

GPA: Plugin for Prerequisite Checks

With Solution Manager 7.1

Description:

The plugin **Prerequisite checks** can be used in your own guided procedures. It offers the possibility to select at design time among a set of pre-defined prerequisite checks.

Those checks are then performed at runtime on each scope object of the guided procedure. This allows to control if predefined criteria are met before executing additional steps on the managed system.

The prerequisite checks plugin allows also the integration of simple custom checks.

QA_PREREQUISITE_CHECKS_PLUGINS_<XX> Personalize

Technical System [SD7-ABAP](#), [SD7-JAVA](#) User Name PALAZZOLO

1 Prerequisite Checks - Setup | 2 Prerequisite Checks - MAI | 3 Prerequisite Checks - Workm... | 4 Prerequisite Check - Cust...

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Prerequisite Checks

[Execute All](#)

Content	Caption	Description	Navigation	Documentation
▼ SD7-ABAP	SD7 on lddbsd7	Prerequisite check(s)		
• MAI Setup Check		Check Setup for Monitoring and Alerting	Open URL	
• RCA Setup Check		Check Setup for Root Cause Analysis	Open URL	
▼ SD7-JAVA	SD7 on lddbsd7	Prerequisite check(s)		
• MAI Setup Check		Check Setup for Monitoring and Alerting	Open URL	
• RCA Setup Check		Check Setup for Root Cause Analysis	Open URL	

Log with 0 Messages for Activity Custom Activity

[Export](#) | [Refresh](#) [Add Comment](#) | [Filter Settings](#)

Type	Message	Date	Time	Technical Sy...	User	Long Text	Details	URL
Table is empty								

Availability	Solution Manager 7.1 SP10 and higher
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OVERVIEW

Use case

With GPA plugin **prerequisite checks**, following checks can be performed on managed system:

- Check if monitoring status of managed system
- Check work mode of managed system
- Check if Root Cause Analysis or Monitoring and Alerting setup have been performed successfully.
- Check file system remaining space
- Check network utilization

Here are all available prerequisite checks grouped by category:

Category	Prerequisite check	Description
Monitoring and Alerting	Check availability	Check will report red if overall monitored object is not available – green otherwise.
	Check performance	Check will report red if performance of monitored object is poor – green otherwise.
	Check configuration	Check will report red if configuration is not correct on monitored object – green otherwise.
	Check exception	Check will report red if at least one exception is found – green otherwise.
Work mode	Check if work mode is one of the following: <ul style="list-style-type: none">• Planned Downtime• Modified Planned Downtime• Peak Business Hours• Non-Peak Business Hours• Non-Business Hours• Maintenance	Check will report red if the specified work mode is not active – green otherwise.
Setup	Check Root Cause Analysis Setup	Check will report the current status of the managed system configuration
	Check Monitoring and Alerting Setup	Check will report the current status of the monitoring and alerting setup.

Required Managed objects

- The required managed object will depend on the type of check.
As an example, the managed system setup can be performed on a Technical System, Database or Host – the corresponding check will accept the same managed object.

Pre-requisites

No specific authorizations are necessary to run prerequisite check plugin – However, as each check allows to jump on the specific application (system monitoring, work mode management, managed system setup) – the user running the guided procedure should also have enough authorizations to run the corresponding application.

DESIGN TIME

The screenshot shows a dialog box titled "Select a Plugin". At the top, there is a "Content:" label followed by a dropdown menu set to "Prerequisite Checks" and a blue link "Display Help Documentation". Below this is a section titled "Plugin: Pre-requisite Checks". Underneath, there are three sub-sections: "Monitoring and Alerting" with four unchecked checkboxes for "Check Availability", "Check Performance", "Check Configuration", and "Check Exception"; "Workmode" with an unchecked checkbox "Check if Workmode is" followed by a dropdown menu; and "Setup" with two unchecked checkboxes for "Check Root Cause Analysis Setup" and "Check Monitoring and Alerting Setup".

