Datasheet
FUJITSU Software BS2000
CRTE V11.0

Common Run-Time environment for COBOL200, COBOL85 and C/C++

SHORT DESCRIPTION

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/BC operating system.
**Product Characteristic**

CRTE (Common Run-Time Environment) V11.0 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/BC V11.0 or higher and in OSD/XC V11.0 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) compiler. CRTE is also a prerequisite for applications comprising a mix of different languages.

CRTE V11.0 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 OSD/XC extended operating system package for computers of the SE series and SQ series. However, only the modules of the C/C++ runtime system are available, 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++ @ Rogue Wave 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 customer applications, even in the event of future architecture change.

**Functional Extension**

With CRTE V11.0 for the first time SAM-Node-Files are supported. CRTE V11.0 allows the creation and modification of SAM-Node-Files as normal text file.
Product overview:

- **CRTE**
  - C runtime system
  - C++ library

- **ILCS**
  - COBOL85 runtime system
  - Common internal routines

- **C programs**
- **C++ programs**
- **COBOL85 programs**
- **COBOL2000 programs**
- **Programs of other language**
Technical Details

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More information

### Fujitsu products, solutions & services

In addition to BS2000, Fujitsu offers a full portfolio of other computing products.

#### Products


#### Computing products

- Storage systems: ETERNUS
- Server: PRIMERGY, PRIMEQUEST, Fujitsu SPARC M10, BS2000/OSD Mainframe
- Client Computing Devices: LIFEBOOK, STYLISTIC, ESPRIMO, FUTRO, CELSIUS
- Peripherals: Fujitsu Displays, Accessories
- Software
- Network

Product Support Services with different service levels agreements are recommended to safeguard each product and ensure smooth IT operation.

#### Solutions


The Fujitsu solutions combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships. Fujitsu’s Solutions include parts of one or more activity groups (e.g., planning, implementation, support, management, and training services) and are designed to solve a specific business need.

**Infrastructure Solutions** are customer offerings created by bringing Fujitsu’s best products, services and technologies together with those from partners to deliver benefit to our customers’ businesses.

**Industry Solutions** are tailored to meet the needs of specific verticals.

**Business and Technology Solutions** provide a variety of technologies developed to tackle specific business issues such as security and sustainability, across many verticals.

The [BS2000 CRTE V11.0 Datasheet](http://ts.fujitsu.com/bs2000) is available online.

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### More information

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**Managed Infrastructure Services** enable customers to deliver the optimal IT environment to meet their needs – achieving high levels of IT service quality and performance for data center and end user environments.

#### Fujitsu green policy innovation


Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:


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