Datasheet
FUJITSU Software BS2000 CRTE V10.0

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) V10.0 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 V10.0 or higher and in OSD/XC V10.0 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 V10.0 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.
Product overview:

CRTE

- C runtime system
- C++ library

ILCS

- COBOL85/COBOL2000 runtime system
- Common internal routines
- Programs of other language

C programs

C++ programs

COBOL85 programs
COBOL2000 programs
# Technical Details

<table>
<thead>
<tr>
<th>Technical Requirements</th>
<th>BS2000 Business Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>BS2000 OSD/BC V10.0 or OSD/XC V10.0</td>
</tr>
<tr>
<td>Technical Requirements Software</td>
<td>BS2000 OSD/BC V10.0 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 BS2000 OSD/BC version is required for running POSIX applications produced with CRTE V10.0</td>
</tr>
<tr>
<td>Operating Mode</td>
<td>Batch and interactive dialog</td>
</tr>
<tr>
<td>Implementation Language</td>
<td>C/C++, SPL4 and Assembler</td>
</tr>
<tr>
<td>User Interface</td>
<td>Messages in English or German</td>
</tr>
<tr>
<td>Installation</td>
<td>Please refer to the relevant release notices.</td>
</tr>
<tr>
<td>User Requirements</td>
<td>Knowledge of the C++, C, COBOL programming languages and BS2000</td>
</tr>
<tr>
<td>Conditions</td>
<td>This software product is supplied to the customer against a single payment or installments in accordance with our conditions for the use of software products.</td>
</tr>
<tr>
<td>Ordering and Delivery</td>
<td>This software product may be obtained from your local Fujitsu Technology Solutions GmbH regional office.</td>
</tr>
</tbody>
</table>
## Fujitsu products, solutions & services

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

### Products
- **http://www.fujitsu.com/global/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
- **http://www.fujitsu.com/global/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.

## More information

### Services
- **http://www.fujitsu.com/global/services/**
- Several customizable Fujitsu Service offerings ensure that IT makes a real difference and delivers true business value. We do this by leveraging our extensive experience in managing large, complex, transformational IT programs to help clients in planning, delivering and operating IT services in a challenging and changing business environment.

**Application Services** support the development, integration, testing, deployment and on-going management of both custom developed and packaged applications. The services focus on delivering business and productivity improvements for organizations.

**Business Services** respond to the challenge of planning, delivering and operating IT in a complex and changing IT environment.

**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**
- **http://www.fujitsu.com/global/about/environment/**

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:

![Green Policy Innovation](image-url)

## Contact

Fujitsu Technology Solutions GmbH
Mies-van-der-Rohe-Straße 8, 80807 München
Website: [www.fujitsu.com/fts](http://www.fujitsu.com/fts)
April 30, 2018 EN