

MFG/PRO® eB

XUI/NetUI & eB Desktop System Overview

TRAINING GUIDE



70-2831A
MFG/PRO eB
October 2001

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QAD Inc.

6450 Via Real
Carpinteria, California 93013
Phone (805) 684-6614
Fax (805) 684-1890

LearningServices@qad.com
<http://www.qad.com/services/learn/>

Contents

ABOUT THIS COURSE	11
Course Description	12
Who Should Attend This Course	12
Prerequisites	12
Related Courses	12
This Guide Contains:	12
General Training Facilities Information	13
 CHAPTER 1 SYSTEM OVERVIEW	 15
Course Overview	16
System Overview	17
Benefits	18
User Interfaces	19
eB Desktop	20
Full User Interface	21
eB Desktop & Full User Interface	22
eB Desktop	24
Full User Interface Display	25
XUI Maintenance Screen	26
Telnet Maintenance Screen	27
Outbound URL Links	28
Embedded User Interface	29
HTML Links to Embedded UI	31
Embedded UI Display	32

IV MFG/PRO TRAINING GUIDE — XUI/NETUI & EB DESKTOP SYSTEM OVERVIEW

Data Security	33
Application Enhancements	34
Maintenance Functionality	35
Infrastructure	36
Benefits Summary	38
 CHAPTER 2 WEB COMPONENTS	 41
Web Components Overview	43
Terminology	44
Network Terminology	44
Web Terminology	46
Java Terminology	48
Web Browsers	49
Web Servers	50
Web Server Functionality	51
Static HTML	52
Script Output	53
UNIX Web Server Directories	54
NT Web Server Directories	55
Progress WebSpeed	56
WebSpeed Architecture	57
WebSpeed Messenger	60
WebSpeed Transaction Broker	62
WebSpeed Transaction Agent	64
Progress Application Server	66
AppServer Architecture	66
Remote Method Invocation Software	68
 CHAPTER 3 XUI/NETUI COMPONENTS	 71
XUI/NetUI Components Overview	73
XUI/NETUI Components	74
Components - Client PC	75
Web Server	76
XUI/NetUI Architecture	82

XUI/NetUI Deployment Considerations	83
XUI/NetUI Configurations	84
CHAPTER 4 SYSTEM REQUIREMENTS	89
System Requirements Overview	91
Introduction	92
Prerequisites	93
Client Requirements	94
Web Server Requirements	96
WebSpeed Server Requirements	97
Progress Application Server Requirements	99
RMI Server Requirements	101
MFG/PRO Server Requirements	102
Disk Space Requirements	103
CHAPTER 5 UNIX INSTALLATION	105
UNIX Installation Overview	107
Installation Overview	109
Web Server Installation	113
Progress Components Installation	115
Creating the Parameter File	123
Configuring The Administration Components	124
Ubroker.properties	125
Progress Explorer Tool	127
Install The XUI/NetUI Software	129
NetUI Web Server Directories	133
Installing And Configuring The RMI Software	135
Configuring the Help System	136
Defining MFG/PRO Constants	137
Label Master Maintenance	138
Configure the Auxiliary AppServer	139
AppServer Service Maintenance	140
Telnet Configuration	141
Defining Telnet	141

User Settings	142
Telnet Connections	143
Modifid UNIX User .profile	144
CHAPTER 6 NT INSTALLATION	149
NT Installation Overview	151
Installation Overview	153
Web Server Installation	157
Progress Components Installation	162
Creating the Parameter File	167
Configuring the Administration Components	168
Ubroker.properties	169
Progress Explorer Tool	171
XUI/NetUI Software Installation	173
Language Files	174
Web Server Directories	177
Installing and Configuring the RMI Software	179
Configuring the Help Subsystem	180
Defining MFG/PRO Constants	181
Label Master Maintenance	182
Configuring the Auxiliary AppServer	183
Installing Georgia Softworks Telnet	185
Defining Telnet Session Script	186
Startup Files	187
User Settings	189
Telnet Connections	190
CHAPTER 7 CLIENT INSTALLATION	195
Client Installation Overview	197
Connect Client to Web Server	198
Download the eB Setup Executable	199
Run the eB Setup Executable	201
Install the JRE Plug-in	202
Configure the Java Client	203

Start XUI/NetUI	205
CHAPTER 8 USER INTERFACE	209
User Interface Overview	211
Introduction	212
Three Forms of Interface	212
XUI/NetUI Benefits	213
Screens & Menus	215
Sign-On	215
User Security Profile	216
eB Desktop	217
Full User Interface	218
Embedded User Interface	220
Program Menu	221
Application Menu	223
Output Setup	225
Edit Menu	228
Options Menu	229
Preferences	230
Tools Menu	231
Help Menu	235
Tool Bar and Buttons	236
Browses, Reports, and Maintenance Programs	237
Standard Browsers	238
Look-Up Browsers	241
Graphing Browse Data	244
Reports	246
XUI Maintenance Programs	247
Telnet Maintenance Programs	248
Summary	250
Exercise—User Interface	253
CHAPTER 9 USER SECURITY	259
User Security Overview	261

VIII MFG/PRO TRAINING GUIDE — XUI/NETUI & EB DESKTOP SYSTEM OVERVIEW

Web Security Model	263
Web Security Elements	265
Security Levels	268
Security Maintenance Programs	269
Web Security Control File	270
User/Group Maintenance	272
Exercise—User Option Maintenance: Program Restriction	274
Program Information Maintenance	279
Exercise—Program Information: Disabling a Web-Enabled Program	281
XUI/NetUI Program Security Flow	283
Profile Maintenance	284
Profile Program Maintenance	286
Group Maintenance	288
User Group Security Maintenance	290
Exercise—Security Program Restriction	291
Securing Records in XUI/NetUI	295
Definitions	296
Rules	297
Data Record Security Flow	298
Constant Maintenance	299
Rule Maintenance	301
Profile Program Rule Maintenance	305
User Constants Value Maintenance	309
Group Constants Value Maint	310
User Constants Value Maintenance	311
Exercise—Security Data Record Restriction	312
Web Security Utilities	317
Program Information Update	318
Profile Copy Utility	320
Browse UI Record Maintenance	322
Runtime Processing	323
Runtime Record Access	324
Summary	326

CHAPTER 10 URL LINKS	329
URL Links Overview	331
Menu URL Maintenance	332
Exercise—Defining Menu Level URL Links	334
Browse URL Maintenance	336
Exercise—Browse URL Maintenance	340
Session Master Maintenance	342
Summary	344
CHAPTER 11 SYSTEM SECURITY AND PERFORMANCE	347
System Security and Performance Overview	349
Secure Communications	350
Securing Internal Ports	350
Secure Internet Communication	352
Telnet Security	353
Improving Performance	354
Client Improvement	354
Agent Improvement	356
User Option Maintenance	360
Web-Based Configurations	361
Troubleshooting Tips	362
Java Console	362
Browser URL Commands	365
WebSpeed Broker or Agents	368
CHAPTER 12 NETUI RECONFIGURATION	371
NetUI Reconfiguration Overview	373
XUI/NetUI HTML and JavaScript	374
Examples	376
Examples of DBName Included	381
Infrastructure	384
WebSpeed Remote Brokers	385
WebSpeed on Separate Machine	387
Installation	387

x MFG/PRO TRAINING GUIDE — XUI/NETUI & EB DESKTOP SYSTEM OVERVIEW

Configuration	391
Testing	393
Multiple WebSpeed Services	395
With One Database	395
With Multiple Databases	397
Remote Telnet Servers	398
Local Client Files	400
HTML Modifications	402
Exercise	404

About This Course



Course Description

This course provides an overview to using the MFG/PRO NetUI product. It includes server and client installation, system requirements, system administration, as well as the conceptual basis of the product.

The course includes labs in order to practice the key concepts.

At the conclusion of the course, students should expect to have a general understanding of how to install and use the NetUI, and how to obtain further information and training if needed.

