

SAP EM – Enhancements of Expected Event Monitor

Performance optimization for processing of overdue expected events

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SUMMARY

Recently some enhancements have been released regarding the expected event monitoring processing in SAP EM. This document describes the enhancements in detail and gives guidance on the usage of the related background reports.

EXPECTED EVENT MONITOR PROCESSING

The expected event monitor processing can be done by one of the reports described in the next chapter. The processing consists of the following steps:

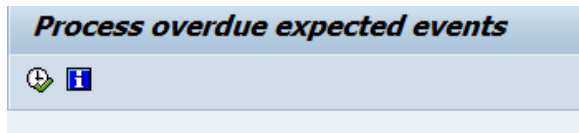
1. Selection of the expected events that became overdue since the last run. The decision if an expected event is set to “overdue” can be made based on the expected event date or the expected message date. If the expected message date is set for an expected event, it is selected when the expected message date has passed. Otherwise the expected event is selected, when the expected event date has passed. If the expected message date is set for an expected event can be controlled by the settings in the expected event profile.
2. The event status respectively the event message status is set to “O” (Overdue).
3. If an expected event monitor activity is assigned to the expected event profile of the event handler, the activity is processed for the corresponding event handler.

AVAILABLE REPORTS

Three different background reports are delivered with SAP EM for the expected event monitoring:

1. /SAPTRX/EE_MONITOR

This report is the standard one until EM 9.0. It has no input parameters. The selection of the overdue expected events is done by checking both dates, the expected event date and the expected message date.



2. /SAPTRX/EE_MONITOR_ADVANCED:

This report offers some more options. Regarding the selection of the expected events the following options are available:



- a) expected event date and expected message date are checked or
- b) only the expected event date is checked or
- c) only the expected message date is checked .

Option a) results in same selection as with report /SAPTRX/EE_MONITOR. Option b) and c) offer the possibility to optimize the selection of the expected events if the set-up of the expected events allows this (e.g. expected message date is used for all expected events -> option c)).

Regarding the processing of the expected event monitor activity you can avoid the retrieval of not needed event handler data. If you definitely know that the activity does not need certain event handler data to be processed correctly, the retrieval of the following event handler data can be avoided by setting the corresponding checkboxes:

- a) control parameter
- b) info parameter
- c) system parameter
- d) event messages

Process Overdue Expected Events

Selection of Expected Events

Use Exp Evt and Exp Msg Date

Use only Expected Event Date

Use only Expected Message Date

Selection of Event Handler Data for EE Monitor Activity

No Selection of Control Param.

No Selection of Info Param.




No Selection of System Param.

No Selection of Event Messages

3. /SAPTRX/EE_MONITOR_PACK

This report offers the same options as /SAPTRX/EE_MONITOR_ADVANCED with some additional input parameters to restrict the selection of the expected events and allows you to process the expected events in packages.

Process overdue expected events

Selection and Packaging of Expected Events

Date From

Time From


Time Zone From

Date To

Time To

Time Zone To

Package size for selection

Internal Event Code to 

Location Code Set

Location ID 1

Location ID 2

Use Exp Evt and Exp Msg Date

Use only Expected Event Date

Use only Expected Message Date

Selection of Event Handler Data for EE Monitor Activity

No Selection of Control Param.

No Selection of Info Param.

No Selection of System Param.

No Selection of Event Messages

NOTE: If you are using the seasonal procurement scenario, you have to use report /SAPTRX/EE_MONITOR. The other two reports do not support the seasonal procurement scenario.

HOW TO OPTIMIZE THE PERFORMANCE

Optimize the selection of the overdue expected events

- If the expected events in your system are set-up in a way, that either the expected message date is set for all expected events or for none, you can optimize the performance of the selection by choosing “Use only Expected Message Date” respectively “Use only Expected Event Date”.
- If you need to parallelize the processing due to very high volume of overdue expected events, you can do this by scheduling multiple background jobs for report /SAPTRX/EE_MONITOR_PACK. You can use the date/time input fields to allocate the expected events to the different jobs, e.g. by running 6 jobs every hour and each of the job selects for date/time range of 10 minutes. But normally this should not be necessary.

Optimize the processing of the overdue expected events

- The performance of the processing of overdue expected events to which no expected event monitor activity is assigned can be increased by implementing notes 1915817 and 1919850. The data retrieval of the control, info and system parameters and the event messages of the corresponding event handler is not done in this case, because this data is not needed for the processing. Implementing the note can have a positive impact on the processing time of all three reports.
- If you have assigned an expected event monitor activity and you certainly know that not all event handler data is needed for the processing, you can use the following input parameters to avoid unnecessary data retrieval:
 - a) No Selection of Control Param.
 - b) No Selection of Info Param.
 - c) No Selection of System Param.
 - d) No Selection of Event Messages

If one of these input parameters is set, the corresponding event handler data is not retrieved. They are available for the reports /SAPTRX/EE_MONITOR_ADVANCED and /SAPTRX/EE_MONITOR_PACK, if note 1925884 is implemented.

GENERAL RECOMMENDATION

In general, the recommendation is to use the new report /SAPTRX/EE_MONITOR_ADVANCED. As usual it should be scheduled periodically as background job. If you have set up the expected events in your scenarios in a way that either the expected message date is set for all expected events or for none, you can optimize the performance by choosing the corresponding option regarding the selection of the expected events.

If you have set up the expected events in your scenarios in a way that at least parts of them do not use the expected message date, note 1924078 describes how index 'EVT' of table /SAPTRX/EH_EXPEV can be enhanced.

AVAILABLE NOTES

Note	Short Text	Description	Validity & SPs
1915817	Performance optimization for processing overdue events	<ul style="list-style-type: none"> • Introduction of new report /SAPTRX/EE_MONITOR_ADVANCED with possibility to optimize the selection of the expected events • No retrieval of EH data anymore, if no EE monitor activity is assigned 	EM 5.1 <SP22 EM 7.0 <SP15 EM 7.01 <SP12 EM 9.0 <SP05
1919850	Performance optimization for processing overdue events	New input parameters for optimizing the selection also available for /SAPTRX/EE_MONITOR_PACK	EM 5.1 <SP22 EM 7.0 <SP15 EM 7.01 <SP12 EM 9.0 <SP05
1925884	Performance optimization of processing EE Monitor activities	Input parameters to avoid unnecessary retrieval of EH data	EM 9.0 <SP05
1926575	Time as input parameter for report /SAPTRX/EE_MONITOR_PACK	Time fields added as input parameter for /SAPTRX/EE_MONITOR_PACK	EM 9.0 <SP05
1928378	Time as input parameter for report /SAPTRX/EE_MONITOR_PACK	Time zones added as input parameter for /SAPTRX/EE_MONITOR_PACK	EM 9.0 <SP05
1924078	Optimize performance of selection of overdue expected events	Recommendation of enhancing index 'EVT' of table /SAPTRX/EH_EXPEV	Release independent

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