



Version 5.10

Uninstalling Adapter for SAP

Manual

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1 Introduction

The FORCAM FORCE™ Adapter for SAP can be uninstalled from the SAP system.

All FORCAM adapter objects are developed in a separate package and will not modify any SAP standard objects.

The FORCAM FORCE™ Adapter for SAP is using a specific namespace, registered for FORCAM only. Customer specific enhancements are not subject of this manual but must be considered accordingly in uninstallation process of the FORCAM Adapter.

This manual is divided into two sections; one for deactivation and preliminary steps and one for add-on software uninstallation.

The deactivation and all preliminary steps must be done before the complete uninstallation.

The tasks detailed in this manual should be performed by SAP basis personnel with the assistance of FORCAM consultants.

- ❗ A SAP developer key is required to delete the FORCAM FORCE™ Adapter for SAP. Removal of customer specific programs or procedures is not part of this manual but should be considered with the whole uninstallation activity.

2 Deactivation of the FORCAM Adapter

The activities listed below describe the deactivation of the FORCAM SAP integration. The FORCAM Adapter for SAP is a batch interface and communicates via IDOC exchange.

First target must be the disconnection of this IDOC flow and prevention of new IDOCS in SAP IDOC inbox and outbox.

- ❗ If any of the removal activities are performed then all the removal activities must be performed as the system will not function properly at this point.

2.1 Deactivation of FORCAM FORCE™ Configuration for SAP Integration

The configuration in FORCAM FORCE™ must be deactivated to disable the message flow from and to SAP. FORCAM FORCE™ will be disconnected from SAP.

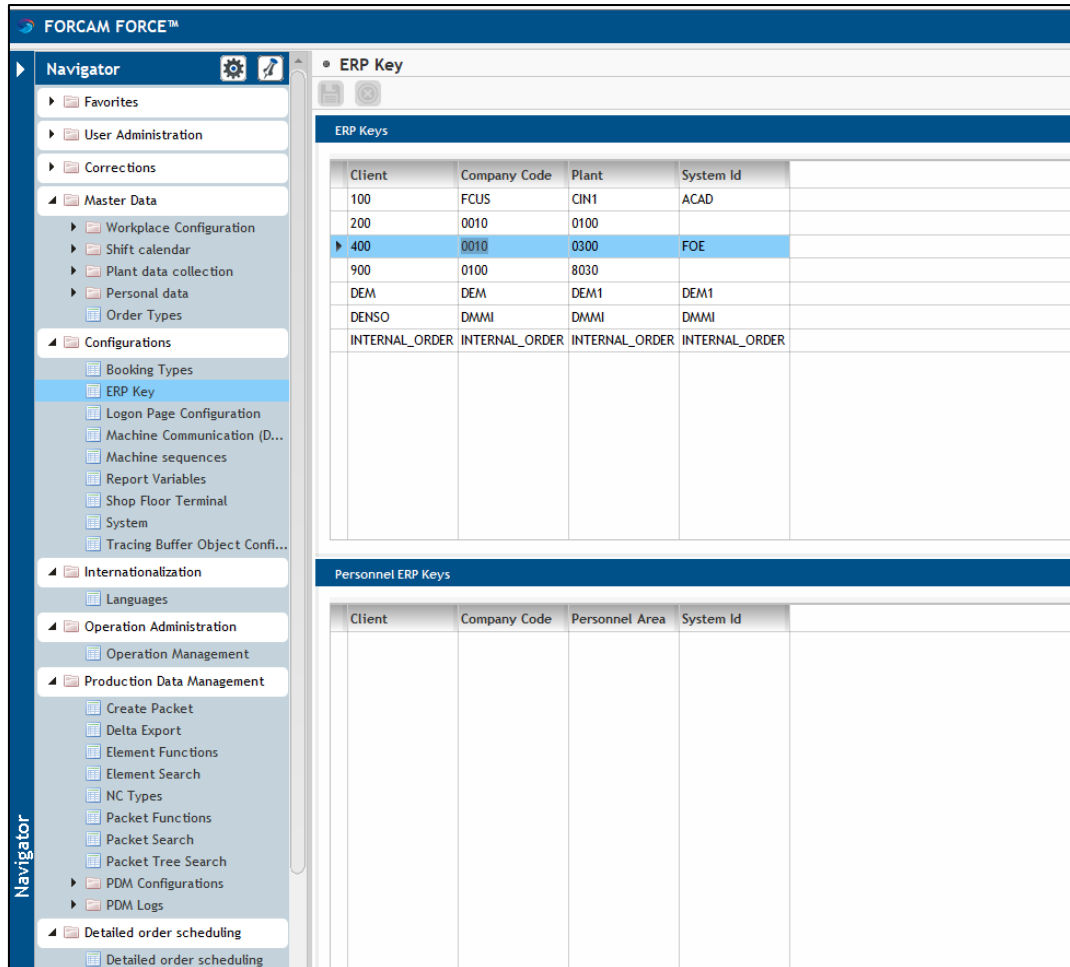
- ❗ Main objective: There are no messages being sent from FORCAM or RFC calls being made to SAP. Also, no new messages received from SAP must be processed. Empty the send queue as well.

The steps to perform this are described below:

- Edit the FORCAM workplaces and change the ERP key to **INTERNAL_ORDER**.
- Deactivate the **SAP Upload** flag in each workplace.

