

Step by Step Guide for PI Server Start and Stop Procedure



Applies to:

This document applies to PI 7.0 and 7.1 and above. For more information, visit the [Application Management homepage](#).

Summary

This document mainly highlights step by step procedures to start and stop PI Server. It is assumed that PI (ABAP + JAVA) is installed, implemented and configured. All PI tools like ESR, ID, SLD, IE are working fine.

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Table of Contents

Start Stop Process of PI System :	3
Stop Procedure	3
Step 1:	3
Step 2:	4
Step 3:	5
Step 4:	7
Step 5:	8
Step 6:	8
Start Procedure	9
Step 1:	9
Step 2:	9
Step 3:	10
Step 4:	11
Step 5:	12
Step 6:	13
Step 7:	14
Step 8:	15
Related Content	16
Disclaimer and Liability Notice	17

Start Stop Process of PI System :

Stop Procedure

To stop the various components of your PI system, perform the following steps:

Step 1:

First we have to stop Business Process Engine (BPE) of PI system :

Run transaction SWF_XI_ADM_BPE to regulate the starting and stopping of the Business Process Engine (BPE). We can also use this transaction to determine whether the BPE has been started or is stopped.

Procedure

a) Call transaction SWF_XI_ADM_BPE.

The status display shows the status of the BPE and its components:

- Green: Component running
- Red: Component stopped
- Amber: Component currently being stopped or started

This can take a few minutes. Wait until the status display changes.

- Error icon: Error when starting or stopping the component.

We can decide whether we want to continue with the procedure or terminate. For example, if a component cannot be stopped, we can decide whether we want to attempt to stop the BPE again, or whether we want to restart the BPE completely.

The screenshot shows the SAP SWF_XI_ADM_BPE transaction interface. The title bar reads "Start and Stop Business Process Engine". Below the title bar, there are two buttons: "Start BPE" and "Stop BPE". The main area displays the BPE status as "BPE is running" with a green indicator. Below this, there are fields for "Last Changed On" (At 00:00:00) and "By User". A section titled "Status of BPE Components" contains a table with the following data:

Stat.	Component
○○	Deadline monitoring
○○	Rule Processing
○○	Error Monitoring
○○	Event Queue
○○	Inbound Queue
○○	Inbound Processing

At the bottom, there is a "Log" section with a table header:

Component	Current Date	Time	User Name	T...	Message
-----------	--------------	------	-----------	------	---------

b) Start or stop the BPE.

Whether the button for starting the BPE or the button for stopping the BPE is displayed depends on the status of the BPE. If an error occurs, both buttons are displayed and you must decide how we wish to continue.

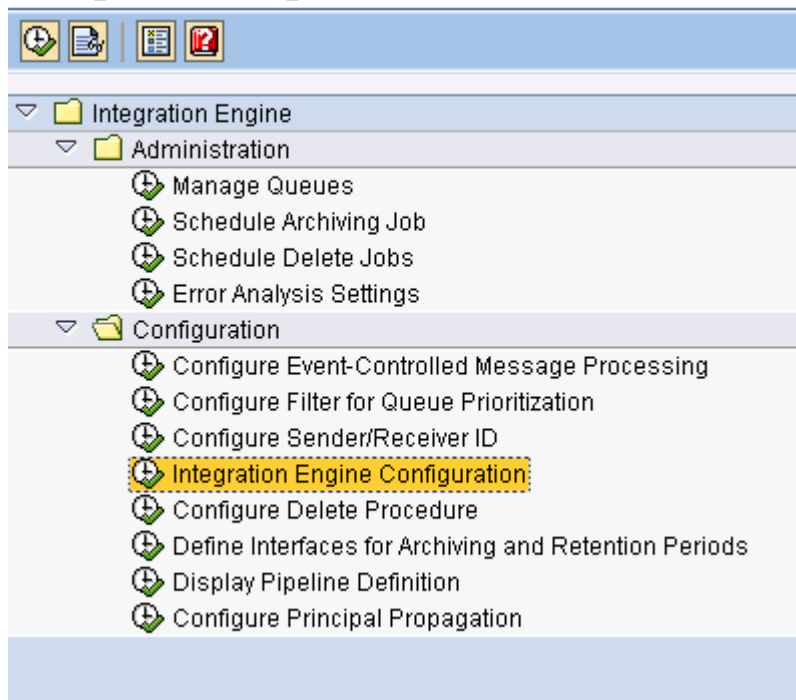
The individual steps for starting and stopping the BPE are executed in turn and the status of each step is displayed. The log for the individual process steps is displayed in the window area at the bottom of the screen.