Who Should Attend This Course

- MFG/PRO developers
- Members of MFG/PRO and QAD product implementation teams

Prerequisites

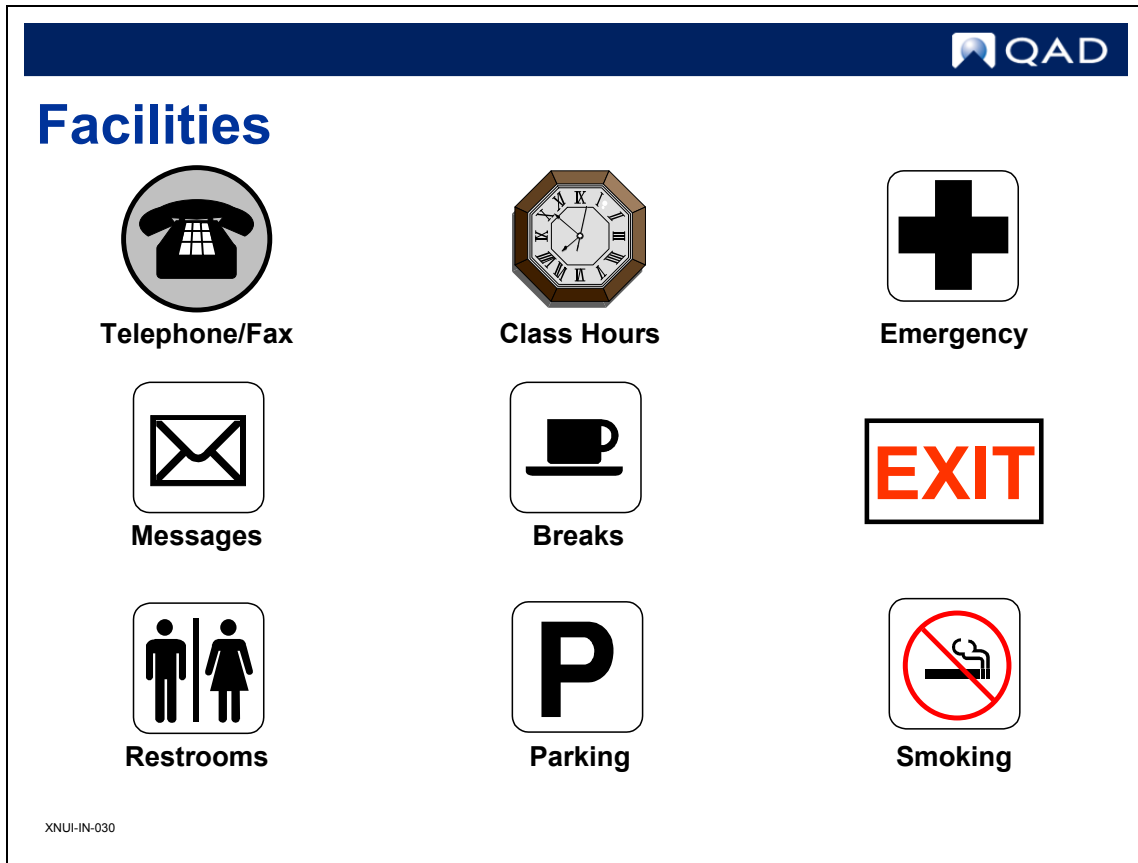
Students should be familiar with the installation of MFG/PRO, preferably version 9.0+.

Related Courses

QAD provides System Administration courses for PROGRESS on UNIX, PROGRESS on NT, and ORACLE on UNIX. A general PROGRESS database Performance Tuning course is also relevant to NetUI administrators.

This Guide Contains:

- Copies of the overheads used during the course
- Notes and annotations on overheads and screens
- Exercises



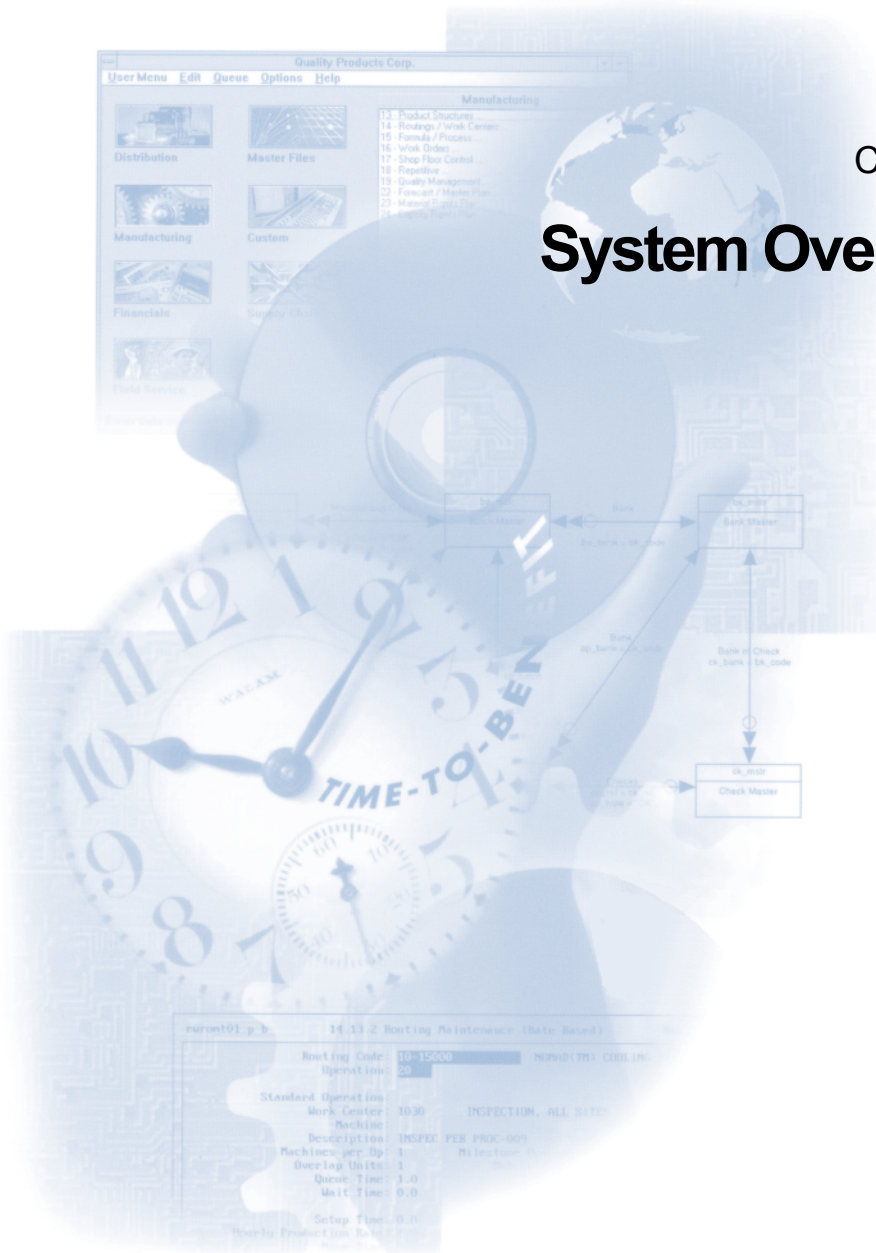
General Training Facilities Information

- Telephone or fax
- Messages
- Restrooms
- Class hours: start and finish times, and punctuality
- Breaks: frequency, approximate times
- Parking considerations; carpooling
- Emergency procedures: location of first aid, contact person for assistance
- Exit locations, building hours
- Location of approved smoking area

14 MFG/PRO TRAINING GUIDE — XUI/NETUI & EB DESKTOP SYSTEM OVERVIEW

CHAPTER 1

System Overview





Course Overview

- ♦ Overview
- ♦ Web Components
- ♦ XUI/NetUI Components
- ♦ System Requirements
- ♦ UNIX Installation
- ♦ NT Installation
- ♦ Client Installation
- ♦ User Interface
- ♦ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-IN-040

Course Overview



System Overview

- ◆ Benefits
- ◆ User Interfaces
 - eB Desktop
 - Full
 - Embedded
- ◆ Data Security
- ◆ Application Enhancements
- ◆ Infrastructure

XNUI-IN-050

System Overview



Benefits

- ♦ GUI client over low-bandwidth networks
- ♦ Supports additional data security
- ♦ Uses existing business logic
- ♦ Supported with mixed interfaces:
 - eB Desktop, XUI/NetUI, Progress Gui, Character, and NetUI
- ♦ MFG/PRO can be deployed over intranets, extranets, or VPN

XNUI-IN-060

Benefits





User Interfaces

- ♦ eB Desktop
- ♦ Full
- ♦ Embedded

XNUI-IN-070

User Interfaces



eB Desktop

- ♦ Full eB access via a Web Browser
- ♦ Intuitive Navigation
- ♦ Detachable screens
- ♦ Graphical Icons
- ♦ Built on the existing XUI/Netui Interfaces
- ♦ Configurable Color and Font schemes

XNUI-IN-080

eB Desktop



Full User Interface

- ♦ Full eB access via a Web Browser
- ♦ Hierarchical tree menu
- ♦ Menu bar, tool bar, task bar, status bar
- ♦ Movable, resizable application child windows
- ♦ Busy/Completion indicators
- ♦ Cut/Copy/Paste
- ♦ User preferences

XNUI-IN-090

Full User Interface



eB Desktop & Full User Interface

- ♦ Geared towards the intranet user
- ♦ Enforced user access & enhanced data security
- ♦ Configurable/Storable browse data display grids
- ♦ Built-in graphing capabilities of browse data
- ♦ Local/Remote printing
- ♦ Four different output formats
 - HTML, Spreadsheet, CSV, Normal