Workplace Configuration				
Master Data				
Workplace Name		DEM_WPL		
Workplace Name	Workplace Description	ERP Keys	Booking Active	SAP Upload Active
1162	Test Machine / RMS	900-0100-8030	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C1122A	DMMI Test Machine	100-FCUS-CIN1-ACAD	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEM_WPL	DEM Test WPL	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEM_WPLMM	DEM Test WPL Machine Monitoring	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FANUC_Demo	FANUC_Demo	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fanuc1	Fanuc1	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MFMS10-MC1	Mazak i-400	100-FCUS-CIN1-ACAD	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MFMS10-MC2	Mazak i-400ST	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MFMS10-MC3	Mazak i-300S	200-0010-0100	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MTCorp	MTConnect Organization	INTERNAL_ORDER-INTER	<input type="checkbox"/>	<input type="checkbox"/>
M_SAP_01	SAP Workplace 1	400-0010-0300-FOE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
M_SAP_02	SAP Workplace 2	400-0010-0300-FOE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Manual_Workplace	Manual_Workplace	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OPC_AutoClave1	AutoClave1	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OPC_UA	OPC UA Test	INTERNAL_ORDER-INTER	<input type="checkbox"/>	<input type="checkbox"/>
Test1	Test01	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TestMachine	Test_Machine	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WAGO_MTC HAAS	WAGO MTConnect HAAS MDC (KB)	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WAGOMTC_Demo	WAGO MTConnect Demo	INTERNAL_ORDER-INTER	<input type="checkbox"/>	<input type="checkbox"/>
WAGO_1	Test WAGO	INTERNAL_ORDER-INTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- Remove the ERP key.



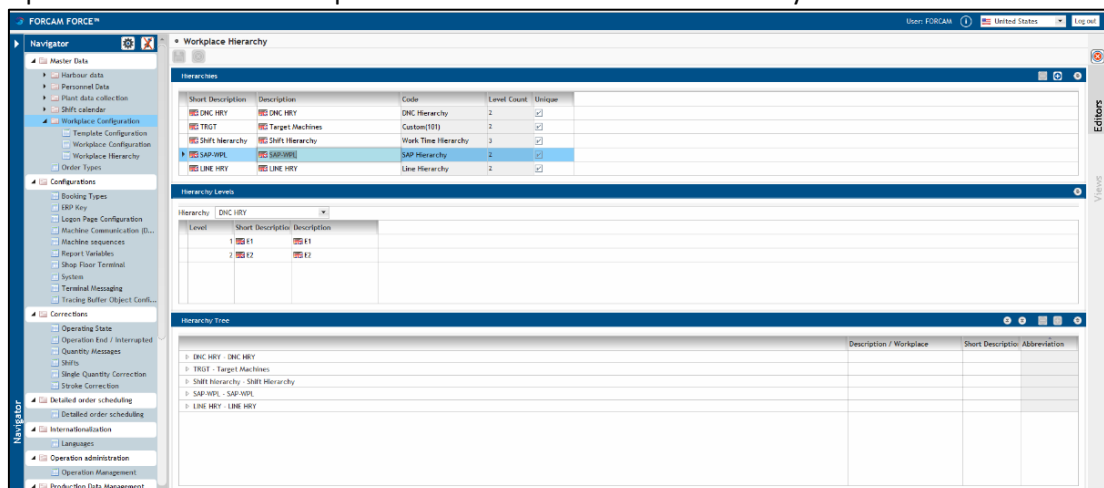
ERP Keys

Client	Company Code	Plant	System Id
100	FCUS	CIN1	ACAD
200	0010	0100	
400	0010	0300	FOE
900	0100	8030	
DEM	DEM	DEM1	DEM1
DENSO	DMMI	DMMI	DMMI
INTERNAL_ORDER	INTERNAL_ORDER	INTERNAL_ORDER	INTERNAL_ORDER

Personnel ERP Keys

Client	Company Code	Personnel Area	System Id

- Optional: remove SAP workplaces from the FORCAM SAP hierarchy.



Workplace Hierarchy

Hierarchy Types

Short Description	Description	Code	Level Count	Unique
DNC HRY	DNC HRY	DNC Hierarchy	2	<input checked="" type="checkbox"/>
TGT HRY	Target Machines	Custom(TGT)	2	<input checked="" type="checkbox"/>
SHR HRY	Shift Hierarchy	Work Time Hierarchy	2	<input checked="" type="checkbox"/>
SAP-WPL	SAP Hierarchy	SAP Hierarchy	2	<input checked="" type="checkbox"/>
LINE HRY	Line Hierarchy	Line Hierarchy	2	<input checked="" type="checkbox"/>

