

# Winshuttle Custom Memory Monitoring - Transaction

## Purpose

During script 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 covers activation for use with all t-codes, and Scenario 2 covers activation for use with just one t-code.

#### Scenario 1: Activate Winshuttle Custom Memory Monitoring for all t-codes

In the Message Class field of the /WINSHTLQ/TRCTAB table (example below), enter 20,000 or a number greater than 20,000. If you do not enter a number in the Message Class field, 20,000 will be entered by default.

**Data Browser: Table /WINSHTLQ/TRCTAB: S**

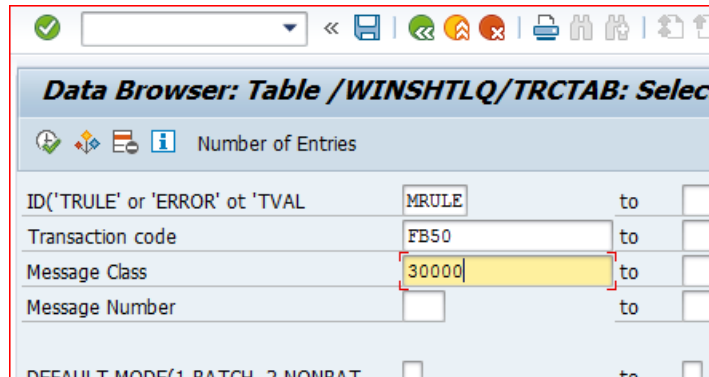
Number of Entries

ID('TRUE' or 'ERROR' or 'TVAL	MRULE	to
Transaction code	ALL_TCODES	to
Message Class	20000	to
Message Number		to

The number 20,000 in the Message Class field indicates that Custom Memory Monitoring will start for scripts with BDC\_TAB tables that have 20,000 or more rows. The Message Class field prevents memory monitoring from activating for small scripts and ensures activation for large and very large scripts. (Please note that in BDC\_TAB tables, there can be ten rows for each line item.)

## Scenario 2: Activate Winshuttle Custom Memory Monitoring for one specific t-code only

In the Message Class field of the /WINSHTLQ/TRCTAB table (example below), enter 30,000 or a number greater than 30,000. If you do not enter a number in the Message Class field, the number 30,000 will be entered by default.



The screenshot shows the SAP Data Browser interface for the table /WINSHTLQ/TRCTAB. The table is titled "Data Browser: Table /WINSHTLQ/TRCTAB: Select". Below the title, there are several icons and the text "Number of Entries". The table has several rows with input fields and checkboxes. The "Message Class" field is highlighted in yellow and contains the value "30000".

ID('TRUE' or 'ERROR' or 'TVAL	MRULE	to	<input type="checkbox"/>
Transaction code	FB50	to	<input type="checkbox"/>
Message Class	30000	to	<input type="checkbox"/>
Message Number		to	<input type="checkbox"/>
DEFAULT MODE(1 BATCH, 2 NONBAT		to	<input type="checkbox"/>

### **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'
```