IBM Education Assistance for z/OS V2R1

Item: TFS Enhancements
Element/Component: z/OS UNIX System Services

Agenda

- Trademarks

- Presentation Objectives

- Overview

- Usage & Invocation

- Installation

- Presentation Summary

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Trademarks

- See url http://www.ibm.com/legal/copytrade.shtml for a list of trademarks.

Session Objectives

- Describe enhancements to the TFS file system:

  - FSFULL monitoring

  - Increase the size of a TFS file system
    - Manually
    - Automatically

  - Produce unique reason codes with bpxmtext support

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Overview

- Problem Statement / Need Addressed
  - Space management for TFS file systems can be difficult because there are no warnings when space is critical and no capability to dynamically increase the size
  - TFS does not produce reason codes for error conditions

- Solution
  - TFS will issue messages similar to HFS and ZFS as space becomes critical.
  - TFS can be configured to increase in size
  - TFS will produce unique reason codes for error conditions

- Benefit / Value
  - Simplify management of TFS file systems

Usage & Invocation

- TFS global defaults can be specified in the FILESYSTYPE PARM
  - FILESYSTYPE TYPE(TFS) ENTRYPOINT(BPXTFS)
       ASNAME(TFS,'SUB=MSTR')
       PARM('-FSFULL(80,5) -EA(10) -EM(10)')

- Use MODIFY to change global defaults or manually grow a file system
     F tfs,fsfull(80,5)
     F tfs,grow dev

- Limited diagnostic query via MODIFY: F TFS,Q

- TFS file system specific defaults can be specified on the mount parm
  - MOUNT FILESYSTEM(DEV) TYPE(TFS) MOUNTPOINT('/dev')
       PARM('-s100 -fsfull(80,5) -ea(10) -em(10)')

Usage & Invocation

- New and Changed Messages
  - BPXTF107I *filesystem* SIZE=*size* MAX FILE SIZE=*size2* FSFULL(*threshold,increment*) EA=*growa* EM=*growm*
    - Issued after a successful mount
    - This replaces BPXT007I
  - FSFULL Monitoring
    - BPXTF009E FILESYSTEM EXCEEDS *percent*% FULL: *name*
    - BPXTF010E FILESYSTEM IS FULL: *name*
    - BPXTF011I FILESYSTEM IS NOW BELOW *percent*% FULL: *name*
  - MODIFY Responses
    - BPXTF012I GLOBAL SETTINGS: fsfull(*threshold,increcmet*) ea *growa* em *growm*
    - *BPXTF014I FILESYSTEM EXTENDED ea count* em *count2 name*
    - *BPXTF015I MANUAL EXTENDS EXCEEDED FOR name*

Installation

- FILESYSTYPE statement for TFS in your BPXPRMxx member

- For Modify support run TFS in a colony

Presentation Summary

- TFS will now issue space critical messages

- TFS will allow for the file system to be expanded

- TFS will issue reason codes for error conditions

- Modify support for default changes and limited query

Appendix

- Pubs: Unix System Services Planning GA22-7800