The Common Run-Time Environment is a prerequisite software product for running source programs compiled with the COBOL2000, COBOL85 and C/C++ compilers. CRTE acts as the central interface between the objects generated by the compilers and the BS2000/OSD operating system.

Product Characteristic

CRTE (Common Run-Time Environment) V2.9 is the common runtime system for all variants of the following compilers: COBOL2000 V1.0 or higher, COBOL85 V2.1 or higher, C and C++ V2.1 or higher, and C/C++ V3.0 or higher in BS2000/OSD V9.0 or higher and in OSD/XC 9.0 or higher.

CRTE includes language-specific and language-neutral libraries, routines for program linkage, mathematics, standardized event and exception handling, as well as storage and I/O management. The header files of the C and C++ library functions are also part of CRTE.

CRTE is a software requirement for COBOL85, COBOL2000, C and C++ applications produced using the aforementioned compiler versions, and for running the COBOL2000 BS2000/OSD compiler. CRTE is also a prerequisite for applications comprising a mix of different languages. CRTE V2.9 supports the COBOL85, COBOL2000, C and C++ compilers as well as the associated applications also in POSIX.

Most modules of the CRTE runtime system are shareable and can be preloaded as a subsystem. CRTE is also included in the OSDLXC extended operating system package for computers of the SX series and SQ series. However, only the modules of the C/C++ runtime system and ILCS are available in RISC SPARC code in this variant, but not the COBOL-RTS.

Functional Description

CRTE includes built-in functions and routines for linking programs via the communication interface of the Inter-Language Communication Services (ILCS). The standard C++ library conforming to the ANSI C++ Draft and the Tools.h++ library are also shipped with CRTE.

The standard C++ library includes a string class, container classes, iterators, generic algorithms, numeric classes and operations, as well as I/O classes.

The Tools.h++ library contains universally usable “foundation classes”. These include string classes with pattern-matching mechanisms, classes for handling date and time, virtual streams, container classes and internationalization classes.

Program Description

CRTE consists of the modules of the runtime systems for COBOL2000, COBOL85 and C/C++ and the language-neutral libraries. The header files of the C/C++ library functions are also part of CRTE.

Most modules of the CRTE runtime system are shareable and can be preloaded as a subsystem. The generated /390 format guarantees object compatibility for running BS2000/OSD customer applications, even in the event of future architecture changes.
Product overview:
 TECHNICAL DETAILS

CRTE V2.9

Technical Requirements

Hardware
BS2000/OSD Business Server

Software
BS2000/OSD-BC V9.0 or OSD/XC V9.0
BS2000/OSD-BC V9.0 with POSIX-BC is required in order to use the POSIX functionality. The POSIX subsystem must be installed and loaded. The POSIX-BC version released for the relevant OSD version is required for running POSIX applications produced with CRTE V2.9

Operating Mode
Batch and interactive dialog

Implementation Language
C/C++, SPL4 and Assembler

User Interface
Messages in English or German

Installation
Please refer to the relevant release notices.

Documentation
User guide for CRTE
Reference manual for C library functions in BS2000
Reference manual for C library functions for POSIX applications

Reference manual for C++ library functions for Cfront mode
Documentation available in English only:
User’s Guide and Reference for Standard C++ Library
Functions (ANSI-C++ mode)
User’s Guide for Tools.h++ ©
Class Reference for Tools.h++ ©
Tools.h++ Copyright © Rogue Wave Software, Inc.
The documentation is available as online manuals, see http://manuals.ts.fujitsu.com/mainframes.html or in printed form which must be paid for and ordered separately at http://manuals.ts.fujitsu.com .

User Requirements
Knowledge of the C++, C, COBOL programming languages and BS2000/OSD

Training
See course offer at:

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