



# Software Product Description

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**PRODUCT NAME:** Framework-Based Environment  
Object Services, Version 2.0B

**SPD 64.25.01**

## **DESCRIPTION**

### *FBE Object Services Development Edition*

The Framework-Based Environment (FBE) Object Services is a component of the FBE integrated toolkit and methodology for integrating applications in a distributed object environment. It utilizes ObjectBroker™, which is the Digital™ Common Object Request Broker Architecture (CORBA™) compliant runtime environment. ObjectBroker is a prerequisite for FBE Object Services. FBE Object Services is available in both a Development Edition and a Runtime Edition.

The FBE Object Services Development Edition provides the libraries to build framework adapters on target platforms. It also provides the execution environment for FBE clients and servers by providing the run-time object services required for framework-based solutions. This execution environment consists of naming services that conform to the Common Object Services Specification (COSS) as published by the Object Management Group (OMG®). This full implementation of COSS naming supports name-to-object binding, name resolution, and other naming services anywhere in the framework.

The FBE Object Services Development Edition also provides adapter management and debugging support services through an FBE agent. These services support tracing, registration, and other management services to assist in the debugging and management of adapters in the framework.

### *FBE Object Services Runtime Edition*

The FBE Object Services Runtime Edition provides the object services necessary to support the FBE execution environment.

The FBE execution environment consists of naming services that conform to the Common Object Services Specification (COSS) as published by the Object Management Group (OMG). This full implementation of COSS naming supports name-to-object binding, name resolution, and other naming services anywhere in the framework.

The FBE Object Services Runtime Edition also provides adapter management and debugging support services through an FBE agent. These services support tracing, registration, and other management services to assist in the debugging and management of adapters in the framework.

### **Features**

Framework-Based Environment Object Services has the following features:

- Provides all header files and object libraries necessary to develop adapters.
- Provides the components necessary to create business and support object services for the execution environment on the specific deployment operating system.
- Provides the target system build environment for user-generated adapters.
- Initial naming service and other convenience services.
- Fully distributed naming client support with a centralized name server.
- Provides client/server installation registration routines.

#### *FBE Name Server*

The FBE Name Server is a fully Object Management Group (OMG), Common Object Services Specification (COSS) compliant Name Service that supports the developers project framework. The Name Server is a CORBA server that supports all COSS functions. In addition, the Name Server provides disk caching of all Name Server data that can be loaded into replicated servers. The Name Server provides a centralized facility for object-to-name resolution of factory and other CORBA objects required by the project framework.

#### *The FBE Agent*

The FBE Agent works in conjunction with FBE clients and servers (adapters) to support FBE management functions, such as start adapter, stop adapter, and trace message filtering. The agent will monitor connection to the Design Center and will manage trace messages by logging them to a file or forwarding them to the Design Center, if online. Tracing allows for several levels of filtering to capture and review only the information of interest to the developer and supports enable/disable filtering by an adapter type or a specific instance of the adapter. The agent also works in unison with the FBE makefile utilities, such as InitAdapter, to register FBE client/server installations, which allows the Design Center to provide a complete integrated view of the framework.

*Build Environment for FBE Clients and Servers*

The FBE Object Services Development Edition contains all the required header files, object libraries, and make utilities to build FBE clients and servers on supported platforms. These libraries support the Initial Naming Service (INS), general NameService and convenience routines, and tracing as defined by the FBE Adapter Development System.

**FBE Object Services Capabilities**

Framework-Based Environment Object Services has the following capabilities:

- Builds FBE clients and servers, including registration services.
- For a server-based system, allows for the configuration of the central naming service.
- Allows the FBE Design Center with the FBE Adapter Development System to come online with server systems participating in the framework.
- Captures client/server trace messages for all adapters on the participating system. Manages the logging and/or forwarding of trace messages on behalf of the client/server.