Step 2:

Open the Integration Server for incoming messages by calling the transaction *Integration Engine – Administration (SXMB_ADM)* and choosing *Integration Engine Configuration → Configuration → Change → New Entries*. Select the category **RUNTIME** and then the parameter **ENTRY LOCK**: Set the current value to 1 (LOCKED) and choose *Save*.

If you set this parameter, messages that have already been received will still be processed.

Integration Engine: Administration



SXMB_ADM will show above screen. Click on Integration Engine Configuration. It will show following screen.

Integration Engine Configuration Data

Click on Configuration and add parameter with value as mentioned above.

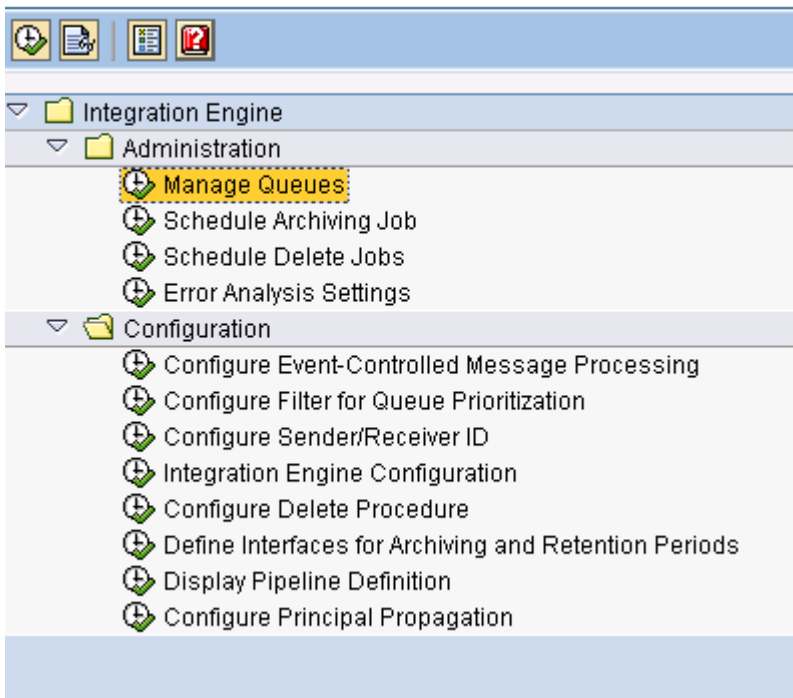
Display View "Configuration of the Integration Engine": Overview

Current Configuration							
Doc	Category	Parameters	Subparameter	Prefix	Current Value	Default Value	Last
	MONITOR	CCMS_MONITORING		<input type="checkbox"/>	1	1	SOLI
	PERF	MEASUREMENT_LEVEL		<input type="checkbox"/>	1	1	SAH
	PERF	MEASUREMENT_PERSIST		<input type="checkbox"/>	1	0	SAH
	RUNTIME	ENGINE_TYPE		<input type="checkbox"/>	HUB	UNDEFINED	BAS
	RUNTIME	ENTRY_LOCK		<input type="checkbox"/>	0	0	BOS
	RUNTIME	IS_URL		<input type="checkbox"/>	dest/IS_XY1		ROU
	RUNTIME	LOGGING		<input type="checkbox"/>	1	0	GOE
	RUNTIME	LOGGING_PROPAGATION		<input type="checkbox"/>	1	0	KOJI
	RUNTIME	LOGGING_SYNC		<input type="checkbox"/>	1	0	GOE
	RUNTIME	TRACE_LEVEL		<input type="checkbox"/>	3	1	KOJI
	RUNTIME	TRACE_LEVEL_PROPAGATI		<input type="checkbox"/>	1	0	KOJI

Step 3:

Deregister the queues of your PI system by calling the transaction *Integration Engine – Administration* (SXMB_ADM) and choosing *Manage Queues*. Select *Deregister Queues* and choose *Execute* action.