During design time, the complete list of available prerequisite checks is displayed – by default all are unchecked:

- **Monitoring and Alerting**
 - Check Availability
 - Check Performance
 - Check Configuration
 - Check Exception
- **Work mode**
 - Check work mode settings
- **Setup**
 - Check Root Cause Analysis Setup
 - Check Monitoring and Alerting Setup

One or more prerequisite checks can be selected. All selected prerequisite checks will be executed in sequence. The overall status will be based on the combination of each single status for each check.

RUNTIME VIEW

Overview

At runtime, when the guided procedure is started – the selected context is passed to the plugin and a table tree view is built with all prerequisite checks selected at design time.

Prerequisite Checks				
Execute All				
Content	Caption	Description	Navigation	Documentation
▼ SD7~ABAP	SD7 on lddbsd7	Prerequisite check(s)		
• MAI Availability Check		Check monitoring and alerting availability status	Open URL	
• MAI Performance Check		Check monitoring and alerting performance status	Open URL	
• MAI Setup Check		Check Setup for Monitoring and Alerting	Open URL	
• RCA Setup Check		Check Setup for Root Cause Analysis	Open URL	
• Workmode Check		Check if workmode is set to Planned Downtime	Open URL	

The displayed view contains following information:

- **Context:**
 - **Main node:** name of the managed object – more than one managed object can be passed to this GP plugin.
 - **Sub-node:** prerequisite check name.
- **Caption:** caption of the managed object.
- **Description:** description of the prerequisite check.
- **Navigation:** navigation link to the corresponding application (system monitoring, work mode management, managed system setup, etc...)
- **Documentation:** Link to the SE61 documentation when available.

Example: Execution Flow

Step 1 – Trigger prerequisite check execution

When using the button **Execute All** – all prerequisite checks are executed in sequence for all managed system part of the displayed table tree view.

It is not possible to only execute a single prerequisite check – this is done in purpose in order to keep the consistency of the overall status result.



Example:

Prerequisite Checks					
Execute All					
Content	Caption	Description	Navigation	Documentation	
▼ SD7~ABAP	SD7 on lddbsd7	Prerequisite check(s)			
• MAI Availability Check		Check monitoring and alerting availability status	Open URL		
• Workmode Check		Check if workmode is set to Peak Business Hours	Open URL		

In this example we do want to check for ABAP system SD7 that:

- System is available
- Current work mode is set to Peak Business Hours

After executing all prerequisite check, we are getting an overall status:

Prerequisite Checks						
Execute All						
Content	Caption	Description	Navigation	Documentation	Status	
▼ SD7~ABAP	SD7 on lddbsd7	Prerequisite check(s)				
• MAI Availability Check		Check monitoring and alerting availability status	Open URL			
• Workmode Check		Check if workmode is set to Peak Business Hours	Open URL			

Log with 4 Messages for Activity Custom Activity										
Export Refresh Add Comment Filter Settings										
Type	Message	Date	Time	Technical Sy...	User	Long Text	Details	URL		
	Prerequisite Checks - Setup	15.07.2014	14:42:52	SD7~ABAP	PALAZZOLO		Show			

Step 2 – Check log if necessary

The log view gives additional information on the execution – use the provided **Show** link in the **Details** column.



Example:

Display Message Context	
Value: <input type="text"/> Search Reset	
Name	Value
• MAI Availability Check	
• Workmode Check	Workmode is matching the pre-requisite value Peak Business Hours

[Close](#)

Step 3 – Jump to the corresponding activity

If necessary the jump link to the application may be used to adjust value.



Example:

If for any reason one of the prerequisite check is red – then a specific message is reported.