XNUI-IN-100

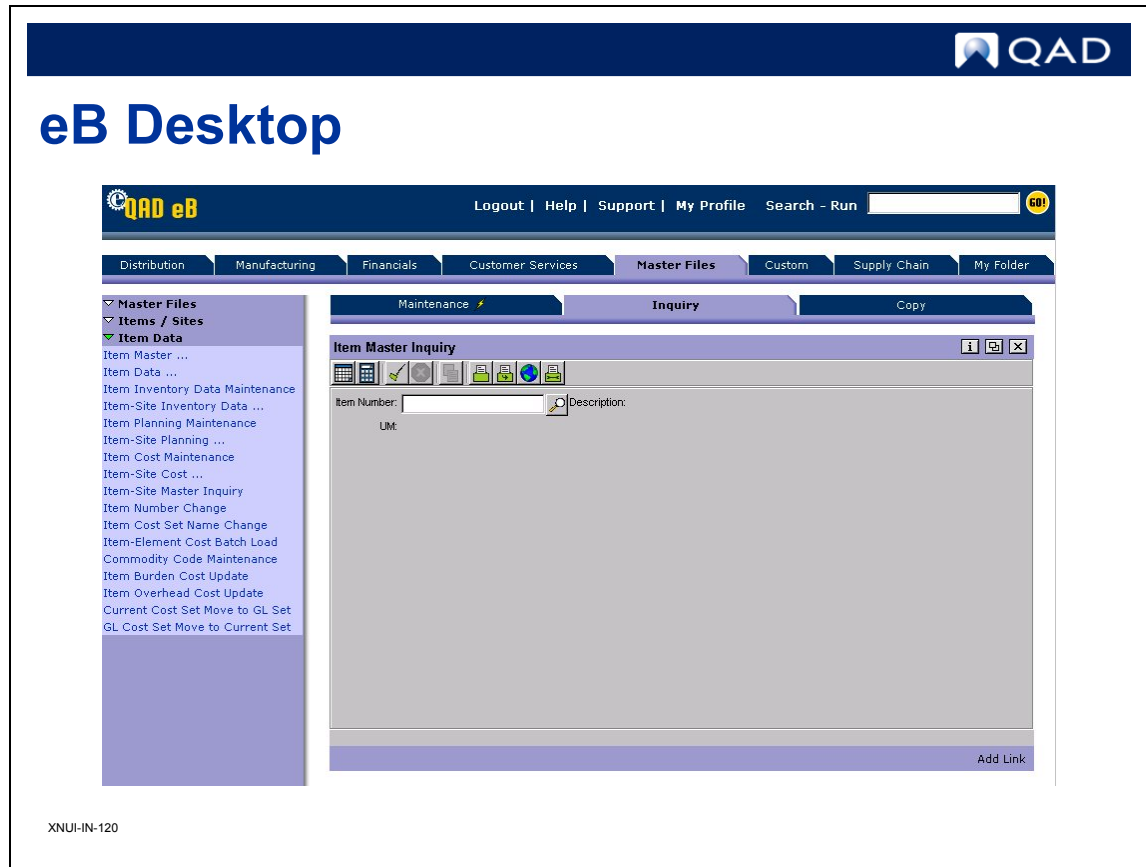
eB Desktop & Full User Interface



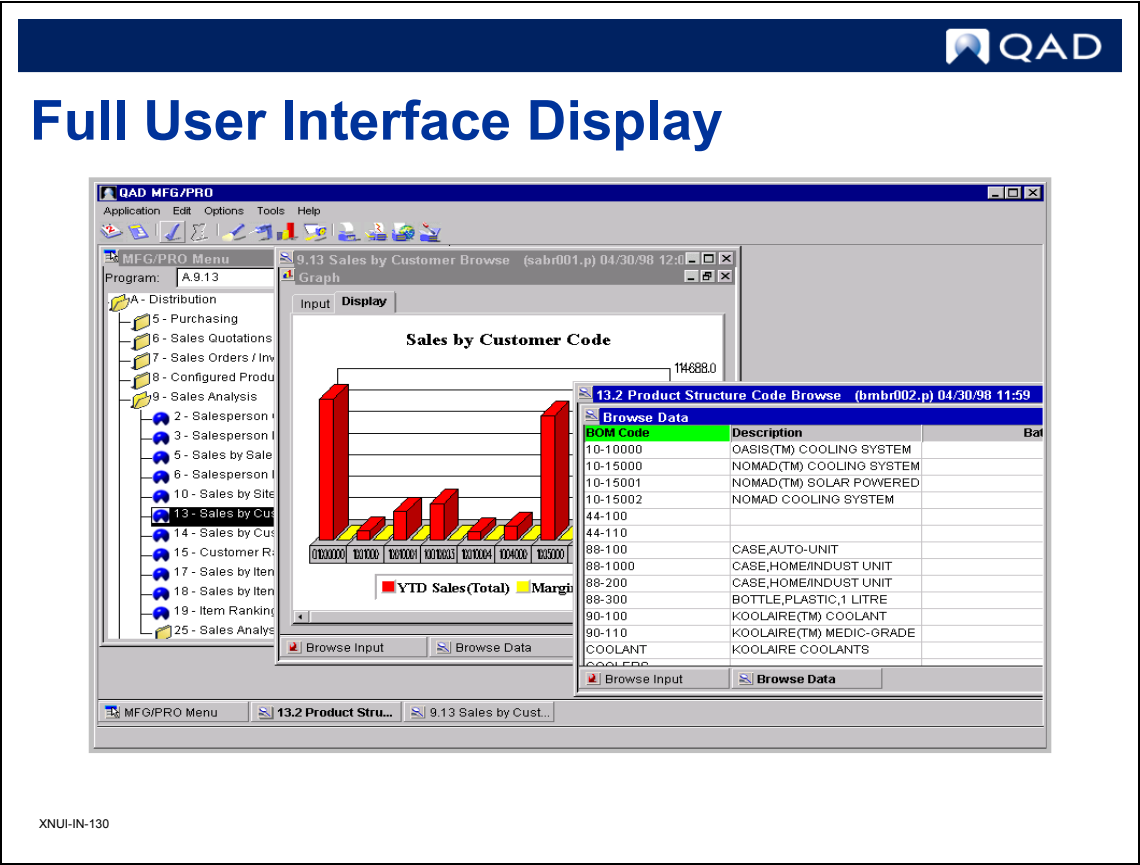
eB Desktop & Full User Interface (continued)

- ◆ Extensive integrated help
 - Complete MFG/PRO documentation
 - User interface help
 - Context-sensitive procedure & field help
- ◆ Outbound URL links from browses

XNUI-IN-110

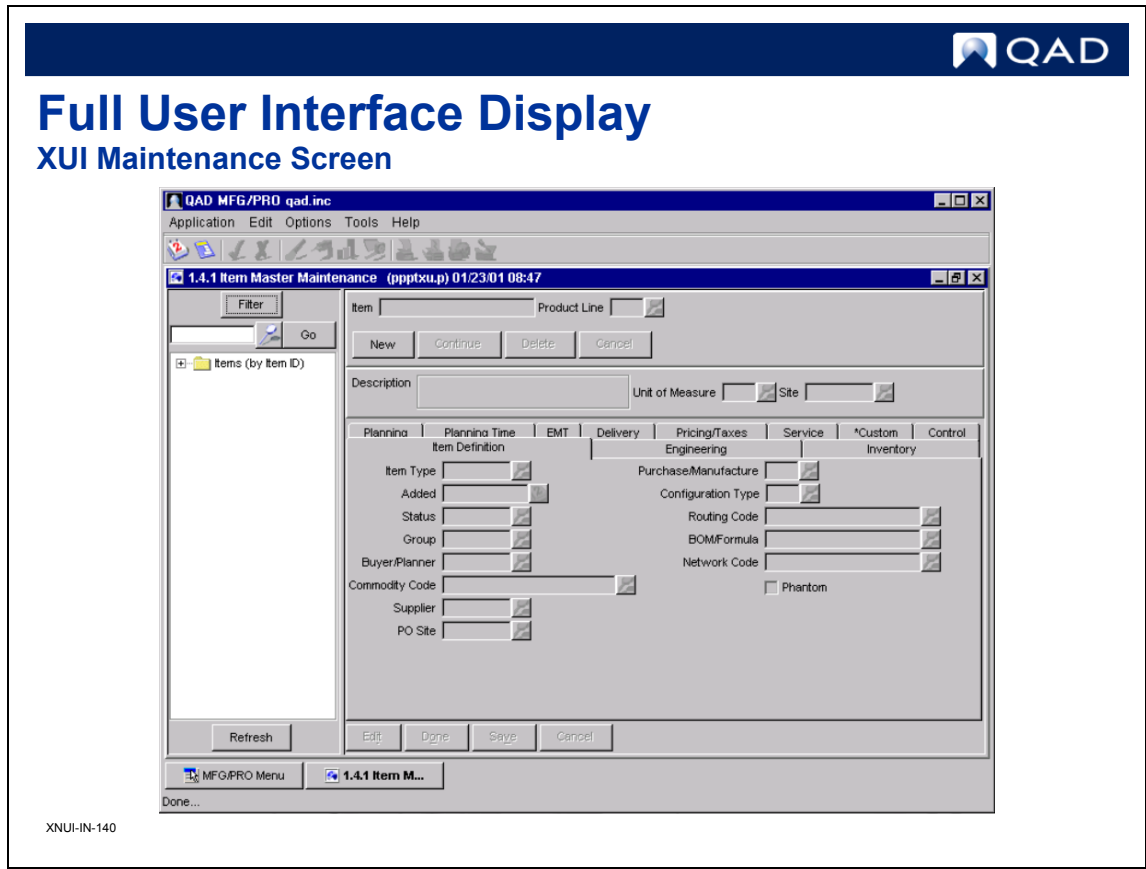


eB Desktop



XNUI-IN-130

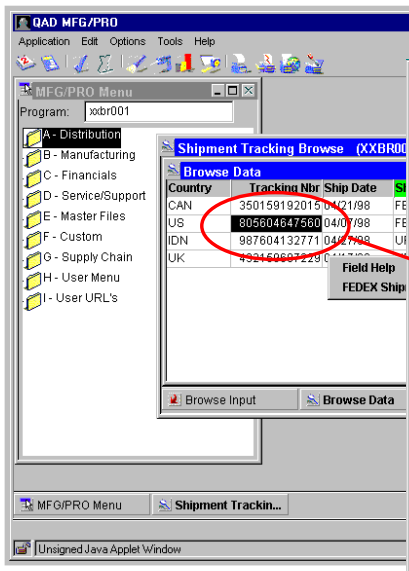
Full User Interface Display



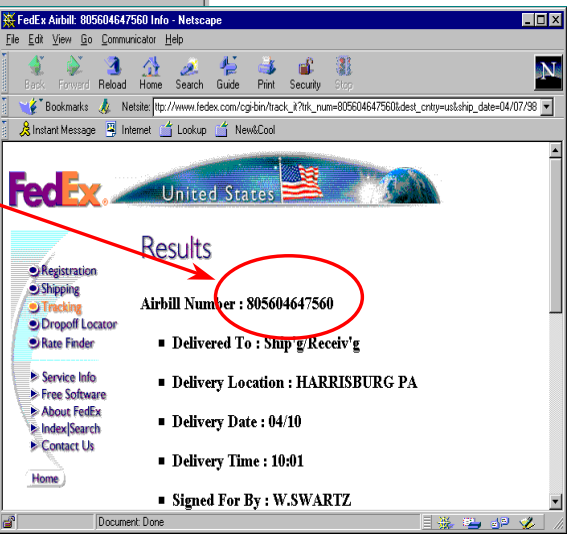
XUI Maintenance Screen



Outbound URL Links



Country	Tracking Nbr	Ship Date	Status
CAN	350159192015	04/21/98	FE
US	805604647560	04/07/98	FE
IDN	987604132771	04/07/98	UI
UK	432450607229	04/07/98	FE