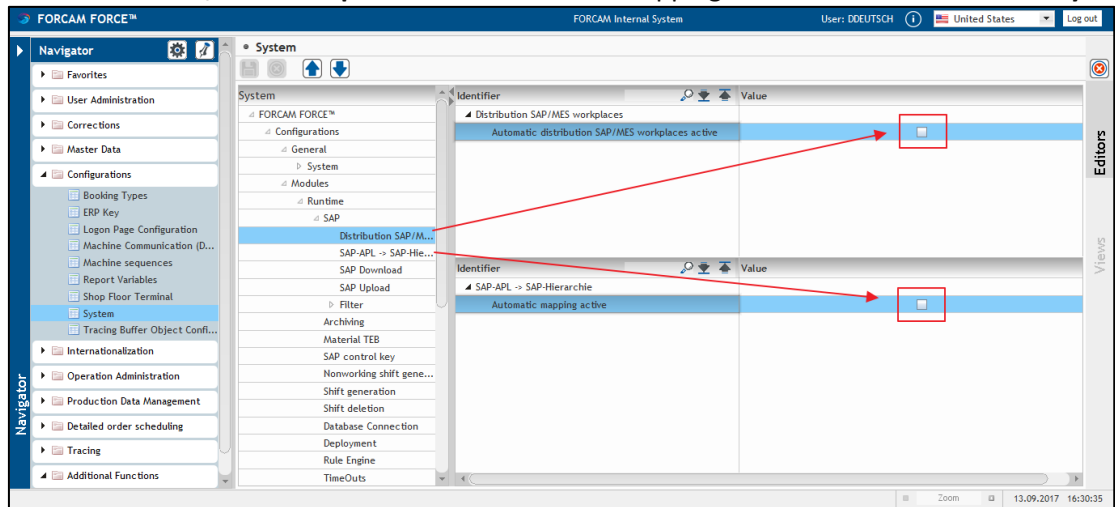
Hierarchy Levels

Level	Short Description	Description
1	K1	K1
2	K2	K2

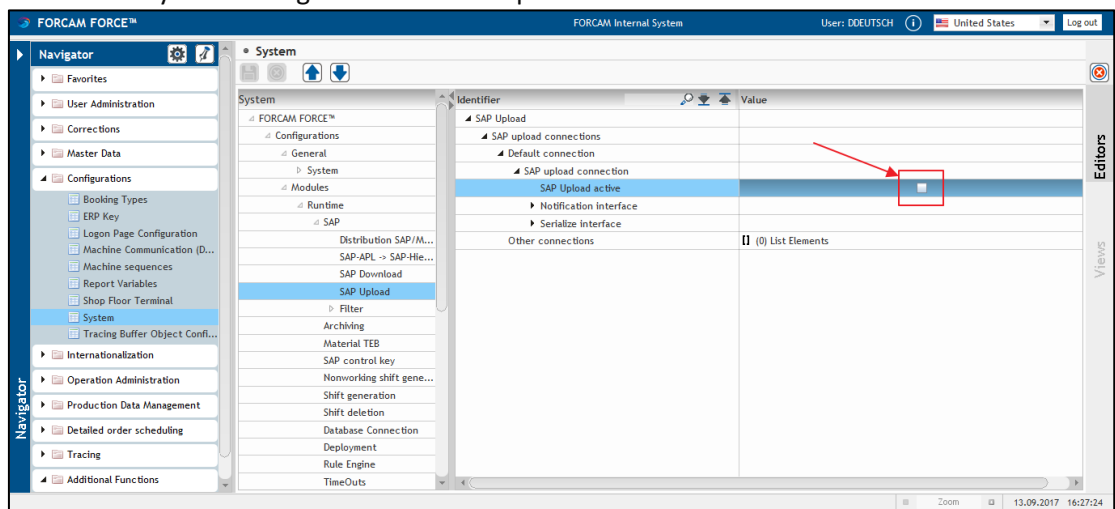
Hierarchy Tree

Description / Workplace	Short Description	Abbreviation
DNC HRY - DNC HRY		
TGT HRY - Target Machines		
SHR HRY - Shift Hierarchy		
SAP-WPL - SAP Hierarchy		
LINE HRY - Line Hierarchy		

- Disable the system configuration “Automatic Distribution of Workplaces SAP/MES” in **Distribution SAP/MES workplaces** and “Automatic mapping” in **SAP-APL -> SAP-Hierarchy**.



- Disable the system configuration for SAP Upload.



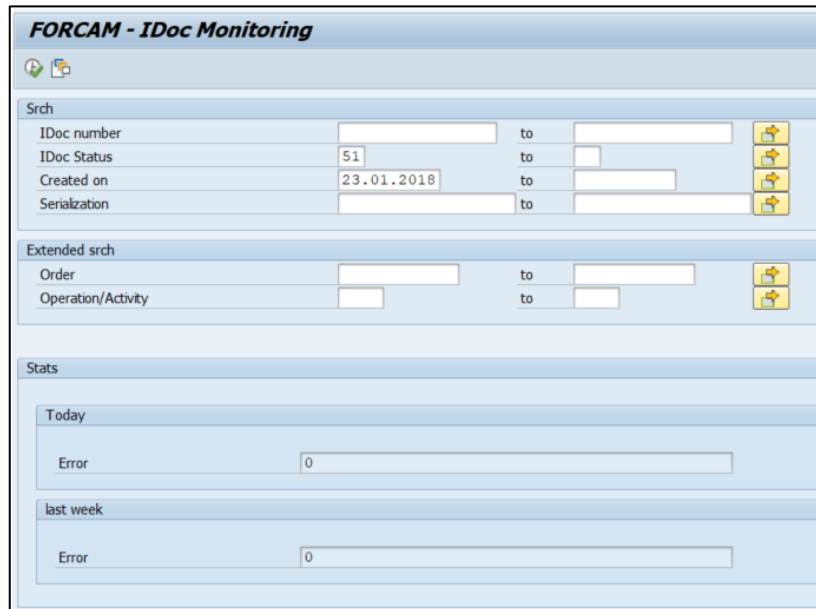
2.2 Stop Creation of New FORCAM IDOCS in SAP IDOC Outbox

Remove the **active** flag from the **/FFMES/AUFTR** table. By deactivating the flag, outbound IDOCs with order data will no longer be created.