**HARDWARE REQUIREMENTS**

*Processors supported - Alpha AXP™ processors for Digital UNIX® Development and Runtime only:*

Alpha AXP:       DEC 2000 Model 300S, DEC 2000 Model 500  
                  Digital 2100 A500/600MP  
                  Digital AXPvme 64  
                  DEC 3000 Model 300,  
                  DEC 3000 Model 300L,  
                  DEC 3000 Model 300LX,  
                  DEC 3000 Model 300X,  
                  DEC 3000 Model 400,  
                  DEC 3000 Model 400S,  
                  DEC 3000 Model 500,  
                  DEC 3000 Model 500S,  
                  DEC 3000 Model 500X,  
                  DEC 3000 Model 600,  
                  DEC 3000 Model 600S,  
                  DEC 3000 Model 800,  
                  DEC 3000 Model 800S

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DEC 4000 Model 600 AXP Series,  
DEC 4000 Model 700 AXP Series  
DEC 7000 Model 600 AXP Series  
DEC 10000 Model 600 AXP Series

*Processors supported - HP-UX® Development and Runtime only:*

HP® 9000-7xx and HP9000-8xx family of RISC processors

*Processors supported - SunOS™ Development and Runtime only:*

- Sun®/SPARC® 1
- Sun/SPARC 2
- Sun/SPARC ELC
- Sun/SPARC IPC
- Sun/SPARC IPX

*Processors supported - OpenVMS™ AXP Development and Runtime only:*

Alpha AXP:       DEC 3000 Model 400 AXP Workstation,  
DEC 3000 Model 400 AXP Server,  
DEC 3000 Model 500 AXP Workstation,  
DEC 3000 Model 500 AXP Server

DEC 4000 Model 610 AXP System

DEC 7000 Model 610 AXP System

DEC 10000 Model 610 AXP System

*Processors supported - OpenVMS VAX™ Development and Runtime only:*

VAX:               VAX 4000 Model 200,  
VAX 4000 Model 300,  
VAX 4000 Model 500,  
VAX 4000 Model 600

VAX 6000 Model 200 Series,  
VAX 6000 Model 300 Series,  
VAX 6000 Model 400 Series,  
VAX 6000 Model 500 Series,  
VAX 6000 Model 600 Series

VAX 8200™, VAX 8250™, VAX 8300™,  
VAX 8350™, VAX 8500™, VAX 8530™,  
VAX 8550™, VAX 8600™, VAX 8650,  
VAX 8700, VAX 8800, VAX 8810,  
VAX 8820, VAX 8830, VAX 8840

VAX 9000™ Model 110,  
VAX 9000 Model 210,  
VAX 9000 Model 300 Series,  
VAX 9000 Model 400 Series

VAXft™ Model 110,  
VAXft Model 310,  
VAXft Model 410,  
VAXft Model 610,  
VAXft Model 612

VAX-11/730, VAX 11-750™,  
VAX-11/780™, VAX 11-785

MicroVAX™: MicroVAX 3100, MicroVAX 3300,  
MicroVAX 3100, MicroVAX 3300,  
MicroVAX 3400, MicroVAX 3500,  
MicroVAX 3600, MicroVAX 3800,  
MicroVAX 3900

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VAXstation™: VAXstation 3100, VAXstation 3200,  
VAXstation 3500, VAXstation 3520,  
VAXstation 3540

VAXstation 4000 Model 60,  
VAXstation 4000 VLC

VAXserver™: VAXserver 3100, VAXserver 3300,  
VAXserver 3400, VAXserver 3500,  
VAXserver 3600, VAXserver 3602,  
VAXserver 3800, VAXserver 3900

VAXserver 4000 Model 200,  
VAXserver 4000 Model 300,  
VAXserver 4000 Model 500

VAXserver 6000 Model 210  
VAXserver 6000 Model 220  
VAXserver 6000 Model 310  
VAXserver 6000 Model 320  
VAXserver 6000 Model 410  
VAXserver 6000 Model 420  
VAXserver 6000 Model 510  
VAXserver 6000 Model 520  
VAXserver 6000 Model 610  
VAXserver 6000 Model 620  
VAXserver 6000 Model 630

*Processors supported - Microsoft® Windows® Development only:*

FBE Object Services Development Edition for Microsoft Windows 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

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*Processors supported - Microsoft Windows NT™ Development and Runtime only:*

FBE Object Services Development Edition for Microsoft Windows NT requires an Intel IBM-compatible 486 or a Pentium PC system with at least the following:

- 8 MB of memory
- A CD-ROM drive

*Processors not supported:*

MicroVAX I™, MicroVAX II™, VAXstation I, VAXstation II, VAX-11/725, VAX-11/782, VAXstation 8000, Intel IBM-compatible 386

