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Software Product Description

PRODUCT NAME: BASEstar Open Client Version 3.1 **SPD 62.54.04**

DESCRIPTION

BASEstar Open is an industrial automation integration framework that facilitates the integration of manufacturing applications and plant equipment. Accelerated development of integrated manufacturing systems is assured through an architecture that also encourages consistency of application development.

BASEstar Open takes advantage of the client/server computing architecture. BASEstar Open Servers provide the robust, high-availability environment required by mission-critical applications. BASEstar Open Clients, on the other hand, provide access to all BASEstar Open services and BASEstar Open-managed information from any network Node on which BASEstar Open Client is installed. Client and server communications within BASEstar Open are provided through TCP/IP network communications.

For a description of the BASEstar Open Server product, refer to SPD 47.87.xx.

The BASEstar Open Client allows applications to have transparent access to BASEstar Open objects regardless of their physical location in the distributed BASEstar Open environment. BASEstar Open Client provides an Application Programming Interface that allows applications to:

- Define, reference, and access Data_Point objects
- Define, reference, notify, subscribe, and receive event objects
- Define, reference, and exchange Packet data objects.

Features

The following features are those that a BASEstar Open Client can request from a BASEstar Open Server via BASEstar Open's API:

Application Integration

- Data Management

BASEstar Open Data Services provide a standard mechanism for defining, organizing, and accessing data in a distributed manufacturing environment from a variety of sources including plant devices and area, plant, and work cell applications.

BASEstar Open defines discrete elements (Data_Points) to contain manufacturing information. Data_Point definitions can be of various types, ranging from scalar data elements to user-defined data structures. This provides the high flexibility of data definition and acquisition required to define the many different types of data typically present in industrial plants.

Since each Data_Point is referenced by name, applications become independent of their data sources and consequently do not require alteration as data sources change. In addition, simple Data_Points can have a predefined value specified at startup time. The value of a Data_Point may also be derived from the value of another Data_Point. The derived value can be obtained directly or modified by an arithmetic/logical expression. Data Services allow applications to define and manage Data_Points.

You can associate each Data_Point with one or more Triggers. A Trigger defines a relationship between a Data_Point, a Filter, and an Event. Each time the value of a triggered Data_Point changes, associated Filter expressions are evaluated. Whenever the Boolean result

of an evaluated Filter expression is TRUE, BASEstar Open declares the associated Event.

Likewise, the Timer object allows you to apply a time-based condition to the execution of an action. You can define the time condition as an absolute date, a time interval, or a combination of the two. When the Timer expires, BASEstar Open sends a message to the associated objects. You can associate Timers with Trigger objects.

It is possible to store one or more versions of a Data_Point value. In addition to the value, each Data_Point version includes the time when the Data_Point value changed and its status at that time.

BASEstar Open generates a new version each time the value of a Data_Point changes. You can therefore request the current version, containing the current value, or alternatively, the value associated with any cached version.

- Event Services

BASEstar Open Event Services allow you to subscribe to one or more Events. Events are occurrences that are of interest to an application program—like threshold exceeding, alarms, job completion, and so on. You can define the occurrence of such Events and specify the context information that you wish to pass. This context information can also include data and their types.

On declaration of an Event, Event Services create and deliver the notifications that the subscribers receive.

- Packet Services

BASEstar Open Packet Services allow you to exchange Packets of information directly with other users. Two users can establish direct communication through a Port; one user connects to send a Packet, and the other user connects to receive it.

A Packet contains a description of information to be exchanged. Each Packet input and output parameter is described by a datatype.

BASEstar Open delivers a Packet to a Port in a protocol-independent manner and also independent of the location of the users and Ports involved.

- Graphic Configuration Utility (GCU)

BASEstar Open offers a PC-based Graphic Configuration utility with an MS Windows "look and feel". It allows users to:

  - Manage BASEstar Open objects using create, delete and modify commands
  - Load existing configurations from CLI scripts and snapshots
  - Save configurations in CLI scripts and snapshots
  - Browse through BASEstar Open configurations.

The Graphic Configuration utility is bundled with BASEstar Open Server kits on Windows NT systems. It is included with the BASEstar Open Client on Windows 95 and Windows NT systems.