Results

Airbill Number : 805604647560

- Delivered To : Ship'g/Receiv'g
- Delivery Location : HARRISBURG PA
- Delivery Date : 04/10
- Delivery Time : 10:01
- Signed For By : W.SWARTZ

XNUI-IN-160

Outbound URL Links



Embedded User Interface

- ♦ For intranet, extranet, or VPN
- ♦ Embed an MFG/PRO application in an HTML page
- ♦ Create links to specific MFG/PRO applications
- ♦ Simpler interface appearance
- ♦ Superimpose corporate look-and-feel
- ♦ Integrate information from disparate sources

XNUI-IN-170

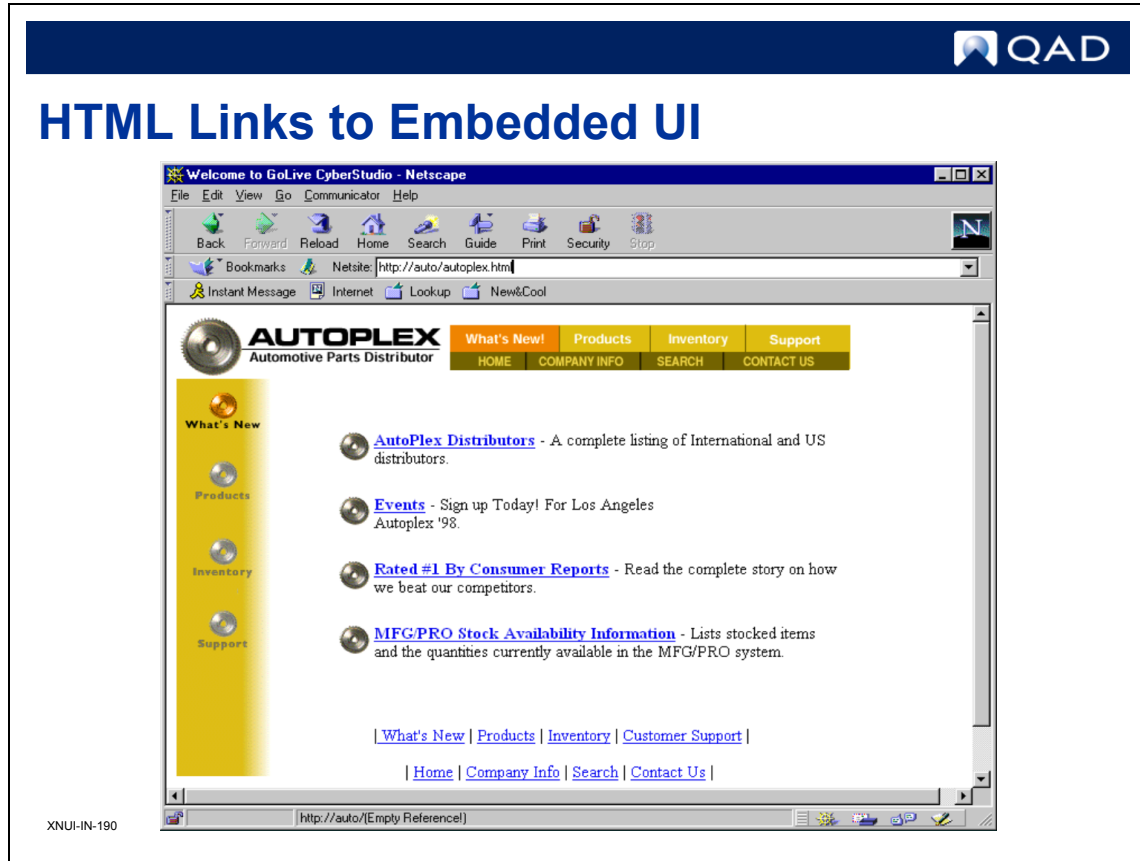
Embedded User Interface



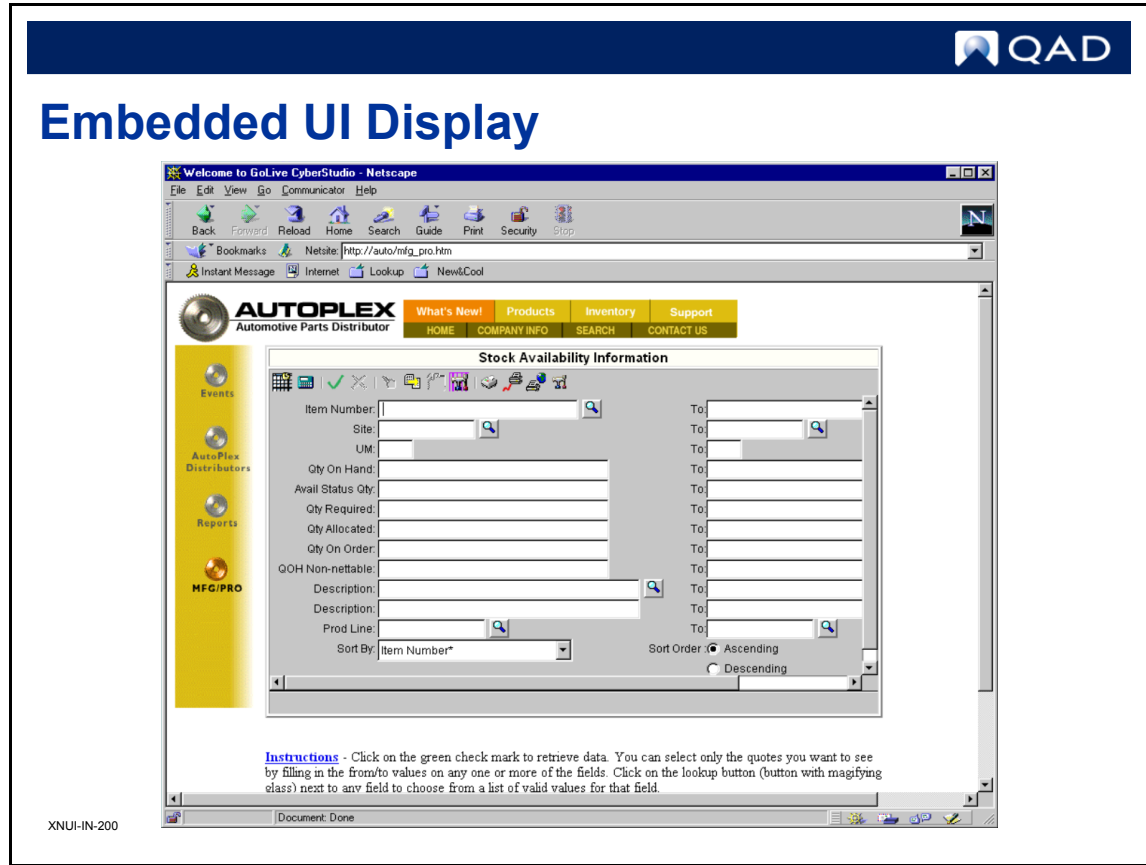
Embedded User Interface (continued)

- ♦ Most of full UI features
 - No desktop
 - No menu
- ♦ Consistency in the UI through reuse of Java
- ♦ Enforced user authentication and data security

XNUI-IN-180



HTML Links to Embedded UI



Embedded UI Display



Data Security

- ♦ Flexible, rules-based system
- ♦ Limits the view of information
- ♦ Allows extension of MFG/PRO functionality to extranet users
 - A vendor can only see his A/P records in an Accounts Payable browse
- ♦ Useful for intranet users, too
 - A salesperson can see only her sales in Sales Order inquiry

XNUI-IN-210

Data Security



Application Enhancements

- ♦ “Information Access” NetUI is self-configuring
 - Queries existing MFG/PRO code and receives description of how to present itself
 - One piece of Java code for all reports and one piece of code for browses
 - Simplifies web enabling customized or new MFG/PRO functionality
 - All customer-defined MFG/PRO browses are automatically web-enabled
 - Functionality is added to existing MFG/PRO character source code

XNUI-IN-220

Application Enhancements



Maintenance Functionality

- ♦ XUI – Extended User Interface
 - Several Maintenance Programs have been re-programmed for true Network Enabled maintenance functionality
- ♦ Non XUI Maintenance Screens
 - Launched in a telnet window within the application
 - One piece of Java code to call all maintenance programs
 - Telnet sessions are cached for performance
 - Functionality is existing MFG/PRO character source code

