COMPAQ

Software Product Description

PRODUCT NAME: COMPAQ WORK EXPEDITOR 2000, V2.0

SPD 70.20.02

PRODUCT DESCRIPTION

Compaq Work Expeditor 2000 is a collaborative Work Management Solution for Microsoft Outlook and the Internet. It enables enterprises of any size to execute document-based business processes efficiently and effectively by managing work, documents and data, as they move through an organization from the initial creation to the final archiving. Expeditor 2000 uses Microsoft Exchange as the internal communications infrastructure, Microsoft SQL Server to control the business data, and Microsoft Outlook or a Web Browser as the common user interface. Expeditor 2000 integrates document collaboration, workflow, data/forms management, and flexible programming capabilities in a single product. It helps businesses increase productivity and flexibility by managing document-intensive work and securely maximizing the information flow.

A good example application is the registration and handling of all formal incoming and outgoing correspondence. In such an application, Expeditor 2000 takes care of the proper execution of review, approval, and archiving procedures. Other examples include the management of case files in the public sector, or the patient files in a hospital.

Apart from support for review and approval procedures Expeditor 2000 also provides secure storage and archiving, including an access control mechanism that guarantees that only qualified people will have access to classified business information.

Another important feature of Expeditor 2000 is the provision of facilities that ensure that the status and history of every piece of information can be traced and tracked.

Expeditor 2000 offers Document and Records Management technologies, Workflow technologies and Solution Deployment Facilities combined in a business-centric setting.

FEATURES & FUNCTIONS

The main functions of Expeditor 2000 are:

A: Work Management Services

- 1. Work Management Dashboard
- 2. Collaborative Sharing
- 3. Management Control Dashboard
- 4. Searching
- 5. Reporting

B: Workgroup Administration Services

- 1. Business Structure Editor
- 2. Access Profile Editor
- 3. Workflow Blueprint Editor
- C: System Services
- 1. Record Storage Facilities
- 2. Workflow Facilities
- 3. Archiving Facilities
- 4. System Management Facilities

D: Solution Development Services

- 1. Record Definition Tools
- 2. Programming Interfaces
- 3. Component based Development Architecture.

The individual functions will be discussed in more detail hereafter.

A: Work Management Services

In Expeditor 2000, items such as folders, documents and forms that are manipulated by the user community are always connected to a business context, such as the type of work the user is expected to execute with the item, the background details and a possible deadline.

This forced connection to the business context makes it possible to permanently monitor and control the work-in-progress of the individual and the workgroups. The functions that focus on this work-in-progress monitoring are called the Work Management Services.

Expeditor 2000 provides the following Work Management Services:

Personal Work Management Dashboard This dashboard provides a structured overview of the work-in-progress of the individual user. Items are presented per work category and can be directly activated for processing. Items for which the deadline has expired, or is about to expire, are highlighted. The user is notified of new incoming work through the e-mail inbox. These notification messages contain a shortcut to the corresponding item so that work can be executed directly from the Inbox.

An embedded Search option supports searching "in my work" or searching for all items that are currently "in progress" in the whole organization. This dashboard is made available as a Digital Dashboard "nugget" for Microsoft Outlook and as an Active Server Page for Web Browsers.

Collaborative Sharing

Each item to be worked on can be shared between team members . Sharing means that team members have concurrent access to the same data. Sharing can be initiated by the system, using a predefined workflow definition, or it can be done manually by a knowledge worker who decides that teamwork is required. The new team members receive an e-mail notification together with a shortcut to the item. The item itself has a work category, a work description, and a deadline associated with it.

Management Control Dashboard

This dashboard provides a structured overview of the pending activities of a workgroup. Deadline expirations are highlighted. A delegation option allows the transfer of work from one individual to another.

Searching

Items in the Expeditor Repository can be searched for using any combination of attributes, including the document contents (full-text search). Found items can be taken to the work management environment, for example to start a manually controlled collaboration process using the collaborative sharing options. A search can be initiated in Outlook or through a dedicated Search Dashboard in a Web browser. This last option supports the definition and activation of Search Profiles. A Search profile contains search and reporting specifications and can as such be helpful for the easy execution of repetitive queries.

Reporting

All items are stored in a SQL Server database. This database can be used for reporting purposes by any reporting tool that supports SQL Server access. To facilitate the easy creation of business reports, the database contains a business-oriented sub-schema composed of database views. The access to the views can be controlled by a View Management Tool.

The following groups of database views are available:

System Administration Views

This set of views enables the definition of reports about users, roles, and workgroups.