BASEstar Open users on UNIX or OpenVMS platforms can take advantage of the Graphic Configuration utility via the PC-based BASEstar Open Client and GCU product. The PC-based Graphic Configuration utility replaces the Motif-based GCU previously available with BASEstar Open Version 2.0.

- DDE Connectivity DDE (Dynamic Data Exchange) is a protocol that allows PC-based applications to exchange data. It ensures compatibility between the PC-based data representation (used on Windows NT, Windows 95 and MS Windows platforms) and the native BASEstar Open data representation. This capability augments significantly the scope of BASEstar Open, allowing you to integrate DDE-compliant software packages such as Microsoft Excel, InTouch from Wonderware, and DDE drivers.

Documentation

BASEstar Open Client is supported by the following documentation:

- *BASEstar Open Client Inst. & Management Guide*, containing instructions for installing BASEstar Open Client on DIGITAL UNIX, Windows NT, Windows 95 and MS Windows[1] platforms. It also provides platform-specific management information.

For OpenVMS platforms, refer to the *BASEstar Open Server for OpenVMS Inst. & Management Guide*.

- *BASEstar Open Client Release Notes* describes new features provided with BASEstar Open Client on OpenVMS, DIGITAL UNIX, Windows NT and Windows 95 platforms, and details any functional and documentation errors.

Compatibility with BASEstar Open Version 3.0

BASEstar Open Client Version 3.1 is compatible with BASEstar Open Server Version 3.0 provided that you do not attempt to use features that are peculiar to Version 3.1. For further information, refer to SPD 47.80.xx.

INSTALLATION

Before attempting to install the software, the customer must have all the pre-requisite hardware and software installed. DIGITAL recommends that a customer's first purchase of this software include DIGITAL Installation Services.

Connectivity to all other Nodes within the network is the responsibility of the customer.

[1] BASEstar Open Client Version 3.0A

SUPPORTED VERSIONS

This SPD covers the following versions of the BASEstar Open Client product:

- BASEstar Open Client for OpenVMS VAX V3.1
- BASEstar Open Client for OpenVMS Alpha V3.1
- BASEstar Open Client for DIGITAL UNIX V3.1
- BASEstar Open Client for Windows NT V3.1
- BASEstar Open Client for Windows 95 V3.1
- BASEstar Open Client for MS Windows V3.0A

HARDWARE REQUIREMENTS

Processors Supported

BASEstar Open Client for OpenVMS VAX Version 3.1:
VAX processors supporting OpenVMS VAX V6.1 to V7.1

BASEstar Open Client for OpenVMS Alpha Version 3.1:
Alpha processors supporting OpenVMS Alpha V6.1 to V7.1

BASEstar Open Client for DIGITAL UNIX Version 3.1:
Alpha processors supporting DIGITAL UNIX V3.2C to V4.0

BASEstar Open Client for Windows NT Version 3.1:
Intel and Digital Alpha processors supporting Windows NT V3.51, V4.0

BASEstar Open Client for Windows 95 Version 3.1:
Intel and Alpha processors supporting Windows 95

BASEstar Open Client for MS Windows Version 3.0A:
Intel processors supporting MS Windows Version 3.1 or 3.11

DISK AND MEMORY SPACE REQUIREMENTS

BASEstar Open Client for OpenVMS VAX Version 3.1

Minimum recommended memory:

- 48 Mbytes

Disk space required:

- 30,000 blocks (for installation)
- 28,100 blocks (for subsequent use)

BASEstar Open Client for OpenVMS Alpha Version 3.1

Minimum recommended memory:

- 96 Mbytes

Disk space required:

- 60,000 blocks (for installation)
- 50,000 blocks (for subsequent use)

BASEstar Open Client for DIGITAL UNIX Version 3.1

Disk space required:

- 10 Mbytes (for installation and subsequent use)

BASEstar Open Client for Windows NT Version 3.1

Minimum recommended memory:

- 12 Mbytes

Disk space required:

- Intel:
  - — 9.5 Mbytes (for installation)
  - — 8.5 Mbytes (for subsequent use)
- Alpha:
  - — 11.5 Mbytes (for installation)
  - — 10.5 Mbytes (for subsequent use)

BASEstar Open Client for Windows 95 Version 3.1

Minimum recommended memory:

- 12 Mbytes

Disk space required:

- 4 Mbytes (for installation and subsequent use)

BASEstar Open Client for MS Windows Version 3.0A

Minimum recommended memory:

- 8 Mbytes

Disk space required:

- 4 Mbytes (for installation and subsequent use)

The above values refer to the disk space required on the system disk. The sizes are approximate; actual sizes will vary depending on the user's system environment and use of BASEstar Open.

SOFTWARE REQUIREMENTS

BASEstar Open Client for OpenVMS VAX Version 3.1

- OpenVMS VAX V6.1, V6.2, V7.1

Layered Products

- DEC TCP/IP Services for OpenVMS V3.3—V4.1

BASEstar Open Client for OpenVMS Alpha Version 3.1

- OpenVMS Alpha V6.1, V6.2, V7.1

Layered Products

- DEC TCP/IP Services for OpenVMS V3.3—4.1

BASEstar Open Client for DIGITAL UNIX Version 3.1

- DIGITAL UNIX V3.2C—V4.1

BASEstar Open Client for Windows NT Version 3.1

- Windows NT V3.51, V4.0

BASEstar Open Client for Windows 95 Version 3.1

- Windows 95

BASEstar Open Client for MS Windows Version 3.0A

- MS Windows V3.1x

Layered Products

One of the following TCP/IP implementations:

- PATHWORKS V5.1
- MS Windows V3.11 for Workgroups with TCP/IP

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

This product is available on CD-ROM for DIGITAL UNIX, OpenVMS Alpha, and OpenVMS VAX platforms. It is also available on TK50 streaming tape for OpenVMS VAX platforms.

The BASEstar Open Client for PC-based Platforms kit contains BASEstar Open Client Version 3.1 for Windows NT and Windows 95 and BASEstar Open Client Version 3.0A for MS Windows. The kit is provided on CDROM and on an RX23 floppy diskette for both Alpha and Intel PC platforms.

ORDERING INFORMATION

BASEstar Open Client for OpenVMS VAX Consolidated Software Distribution:

Software Media: QA-5SRAC-H8

BASEstar Open Client for OpenVMS VAX Version 3.1:

Software Licenses: QL-0Y8A9-AA
Software Media and Documentation: QA-0Y8AA-H5
Software Product Services: QT-0Y8A*-**

BASEstar Open Client for OpenVMS Alpha Consolidated Software Distribution:

Software Media: QA-5SRAB-H8

BASEstar Open Client for OpenVMS Alpha Version 3.1:

Software Licenses: QL-0Y9A9-AA
Software Product Services: QT-0Y9A*-**

BASEstar Open Client for DIGITAL UNIX Consolidated Software Distribution:

Software Media: QA-5SRAA-H8

BASEstar Open Client for DIGITAL UNIX Version 3.1:

Software Licenses: QL-0YBA9-AA
Software Documentation: QA-2WVAA-GZ
Software Product Services: QT-0YBA*-**

BASEstar Open Client for Windows NT and Windows 95 Version 3.1:

Software Licenses: QM-2WVAA-AA
PC Package (documentation, license):
QB-2WVAA-S*
Software Documentation: QA-2WVAA-GZ

The above information is valid at the time of release. Please contact your local DIGITAL office for the most up-to-date information.

SOFTWARE LICENSING

This software is furnished only under a license. For more information about DIGITAL licensing terms and policies, contact your local DIGITAL office.

BASEstar Open Client is licensed for "Unlimited System Use". To use the BASEstar Open Client you must have a BASEstar Open Server license installed on a BASEstar Open-supported server Node.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from DIGITAL. For more information, contact your local DIGITAL office.

SOFTWARE WARRANTY

This software is provided by DIGITAL with a 90 day conformance warranty in accordance with the DIGITAL warranty terms applicable to the license purchase.

The above information is valid at time of release. Please contact your local DIGITAL office for the most up-to-date information.