Table /FFMES/AUFTR Display	
Client	100
Company Code	0010
Plant	0100
Order category	1
active	<input checked="" type="checkbox"/>
Country	DE
Language	EN
HeadTxt	<input checked="" type="checkbox"/>
op.	<input checked="" type="checkbox"/>
Flag op.long text	<input checked="" type="checkbox"/>
PRT	<input checked="" type="checkbox"/>
components	<input checked="" type="checkbox"/>
Classification mat.	<input type="checkbox"/>
Mat. master	<input type="checkbox"/>
CORCB	<input type="checkbox"/>
NOTT	<input type="checkbox"/>
Flag Created Ord.	<input checked="" type="checkbox"/>
Ind.: Error	<input type="checkbox"/>

2.3 Work on existing FORCAM IDOCS in SAP IDOC outbox and inbox

Process all FORCAM specific un-processed or error IDOCs which exist in the system. To perform this task, you can use the FORCAM report **/FFMES/IDOC_MON**.



FORCAM - IDoc Monitoring

Search criteria:

IDoc number		to		
IDoc Status	51	to		
Created on	23.01.2018	to		
Serialization		to		

Extended search:

Order		to		
Operation/Activity		to		

Statistics:

Today

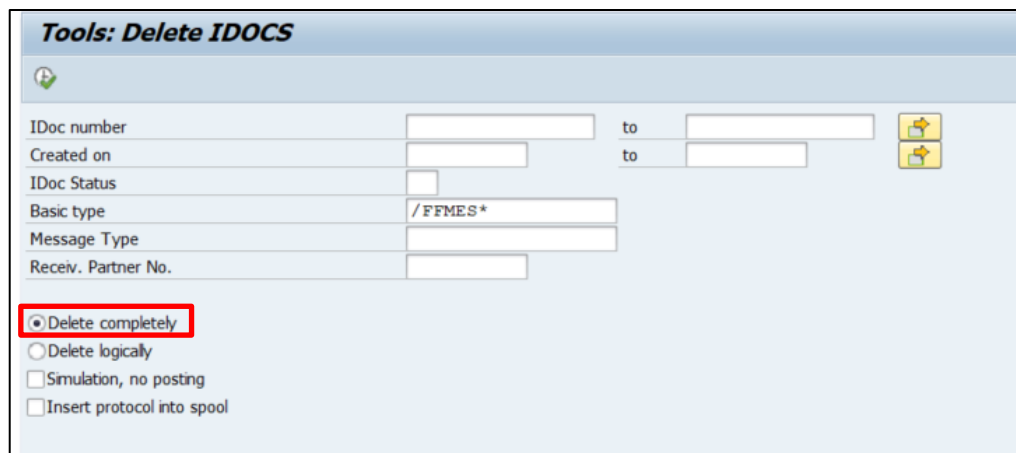
Error	0
-------	---

last week

Error	0
-------	---

Delete all FORCAM basic type IDOCs from the system by using the FORCAM program **/FFMES/IDOC_DELETE**.

The **Delete completely** option must be used to remove IDOCs from all databases.



Tools: Delete IDOCS

Search criteria:

IDoc number		to		
Created on		to		
IDoc Status				
Basic type	/FFMES*			
Message Type				
Receiv. Partner No.				

Options:

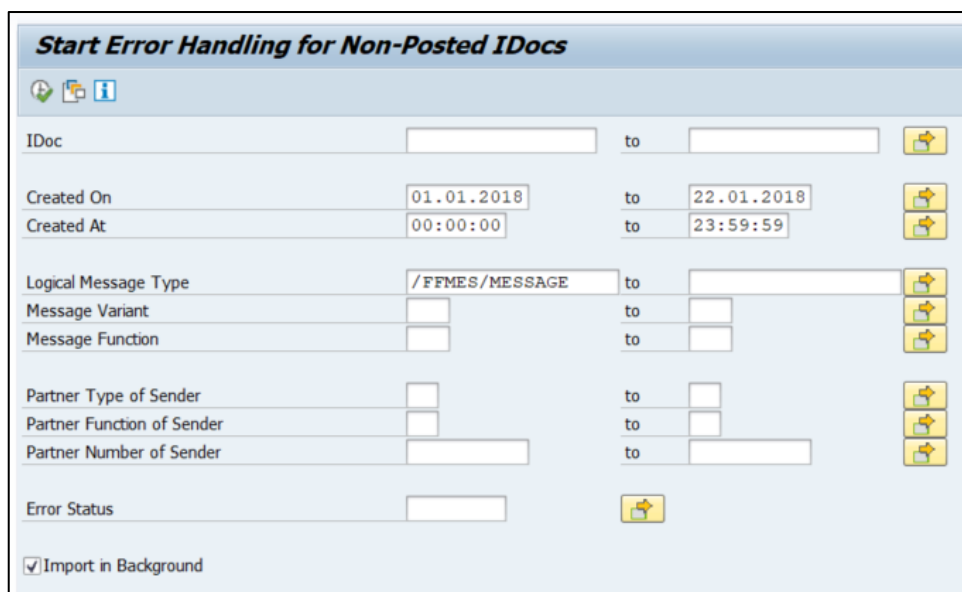
- ☒ Delete completely
- ☐ Delete logically
- ☐ Simulation, no posting
- ☐ Insert protocol into spool

2.4 Delete RFC Interface User


System user for RFC communication used by FORCAM interface for uploading messages to SAP must be deleted or deactivated.


2.5 Stop Continuous Activities


Stop and remove all planned Service-Jobs for IDOC reprocessing of FORCAM IDocs. Reprocessing is mostly done by executing the standard program **RBDMANIN** with specific FORCAM-Variant.