Integration Engine: Administration



Click on Deregister Queues

Manage Queues

Register Queues	Deregister Queues	Activate Queues	QRFC Monitor
Select Inbound Queue Deregister Queues (Ctrl+F3)			
Exactly Once <ul style="list-style-type: none"> <input checked="" type="checkbox"/> XBTI* <input checked="" type="checkbox"/> XBT1*: Priority High <input checked="" type="checkbox"/> XBT9*: Priority Low 			
Exactly Once In Order <ul style="list-style-type: none"> <input checked="" type="checkbox"/> XBQI*/XB2I* <input checked="" type="checkbox"/> XBQ1*/XB21*: Priority High <input checked="" type="checkbox"/> XBQ9*/XB29*: Priority Low 			
Select Outbound Queue			
Exactly Once <ul style="list-style-type: none"> <input checked="" type="checkbox"/> XBTO* <input checked="" type="checkbox"/> XBTA*: Priority High <input checked="" type="checkbox"/> XBTZ*: Priority Low 			
Exactly Once In Order <ul style="list-style-type: none"> <input checked="" type="checkbox"/> XBQO*/XB2O* <input checked="" type="checkbox"/> XBQA*/XB2A*: Priority High <input checked="" type="checkbox"/> XBQZ*/XB2Z*: Priority Low 			
Select Acknowledgment Queues			
Exactly Once <ul style="list-style-type: none"> <input checked="" type="checkbox"/> XBTB* <input checked="" type="checkbox"/> XBTX*: Priority High 			

Step 4:

Monitor the remaining entries in the queues by calling the *qRFC Monitor Inbound Queue* (transaction SMQ2) until no more queues are listed.

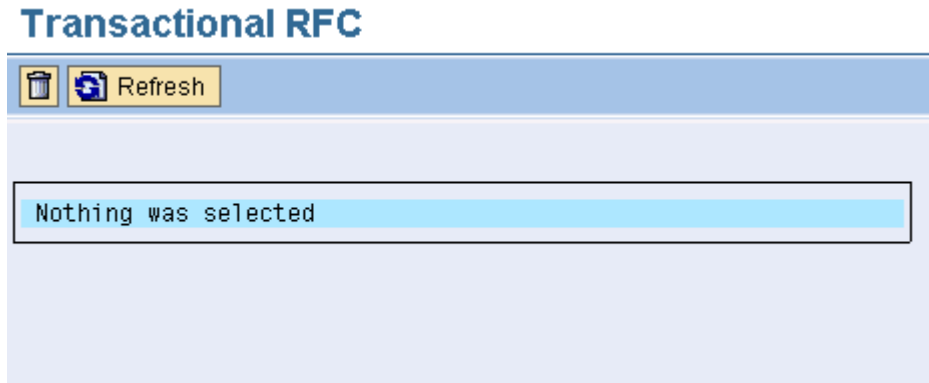
qRFC Monitor (Inbound Queue)

Queue Informationen		
Number of Entries Displayed:		458
Number of Queues Displayed:		69

Cl.	Queue Name	Entries
100	XBQIRFQ7100000298	1
100	XBQIRFQ7100000299	1
100	XBQIRFQ7100000301	1
100	XBQIRFQ7100000342	1
100	XBQIRFQ7100000345	1
100	XBQIRFQ7100000350	3
100	XBQIRFQ7100000351	1
100	XBQIRFQ7100000352	1
100	XBQIRFQ7100000354	1
100	XBQIRFQ7100000356	1
100	XBQIRFQ7100000357	1
100	XBQIRFQ7100000358	1
100	XBQIRFQ7100000359	1
100	XBQIRFQ7100000367	1
100	XBQIRFQ7100000372	1
100	XBQIRFQ7100000402	2
100	XBQIRFQ7100000414	2
100	XBQIRFQ7100000415	1
100	XBQIRFQ7100000417	1
100	XBQIRFQ7100000418	1
100	XBQIRFQ7100000419	1
100	XBQIRFQ7100000426	1
100	XBQIRFQ7100000430	1
100	XBQIRFQ7100000432	1
100	XBQIRFQ7100000433	1
100	XBQIRFQ7100000434	1
100	XBQ00__CCR8100000009	1
100	XBQ00__P01	1
100	XBQ0K0__XI_SERIALIZE0002	2

Step 5:

Check the tRFC entries by calling the transaction *Transactional RFC* (SM58) until the list is empty.