XNUI-IN-230

Maintenance Functionality

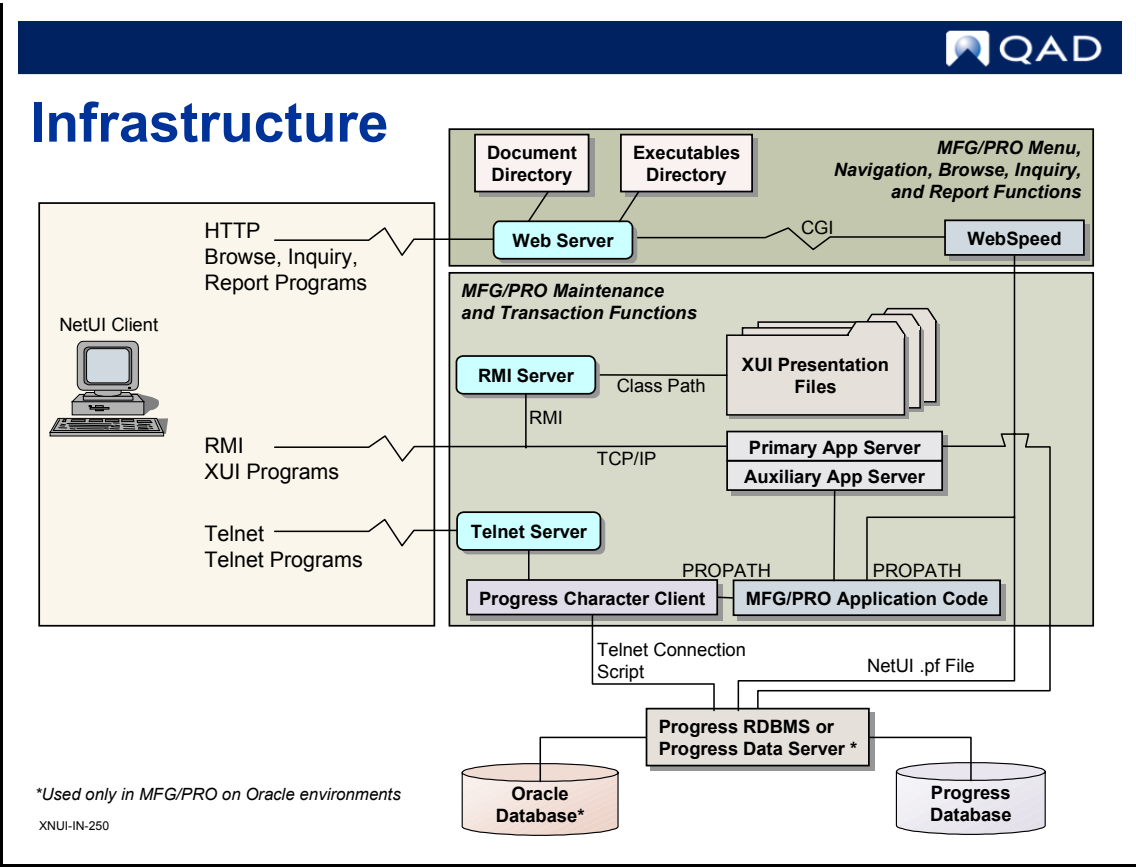


Infrastructure

- ♦ Java 1.1.8 compliant Virtual Machine
 - Sun Java Plug-In
- ♦ Web Server
 - Any CGI-compatible HTTP Server
- ♦ Progress WebSpeed Transaction Server
- ♦ Progress Application Server
- ♦ RMI Server (Remote Method Invocation)
- ♦ Character Telnet Capability
- ♦ ORACLE or PROGRESS database

XNUI-IN-240

Infrastructure





Benefits Summary

- ♦ Ease of accessibility
- ♦ Ease of client configuration and administration
- ♦ Reduced cost-of-ownership
- ♦ Scalable
- ♦ Full-featured GUI
- ♦ Consistent
- ♦ Customizable
- ♦ Deployment over intranets and extranets

XNUI-IN-260

Benefits Summary



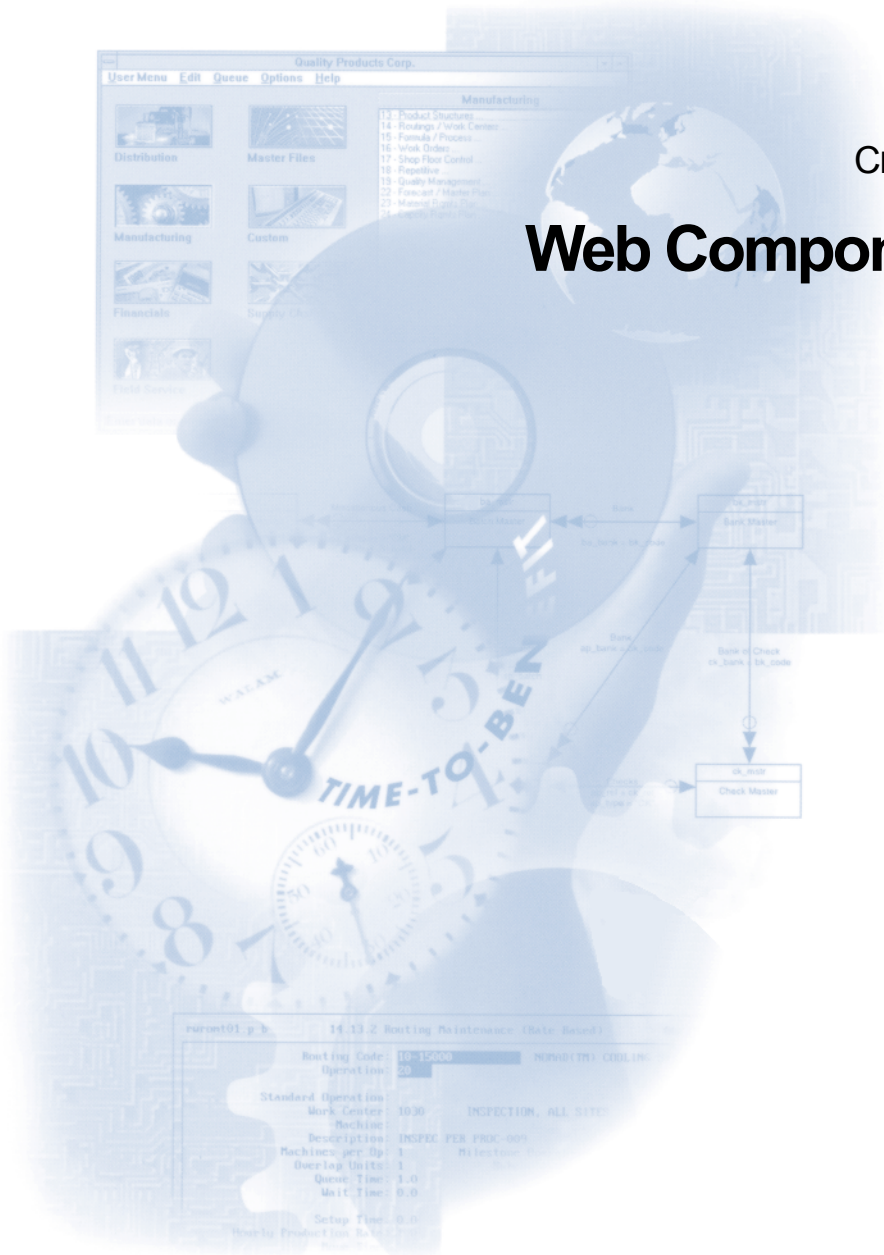
Course Overview

- ✓ Overview
 - ♦ Web Components
 - ♦ XUI/NetUI Components
 - ♦ System Requirements
 - ♦ UNIX Installation
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-IN-270

CHAPTER 2

Web Components





In This Section:

✓ Overview

✓ **Web Server and Progress Components**

- ♦ XUI/NetUI Components
- ♦ System Requirements
- ♦ UNIX Installation
- ♦ NT Installation
- ♦ Client Installation
- ♦ User Interface
- ♦ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-WC-010



Web Server and Progress Components Overview

- ♦ Terminology
- ♦ Web Browsers
- ♦ Web Servers
- ♦ Progress WebSpeed
- ♦ Progress Application Server
- ♦ Remote Method Invocation Software

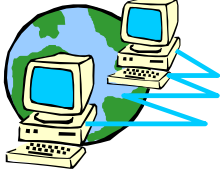
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Web Components Overview



Network Terminology

- ♦ Intranet
 - A private network inside a company or organization that uses the same kinds of software found on the public internet
- ♦ Internet
 - A system of linked computer networks—international in scope—that facilitates data communication services such as remote login, file transfer, e-mail, and newsgroups
- ♦ Extranet
 - Part of a company's intranet that is extended to users outside the company
- ♦ TCP/IP
 - The basic communication protocol of the Internet
 - Also used as a communication protocol for intranets and extranets



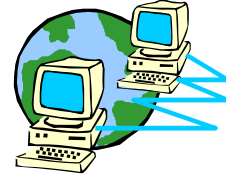
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Terminology

Network Terminology



Network Terminology (continued)



- ♦ TCP/IP
(Transmission Control Protocol/Internet Protocol)
 - The basic communication protocol of the Internet
 - Also used as a communication protocol for intranets and extranets
- ♦ HTTP (Hypertext Transfer Protocol)
 - Set of rules for exchanging text, graphic images, sound, video and other multimedia files on the World Wide Web

