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Software Product Description

PRODUCT NAME: Framework-Based Environment Adapter Development System, Version 2.0 **SPD 64.27.00**

DESCRIPTION

The Framework-Based Environment (FBE) Adapter Development System (ADS) is a component of the FBE integrated toolkit and methodology for integrating applications in a distributed object environment. It utilizes ObjectBroker™, Digital's Common Object Request Broker Architecture (CORBA™) compliant run-time environment.

The FBE Adapter Development System seemlessly fits into the FBE Design Center to automatically generate CORBA/ObjectBroker compliant code and the necessary makefiles to compile and link this code into platform-specific executables.

From the business object models it generates, CORBA standard, Interface Definition Language (IDL) code. From the implementation models, it generates ObjectBroker standard, Implementation Definition Language (IML) and standard ANSI C code. The C code that is generated includes all the major components needed to produce test client and/or server executables. These test adapters provide fully functioning templates for most programming required to integrate with the framework, including memory management of CORBA types.

In addition to the code needed to produce executable clients and servers that can send and receive test data, the FBE Adapter Development System also embeds code that will assist in the management and debugging of these client/servers.

To aid in the development of a distributed object environment, there is embedded code that demonstrates the use of FBE's nameserver[1] for a client to locate the needed object reference to connect to the correct implementation in a server. There also is embedded code that implements the FBE managed object, as supported by FBE Object Services, which allows the FBE Adapter Development System to start, stop, and ping servers.

To aid in client and server debugging, there is embedded code that allows the FBE Adapter Development System to turn on, turn off, and filter standard and user defined trace messages.

[1] The FBE nameserver is compliant with the Common Object Services Specification (COSS).

Features

- Automatically generates CORBA V2.0 compliant IDL from the business object models defined with the FBE Design Center.
- Integrating with ObjectBroker the FBE Adapter Development System generates ANSI C code, Implementation Definition Code (IML), Method Mapping Language (MML), and target system makefiles for each adapter specified in the implementation model.
- Provides standard trace points in the adapters for debugging and monitoring client/server interaction.
- Automatically generates type code support routines, providing working code for method data types as defined in the object and implementation models.
- Online help for tool usage and methodology.
- Provides test client routines derived from implementation model specifications which lets the developer toggle between test methods and user-defined methods to assist in incremental development and debugging.
- Brings the Design Center online with the run-time framework showing client and server installations, running instances, and monitoring of real-time trace messages.

Registration Routines

The FBE Adapter Development System provides server main code that registers defined implementations with the Object Request Broker (ORB). It also provides registration of a name context in the FBE Name Server for the server. The generated code also provides rundown services that unregister the implementations.

Test Routines

The FBE Adapter Development System generates both test methods and user-defined methods (as skeletons). The test methods can be executed any time during the development of the user methods to test the framework distribution environment. These test routines also allow concurrent development as the client developer can use the test methods during client development. On the client side, test clients are generated that will execute the requests specified in the implementation model.

Tracing

The FBE Adapter Development System automatically inserts trace points in generated clients and servers. These trace points can be then be enabled and disabled via the ADS in the execution environment. Trace messages can also be filtered to show only relevant tracing information required by the developer. These trace messages can be viewed online or will be logged to a file if no display is online. Use defined trace messages can also be inserted anywhere in the clients and/or servers by using the FBE_TRACE macro.

HARDWARE REQUIREMENTS

The FBE Adapter Development System requires an Intel® IBM® compatible 486 or a PENTIUM® PC system with at least the following:

- 8 MB of memory
- A 3.5-inch, high-density floppy drive

Disk Space Requirements

The FBE Adapter Development requires 10 MB of free disk space.

This value refers to the disk space required on the user file system. This size is approximate; the actual size may vary depending on the user's system environment, configuration, and software options.

SOFTWARE REQUIREMENTS

Supported PC configurations running the following minimum software versions:

- MS–DOS® V6.0 or higher
- Microsoft Windows® V 3.1 or Microsoft Windows for Workgroups 3.11
- ObjectBroker V2.5a-06
- PATHWORKS V5.1 (PW TCP/IP) or MS®-TCP/IP 3.2

GROWTH CONSIDERATIONS

The hardware and software requirements for any future version of this product may be different from the requirements for the current version.

DISTRIBUTION MEDIA

3.50-inch (RX23), high-density diskette

ORDERING INFORMATION

The license, media, and documentation are combined in a single shrinkwrap package.

Software License, Media, and Documentation: QB-4SBAA-SA

The following items can also be ordered separately:

Software License: QM-4SBAA-AA
Software Product Services: QT-4SB*-*

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