PathPoint Software

Finally – A Mainframe Application Performance Tool Designed for the Application Analyst

Unique Application Analyst Needs

Discovering the underlying basis for mainframe application performance problems is very challenging.

Performance improvement opportunities could easily be identified if only the analyst were able to answer two fundamental questions:

- *Where is the greatest amount of time spent in my application?*
- *How does the application work at that point?*

PathPoint is Designed for Analysts

PathPoint answers these two fundamental questions and provides information that enables the analyst to rapidly discover performance improvement opportunities, such as:

- Reduce or Eliminate Calls
  - *Duplicates*
  - *Repeating patterns*
  - *Improper return code defaults*
- Reduce Time for Long Running Calls
  - *Access path analysis*
- Consolidate or Distribute Files/Tables
- Combine or Separate Program Functions

The PathPoint Dynamic Approach

PathPoint is a *dynamic* mainframe application *discovery* analysis tool that enables analysts to quickly pinpoint the basis for application performance problems.

Analysts simply enter the poor-performing business transaction(s) and PathPoint traces the application processing path followed by that transaction, as it executes, capturing invaluable application performance information - without any change to source code.

Unique Performance Information

Business transaction specific execution-based performance information captured by PathPoint, includes:

- Call statements executed, in sequence of execution
- Program name & source code statement number for each executed call statement
- Number of times a specific call statement is executed
- The elapsed time for each call statement to execute
- The time between the end of one call statement and the beginning of the next
- Which tables/files are accessed and how (creates, reads, updates and deletes)

Performance Summary View

Total	% Total	Freq	Subsystem	Trans/Step	Pgm/Pkg	Call Type	Stmt #	Statement
35.645	68.7%	5	DB2A	SAE630AD	SAEH6324	DB2	9144	OPEN MBR_CSR
0.942	1.8%	1	DB2A	SAE630AD	WDBTBCOD	DB2	2070	SELECT SQLCODE , SEVERITY INTO : SI
0.911	1.8%	3	DB2A	SAE630AD	SAEH6320	DB2	2853	DELETE FROM SAV11900_MBRCHGTRG
0.685	1.3%	12	DB2A	SAE630AD	SAEB6910	DB2	4923	SELECT MBR_ID INTO :DCLSAV13100-ME
0.632	1.2%	11	DB2A	SAE630AD	SAED6035	DB2	3501	INSERT INTO SAV37301_MBRSHPCHG (M
0.446	0.9%	11	DB2A	SAE630AD	SAEB6950	DB2	2230	INSERT INTO SAV08301_MBRACTHST (M
0.391	0.8%	26	DB2A	SAE630AD	SAEB6969	DB2	3798	UPDATE SAV10000_MBRCXBILR SET FSC
0.348	0.7%	12	DB2A	SAE630AD	SAEB6910	DB2	6496	INSERT INTO SAV12300_MBRMCMCSA V

Observation: 69% of time spent on five executions of same call statement (#9144)

Performance Detail View

Seq	Resp	TP Subsyste	Pgm/Pkg	Call Type	Stmt #	Statement	Status	Start Time
1618	10.061	DB2A	SAEH6324	DB2	9144	OPEN MBR_CSR	0	9:32:35 PM
2357	9.904	DB2A	SAEH6324	DB2	9144	OPEN MBR_CSR	0	9:32:47 PM
796	5.296	DB2A	SAEH6324	DB2	9144	OPEN MBR_CSR	0	9:32:19 PM
1219	5.230	DB2A	SAEH6324	DB2	9144	OPEN MBR_CSR	0	9:32:29 PM
3045	5.154	DB2A	SAEH6324	DB2	9144	OPEN MBR_CSR	0	9:32:58 PM
3200	0.942	DB2A	WDBTBCO	DB2	2070	SELECT SQLCODE , SEVERITY INTO : SDBS-SQLCODE , :	100	9:33:06 PM
780	0.909	DB2A	SAEH6320	DB2	2853	DELETE FROM SAV11900_MBRCHGTRG WHERE :DCLSA	0	9:32:18 PM
206	0.306	DB2A	SAEB6035	DB2	3501	INSERT INTO SAV37301_MBRSHPCHG (MBRCHG_PST_T	0	9:32:13 PM
537	0.289	DB2A	SAEH6322	DB2	7498	INSERT INTO SAV09402_DEP_SBSC (DEP_SBSC_EFF_D	0	9:32:15 PM
127	0.282	DB2A	SAEB6910	DB2	4923	SELECT MBR_ID INTO :DCLSAV13100-MBRXMBRC.MBR-ID	0	9:32:12 PM

