

CrossTalk™ Perl Automation Framework

Alarm Triggered Perl Script Launch Facility

- ◆ Major new capability for HP TeMIP
- ◆ Integrates a Perl environment for automatic processing of TeMIP alarms
- ◆ Adds significant value to HP OV TeMIP solutions in short timescales
- ◆ No special skills needed to develop applications
- ◆ Enables a RAD approach for HP OV TeMIP development
- ◆ Extensive business benefit through reduction of operations work load and time to rectify faults
- ◆ Layered on the Crosstalk™ Alarm Application Services (AAS)
- ◆ Perl scripts can be conditionally launched based on alarm information
- ◆ Perl environment tightly integrated with HP OV TeMIP
- ◆ Perl scripting flexibility and the dynamic nature in which functionality can be applied are key features

OVERVIEW

The CrossTalk™ Perl Automation Framework (PAF) provides a complete development environment abstracted from the HP TeMIP framework. The Perl interface supplied allows any supported HP TeMIP TAL command to be issued from a launched Perl script. The PAF simplifies and de-skills the building of new alarm processing applications and services for integration with HP TeMIP.

Solutions can easily be built that are capable of acting on received HP TeMIP alarms either by;

- ◆ Undertaking supplementary actions within the HP TeMIP Framework itself
- ◆ Invoking external actions on network equipment or customer systems

The PAF provides a controlled framework for the development and execution of Perl alarm processing scripts that are launched by the receipt of specific HP OV TeMIP alarms triggered by the CrossTalk™ Alarm Application Services (AAS). The diagram overleaf describes the PAF.

RULESET BASED ALARM DISCRIMINATION

The PAF is invoked from standard AAS mapping rulesets which provide powerful alarm selection and parsing mechanisms to identify any category of alarm required to be processed by the targeted Perl script.

RULESET BASED MODULE DISCRIMINATION

Mapping rulesets define the particular Perl module which will be launched.

RULESET BASED PARAMETER DEFINITION

Perl module specific parameters can be defined in mapping rulesets and be passed as parameters to a target Perl module.

CONFIGURATION OPTIONS

The PAF governs the following configuration options for internal communications, system resource usage, and exception handling:

PerIPort: defines the TCP/IP socket number to which the alarm data will be written.

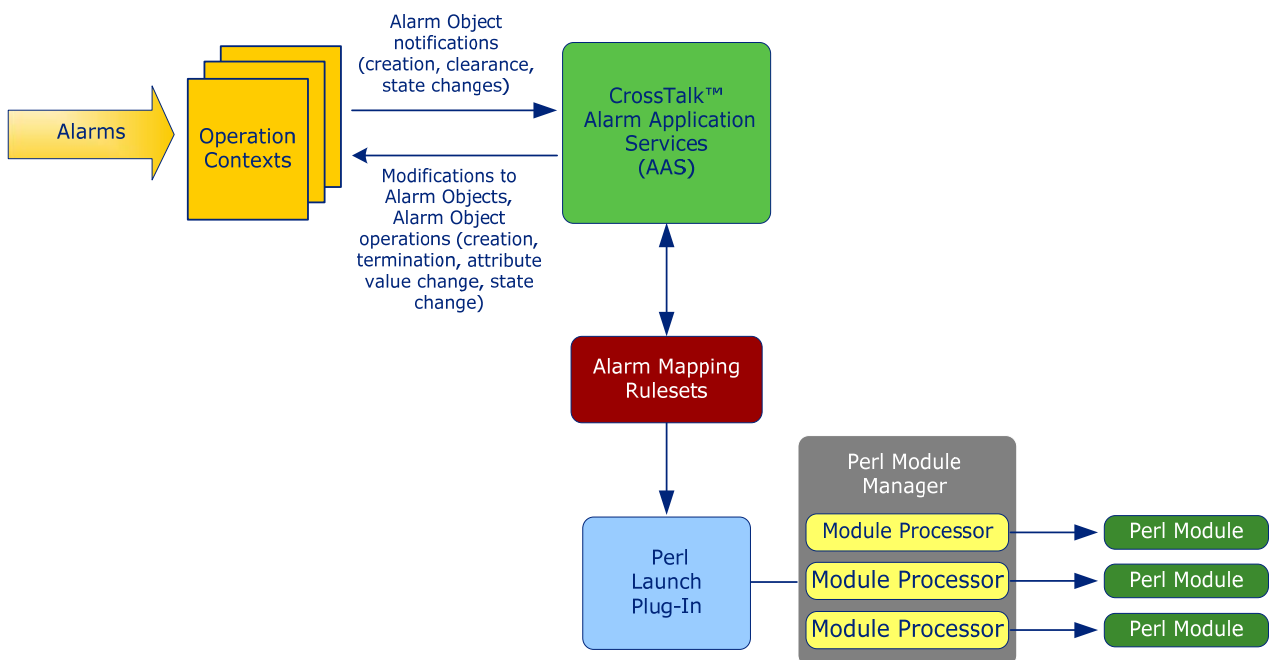
TraceFile: defines the location and name of the trace file. The default location is /var/mcc/trace. The default name will depend on the Perl script being launched.

max_servers: defines the number of Perl script child processes that are run by the PAF.

q_size: defines the maximum size of the alarm queue. When the queue reaches this maximum size all subsequent incoming alarms are discarded.

admin_target: defines an HP TeMIP entity against which admin alarms can be raised by the PAF. This entity should exist as a member of the associated domain for whichever Operation Context the alarms are desired to be raised in.

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Key Features:

- ◆ Automatic fault correction by automation of corrective actions that would normally be performed by an operator
- ◆ Accrue significant business benefit by reducing overall operations work load and time to rectify faults
- ◆ Easily integrate HP TeMIP Fault Management with in-house applications
- ◆ Dynamic updates of Perl scripts/configuration reduce complexity and development life cycle compared to other methods
- ◆ Set criteria to qualify alarms to trigger script launch
- ◆ Alarm Object creation triggers Perl Module
- ◆ Passes extracted Alarm Object fields to script for processing
- ◆ Provides controlled execution environment including queuing and throttling to control system and network element load
- ◆ Includes Perl Module for the TAL to provide complete access to the HP TeMIP framework from the PAF

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