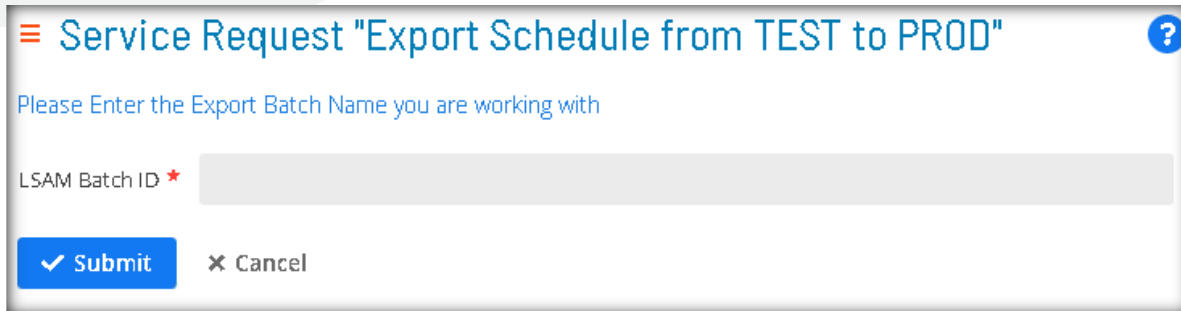
Click the Self Service button from the Home screen.



Click the “Export Schedule from TEST to PROD” the following screen display:

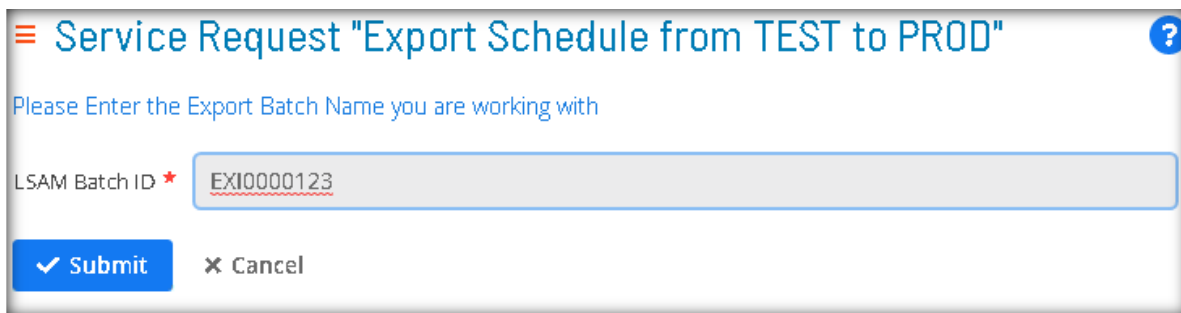


Enter the LSAM Batch ID number you are exporting: e.g., EXI0000123
(The Batch ID is often meaningful text, not to be confused with the export file name.)



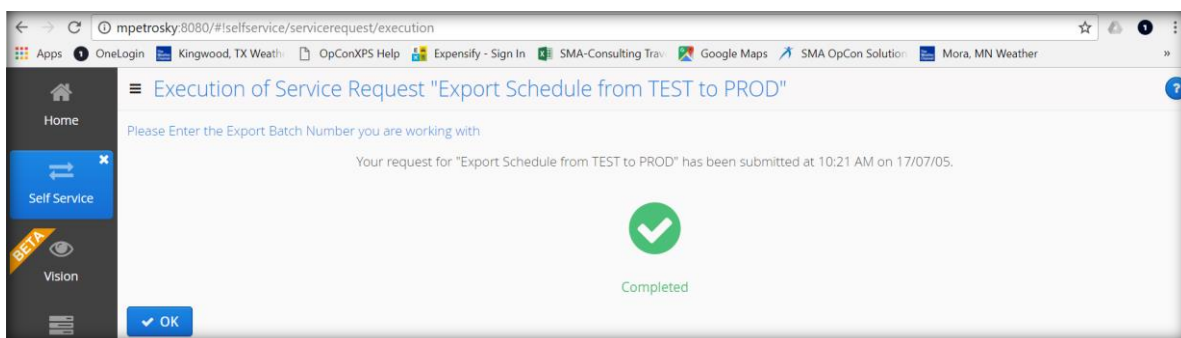
A screenshot of a web form titled "Service Request 'Export Schedule from TEST to PROD'". The form has a blue header bar with a hamburger menu icon on the left and a question mark icon on the right. Below the header, the text "Please Enter the Export Batch Name you are working with" is displayed. A text input field labeled "LSAM Batch ID" with a red star icon is shown, currently empty. At the bottom of the form, there are two buttons: a blue "Submit" button with a checkmark icon and a grey "Cancel" button with an 'X' icon.

Click the Submit Button



A screenshot of the same web form as above, but now the "LSAM Batch ID" field contains the text "EXI0000123". The "Submit" button remains blue with a checkmark, and the "Cancel" button remains grey with an 'X'.

Click the "OK" button.



A screenshot of a web browser showing the "Execution of Service Request 'Export Schedule from TEST to PROD'" page. The browser's address bar shows the URL "mpetrosky:8080/#selfservice/servicerequest/execution". The page has a dark sidebar on the left with icons for Home, Self Service, Vision, and a BETA badge. The main content area has a light blue header with a hamburger menu and a question mark. Below the header, the text "Please Enter the Export Batch Number you are working with" is shown. A message states: "Your request for 'Export Schedule from TEST to PROD' has been submitted at 10:21 AM on 17/07/05." In the center of the page is a large green checkmark icon with the word "Completed" below it. At the bottom left, there is a blue "OK" button with a checkmark icon.

Open Enterprise Manager

Open List View

Browse to today's date and you will see:

The schedule "IBM LSAM EXPORT FROM TEST TO PROD" is [RUNNING]

Appendix

Workflow Designer Diagram

