CAF Guided Procedures: System Monitoring
Scope

This presentation leads you through the following capabilities available for Guided Procedures monitoring:

- **SAP NetWeaver Administrator**
  
  Guided Procedures offers a plug-in for the Web-based SAP NetWeaver Administrator tool to enable you to monitor GP services and applications status, and certain GP functions such as transports, queues, and so on.

- **Visual Administrator**
  
  Using the GP monitors available in the Visual Administrator tool provided with the J2EE Engine, you can check GP performance, availability, and certain GP critical functions, such as caches, function registry, configuration, and so on.

- **CCMS**
  
  The performance, logging, and monitoring data displayed in the Visual Administrator is transferred automatically to CCMS. In addition, you can monitor GP availability using the heartbeat functions.
Using the SAP NetWeaver Administrator Plug-in

GP Monitoring in the Visual Administrator

CCMS Integration
Using the GP plug-in for the SAP NetWeaver Administrator (NWA), you can perform the following tasks:

- **Check the status of GP applications and libraries**
  The functions of the GP framework are implemented as a J2EE Engine service, a number of J2EE Engine libraries, and Web Dynpro applications. You can monitor their status in NWA.

- **Check transport requests**
  You view the various transport requests created or received as an export or import in the Guided Procedures transport system.

- **Find activated GP objects**
  You search the GP design time for all types of active and deprecated GP objects.

- **Find process instances**
  You search the GP runtime for all process instances and display their details.

- **View queues**
  You search the notification queue for alerts and warnings, or the queues of interactive forms received by e-mail and retrieve detailed information.

For further information, refer to the following documentation:
- Composite Application Framework
  by Key Capability → CAF Guided Procedures → CAF GP:
  Administration Guide → GP Monitor.
I) Launching the Tool

To launch NWA, type the following URL in the address bar of your browser: http://<host>:<port>/nwa.

Log on to the tool as a J2EE Engine administrator.

To access the GP tools, go to System Management → Monitoring → Guided Procedures.
II) Monitoring GP System Status

The GP system status data is displayed in the Basic Information tab page.

You can check the overview data for the GP service, libraries and applications, and see if there are indicators for problems (for example, Warning or Error statuses).

If you see an indication of a problem in the overview above, you can check the details in the relevant section.

In this example, the application status is Warning because some of the GP applications have stopped.
III) Checking Transport Requests

The information for the GP content imports and exports is displayed in the Transports tab page.

You can choose to display either the imports or the exports done in GP for a specified period (defined by a start and an end date).

The search returns a list of imports or exports done for the specified period with information about the user who carried it out, and about its status.

When you select an import or export request from the search results above, you can see the details for all GP resources (folders and objects) included in the transport.
IV) Viewing Activated GP Content

In the GP Content tab page you can search the folders in the gallery for active objects. On this screen, you can see the details for the selected object, and you can also open its flow.

If you select an object from the flow, you can check the mappings in its input, output, and local context.

You get information about the input, output, and local parameter types – for example, structure, string, and so on. In addition, you can show the trivial mappings for the parameters – that is, how the input types are mapped to the types in the local context, and how the local types are mapped to the output context.

You can also see how the parameters of the selected object map to the parent’s context.
V) Viewing Process Instances

In the Process Instances tab page you can search for running, completed, terminated, or erroneous process instances. On this screen, you can see the details for the selected instance. If GP is configured to use the BPM runtime, in the Business Workflow Process Instance tab page you can find the XML representation of the instance for the BPM.

If you choose Process Items on the first screen, you can see the process instance flow. By selecting an item, you view the details for its input, output, and local context, its processors, attachments, and so on.
VI) Monitoring Interactive Form Queues

In the Queues tab page you can find information about:
- The notification queue items (indicating alerts and warnings)
- The interactive form queues for the configured form adapters

Alerts for erroneous processes and process steps are stored in the notification queue. When you select an item, you see the log entries available for it.

In the interactive form queue you can see the e-mails received that contain attached interactive forms. To receive such items in the form queue, you must have configured GP for interactive forms.