Basic Views

This set of views enables the definition of "file reports" containing one or more elementary attributes such as "name", "owner", and "creation date". A general view makes it possible to report on the data of all the items, independent of the Item Class. For every Item Class that has custom attributes, a specific view can be selected.

Business Views

This set of views gives a business-centric view on the items in a specific business context. Examples of a business context are "items in progress", "items with an expired deadline" and "completed items". Just as with the Basic Views, there will be general views and views that are associated with a specific Item Class

B: Workgroup Administration Services

To be able to interpret the business context properly, Expeditor 2000 must have detailed knowledge about the organizational structure and procedures. The functions that are available to maintain this type of information are called the Workgroup Administration Services.

Expeditor 2000 provides the following Workgroup Administration Services:

• Business Structure Editor

This tool is used to register the business environment. Users can be positioned relative to their superiors and subordinates. The membership of workgroups and the business roles users execute can be assigned. A user can either be an internal user, which is by definition a member of the Global Address List, or an external user, only identified by an external e-mail address. To support anonymous access it is possible to define a specific type of external user with "restricted" access. In this case the access to the business data is restricted to explicit definition lines in the access profiles.

Access Profile Editor

Every single piece of business data can be classified and controlled by a corresponding Access Profile. An Access Profile contains a lineby-line definition of what type of access will be provided to what type of user under what type of conditions. Access profile lines can contain relative definitions such as "higher user in the organization" or "active user in workflow". An access control line can also grant a permission to a specific role such as "manager". As the access permissions are evaluated from "generic" to "specific" it is even possible to define "exclusion lines" that limit generally defined permissions to specific groups or even individuals.

Per access-line the following permissions can be granted:

- Read Document or Form, Open Folder
- Read Attributes
- Change the contents of an item
- Change Attributes
- Change Name and Access Classification
- Copy the contents of an item
- Archive
- Sign an item
- Share work item with another user
- Search (include item in a search result)
- Add to Folder
- Remove from Folder

Workflow Blueprint Editor

This is a graphical editor used to define the process structures that should be executed automatically. The destinations in the process phases can be roles giving the blueprints a general nature. Process flows can split into several parallel tracks that may eventually join again later on. Each stage in the flow can have preconditions and postconditions attached, that are evaluated by the system. A good example of such a condition is the restriction to only accept items that have been signed by the originator.

C: System Services

The specific Work Management Services and Workgroup Administration Services are supported by an extensive set of generic System Services.

Expeditor 2000 provides the following System Services:

Record Storage Facilities

All business information is stored in a centralized SQL Server based Repository. The SQL Server database contains all structured information. The non-structured data such as documents and forms are stored in a protected document directory on the NT File System. The Repository can store any item that could also be stored in an Exchange folder. The storage structure of folders, items, and their attributes can be defined freely using a Configuration Tool. The details of this Configuration Tool are discussed in the Solution Development section.

Access to the Repository is protected by an extensive Access Control Framework with the following characteristics:

Label-based Access Control

Items and their attributes can only be accessed after the evaluation of the Access Profile attached to them. This is both true for the users and for the application developers that use the programming interfaces. Access Profiles are independent system items that describe what type of permission will be granted to what type of individuals under what type of conditions. They are edited using the Access Profile Editor. For a detailed overview of the Access Profile Editor options, see the corresponding description in the Workgroup Administration section.

The Repository supports the following Document Management Features:

Check-in / check-out

Documents can be reserved for update. Reserved documents may stay in the Repository or they may be brought off-line. In all situations, a read-only copy will stay available for other users.

Version Management

At any moment during the process, the current state of the document can be saved as a version. When two or more people collaborate on a single document, the system creates such versions automatically each time a different person modifies the contents. A reload option makes it possible to replace the current version with a previous one.

History Logging and Reporting

Every action that is performed on an item is written to a transaction log file connected to the folder that contains the item. The information in this transaction log can be used to produce History Reports on-demand.

Custom Attributes and Behavior

Every item, including folders, can be extended with custom attributes. These attributes, also known as properties, can be used to hold business-specific information. Their actual value can be used to govern the workflow processes. For folders, the initial and permitted contents can be defined. These type of definitions are done with the System Configuration Tool. A more detailed description of this tool can be found in the Solution Development section.

Full-text Search

Documents that are stored in the Expeditor Repository can be searched for using (parts of) the document contents. The full-text indexing technology that is used is based on Microsoft Index Server. Index Server supports advanced features such as "fuzzy" queries and Boolean operators (AND, OR, NOT). For more details about the capabilities of Microsoft Index Server see the public Microsoft web site at: http://www.microsoft.com/NTServer/web/techdetail s/overview/IndxServ.asp

Archiving

When the processing of an item is finished the item will become an archived "record", which can no longer be changed nor deleted. Expired archived records can only be deleted by the System Administrator.