**Step 6:**

Stop the Integration Server by normal SAP stopsap.

```
1adm 1> stopsap
```


Start Procedure

To start the various components of your PI system, perform the following steps:

Step 1:

Start the Integration Server.

```
adm 1> startsap
```

Wait until the J2EE Engine and all PI-related services are started.

This process can be monitored with the NWA.

The screenshot shows the SAP NetWeaver Administration (NWA) interface. The top navigation bar includes 'Availability and Performance Management', 'Operation Management', 'Configuration Management', 'Problem Management', and 'SOA Management'. Below this, there are sub-navigators for 'Users and Access', 'Systems', 'Data and Databases', and 'Jobs'. The main content area is titled 'Start & Stop' and contains a description of the functionality. Below the description is a section titled 'Start & Stop: Java EE Applications' which includes a table of application instances.

Name	Vendor	Status	Functionality
com.sap.xi.exprofui	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.lib.resources	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.itsam.mdt	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.itsam.soa.mdt	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.mdt	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.mdt.beans	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.mdt.soa	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.mdt2	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.repository	sap.com	Started	Process Infrastructure (PI)
com.sap.xi.rwb	sap.com	Started	Process Infrastructure (PI)

Step 2:

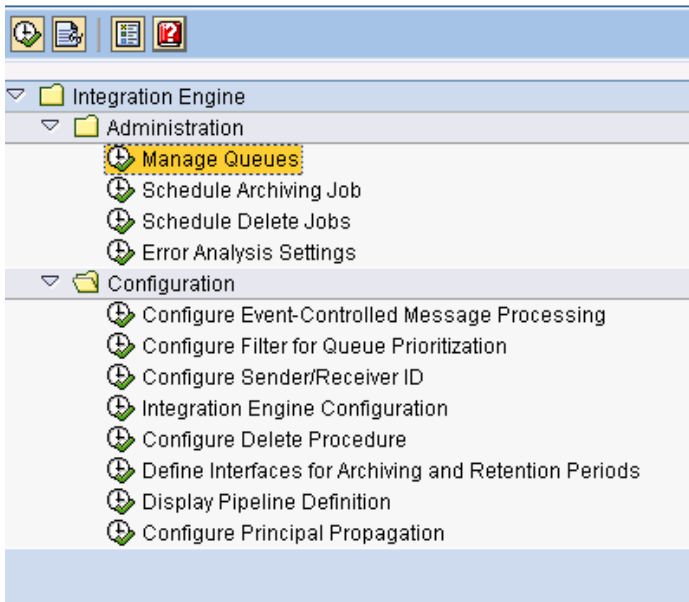
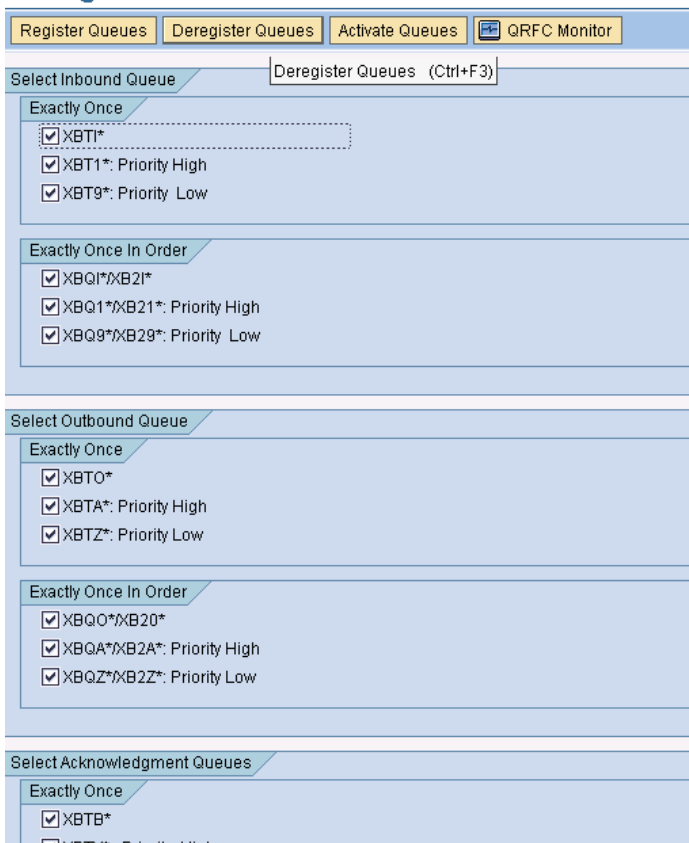
Check whether SLD is running properly or not.

