

Advanced Event Processor

Expanding possibilities...

for
Unicenter TNG 2.x and NSM 3.0

Mag. Gottfried Rudorfer
CA Vienna, Austria

Introduction

The Advanced Event Processor (AEP) integrates into Unicenter NSM event management (EM) and greatly enhances the performance and the power of this message-processing environment.

Unicenter NSM Base consists of many individual parts whereas EM glues these parts together. EM consists of the console and a set of message records to trigger actions on the receipt of messages. These message/actions give Unicenter NSM the well-known flexibility.

AEP was designed upon the requirement during a project with the world leading credit card company to process tons of monitoring messages generated by hardware (routers, NT-, UNIX-servers, MVS, UPS, ISDN, etc.), the hardware monitoring tools of the UNIX vendors which send at regular intervals messages (even if the devices are ok), the operating systems, the applications like Tuxedo, Oracle, Omniback, special applications of the customer, and many more. Regular message actions were not enough to process up to 1000 messages per minute. The goal of message processing was to find messages relevant of notification through our Advanced Helpdesk (AHD). Each message was assigned to a predefined event class with a severity (impact of message occurrence) to the productive business. Message coupling with AHD is another interesting topic that was optimally covered by our FSG Service team, too. But this is another story, which probably will be published soon.

AEP uses the information base (message records and message actions) to perform faster and specialized processing of messages outside and completely independent from Unicenter's EM.

AEP does not change the regular behaviour of Unicenter NSM. It just sits beside NSM and performs additional, complex and powerful message processing.

And even more important: The design is simple, easily extensible, decoupled from EM and transparent. It is very easy i.e. to send the messages to Excel for a detailed messages and actions report.

Concept

AEP is linked to the console and defines a very simple and easy to access ASCII file text queue. For special tasks programmed background daemons process the queue in a very efficient way and allow complex message correlations compared to the standard approach of COMMAND based message/actions. Processed messages are sent with the wtopipe utility back to the NSM console.

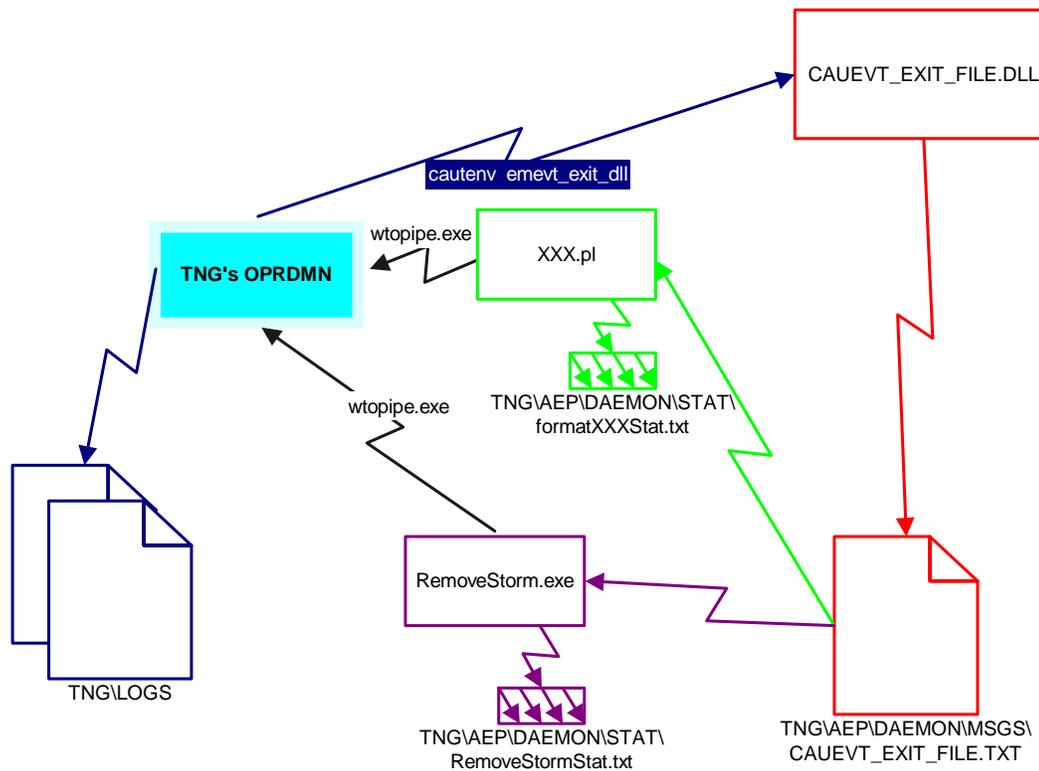


Figure 1 Interfaces of the Advanced Event Processor

Figure 1 outlines the working principle of AEP. TNG's oprdmn triggers via the exit-DLL a function that appends the complete message and the action to a simple text file.

Independent daemons perform complex operations with this information and write the results back to Unicenter.

Daemons

The kit currently contains only one daemon – RemoveStorm.

All daemons sit on the ASCII file generated by the AEP exit function for Unicenter. AEP daemons work completely independent from Unicenter's Event Management. They rely on added entries found in the ASCII export file.

Each daemon sees all console messages. Each daemon listens on some predefined criteria. These daemons use the **source** and **category** attributes of an action (not the message). These messages are then processed by the daemons.

RemoveStorm

Removing message storms without losing critical transactions by interval measurement of messages is a key functionality of message processing systems. The syslog daemon of UNIX systems is supporting this kind of feature.

This feature allows us to assign an independent storm filter for individual message records. Suppose one message record is fired quite often (a message appears frequently in the console). RemoveStorm immediately passes the first message back to the console. A new interval period starts now. All other messages that appear in the console are now blocked (not sent to console) until the interval expires. Finally the number of messages received during that period and the message itself are sent back to the console.

Additional Daemons

The architecture allows more than just one processing daemon. Additional daemons may be added to AEP. Currently a Service Level Report Daemon is in development phase.

Installation

Please perform the installation according to screenshots of a sample installation.
[Inst-doc\0index.htm](#)

Author: 2002-04-05: Gottfried Rudorfer, Computer Associates Vienna, Austria.