XNUI-WC-040



Web Terminology



- ♦ HTTP (Hypertext Markup Language)
 - The markup language used for documents on the World Wide Web
 - HTML is an application that uses tags to mark elements such as text and graphics in a document to indicate how Web Browsers should display these elements to the user
- ♦ URL (Uniform Resource Locator)
 - An address for a resource on the Internet
 - URL's are used by web browsers to locate internet resources
 - A URL specifies the protocol (e.g., http, ftp), the name of the server (i.e. arsu18) and optionally a path to a resource (i.e., an HTML document or file)
- ♦ Static HTML Documents
 - ASCII text files in HTML that the web server sends "as is" to the web browser

XNUI-WC-050

Web Terminology



Web Terminology (continued)



- ♦ CGI (Common Gateway Interface)
 - Common scripts or programs used by programmers that return information to the web browser
- ♦ ISAPI (Internet Server Application Programming Interface)
 - Interface for back end applications for MSIS
 - Has its own DLL Library that offers significant advantages over CGI
- ♦ NSAPI (Netscape Server Application Programming Interface)
 - Interface for back end applications for NSES that extends functionality beyond CGI
- ♦ Scripts (aka binaries, executables)
 - A program consisting of a set of instructions to an application or utility program
 - The instructions usually use the rules and syntax of the application

XNUI-WC-060



Java Terminology



- ♦ **Java Run-Time Environment (JRE)**
 - A subset of the Java Development kit for deployment to end users
- ♦ **Java Virtual Machine (JVM)**
 - The part of the Java runtime environment responsible for interpreting byte code
- ♦ **Java Archive File (JAR File)**
 - A file that contains the class, image and sound components of a Java applet gathered into a single file and compressed for fast downloading to a Web

XNUI-WC-070

Java Terminology



What is a Web Browser?

- ♦ A program that connects to a web server over the internet to retrieve information from that system and display it on your machine
 - Examples: Netscape and Microsoft Internet Explorer are web browsers



XNUI-WC-080

Web Browsers



What is a Web Server?

- ♦ An application that handles requests for HTML information coming from the Internet or Intranet
- ♦ On UNIX, Netscape Enterprise or Apache Web server are the most common web servers
- ♦ On NT, Netscape Enterprise or Microsoft Internet Information Server (IIS) are most common web servers

XNUI-WC-090

Web Servers



Web Server Functionality

- ♦ The server process listens to a network port (80 by default) and accepts requests coming from web browsers
- ♦ The requests are in the form of a URL with static HTML documents or output from a script
- ♦ The web server determines which type of request is coming in and where to get the return information from

XNUI-WC-100

Web Server Functionality



Web Server – Static HTML

- ♦ Web servers are setup to use a default directory for all static HTML documents
 - This is the document home directory (docs directory)
- ♦ All HTML documents must reside in this directory or a sub-directory
 - Example: The URL for a static document “index.html” called from the server arsu18 would be:
<http://arsu18/index.html>

XNUI-WC-110

Static HTML





Web Server – Script Output

- ♦ Scripts are programs that generate output to the browser and make your web pages dynamic and interactive vs. static HTML documents, which just contain content
- ♦ The requests are in the form of a URL which evokes output from a script
- ♦ These programs are placed in a scripts directory on the web server so that they are run, versus displayed like a document

XNUI-WC-120

Script Output



Web Server Directories – UNIX

- ♦ For Netscape, the default location of the directories are:
 - /<netscape enterprise install dir>/docs
for documents
 - /<netscape enterprise install dir>/cgibin
for scripts
 - Can read the Web Server's obj.conf file
for location
 - Can assign aliases to these directories

XNUI-WC-130

UNIX Web Server Directories





Web Server Directories – NT

- ♦ For Microsoft IIS, the default location of the directories are:
 - c:\Inetpub\wwwroot for documents
 - c:\Inetpub\scripts for scripts

XNUI-WC-140

NT Web Server Directories



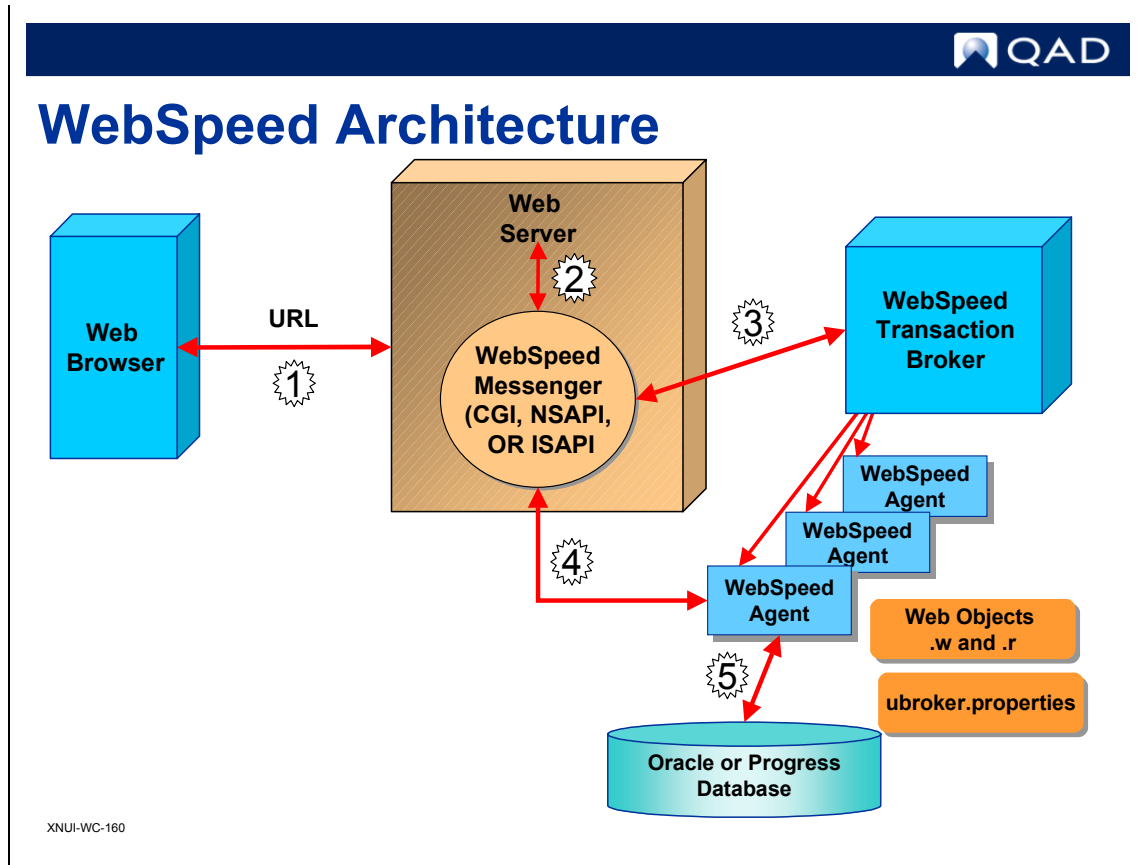
What is WebSpeed?

- ♦ WebSpeed is a development and deployment environment that enables users to build robust, data-driven Internet Transaction Programs (ITP) for the intranet or internet
- ♦ Enables you to create Web Objects (application modules) that map data to and from static HTML documents using the WebSpeed Workshop and WebSpeed 4GL
- ♦ Enables you to deploy your HTML pages and Web Objects to a run-time environment using the WebSpeed Transaction Server
 - Note: QAD's XUI/NetUI requires the deployment environment

XNUI-WC-150

Progress WebSpeed

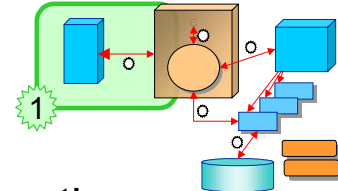




WebSpeed Architecture

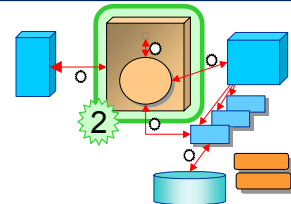
WebSpeed Architecture

- ◆ Connection 1:
 - Network Connection between the browser and the web server
 - Default server port is 80
 - Web server and WebSpeed messenger must be on the same machine
 - Web server communicates with the WebSpeed messenger



XNUI-WC-170

WebSpeed Architecture



- ◆ Connection 2:
 - Web server connection to the WebSpeed messenger
 - Uses script programs stored on the web server to communicate with the messenger
 - Messenger is a PROGRESS executable file that takes a PROGRESS Web Object procedure (.w) as input and sends back an HTML page as output

XNUI-WC-180



WebSpeed Messenger

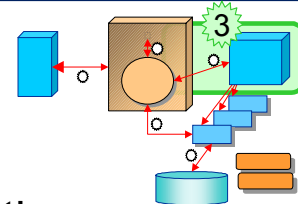
- ♦ Messenger executables are:
 - CGI – cgiip.exe (NT) cgiip.ksh (UNIX)
 - ISAPI – wsisa.dll
 - NSAPI – wsna.dll
- ♦ The messenger asks the broker if there are agents available to run a web object, then passes the web object to the agent for processing
- ♦ After processing, the agents returns its HTML output to the messenger for transfer back to the webserver and finally to the browser

XNUI-WC-190

WebSpeed Messenger



WebSpeed Architecture



- ♦ Connection 3:
 - Network connection between the messenger and the transaction broker
 - Defined by the hostname and port defined in the ubroker.properties file

