



IBM Software Group

TPF Users Group Spring 2005

TPFDF Status Update

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AIM Enterprise Platform Software

IBM z/Transaction Processing Facility Enterprise Edition 1.1.0

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Agenda

- TPFDF 1.1.3 PUT 20
- z/TPFDF 1.1
- Future Database Strategy

TPFDF 1.1.3 PUT 20

- Scheduled for General Availability in June 2005
- Includes APARs using new "PK" prefix (for example, PK00945)
- Total of 59 APARs, including:
 - ▶ Single Source Enhancement - PQ91889
 - allows application updates now for future z/TPF migrations
 - dollar signs cannot be used in segment names for z/TPF
 - provides wrappers that allow C language headers to be called using their z/TPF names
 - for example, C\$SW00SR is now also called C_SW00SR
 - tools are provided to assist with these application updates

TPFDF 1.1.3 PUT 20

- ▶ FARF6 Support - PQ94935
 - allows use of FARF6 and 8-byte file addresses in TPFDF databases
 - first deliverable provided "infrastructure" changes
 - PQ74483 (TPFDF PUT 19)
 - PJ29213 (TPF PUT 18)
 - second deliverable provides DBDEF migration switches
 - PQ94935 (TPFDF PUT 20)
 - PJ29582 (TPF PUT 19)
 - New TPFDF Migration Guide contains details

z/TPF Database Facility Enterprise Edition Version 1 Release 1

- Commonly called z/TPFDF
- Product is separate from z/TPF 1.1
 - ▶ Separate product number
 - ▶ Separate PUTs
- z/TPF 1.1 requires z/TPFDF 1.1
 - ▶ More z/TPF services will use z/TPFDF
 - Recoup
 - Debugger dump manager (ZDDMP)
 - Continuous data collection (CDC)

z/TPFDF 1.1

- Code will ship as full source
 - ▶ Part of the z/TPF HFS hierarchy
 - ▶ No sequence numbers

- Documentation is part of the z/TPF Product Information Center (InfoCenter)

- Uses the same build tools as z/TPF

z/TPFDF 1.1

- Exploits new z/TPF features
 - ▶ I-stream scheduler
 - ▶ Application time-out value
 - ▶ Dump trace groups
 - ▶ 64-bit applications
 - ▶ Baseless environments
 - Base register other than R8
 - Multiple base registers
 - No base registers

z/TPFDF 1.1

- SW00SR redesigned
 - ▶ No longer uses chained core blocks
 - ▶ Uses ECB heap storage
 - ▶ Fields reorganized
 - ▶ Improves maintainability
 - ▶ Formatted SW00SR in dumps

- Key Processing updates
 - ▶ SW00SR area used to processes 6 or less keys
 - ▶ Core block used to process more than 6 keys
 - ▶ Satisfies TPFUG requirement DF00159

z/TPFDF 1.1

- New user exit for configuration values in ACPDBE
 - ▶ Allows customers to add equates, such as for user-defined algorithms, for use by z/TPFDF
 - ▶ Satisfies TPFUG requirement DF00169

- ZUDFM MLS changes
 - ▶ Offline process eliminated
 - ▶ DSECT symbolic data (ADATA) loaded to online system
 - can be obtained through ADATA of DBDEF segments
 - ▶ All other ZUDFM MLS externals are unchanged
 - ▶ No migration considerations for existing MLS data

z/TPFDF 1.1

- Eliminate automatic display of entire subfile
 - ▶ ZUDFM FAD
 - ▶ ZUDFM ADD
 - ▶ ZUDFM REPLACE
 - ▶ Addresses TPFUG requirement DF00171

- TPFDF utilities can be used in 1052 state when GFS is active

- Data Collection status now available using ZUDFC STATUS
 - ▶ satisfies TPFUG requirement DF00175

z/TPFDF 1.1

- New ZUDFM parameters available to display DBDEF option bits
 - ▶ for example, "ZUDFM DEF OPT/OP4" will display OP4 settings for all files
 - ▶ optional mask can be used to display only files meeting specified attributes
 - for example, *ZUDFM DEF OPT/OP3/*****Y*** will display all files that use B+TREE indexing (#BIT5 of OP3)
 - ▶ satisfies TPF Users Group requirement DF00172

z/TPFDF 1.1

- Recoup will display a specific message at the beginning and end of chainchase for each DBDEF

- ZUDFM RESTRICT will be easier to use
 - ▶ only display information for the command whose restrictions were modified
 - ▶ allow all restrictions to be displayed, or only restrictions for one command

- DBDEF segments can exceed 4K in size

Future Database Strategy

- IBM is actively investigating new projects to standardize database access in TPF
- Two major areas need to be considered:
 1. Existing TPFDF data needs to be represented by industry standard models
 - for example, model TPFDF data as relational tables that can be accessed through SQL
 - provide a new set of APIs conforming to SQL standards
 - offline translator would convert SQL APIs to TPFDF APIs

continued.....

Future Database Strategy

2. Implement a native relational database manager for new databases
 - New database manager
 - Could be UDB, MYSQL, or other solutions
 - Underlying backing database would be transparent to application

IBM needs customer feedback on these strategies!

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