The screenshot shows the 'Prerequisite Checks' window. A dialog box titled 'Technical Administration - QA_PREREQUISITE_CHECKS_PLUGINS_<XX>' is displayed in the foreground. The dialog contains a red exclamation mark icon and the text: 'One or more prerequisite checks are reporting errors.' Below the dialog, the 'Log with 5 Messages for Activity Custom Activity' section is visible, showing a table with columns for Type, Message, Date, Time, User, Long Text, Details, and URL. The first row shows a red exclamation mark icon in the Type column and 'Prerequisite Checks - Setup' in the Message column.

You can display the detail within the log window.

The screenshot shows the 'Display Message Context' dialog box. It has a search bar with 'Value:' and buttons for 'Search' and 'Reset'. Below the search bar is a table with two columns: 'Name' and 'Value'. The table contains two entries: 'MAI Availability Check' with a green checkmark icon, and 'Workmode Check' with a red exclamation mark icon. The 'Workmode Check' entry is highlighted with a green oval, and its value is 'Workmode not matching the pre-requisite value. No active workmode defined.' There is a 'Close' button at the bottom right of the dialog.

If for any reason the reported work mode is not correct – the jump-in link will direct you to the Work Mode management application in order to adjust it.

Component whose Work Modes are managed						
Name	Landscape Representa...	Current Work Mode	Current Work Mode Until	Next Work Mode	Next Work Mode Duration	Last Changed by
SD7.SystemHome.Iddbsd7-DBL_...	Dual Stack					
SD7-ABAP	Technical System					
Idai1sd7	Server					
Idai2sd7	Server					
Idcisd7	Server					

CUSTOM PREREQUISITE CHECKS

In some case the provided built-in prerequisite checks are not enough to cover all use cases. In order to keep the same UI to configure and to execute the prerequisite checks – this GP plugin allows the creation of custom checks.

A custom prerequisite check is a custom ABAP class that extends the class **CL_GPCR_CHECK_BASE**.

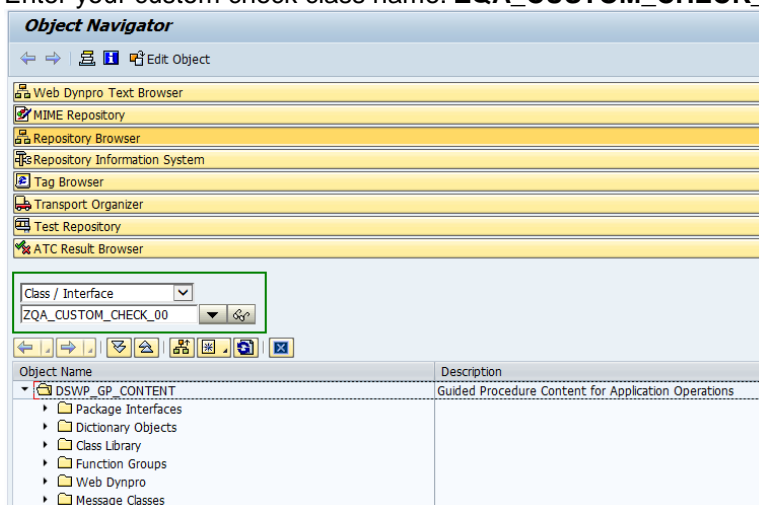
- **At design time**, all ABAP classes implementing the superclass **CL_GPCR_CHECK_BASE** will be displayed and available for selection.
- **At runtime time**, the corresponding execute method of the custom check will be executed with appropriate context.

The new custom **ABAP** class should implement following methods:

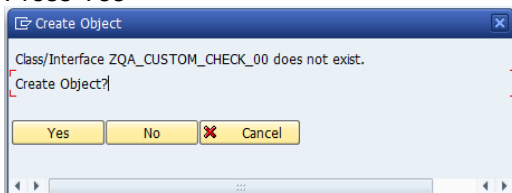
- **GET_NAME**: name of the prerequisite check
- **GET_DESCRIPTION**: description of the prerequisite check
- **IS_VALID**: context is passed to this method – the check should return true if the check is valid for this context – and false otherwise. If the check if not valid for the defined context then check is not displayed at runtime.
- **RUN_CHECK**: execution of the check.
- **GET_HELPTEXT**: return se61 object that contains the description of the check (optional).
- **GET_URL**: return URL (optional).