<http://hostname:port/sld> and then click on 'Administration'. It will show the status of SLD.

The screenshot shows the SAP NetWeaver System Landscape Directory (SLD) Administration page. The page title is 'SAP NetWeaver System Landscape Directory'. The navigation bar includes 'Home', 'Administration', 'Log Off', and 'Help'. The system information shows 'System: XY1' and 'Namespace: sld/active'. The main content area is titled 'Administrate and configure the server' and contains a status indicator 'SLD Running' with a 'Stop SLD' button. Below this, there are two main sections: 'Server' and 'Content'. The 'Server' section includes links for 'Log', 'Details', 'Settings', 'Data Suppliers', and 'System Message'. The 'Content' section includes links for 'Import / Export', 'Synchronization', 'Changes', 'Namespaces', and 'Automatically Updated Data'.

Step 3:

Register the PI queues by calling the transaction *Integration Engine – Administration* (SXMB_ADM) and choosing *Manage Queues*. Select *Register Queues* and choose *Execute* action.

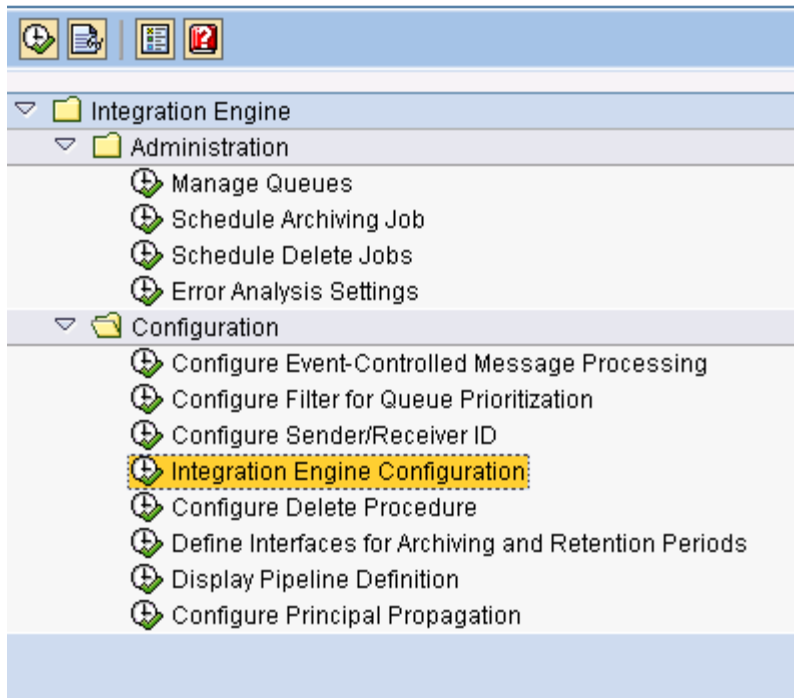
Integration Engine: Administration**Manage Queues**

Step 4:

Open the Integration Server for incoming messages by calling the transaction *Integration Engine – Administration* (SXMB_ADM) and choosing *Integration Engine Configuration → Specific Configuration → Change → New Entries*. Select the category **RUNTIME** and then the parameter **ENTRY LOCK**: Set the current value to 0 (NOT LOCKED) and choose *Save*.

