

Winshuttle Custom Memory Monitoring - Query

Purpose

During single table execution, the WFM checks SAP memory consumption and generates a Winshuttle Custom Memory Exception before the SAP memory limit is reached.

Description

There are different types of SAP memory; these include roll memory, extended memory, and heap memory. During script execution, the various memory types are allocated in a sequence – for example: Roll memory-> Extended memory-> Heap Memory. When the combined total memory for any work process reaches its allocated maximum limit, an SAP memory dump is generated.

An additional memory type, paging memory, is assigned separately and is used for internal tables and for importing and exporting objects. When the paging memory limit is reached, any user can produce an SAP dump named 'MEMORY_NO_MORE_PAGING'.

Winshuttle Custom Memory Monitoring

There are two scenarios in which the WFM will monitor the usage of different types of memory at run time. In these scenarios, Winshuttle Custom Memory Monitoring will generate a custom exception as below.

Scenario 1

The WFM will raise the exception 'MAX_ALLOCATED_MEMORY_EXCEEDED' if the usage of **extended memory** and/or **heap memory** reaches 90% of the available limits.

SAP Memory	Curr.Use %	CurUse [KB]	MaxUse [KB]	In Mem [KB]	OnDisk [KB]	SAPCurCach	HitRatio %
Roll area	0.44	1,144	3,032	262,144	0	IDs	99.89
Page area	26.39	69,185	262,136	131,072	131,072	Statement	99.00
Extended memory	11.76	1,478,656	2,818,048	12,578,816	0		0.00
Heap memory		0	0	380,222	0		0.00

Scenario 2

The WFM will raise the exception 'MAX_ALLOCATED_MEMORY_EXCEEDED' if the usage of **paging memory** reaches 90% of its available limit.

SAP Memory	Curr.Use %	CurUse [KB]	MaxUse [KB]	In Mem [KB]	OnDisk [KB]	SAPCurCach	HitRatio %
Roll area	0.44	1,144	3,032	262,144	0	IDs	99.89
Page area	26.39	69,185	262,136	131,072	131,072	Statement	99.00
Extended memory	11.76	1,478,656	2,818,048	12,578,816	0		0.00
Heap memory		0	0	380,222	0		0.00

Activate Winshuttle Custom Memory Monitoring

Custom Memory Monitoring is set to 'off' by default. You can activate it by entering the values indicated in the tables below.

Scenario 1: Activate Winshuttle Custom Memory Monitoring for all tables

In the YTCODE field of the /WINSHTLQ/TRCTAB table (example below), enter ALL_TABLES.

Data Browser: Table /WINSHTLQ/TRCTAB: Se

Number of Entries

YREFID	QRULE	to
YTCODE	ALL_TABLES	to
YMSGID		to
YMSGNO		to

Scenario 2: Activate Winshuttle Custom Memory Monitoring for one table only

In the YTCODE field of the /WINSHTLQ/TRCTAB table (example below), enter the name of a specific table – for example, DD03L.

Data Browser: Table /WINSHTLQ/TRCTAB: S

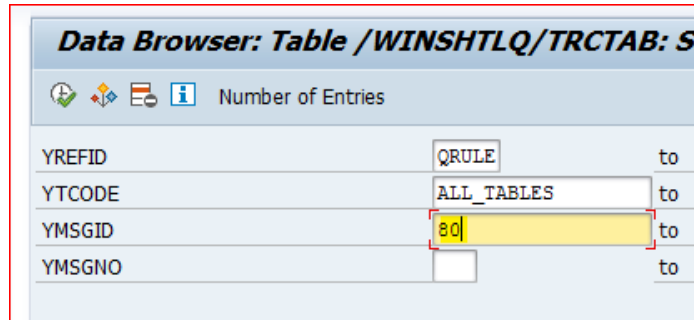
Number of Entries

YREFID	QRULE	to
YTCODE	DD03L	to
YMSGID		to
YMSGNO		to

Scenario 3: Change the default memory limit of 90%

A default memory limit of 90% has been set on the Winshuttle Custom Memory Monitoring. This means that before 90% of available total memory is reached, a custom exception will be generated. This exception will appear as follows: 'MAX_ALLOCATED_MEMORY_EXCEEDED'.

If you would like to change the default memory limit, enter the memory limit you want in the field titled YMSGID (see example, below).



The screenshot shows a 'Data Browser' window for a table named 'WINSHTLQ/TRCTAB: Se'. It contains a table with four rows and three columns. The first column lists field names, the second column contains input fields, and the third column contains the text 'to'. The 'YMSGID' row is highlighted in yellow, and its input field contains the value '80'.

	Number of Entries	
YREFID	<input type="text" value="QRULE"/>	to
YTCODE	<input type="text" value="ALL_TABLES"/>	to
YMSGID	<input type="text" value="80"/>	to
YMSGNO	<input type="text"/>	to

Required Authorization

To run Winshuttle Custom Memory Monitoring, assign the authorization below at the user level. (This authorization is not required unless Custom Memory Monitoring is activated.)

```
AUTHORITY-CHECK OBJECT ('S_ADMI_FCD'  
ID ('S_ADMI_FCD' FIELD 'STOR'
```