Sample: Captured Call Statement Performance Information

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Breakthrough Dynamic Technology

Without any change to application source code, PathPoint *dynamically* captures the application-processing path followed by a specified business, *user-entered*, business transaction(s) as it executes on the mainframe. In minutes, application information is captured on the mainframe and downloaded to a PC relational warehouse. Users are provided with factual information about the application, including, in the actual sequence of execution:

- Input and output screens
- Programs called
- Call statements issued
- Tables/files accessed
- How tables/files are accessed

Access to accurate information provides an unmatched understanding of mainframe applications – knowledge based upon execution-based fact.

Step 1 – Enter Business Transactions

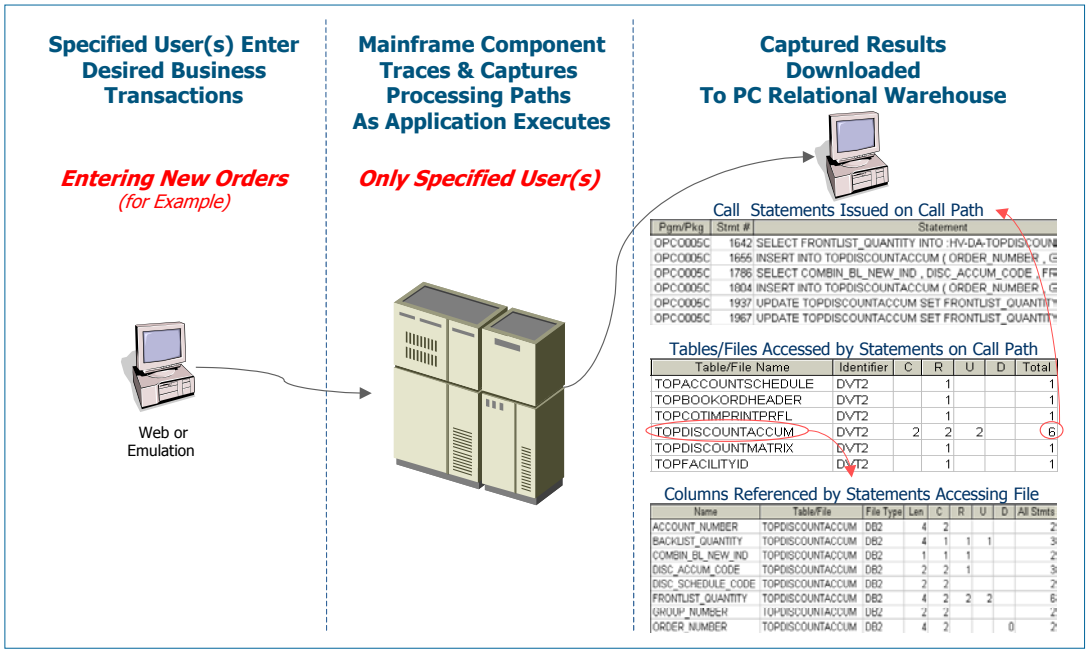
A specified (by user-id) mainframe user simply enters a desired business transaction (enter an order, for example) in either the test or production environment. The PathPoint Mainframe Component *dynamically* traces and captures the application processing paths followed by the entered business transaction. Captured information is then downloaded to the PathPoint PC Analyst Workstation relational warehouse for analysis.

Step 2 - Analyze Captured Information

The PathPoint PC Analyst Workstation, with its relational database, enables users to have rapid point-and-click access to mainframe application processing information – users now understand how the application really works. Information is organized hierarchically in business terms, simplifying access and understanding:

Features at a Glance

- Captures, in sequence, the application processing activity for user-specific business transactions
- Programming language independent
- No change to source code required
- Supports online and batch environments
- Provides application performance information at the call statement level
- Captures terminal and non-terminal entered business transactions
- Follows application processing activity across multiple CICS regions
- Provides CRUD matrix of call activity to tables/files and field/column level



Capturing Business Transaction Specific Application Processing Information

Platform Support

Operating Systems
- *MVS (z/OS, OS/390)*

TP Monitors
- *CICS*
- *IMS*

Data/File Access
- *DB2*
- *IMS*
- *VSAM*
- *Temp Storage*
- *Transient Data*

Batch Environments
- *DB2 Batch*
- *IMS Batch*

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