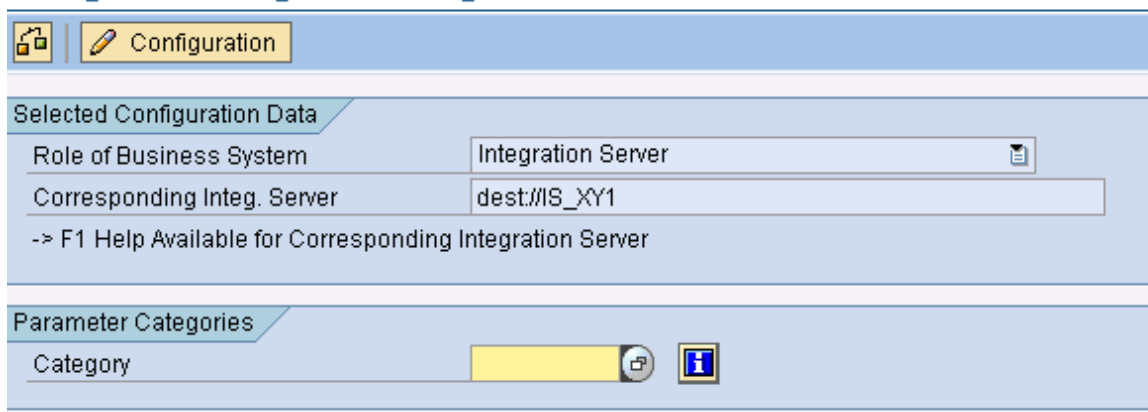
If you set this parameter, messages that have already been received will still be processed.

Integration Engine: Administration



SXMB_ADM will show above screen. Click on Integration Engine Configuration. It will show following screen.

Integration Engine Configuration Data



Click on Configuration and add parameter with value as mentioned above.

Display View "Configuration of the Integration Engine": Overview

Current Configuration							
Doc	Category	Parameters	Subparameter	Prefix	Current Value	Default Value	Last
	MONITOR	CCMS_MONITORING		<input type="checkbox"/>	1	1	SOLI
	PERF	MEASUREMENT_LEVEL		<input type="checkbox"/>	1	1	SAHI
	PERF	MEASUREMENT_PERSIST		<input type="checkbox"/>	1	0	SAHI
	RUNTIME	ENGINE_TYPE		<input type="checkbox"/>	HUB	UNDEFINED	BAS
	RUNTIME	ENTRY_LOCK		<input type="checkbox"/>	0	0	BOS
	RUNTIME	IS_URL		<input type="checkbox"/>	dest//IS_XY1		ROU
	RUNTIME	LOGGING		<input type="checkbox"/>	1	0	GOEI
	RUNTIME	LOGGING_PROPAGATION		<input type="checkbox"/>	1	0	KOJI
	RUNTIME	LOGGING_SYNC		<input type="checkbox"/>	1	0	GOEI
	RUNTIME	TRACE_LEVEL		<input type="checkbox"/>	3	1	KOJI
	RUNTIME	TRACE_LEVEL_PROPAGATION		<input type="checkbox"/>	1	0	KOJI

Step 5:

Call the *qRFC Monitor Inbound Queue* (transaction SMQ2) and check the status of the queues. The correct status is "RUNNING". It might take several minutes before this status appears.

qRFC Monitor (Inbound Queue)