Workflow Facilities

The items in the repository can be subjected to the relevant business procedures by a built-in Workflow Handler. Workflows can be driven manually or can be system controlled. The combination of both is also supported. The current status of all active workflows are reflected on the Work Management Dashboards of individual users, and on the Workgroup Dashboards of Workgroup Managers. System controlled workflows are driven by a

workflow blueprint that can be edited with a graphical editor.

The Expeditor 2000 Workflow Handler has the following characteristics:

General Workflow features

- All items, including complete folders, can be routed

- Roles can be used as destinations
- Deadlines can be set
- Notification of "new work" is done through the Mail Inbox
- Items to be worked on will pop-up in the Work Management Dashboard, in the right category and provided with work instructions and the deadline, if applicable.
- Electronic Signatures can be set for any item, to control the continuation of the process. The following signature types are supported: "initial" (to indicate the information as "seen"), "approve", "disapprove" and "sign-off". The signing of a document is password controlled. A document that has been signed-off will automatically get the "final form" status so that it can no longer be changed.
- New stages in the workflow will only be activated after the evaluation of the Access Profiles.
- Overview of the actual status and process history can be reported on-demand

Collaborative Sharing

- Supports "ad-hoc" (manual driven) type of workflow.
- Any user can decide at any moment to "teamwork" with one or more other users.
- The sharing option can work in a cascaded way, which means that the new team members can decide to teamwork again with new members and so forth.
- Can be used in combination with blueprint controlled routing

Blueprint Controlled Routing

- Graphical Workflow Blueprint designer
- Preconditions and postconditions can be defined
- Support for fan-outs and joins
- Can be used in combination with Collaborative Sharing

Programmable Workflow

Expeditor 2000 Workflow is fully programmable using the Expeditor 2000 Object Library.

Archiving Facilities Items in the Repository can be given a "final form status". This can be done automatically by the last stage in a workflow blueprint, or manually directly from the user interface. Final Form items are in fact "archived records" that protect themselves against any further modifications.

System Management Facilities

Expeditor 2000 supports a distributed architecture. An Expeditor 2000 configuration can have one main server that holds the administrative data and multiple "store" servers, which hold the actual business data. To avoid the main server becoming a single point of failure, the administrative data is replicated to cache files on the local client systems. For the System Manager the following tooling is provided:

- <u>Back-up and Recovery Tools</u> To produce and restore consistent backups of both the database data and the corresponding status of the document pools.
- <u>Performance Tuning Tools</u> The Expeditor 2000 server provides transaction counters that can be used to finetune the overall configuration.

D: Solution Development Services

Because document-centric applications will always have a close relation to a specific business environment, Expeditor 2000 provides extensive development services to be able to deploy industryspecific or customer-specific applications. Generic functions, such as the basic document management and workflow capabilities, are available as out-of-thebox features. These functions can be tailored to individual needs using a set of graphical configuration utilities. Only very specific functions need to be developed using the standard Microsoft tools, such as Visual Basic for Applications.

The following development features are provided:

- Record Definition Facilities
 A dedicated System Configuration Tool enables
 definition of all items in the Repository:
 - Description of the data and structure of Folders, Forms, Documents, and their attributes
 - Custom property assignment, including validation rules.
 - Workflow Blueprint assignments to folders and items

- Strings and Messages, including support for multi-lingual solutions.
- Basic Access Control Profiles.
- Basic Workflow Modes (= Work Categories).
- Individual specifications can be packaged into a Software Component that can be installed on production systems. Possible version conflicts are evaluated at installation time. Software Components can be protected against undesirable local modifications.

Programming Interfaces

The Expeditor 2000 Object Library provides programmatic access to all Expeditor functions:

- COM based automation server to provide access to all elementary Expeditor 2000 specific functions and options, including workflow.
- Can be accessed in any development tool that supports COM
- Extension of the CDO and Outlook Object Model.
- Component based Development Architecture An automation server such as the one behind the Expeditor 2000 Object Library, typically does not provide a User Interface component. For those options that are normally based on interaction with an end user, the Expeditor 2000 Control Libarary contains an ActiveX Control based implementation. The Expeditor 2000 Control Library has the following characteristics:
 - Access to all business-oriented options using ActiveX controls.
 - Universal Interface Control to preserve the transaction concept. This Interface Control supports:
 - * Common Data Channel, Synchronization
 - * Sequencing of Initialization
 - * Just-in-time Locking
 - * Inter Control Communications
 - Documentation to create Custom Controls that will fit in this concept.