**DISK SPACE REQUIREMENTS**

<b>Platform</b>	<b>Development</b>	<b>Runtime</b>
Digital UNIX	3000 blocks	2000 blocks
HP-UX	2200 blocks	2100 blocks
SunOS	2200 blocks	2100 blocks
OpenVMS	5750 blocks	5100 blocks
Microsoft Windows	500 KB	N/A
Microsoft Windows NT	5 MB	3 MB

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

**SOFTWARE REQUIREMENTS**

Operating System

- Digital UNIX Version 3.0
- HP-UX HP 9000-7xx Operating System Version 8.07 and Version 9.01
- HP-UX HP 9000-8xx Operating System Version 8.07 and Version 9.01
- SunOS Operating System Version 4.1.1
- OpenVMS Version 6.1 or later
- Microsoft Windows 3.1 or 3.11
- Microsoft Windows NT

Middleware

- ObjectBroker Version 2.5B

**OPTIONAL SOFTWARE**

- C compiler (for program development)

**GROWTH CONSIDERATIONS**

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

**DISTRIBUTION MEDIA**

FBE Object Services Development Edition for Digital UNIX, HP-UX, SunOS, OpenVMS, and Microsoft Windows NT:

- CD-ROM

FBE Object Services Development Edition for Microsoft Windows:

- 3.5-inch (RX23) high-density diskette

FBE Object Services Runtime Edition for Digital UNIX, HP-UX, SunOS, OpenVMS, and Microsoft Windows NT:

- CD-ROM

**ORDERING INFORMATION - DEVELOPMENT EDITION**

**FBE Object Services Development Edition**

<b>Platform</b>	<b>License Order Number</b>	<b>Media &amp; Documentation</b>	<b>Software Services Order Number</b>
Digital UNIX	QL-4S1A9-AA	QA-4S1AA-H8	QT-4S1*-*
HP-UX	QL-4S4AX-AA	QA-4S1AA-H8	QT-4S4*-*
SunOS	QL-4S7AX-AA	QA-4S1AA-H8	QT-4S7*-*
OpenVMS AXP	QL-4S2A9-AA	QA-4S1AA-H8	QT-4S2*-*
OpenVMS VAX	QL-4S3A9-AA	QA-4S1AA-H8	QT-4S3*-*
MS® Windows	QM-4S9AA-AA	**	QT-4S9*-*
MS Windows NT	QM-4S8AA-AA	**	QT-4S8*-*

\* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.



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\*\* FBE Object Services Development Edition for Microsoft Windows and Windows NT can be ordered as a complete kit under one order number. The license, media, and documentation are combined in a single shrinkwrap package.

Windows Software License, Media, and Documentation: QB-4S9AA-SA

Windows NT Software License, Media, and Documentation: QB-4S8AA-SA

An FBE Object Services Development documentation only kit is available by ordering QA-4S1AA-GZ.

**ORDERING INFORMATION - RUNTIME EDITION**

**FBE Object Services Runtime Edition**

<b>Platform</b>	<b>License Order Number</b>	<b>Media &amp; Documentation</b>	<b>Software Services Order Number</b>
Digital UNIX	QL-4RRA9-AA	QA-4RRAA-H8	QT-4RR*-*
HP-UX	QL-4RUAX-AA	QA-4RRAA-H8	QT-4RU*-*
SunOS	QL-4RXAX-AA	QA-4RRAA-H8	QT-4RX*-*
OpenVMS AXP	QL-4RSA9-RA	QA-4RRAA-H8	QT-4RS*-*
OpenVMS VAX	QL-4RTA9-AA	QA-4RRAA-H8	QT-4RT*-*
MS Windows NT	QM-4RYAA-SA	**	QT-4RY*-*

\* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

\*\* FBE Object Services Runtime Edition for Microsoft Windows NT can be ordered as a complete kit under one order number. The license, media, and documentation are combined in a single shrinkwrap package.

Windows NT Software License, Media, and Documentation: QB-4RYAA-SA

An FBE Object Services Runtime documentation only kit is available by ordering QA-4RRAA-GZ.

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For more information on the License Management Facility, refer to the Software Product Descriptions for the OpenVMS Operating System for VAX and Alpha (SPD 25.01.xx), the Digital UNIX Operating System (SPD 41.61.xx), or the appropriate operating system documentation.

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