XNUI-WC-200



WebSpeed Transaction Broker

- ♦ WebSpeed Transaction Broker is responsible for:
 - Receiving requests from the messenger on availability of an agent to service the web object
 - Replying to the messenger with the id and port of the available agent
 - Spawning a new agent if none available and not at the limit
- ♦ If at the limit, sends msg to messenger that no agents are available
- ♦ Provides the status and states of running agents
 - STARTING, AVAILABLE, LOCKED, BUSY

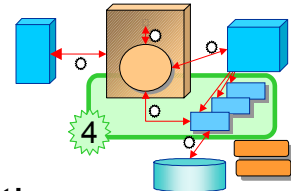
XNUI-WC-210

WebSpeed Transaction Broker



WebSpeed Architecture

- ◆ Connection 4:
 - Network connection between the WebSpeed transaction agents and web server
 - Defined by the hostname and port defined in the the ubroker.properties file



XNUI-WC-220



WebSpeed Transaction Agent

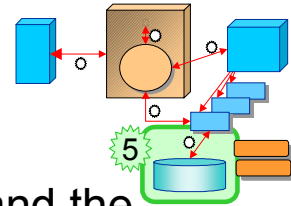
- ♦ WebSpeed Transaction Agent (_WTA):
 - A PROGRESS client (_progres) with modifications to work with WebSpeed
 - Agents accept requests from the messenger in the form of a URL, parse the URL for the name of the web object to execute, and then run it
 - Passes output back to the messenger

XNUI-WC-230

WebSpeed Transaction Agent

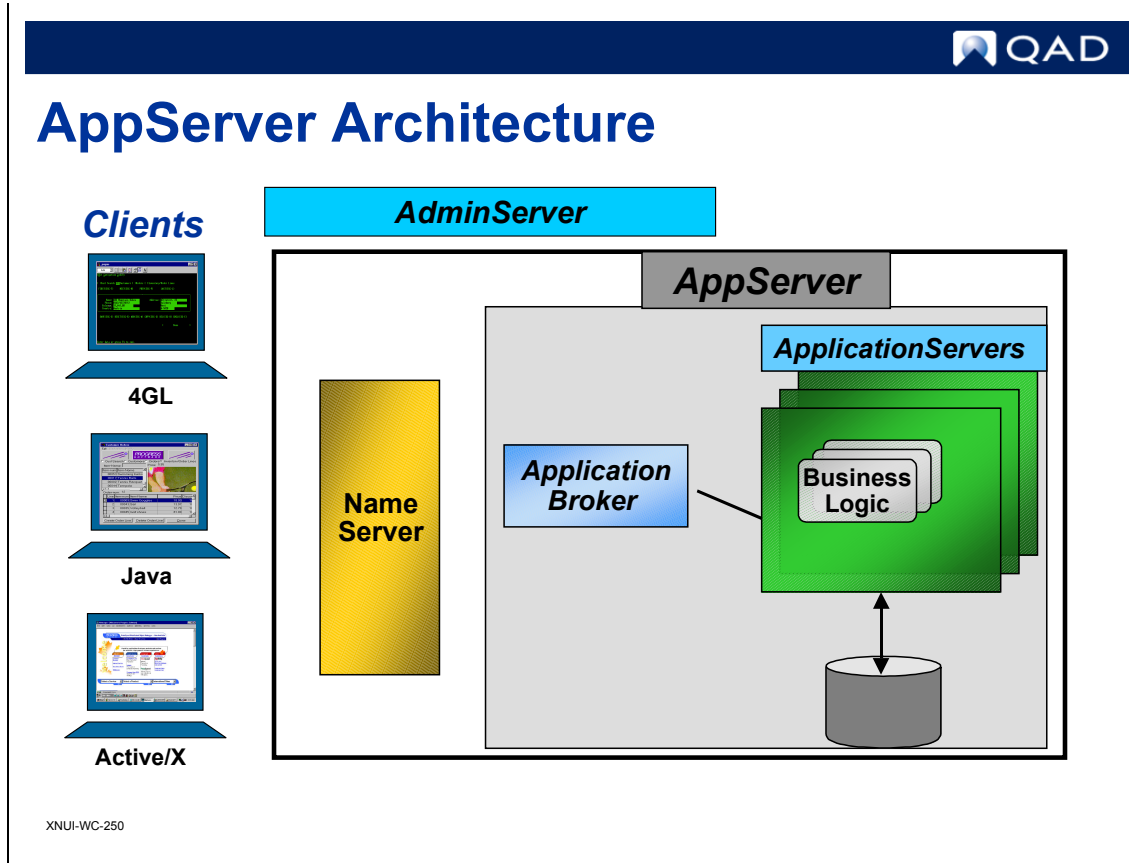


WebSpeed Architecture



- ♦ Connection 5:
 - Connection between agents and the database
- ♦ WebSpeed agents connect to the database using PROGRESS Client Networking (e.g., -H, -S, -N)

XNUI-WC-240



Progress Application Server

AppServer Architecture



AppServer Architecture

- ♦ Like WebSpeed, the Progress Application Broker spawns agents, which connect to the database
- ♦ These agents act like headless client sessions and run functionality local to the database, ultimately redirecting final output to the client machine
- ♦ The remote invocation of processes requires RMI Server Software

XNUI-WC-260



Remote Method Invocation

- ♦ A Remote Method Invocation Server must be installed to handle processes invoked remotely to run on local resources
- ♦ These processes must remain active at all times in order for XUI programs, and help functions, to operate
- ♦ These processes are started via a script or batch file
- ♦ These processes are stopped via a command line or interactively

XNUI-WC-270

Remote Method Invocation Software



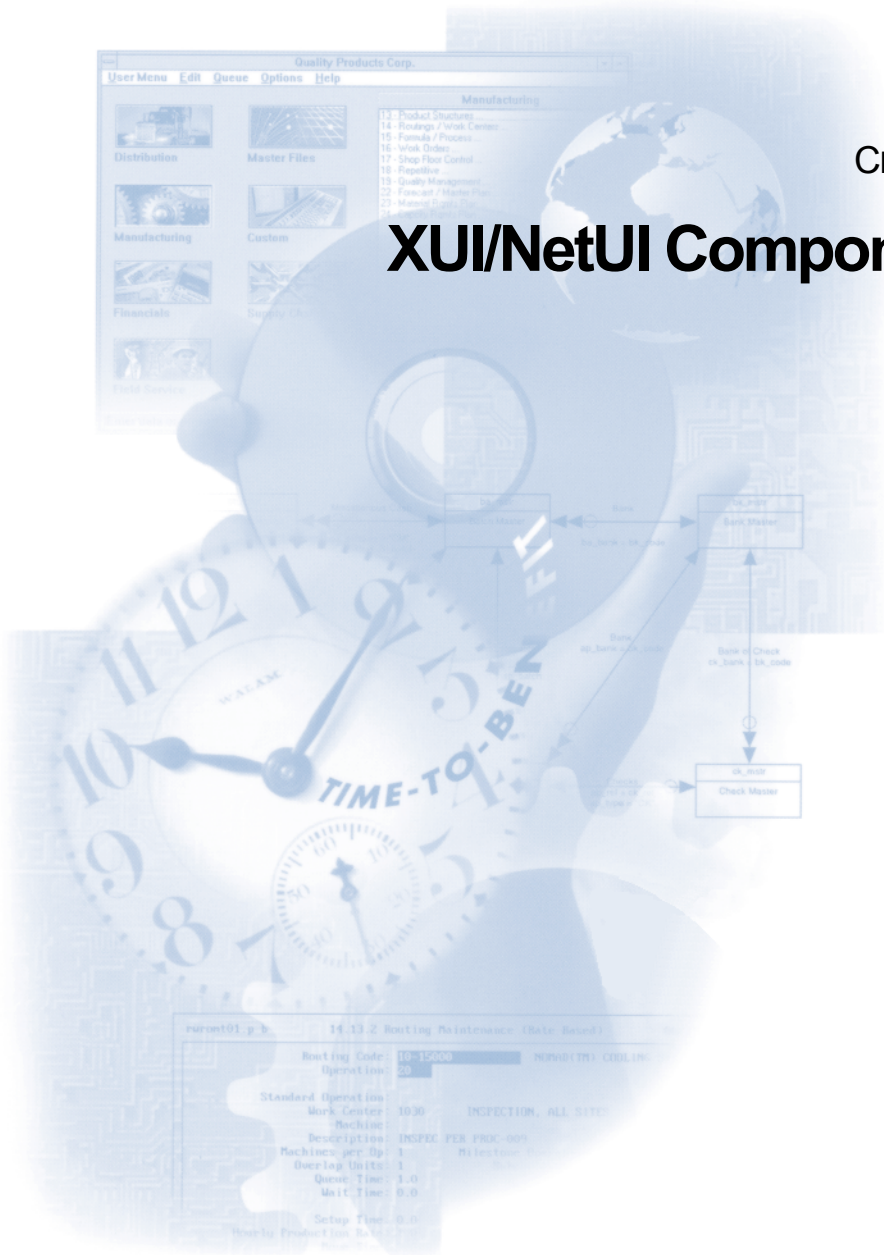
Course Overview

- ✓ Overview
- ✓ Web Components
 - ♦ XUI/NetUI Components
 - ♦ System Requirements
 - ♦ UNIX Installation
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-WC-280

CHAPTER 3

XUI/NetUI Components





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ **XUI/NetUI Components**
 - ♦ System Requirements
 - ♦ UNIX Installation
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-XC-010