Start Error Handling for Non-Posted IDocs


IDoc to 


Created On to 


Created At to 


Logical Message Type to 


Message Variant to 

Message Function to 

Partner Type of Sender to 

Partner Function of Sender to 

Partner Number of Sender to 

Error Status 

☒ Import in Background

2.6 Remove Subsystem Grouping in SAP Work Center

Maintenance of FORCAM-specific sub-system grouping in work center enables the transfer of order operations into the FORCAM system.

To disable this transfer, remove subsystem grouping information in the FORCAM relevant Work Center (**CR02**).

Work center Edit Goto Extras System Help

Change Work Center: Basic Data

HRMS Hierarchy Template

Plant 0300 FORCAM Production Plant
 Work center M_SAP_01 MACHINE

Basic Data Default Values Capacities Scheduling Costing Technology

General Data

Work Center Category 0001 Machine
 Person responsible 001 SAP Beispiel: Verantwortlicher 001
 Location
 QDR system
 Supply Area
 Usage 009 All task list types
☐ Backflush

Standard Value Maintenance

Standard value key SAP1 Normal production

Standard Values Overview

Key Word	Rule for Maint.	K...	Description
Setup	should be en..		
Machine	should be en..		
Labor	may not be e..		

Descrpts. Admin. data Classification Subsystems

Work center Edit Goto Extras System Help

Change Work Center: Basic Data

HRMS Hierarchy Template

Plant 0300 FORCAM Production Plant
 Work center M_SAP_01 MACHINE

Basic Data Default Values Capacities Scheduling Costing Technology

General Data

Work Center Category
 Person responsible
 Location
 QDR system
 Supply Area
 Usage
☐ Backflush

Standard Value Maintenance

Standard value key

Standard Values Overview

Key Word

Setup

Machine

Labor

should be en..

may not be e..

