z/OS 3.1 IBM Education Assistant

Solution Name: Update C headers for Open XL C/C++ compiler

Solution Element(s): Language Environment

July 2023

Agenda

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Trademarks

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

- Additional Trademarks:
  - None

Objectives

- Describe the LE C headers for Open XL C/C++ compiler.

Overview

- Who

  Application programmers who want to use OPEN XL C/C++ compiler

- What

  - LE C header files are updated to support the compiler.

- Wow

  - Application programmers can exploit latest compiler technology on z/OS

Usage & Invocation

- C headers are able to support both IBM XL C/C++ for z/OS compiler and IBM Open XL C/C++ for z/OS compiler

- Changes for OPEN XL compiler are fenced by below check:

```
defined(__clang__) && !defined(__ibmxl__)
```

- Changes include:
  - Update pack/alignment related macros for OPEN XL C/C++
  - Update built-in function related macros for OPEN XL C/C++
  - Update variable argument related macros for OPEN XL C/C++
  - Update C++ exception related macros for OPEN XL C/C++
  - Update data structures for standard conformance and for OPEN XL C/C++

Interactions & Dependencies

- Software Dependencies
  - None

- Hardware Dependencies
  - None

- Exploiters
  - IBM Open XL C/C++ for z/OS.

Upgrade & Coexistence Considerations

- To exploit this solution, all systems in the Plex must be at the new z/OS level: No

- No upgrade/coexistence concerns

- No toleration/coexistence APARs/PTFs

Installation & Configuration

- Support for z/OS V2R4, V2R5 was delivered by APAR PH41221

Summary

- LE C headers are updated to support Open XL C/C++ compiler.

Appendix

- z/OS XL C/C++ Runtime Library Reference