Queue Informationen		
Number of Entries Displayed:	458	
Number of Queues Displayed:	69	
Cl.	Queue Name	Entries
<input type="checkbox"/>	100 XBQIRFQ7100000298	1
<input type="checkbox"/>	100 XBQIRFQ7100000299	1
<input type="checkbox"/>	100 XBQIRFQ7100000301	1
<input type="checkbox"/>	100 XBQIRFQ7100000342	1
<input type="checkbox"/>	100 XBQIRFQ7100000345	1
<input type="checkbox"/>	100 XBQIRFQ7100000350	3
<input type="checkbox"/>	100 XBQIRFQ7100000351	1
<input type="checkbox"/>	100 XBQIRFQ7100000352	1
<input type="checkbox"/>	100 XBQIRFQ7100000354	1
<input type="checkbox"/>	100 XBQIRFQ7100000356	1
<input type="checkbox"/>	100 XBQIRFQ7100000357	1
<input type="checkbox"/>	100 XBQIRFQ7100000358	1
<input type="checkbox"/>	100 XBQIRFQ7100000359	1
<input type="checkbox"/>	100 XBQIRFQ7100000367	1
<input type="checkbox"/>	100 XBQIRFQ7100000372	1
<input type="checkbox"/>	100 XBQIRFQ7100000402	2
<input type="checkbox"/>	100 XBQIRFQ7100000414	2
<input type="checkbox"/>	100 XBQIRFQ7100000415	1
<input type="checkbox"/>	100 XBQIRFQ7100000417	1
<input type="checkbox"/>	100 XBQIRFQ7100000418	1
<input type="checkbox"/>	100 XBQIRFQ7100000419	1
<input type="checkbox"/>	100 XBQIRFQ7100000426	1
<input type="checkbox"/>	100 XBQIRFQ7100000430	1
<input type="checkbox"/>	100 XBQIRFQ7100000432	1
<input type="checkbox"/>	100 XBQIRFQ7100000433	1
<input type="checkbox"/>	100 XBQIRFQ7100000434	1
<input type="checkbox"/>	100 XBQ00__CCR8100000009	1
<input type="checkbox"/>	100 XBQ00__P01	1
<input type="checkbox"/>	100 XBQ0K0__XI_SERIALIZE0002	2

Step 6:

Check for messages with an error status in the Adapter Engine, in the Integration Server, and in our business systems (if used) as follows:

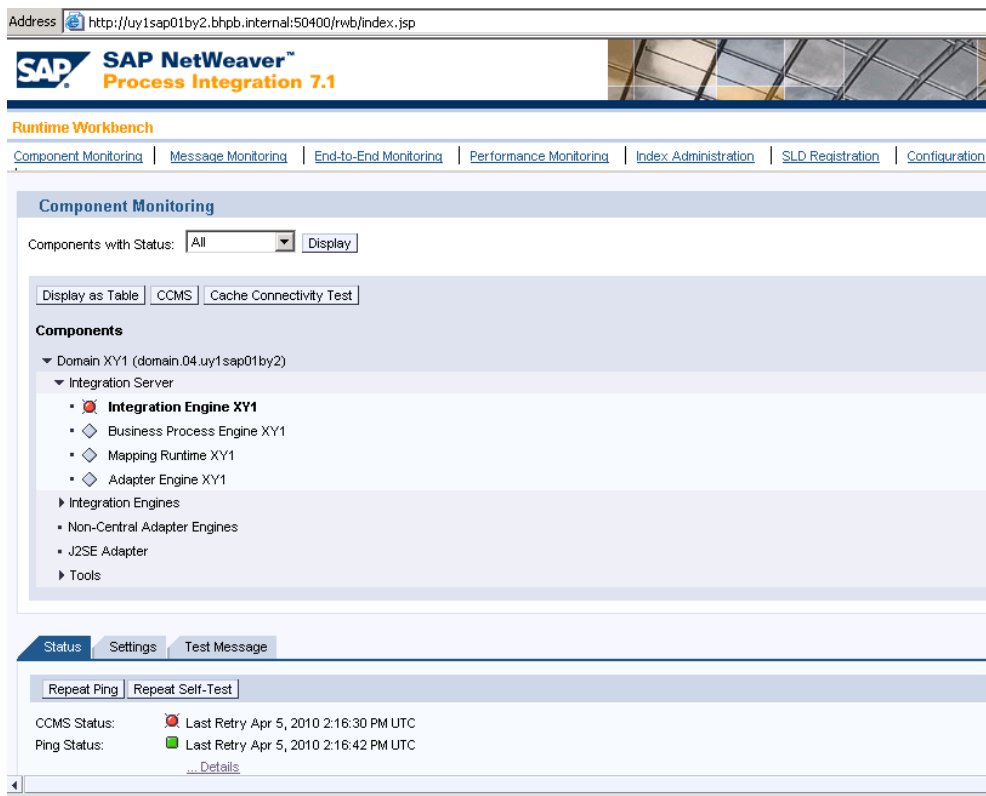
a) Call the Runtime Workbench from the XI start page. (<http://hostname:port/rwb>)

Choose *Message Monitoring*.