SUPPORTED PLATFORMS

Outlook Client

- Windows 95 with Outlook 98 and Office 97 or with Outlook 2000 and Office 2000.
- Windows 98 with Outlook 98 and Office 97 or with Outlook 2000 and Office 2000.
- Windows NT WS 4.0 with Outlook 98 and Office 97 or with Outlook 2000 and Office 2000.
- Windows 2000 Professional with Outlook 2000 and Office 2000.

It is not possible to activate the Outlook client on an Expeditor 2000 Web Server.

Web Browser Client:

- Internet Explorer 5.X or later
 - (Netscape support in preparation)

The Workgroup Administration Services and the Record Definition Tools can only be executed on an Outlook client.

Expeditor 2000 Server

- Windows NT 4.0 with SQL Server 7.0, Option Pack for Internet Information Server 4.0, and Index Server 4.0
- Windows NT 4.0 Enterprise Server (Cluster) with SQL Server 7.0, Option Pack for Internet Information Server 4.0, and Index Server 4.0
- Windows 2000 Server with SQL Server 7.0, Internet Information Server, and Index Server
- Windows 2000 Advanced Server with SQL Server 7.0, Internet Information Server, and Index Server

Expeditor 2000 supports the Windows NT 4.0 clustering services, including automatic fail-over.

ADDITIONAL SOFTWARE REQUIREMENTS

Client

Microsoft Outlook or a Web Browser, Microsoft Office.

Outlook client users are expected to have access to an Exchange Server.

Browser client users are expected to have access to an SMTP compliant mail system.

Expeditor 2000 Server

The Expeditor 2000 server requires the presence of SQL Server 7.0 (standard edition or enterprise edition). The clustering services will only be supported with SQL Server 7.0 enterprise edition.

The Expeditor 2000 Server needs to have access to an Exchange Server

The Expeditor 200 Server needs to have access to an SMTP mail server (which can be the Exchange server).

To support automatic fail-over in a clustered environment, the Expeditor 2000 Server software and SQL Server must be installed on the same node.

The full-text search option requires the presence of Microsoft Index Server on the Expeditor 2000 Server.

Expeditor 2000 Web Server

The Expeditor 2000 Web Server requires the presence of Outlook Web Access and Internet Information Server.

The Expeditor 2000 Web Server needs to have access to an SMTP mail server (which can be the Exchange server).

INSTALLATION STATEMENT

Although all Expeditor 2000 software uses installation wizards, Compaq advises that only experienced users install the product. Other users should use the services of Compaq or the business partner from which Expeditor 2000 was obtained.

HARDWARE REQUIREMENTS

Hardware requirements depend a lot on the number of connected clients and the amount of data that is maintained in Expeditor 2000. The following requirements cover the needs of a <u>minimal</u> configuration:

Expeditor Server

- 40 Mb of disk space for the server program files
- 100 Mb for databases
- More than 64 Mb of additional main memory for Expeditor 2000 service
- Pentium 200 MHz or comparable

Expeditor 2000 Web Server

- 15 Mb of disk space for program files
- 5 Mb of disk space for temporary files
- More than 64Mb of main memory
- Pentium 500 MHz or comparable

Outlook Client

- 15 Mb of disk space for program files
- 5 Mb of disk space for client temporary files
- 10 Mb of additional main memory
- Minimal Pentium 100 MHz or comparable
- Sufficient bandwidth to the server (preferably LAN speed)

Browser Client

 No specific requirements. It is not necessary to install specific Expeditor software on the Web Browser client system

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

All software, except the Digital Dashboard Nugget and the Control Library, is on one CD-ROM. The most upto-date version of the Digital Dashboard Nugget and the Control Library is made available separately through Compaq Professional Services.

The following documentation is on a second CD-ROM:

- Introduction guide
- Server Installation Guide
- System Management guide
- User guide
- Help Files

Updates of the software and/or documentation may be made available on CD-ROM or via the Internet.

LANGUAGE VERSIONS

Expeditor 2000 is a multi-lingual product. The following language versions are supported: *Arabic, Brazilian, Czech, Danish, Dutch, English, Finnish, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Traditional Chinese, and Thai.*

The Dutch, French, German, Hebrew, Italian, Japanese, and Spanish versions also contain a localized version of the user on-line help facilities and the User Guide (not in Hebrew). The other language versions are restricted to a localized version of the application dialogues. Development information is restricted to English.