Example: Custom Check Creation

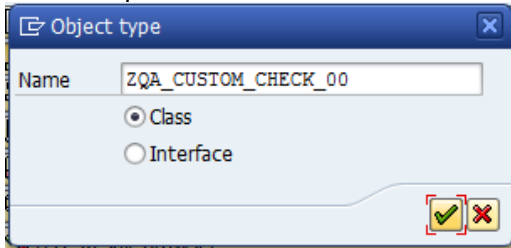
- Open transaction **SE80**
- Select Class/Interface in the dropdown list
- Enter your custom check class name: **ZQA_CUSTOM_CHECK_<XX>** and press enter



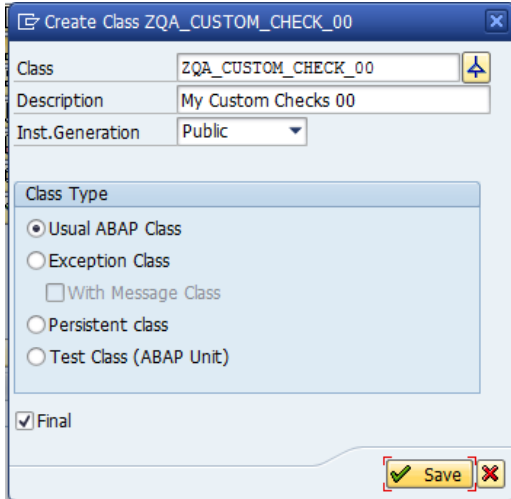
- Press Yes



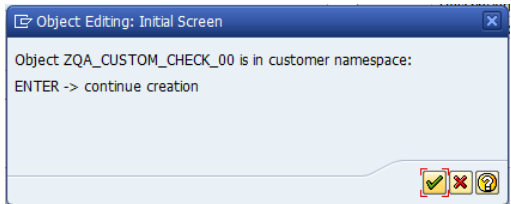
- Follow Object creation wizard



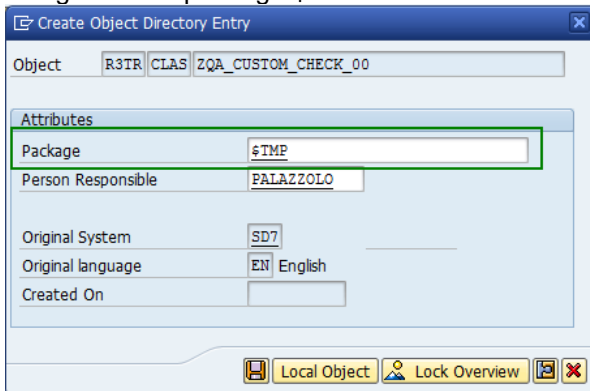
- Save class



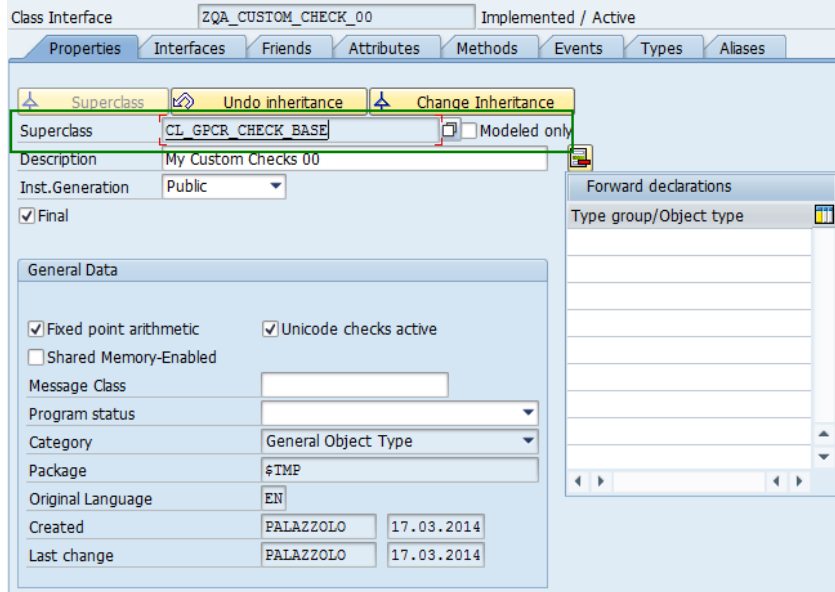
- Continue



- Assign to local package \$TMP and Save



- Assign the super class **CL_GPCR_CHECK_BASE** to your custom class



- Redefine following methods – and copy and paste suggested code

- GET_DESCRIPTION**

```

=====begin code=====
re_description = 'Description of my QA custom check
<XX> (always send green)'.
===== end code =====

```

- GET_NAME**

```

=====begin code=====
re_name = 'my QA Custom Check <XX>'.
===== end code =====

```

- IS_VALID**

```

=====begin code=====
re_is_valid = abap_true.
===== end code =====

```

- RUN_CHECK**

```

=====begin code=====
data ls_detail type ags_sise_s_log_ctx.

ev_status = cl_sise_status=>success.
ev_message = 'QA Custom Check XX - OKAY'.

ls_detail-key = '01'.
ls_detail-is_leaf = abap_false.
ls_detail-key_msg = 'key'.
ls_detail-key_status = 'E'.
ls_detail-value = 'detail01'.
append ls_detail to ev_details.

clear ls_detail.
ls_detail-key = '01-01'.
ls_detail-is_leaf = abap_true.
ls_detail-key_msg = 'detail11'.
ls_detail-key_parent = '01'.
ls_detail-key_status = 'I'.
ls_detail-value = 'level01-01'.
append ls_detail to ev_details.
===== end code =====

```

```

clear ls_detail.
ls_detail-is_leaf = abap_true.
