IBM Education Assistance for z/OS V2R1

Item: Unicode Auto-conversion Support

Element/Component: Language Environment

Agenda

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Trademarks

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

Presentation Objectives

- Explain the Language Environment interfaces to the Unix System Service Unicode Auto-conversion environment.

Overview

- ## Problem Statement / Need Addressed
  - Customers can no longer assume their files are read or written on the same system, or at the same geographic location from which they originated. Tagging and conversion of files between varying code pages is expected to become more prevalent in the future.

- ## Solution
  - Provide interfaces to the Unicode Auto-conversion environment.

- ## Benefit / Value
  - Applications can use files that come from other platforms without changing, and can generate files that can be used directly by applications on other platforms as well.

Usage & Invocation

- To enable the conversion environment, a user can use one of the following methods:

    - Set environment variable _BPXK_AUTOCVT to "ALL".
        - setenv() and putenv() have no effect on multi-thread program. And non-IPT threads will have the same AUTOCVT state as IPT thread.

    - Using C runtime library function fcntl() to set cvtcmd to SETCVTALL.

    - Using C runtime library function __ae_autoconvert_state() with CVTSTATE_ALL.

Usage & Invocation

- To query the conversion environment of a thread, a user can use one of the following methods:

  - Using C runtime library function fcntl() to set cvtcmd to QUERYCVT.
  - Using C runtime library function __ae_autoconvert_state() with CVTSTATE_QUERY.

- To tag a file

  - Using C runtime library function fcntl() with F_SETTAG

- To set a CCSID to a thread.

  - Set environment variable _BPXK_PCCSID to the CCSID.

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Presentation Summary

- The interfaces of Unicode Auto-conversion are provided.

Appendix

- Publication references:
  - z/OS XL C/C++ Programming Guide   SC09-4765
  - z/OS XL C/C++ Runtime Library Reference SA22-7821
  - z/OS Language Environment Customization SA22-7564
  - z/OS Language Environment Vendor Interfaces SA22-7568