Subsystem Grouping

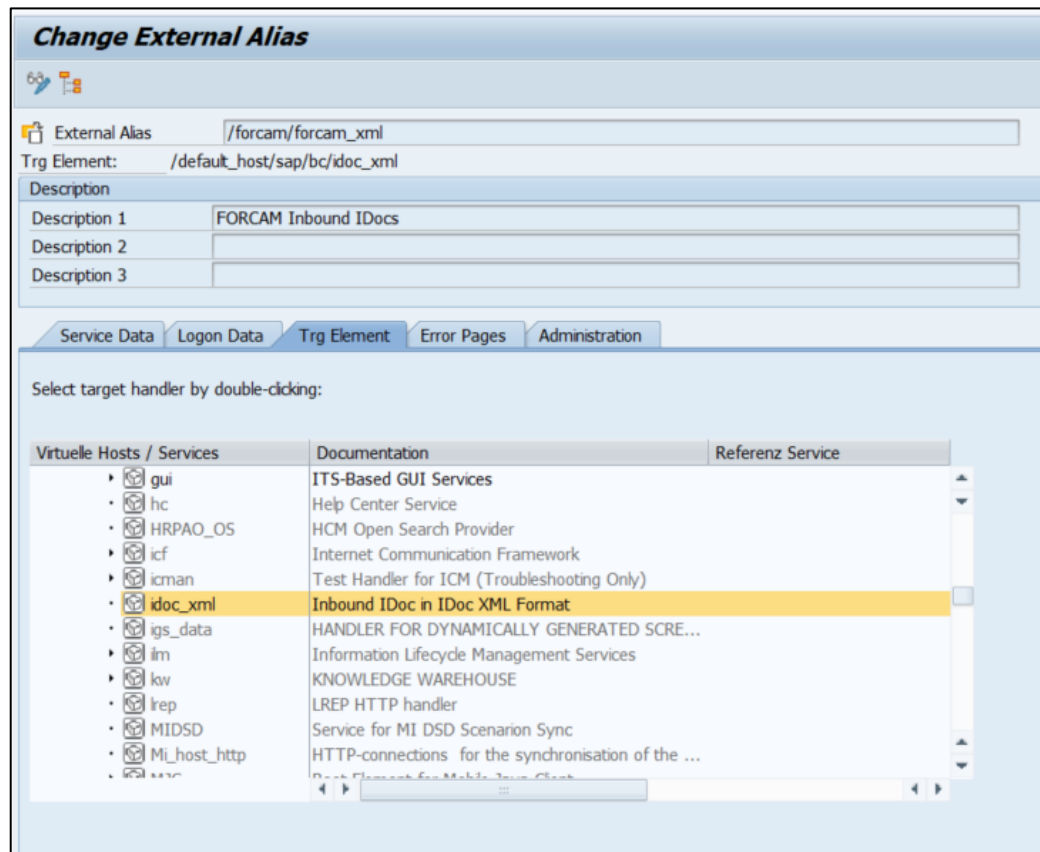
Subsystem Grouping

Group	Text
400	Q-B SYSTEM FOR ACADEMY

Descrpts. Admin. data Classification Subsystems

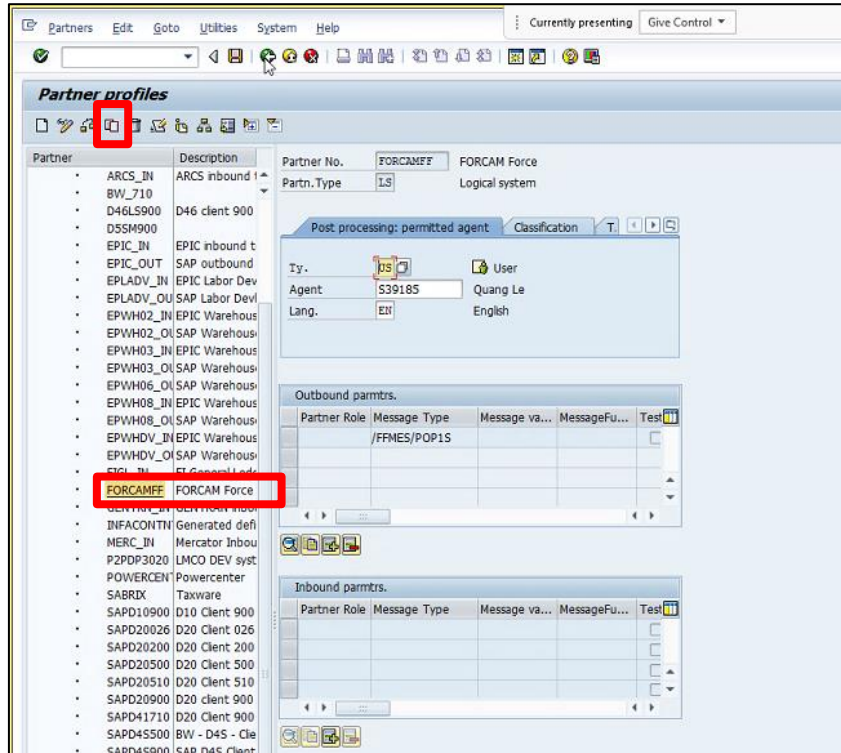
2.7 Remove ALIAS services maintained in SICF

ALIAS of SAP standard idoc_xml service has been created for uploading data to SAP.
 To interrupt this upload, remove FORCAM related ALIAS services via **SICF** code.

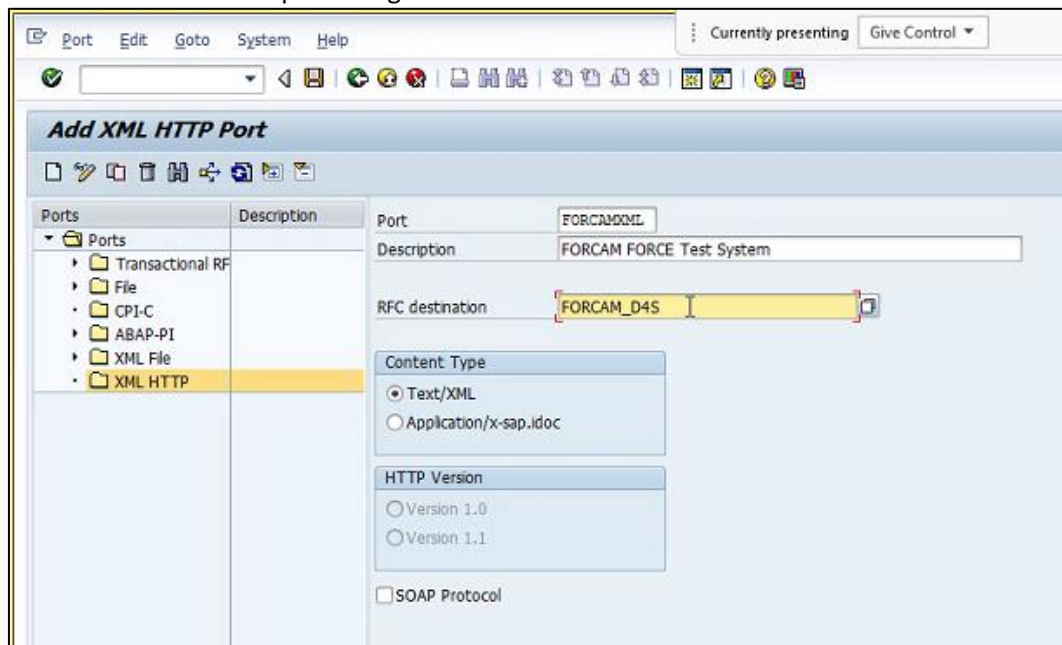


2.8 Remove FORCAM Specific Standard Customizing

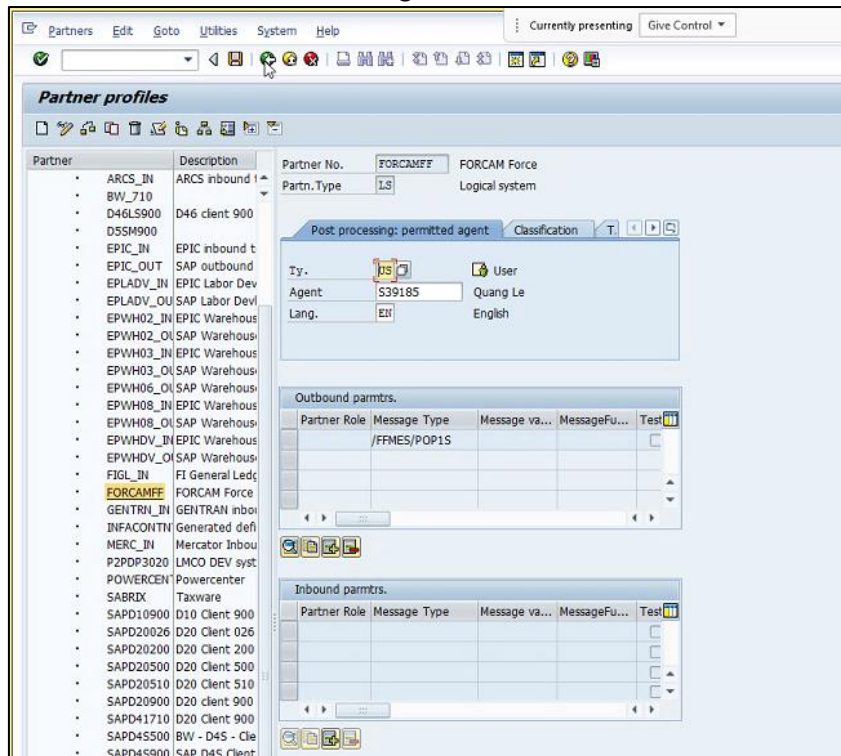
- Remove the complete partner profile settings using transaction **WE20**.