Select the following options as required:

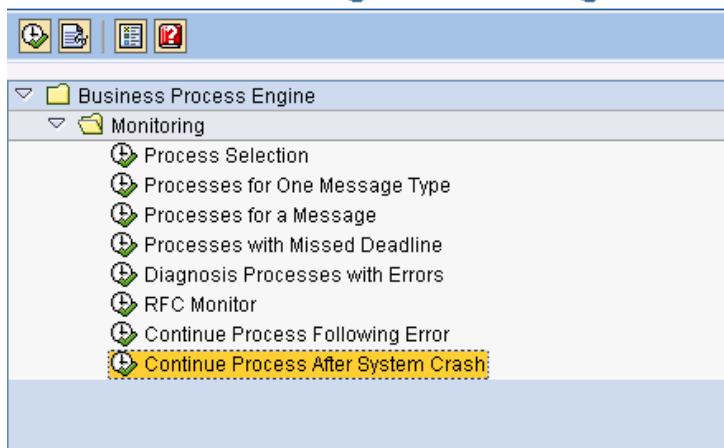
Adapter Engine <host>

1. *Integration Server*
2. *Proxy Runtime <business_system>*



b) Check your business processes (if used) by calling the transaction *Business Process Engine – Monitoring (SXMB_MONI_BPE)* and choosing *Restart Process After System Crash*.

Business Process Engine: Monitoring



Step 7:

If a cache refresh was performed and was still running when the Integration Server was shut down, call the transaction *XI Directory Cache (SXI_CACHE)* and check for errors by choosing *XI Runtime Cache → Display Refresh Error*.

Runtime Cache

The screenshot shows the SAP XI Runtime Cache status window. On the left is a tree view under 'Runtime Cache' containing: Party, Service, Process Component, Receiver Determination, Interface Determination, Sender Agreement, Receiver Agreement, Communication Channel, Mapping, Split Mapping, Software Component, Integration Process, and Alert Category. The main area is titled 'Status of Runtime Cache' and displays a green progress indicator and the text 'Cache content is up-to-date'. Below this is a large graphic with the SAP logo, a grid pattern, and the text 'SAP NetWeaver™' and 'SAP Exchange Infrastructure'. At the bottom of the graphic, it says 'Copyright © 2002-2003 SAP AG. All Rights Reserved.'

Step 8:

Start BPE :

Run transaction SWF_XI_ADM_BPE to regulate the starting and stopping of the Business Process Engine (BPE). We can also use this transaction to determine whether the BPE has been started or is stopped.

Procedure

a) Call transaction SWF_XI_ADM_BPE.

The status display shows the status of the BPE and its components:

- Green: Component running
- Red: Component stopped
- Amber: Component currently being stopped or started

This can take a few minutes. Wait until the status display changes.

- Error icon: Error when starting or stopping the component.

We can decide whether we want to continue with the procedure or terminate. For example, if a component cannot be stopped, we can decide whether we want to attempt to stop the BPE again, or whether we want to restart the BPE completely.

b) Start or stop the BPE.

Whether the button for starting the BPE or the button for stopping the BPE is displayed depends on the status of the BPE. If an error occurs, both buttons are displayed and you must decide how we wish to continue.

The individual steps for starting and stopping the BPE are executed in turn and the status of each step is displayed. The log for the individual process steps is displayed in the window area at the bottom of the screen.

Start and Stop Business Process Engine

Stop BPE

BPE Status: ● BPE is running

Last Changed On _____ At 00:00:00

By User _____

Status of BPE Components

Stat...	Component
●	Deadline monitoring
●	Rule Processing
●	Error Monitoring
●	Event Queue
●	Inbound Queue
●	Inbound Processing

Log

Component	Current Date	Time	User Name	T... Message

Related Content

<http://help.sap.com/nwpi71>

<http://www.sdn.sap.com/irj/sdn/howtoguides>

For more information, visit the [Application Management homepage](#).

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