ls_detail-key_msg = 'detail2'.
ls_detail-key_status = 'I'.
ls_detail-value = 'level01-01'.
append ls_detail to ev_details.
===== end code =====

```

Example: Custom Check Usage

- Select NEW → Step → Plugin Step.
- Enter title and description as follows:

The screenshot shows a 'Properties' dialog box with two input fields. The 'Title' field is labeled 'Title: *' and contains the text 'Prerequisite Check - Custom Check'. The 'Description' field is labeled 'Description:' and also contains the text 'Prerequisite Check - Custom Check'.

- Create a help text for this step:

The screenshot shows a 'Help Text Name' dialog box. The 'New' button is highlighted in yellow. Below it, there is a 'No d' label and a 'Create New Document' button.

- Select Plugin **Prerequisites Checks**.
- Maintain the plugin configuration attributes as follows in order to only execute the custom check:

The screenshot shows the 'Select a Plugin' dialog box. The 'Content' dropdown menu is set to 'Prerequisite Checks'. Below this, there is a 'Display Help Documentation' link. The main section is titled 'Plugin: Pre-requisite Checks' and contains several sub-sections: 'Monitoring and Alerting' (with checkboxes for Check Availability, Check Performance, Check Configuration, and Check Exception), 'Workmode' (with a checkbox for 'Check if Workmode is' and a dropdown menu), and 'Setup' (with checkboxes for 'Check Root Cause Analysis Setup' and 'Check Monitoring and Alerting Setup'). The 'Custom' sub-section is highlighted with a green border and contains a checked checkbox for 'My Custom Checks XX'.

- Save the guided procedure.