SML CRUD Announcement
May 07

SML has announced a major new set of facilities to supplement its Workbench product.

They are made available under the generic heading of “CRUD Analysis”.

Because of the unique way that the Fermat Product set analyses assembler code, we are now able to provide a comprehensive set of reports which clearly identify the Create, Retrieve, Update and Delete (CRUD) functions executed in all TPF assembler modules.

The “CRUD Analysis” provides three types of report:-

1. File CRUD Analysis

This details all external files within a system, all of the modules that use each file and a statement of the CRUD functions which are carried out by each module.

2. Field CRUD Analysis

This details all fields from external files that are used by all modules within a system, and a statement of the CRUD functions performed on each field by each module.

3. Module CRUD Analysis

This details all modules within a system, and for each module provides a statement of all external files used, and the CRUD functions performed on the fields within those files.

Specifically in TPF it is not unusual for the following circumstances to occur:-

> Module A reads a file and passes field 1 to Module B; Module B manipulates field 1 and passes the changed value to Module C.
>
> Module C updates the file that was read in Module A.

In these cases this analysis will show where such a field is passed to, and where it is received from.

Never before has this information been made available automatically for a TPF system.We believe that significant business value is available from these analyses, particularly when used in conjunction with the Call Graph features of the Fermat Workbench, in the following areas:

Systems Maintenance Enhancements

Investigation
Sizing
Estimating
Design
Testing
Program Code Clean-up

System Re-engineering

System Audit
Process Identification
Process Flows
Process Interaction
Business Rules Identification

Reporting Analysis

SML's new offering identifies all of the CRUD events as they occur in all of the modules of a system. The data that defines each event is stored in a repository that is external to the Fermat Product Set. It is thereby available for whatever analysis that a User wishes to perform upon it.

Whilst we believe that the "CRUD Analysis" is a major addition to the Fermat Product Set there are because of the nature of TPF code and TPF developers one or two constraints upon what is possible.

Specifically, there will be cases where it will not be possible, from within the Module code, to identify the specific file that is being accessed; also there will be cases where we can identify the file but not the fields that are being used. Both of these problems can be resolved by examining the code manually. We expect such instances to be a very small proportion of the total number of events that we identify.

SML are currently designing a JCL parser in order that we can make all of the CRUD Analysis features available for non-TPF Assembler environments.

A detailed technical specification will follow this announcement.

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