You can select a queue item and see the associated log entries. By selecting a log entry, you get information about the thread that handled the event.

In the Queue Item Content tab page you can also see the mail content, and download the attached interactive form.

For further information about configuring GP with interactive forms, see the following documentation:
- SAP NetWeaver How to-Guide (via service.SAP.com/rkt-netweaver) How To... Configure GP with Interactive Forms
Using the SAP NetWeaver Administrator Plugin

GP Monitoring in the Visual Administrator

CCMS Integration
Functional Overview

Using the GP monitors in the Visual Administrator, you can perform the following tasks:

- **Viewing logs**
  You check the GP log using the Log Viewer service in the Visual Administrator. You can filter the logs by severity level, date, and so on.

- **Tracing performance**
  You monitor performance indicators for GP, such as outbound data, response times, call numbers, and so on. To do that, you use the JARM functionality in the Performance Tracing service.

- **Monitoring critical GP functions**
  Using the Monitoring service, you can also check important GP indicators, such as caches, locks, properties, registries, and so on.
I) Launching the Tool

To launch the Visual Administrator, use the go script file located in
\<SAP_install_dir>\<SID>\<instance_ID>\j2ee\admin.

Log on as a user with administrator permissions for the J2EE Engine.
To store the GP log entries in a separate file, set the Log Manager’s property ForceSingleTraceFile to NO on the server node. Then restart the server.

To view the log files, go to Server <ID> → Services → Log Viewer.

In the Runtime tab page, you will find the GP logs under Server <ID> → <SAP_inst_dir> → <instance_dir> → <server_dir> → log → services → com.sap.caf.eu.gp. For example, the path to the log file can be Server 0 30_12345 → C:usrsap → J2EJC30 → j2eelcluster\server0 → log → services → com.sap.caf.eu.gp.

You can filter the logs by severity, so that you only see messages that signify an error, for example.
III) Performance Tracing

**GP is enabled to supply performance tracing data using JARM. You can view the reports using the Performance Tracing service runtime. In the JARM tab page you can find information about different performance indicators, such as outbound data, response times, call numbers, and so on.**

The namespace used for GP entries is **CAF:GP**.

For further information, see the following documentation for the Java server:

The performance-relevant data is also available in the Monitoring service and from there it is transferred to CCMS.
To view the GP service monitors, go to the Monitoring service, open the Runtime tab page, and browse the monitor tree to Root → Services → Guided Procedures.

The GP service monitors provide information about:

- GP in-memory caches for development objects, texts, and so on
- GP service properties configuration
- GP lock numbers
- Committed and rolled back GP transactions since the last server restart

- Available GP service extensions, such as development object types, callable object types, external service providers, GP functions, process runtime views, and so on.
Using the SAP NetWeaver Administrator Plugin

GP Monitoring in the Visual Administrator

CCMS Integration
Using the CCMS monitoring architecture, you can monitor Guided Procedures from a central ABAP monitoring system as well. The collected data is sent from the Java server to the central monitoring system using a CCMS agent.

In CCMS, you can view the following data for Guided Procedures:

- **Status** data
- **Logs**
- **Performance** data
- **Availability** data

To enable CCMS integration:

- Your central monitoring system must be a SAP Web Application Server ABAP 6.40.
- You must have installed, registered, and activated the SAPCCMSR agent with the –J2EE option.

For further information, see the following documentation for the Java server: *Administration Manual* → Supportability and Performance Management → Monitoring → Displaying J2EE Engine Monitoring Data in the CCMS.
To display GP availability data in CCMS, you must upload the GRMG customizing file to the CCMS agent. To do that, go to Monitoring → GRMG Customizing in Visual Administrator. Select the node sap.com/caf~eu~gp~model~jmx~eap, and choose Upload. (You must have configured the CCMS agent.) You can do the same in the CCMS system using transaction GRMG. As a result, you can start the CAF-GP scenario using transaction GRMG, and view the availability data in transaction RZ20. (The scenario name is available in the GRMG customizing file.)

For further information, see the following documentation about the GRMG functions in:
- CCMS: The Alert Monitor → Monitoring with the Generic Request and Message Generator