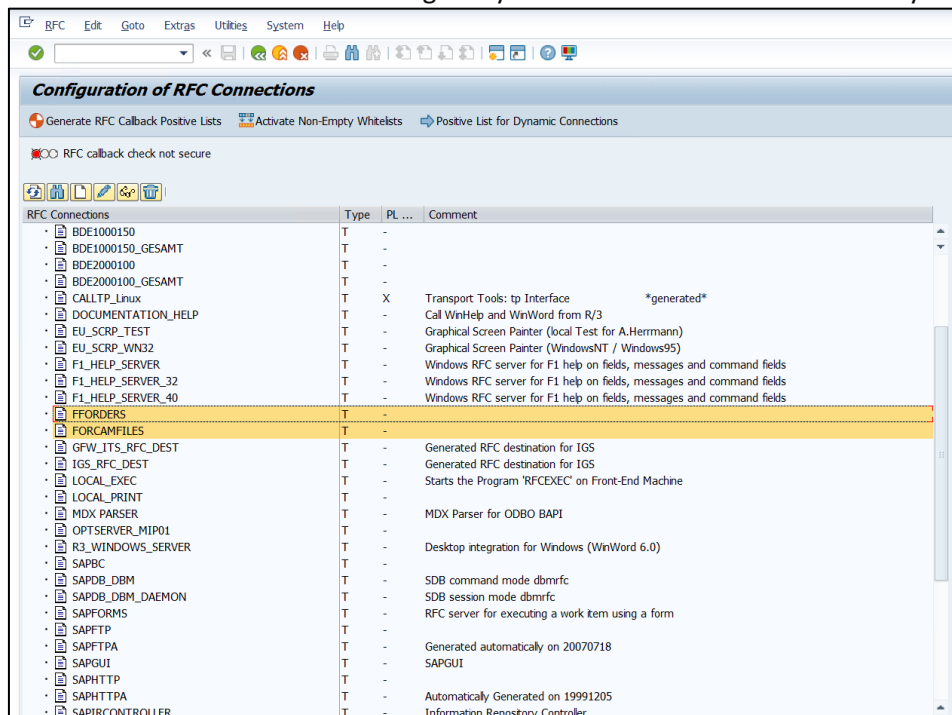
- Remove the outbound port using transaction **WE21**



- Remove the RFC destination using transaction **SM59**.



- In transaction **SALE**: Remove the logical system definition for the FORCAM system.



Example entries for logical system definition

- Remove all FORCAM specific message types via transaction **WE81**.

Display View "EDI: Logical Message Types": Overview

EDI: Logical Message Types

Message Type	Short text
/FFMES/APL0300	Download Workplace from SAP to MES
/FFMES/APL0400	Download Workplace from SAP to MES
/FFMES/APLSALESEU	Download Workplace from SAP to MES
/FFMES/APLSALESUS	Download Workplace from SAP to MES
/FFMES/ARBPL	Download Workplace from SAP to MES
/FFMES/CACL2	Avail.Capacity interval Work center (Shift data) CLD2
/FFMES/CAPA	Avail.Capacity interval Work center (Shift data)
/FFMES/CP0300	Avail.Capacity interval Work center (Shift data)
/FFMES/CP0400	Avail.Capacity interval Work center (Shift data)
/FFMES/CPSALESEU	Avail.Capacity interval Work center (Shift data)
/FFMES/CPSALESUS	Avail.Capacity interval Work center (Shift data)
/FFMES/FA0100	Production orders for MES (new)
/FFMES/FA0300	Production orders for MES (new)
/FFMES/FA0400	Production orders for MES (new)
/FFMES/FACL2	Production orders for MES (CLD2)
/FFMES/FASALESEU	Production orders for MES (new)

Position... Entry 60 of 1.872

- Remove all logical messages assigned to FORCAM basic types via transaction **WE82**.

Display View "Output Types and Assignment to IDoc Types": Overview

Output Types and Assignment to IDoc Types

Message Type	Basic type	Extension	Release
/FFMES/APL0400	/FFMES/W		700
/FFMES/APLSALES...	/FFMES/W		700
/FFMES/APLSALES...	/FFMES/W		700
/FFMES/ARBPL	/FFMES/W		700
/FFMES/CACL2	/FFMES/S		700
/FFMES/CAPA	/FFMES/S		700
/FFMES/CP0400	/FFMES/S		700
/FFMES/CPSALESEU	/FFMES/S		700
/FFMES/CPSALESUS	/FFMES/S		700
/FFMES/FA0100	/FFMES/F		700
/FFMES/FA0100	/FFMES/F	ZFCMESF	700
/FFMES/FA0400	/FFMES/F		700
/FFMES/FACL2	/FFMES/F		700
/FFMES/FASALESEU	/FFMES/F		700
/FFMES/FASALESUS	/FFMES/F		700
/FFMES/HR0400	/FFMES/H		700

- Remove all FORCAM related process codes in SAP via transaction **WE42**. While deleting this, IDOC assignments to FM will be deleted automatically.