SOFTWARE LICENSING INFORMATION

This software is furnished under the licensing of Compaq Computer Corporation's Standard Terms and Conditions. For more information about these licensing terms and policies, contact the local Compaq office or see the licensing page at: http://www.compaq.com/products/software/info/

ORDERING INFORMATION

Packaging

The Package of the software kit contains a CD with all software and another CD with the Documentation. It also contains one server and one client license.

Expeditor 2000 Licensing Model

A server license is required for each server where the Expeditor 2000 software is installed.

A client license is required for each "named" end-user that requires individual access to an Expeditor 2000 server. Such a client license is called a CAL (Client Access License). There is no restriction on the number of servers that a user can connect to. The CAL also gives the right to install the Expeditor 2000 client software on more than one workstation.

Be aware that every Expeditor 2000 user benefits from the services of the SQL Server database that contains the Expeditor 2000 business information. This means that each individual Expeditor user must have the appropriate license to use the SQL Server services. For more information about Microsoft's policies with respect to SQL Server licensing see: http://www.microsoft.com/sql/productinfo/pricing.htm

Server part numbers

Software Kit	Upgrade Kit	Package	
QB-61AAA-SA	QB-61AAA-MA	QT-61AAA-XA	
(135166-B21)	(135167-B21)		

License	Upgrade License	NVLS
QM-61A9A-AA	QM-61A9A-CA	QT-61A9A-TA
(135168-B21)	(135169-B21)	

Client partnumbers

Number of Clients	License	Upgrade License	NVLS
1	QM-61B9A-AA	QM-61B9A-CA	QT-61B9A-TA
	(135171-B21)	(135180-B21)	
20	QM-61B9A-AB	QM-61B9A-CB	QT-61B9A-TB
	(135172-B21)	(135181-B21)	
100	QM-61B9A-AC	QM-61B9A-CC	QT-61B9A-TC
	(135173-B21)	(135182-B21)	
200	QM-61B9A-AD	QM-61B9A-CD	QT-61B9A-TD
	(135174-B21)	(135183-B21)	
500	QM-61B9A-AE	QM-61B9A-CE	QT-61B9A-TE
	(135175-B21)	(135184-B21)	
1000	QM-61B9A-AF	QM-61B9A-CF	QT-61B9A-TF
	(135176-B21)	(135185-B21)	
2000	QM-61B9A-AG	QM-61B9A-CG	QT-61B9A-TG
	(135177-B21)	(135186-B21)	
5000	QM-61B9A-AH	QM-61B9A-CH	QT-61B9A-TH
	(135178-B21)	(135187-B21)	
10000	QM-61B9A-AJ	QM-61B9A-CJ	QT-61B9A-TJ
	(135179-B21)	(135188-B21)	

NOTE. The Q... numbers are for the traditional "DIGITAL-oriented" ordering systems. The (13....) partnumbers are standard Compaq part-numbers.

SOFTWARE PRODUCT SERVICES

Expeditor 2000 is supported by Compaq Customer Services through the standard portfolio offerings. Software Product Update Services are available for both the license (QM- part numbers) and the kit (QBpart number).

The Software license update is offered as NVLS in the US and Asia Pacific (QT-UPI**-** complementary to QMs) and as LS (License Subscription) in Europe (as an attribute of each QM- part number). It is expected that the customer buys a license update for each additional license bought.

The license, media & documentation update is offered as a Packaged Service in the three geographies. The Asia Pacific region and the US have QT-UPI**-** part numbers, while the service in Europe is an attribute of the QB- part number. It is expected that the customer buys one QB- and the complementary service to install the product, and licenses and license updates for any additional systems.

The standard Telephone Support is based on the presence of Expeditor 2000 in the Supported Product Lists (SPLs) for the Windows NT platform. By buying an SPL, the customer gets telephone support for both the operating system and the layered products, with one part number and price. SPLs can be sold per number of seats, or per incident. There are four levels, with different deliverables (such as response time), for an SPL: Bronze, Silver, Gold and Platinum (or Custom Quote). The service part numbers for Telephone Support via SPL all start with QR-SM***-**.

SOFTWARE WARRANTY

The warranty support for this software product is 90 days.

SECURITY STATEMENT

Expeditor 2000 is intended to assist customers in maintaining an appropriately secure systems environment when used in conjunction with customers' vigilant operational security practices. Compaq does not guarantee or warrant that the use of this product will provide complete security protection for customers' systems.

INFORMATION RESOURCES

Expeditor 2000 on the WWW: http://www.compaq.com/expeditor

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