Display View "Inbound process code": Details

Dialog Structure

- Inbound process code
 - Logical message

Process code: /FFMES/RCK

Description: FACTORY FRAMEWORK messages

Identification: /FFMES/IDOC_INPUT_MESSAGE

Option ALE

☒ Processing with ALE service

☐ Processing w/o ALE service

Processing type

☐ Processing by task

☒ Processing by function module

☐ Processing by process

Change View "IDoc: Assignment of FM to Log. Message and IDoc Type": De

New Entries

Function module: /FFMES/IDOC_INPUT_MESSAGE

Function type: F Function module

Basic type: /FFMES/R

Extension:

Message Type: /FFMES/MESSAGE

Message Variant:

Mess. function:

Object Type: /FFMES/MSG

IDoc: Assignment of FM to Log. Message and IDoc Type

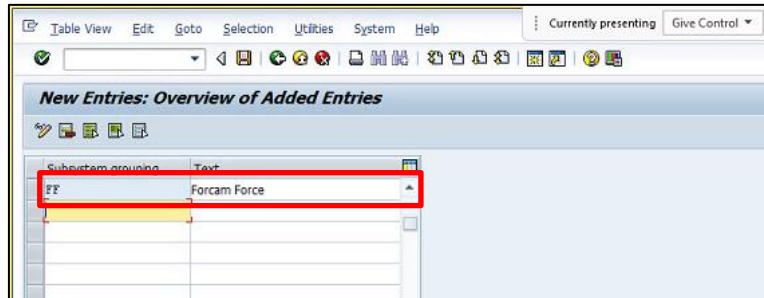
Direction: 2 Inbound

Description: Process incoming messages from MES

Name: FactFrameworkMessage


This data will be automatically deleted (originally maintained in **WE57**).

- Remove specific subsystem grouping for the FORCAM Adapter in transaction **SPRO**. This subsystem grouping is obsolete after the uninstallation of the FORCAM Adapter.





- ① Make sure that no further records and work centers in all systems are using this subsystem grouping before removal in the SAP Development System.

3 Add-on Software Uninstallation

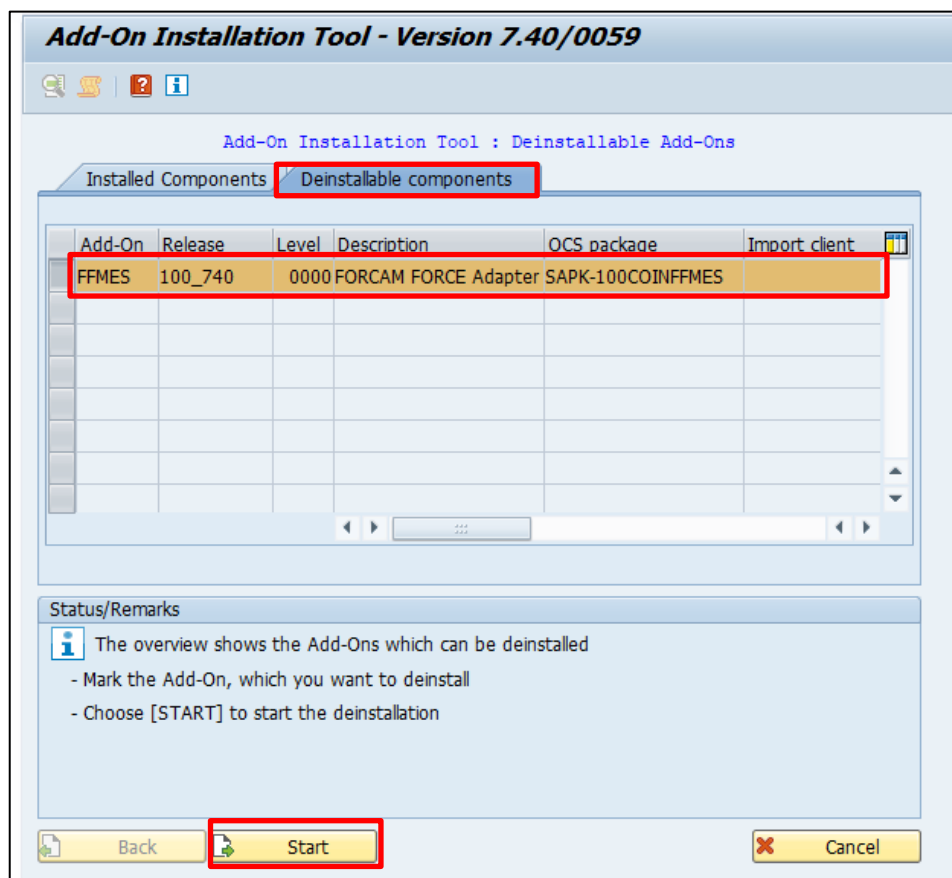
 Uninstallation of add-on component from SAP environment is not without risk. If the system in question is a development or quality test system, it is highly advisable to store a copy of a production or backup of the system before FORCAM was introduced to ensure removal of all modifications.

Exclusions:

-  Only SAP to FORCAM FORCE™ integration is configured in the environment.
-  The FORCAM Adapter for SAP must only be removed from the SAP system and configuration under great caution and with full consulting support from the FORCAM team.

The FORCAM Adapter must be uninstalled via transaction **SAINT**:

1. In the **SAINT** screen, go to the **Deinstallable components** tab.
2. Select the appropriate add-on component and click **Start**.
This process will start the uninstallation of Add-On component in the system.



- After following SAP instructions during uninstallation process, a success message is displayed.
- 3. Click **Finish**.
- The FORCAM Adapter is uninstalled from the SAP system.