XUI/NetUI Components Overview

- ♦ XUI/NetUI Components
- ♦ XUI/NetUI Architecture
- ♦ Deployment Considerations
- ♦ XUI/NetUI Configurations

XNUI-XC-020

XUI/NetUI Components Overview



XUI/NetUI Components

- ♦ Client PC
 - Web Browser
 - Java Virtual Machine
- ♦ Web Server
- ♦ Progress WebSpeed Transaction Server
- ♦ Progress Application Server
- ♦ Remote Method Invocation Server
- ♦ Telnet Server
- ♦ Database Server

XNUI-XC-030

XUI/NETUI Components



Components – Client PC

- ◆ Client PC uses
 - Web Browser
 - Netscape Navigator 4.6 or later
 - Microsoft Internet Explorer 5.0 or later (5.5 or later for eB Desktop)
 - Java Virtual Machine
 - Uses a Sun Java Plug-in and will work with most Web Browsers
 - Setup available for Microsoft Windows clients

XNUI-XC-040

Components - Client PC



Components – Web Server

- ♦ Web Server can be UNIX or NT
 - Common Gateway Interface (CGI) compatible such as:
 - Netscape Enterprise Server, or Microsoft Internet Information Server, Apache
 - Software loaded on the Web Server during XUI/NetUI installation includes:
 - Java code to support XUI/NetUI
 - Client Software and MFG/PRO HTML pages
 - WebSpeed messenger (NT and UNIX)

XNUI-XC-050

Web Server





Components – WebSpeed Server

- ♦ PROGRESS WebSpeed Transaction Server
Version 3.1 used for MFG/PRO eB
- ♦ Executes the NetUI code for clients
- ♦ WebSpeed versions available for:
 - Windows NT (Intel and Alpha)
 - Sun Solaris
 - IBM AIX
 - Digital UNIX
 - HP-UX

XNUI-XC-060



Components – Application Server

- ♦ PROGRESS Application Server is bundled with Progress Version 9.1
- ♦ Executes the XUI code for clients remotely
- ♦ A RMI server evokes remote program execution
- ♦ Application Server versions available for:
 - Windows NT (Intel and Alpha)
 - Sun Solaris
 - IBM AIX
 - Digital UNIX
 - HP-UX

XNUI-XC-070



Components – RMI Server

- ♦ Included with the XUI/NetUI client software
- ♦ Allows JAVA programs to utilize Remote Procedure Calls (RPC)
- ♦ Remote Procedure Calls can actuate processes, or retrieve files and resources, on remote machines

XNUI-XC-080



Components – Telnet Server

- ♦ Runs MFG/PRO eB Character .r code
- ♦ Requires PROGRESS version 9.1
- ♦ Telnet Server provides maintenance support for MFG/PRO non-XUI maintenance programs
- ♦ Supported on both UNIX and NT
 - NT support requires GeorgiaSoftworks Windows NT Telnet Server

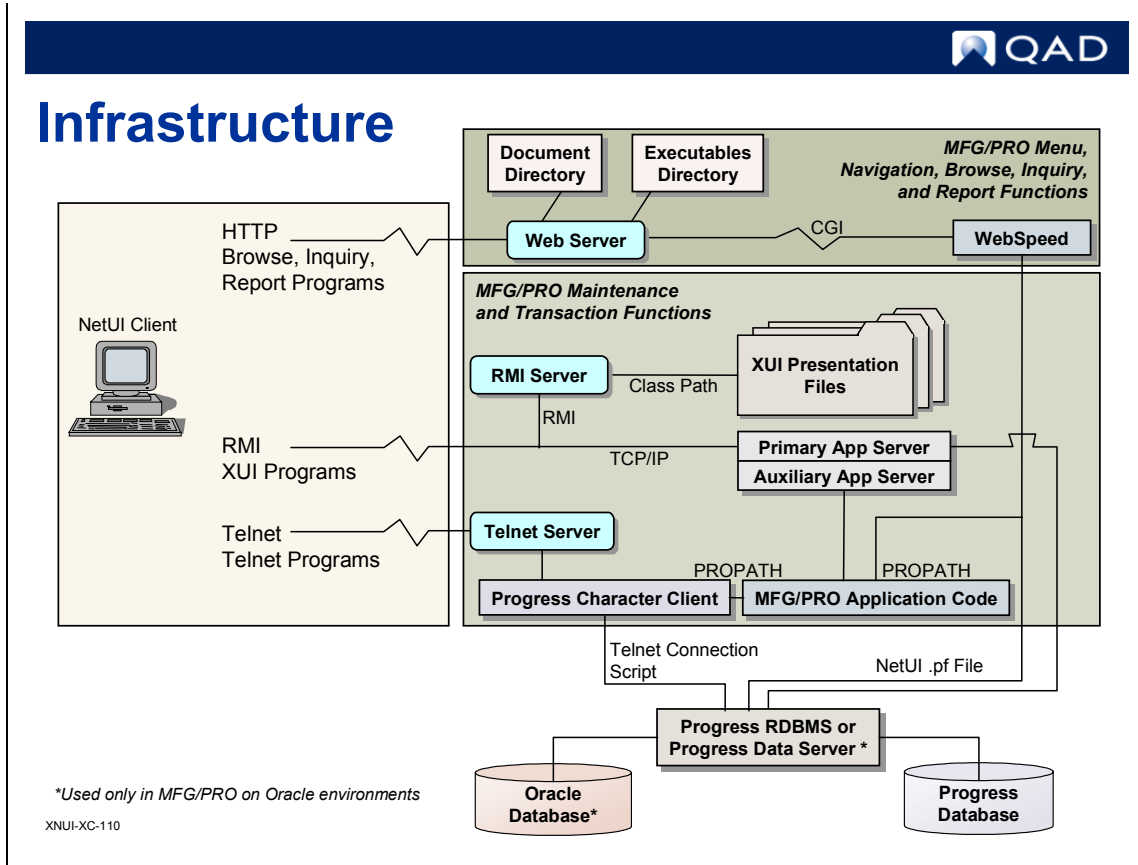
XNUI-XC-090



Components – Database Server

- ♦ Any supported MFG/PRO eB database server configuration
- ♦ UNIX or NT
- ♦ PROGRESS or ORACLE databases
- ♦ Progress Application Server & WebSpeed Transaction Server agents connect to the MFG/PRO databases via connection parameters specified in a parameter file.

XNUI-XC-100



XUI/NetUI Architecture

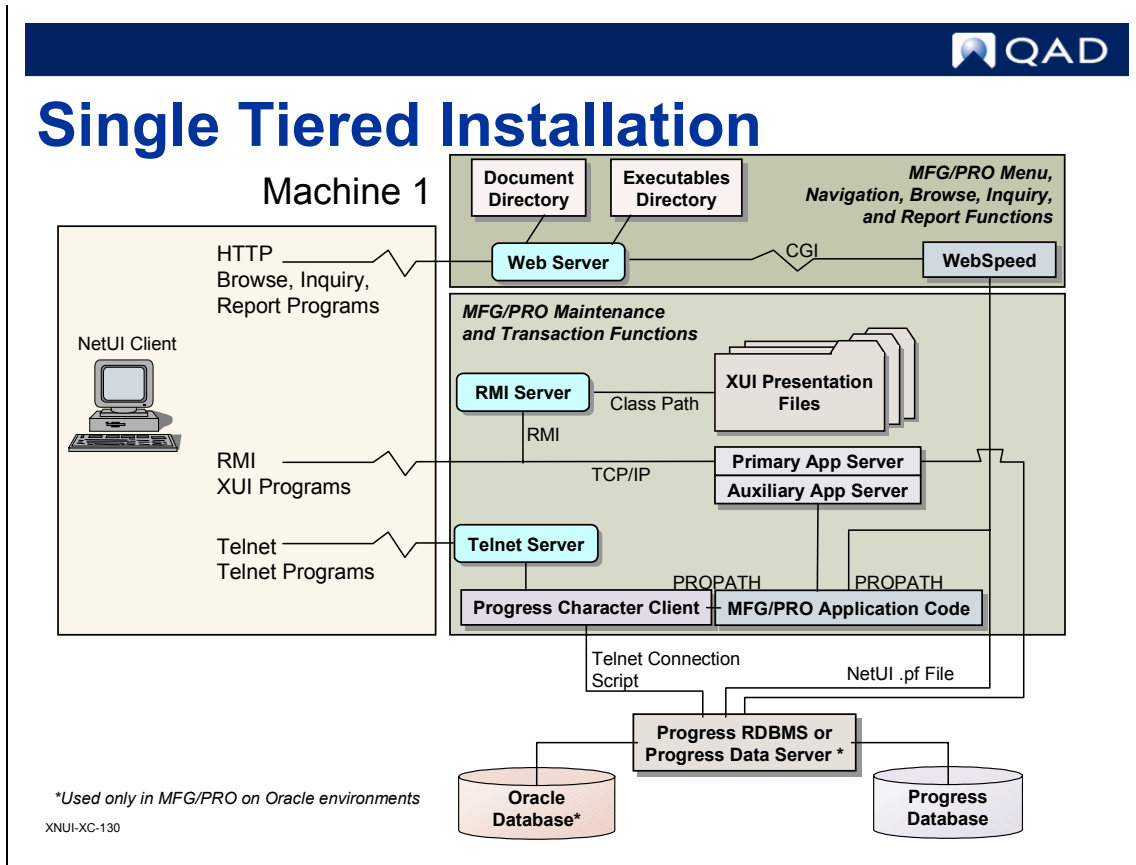


XUI/NetUI Deployment Considerations

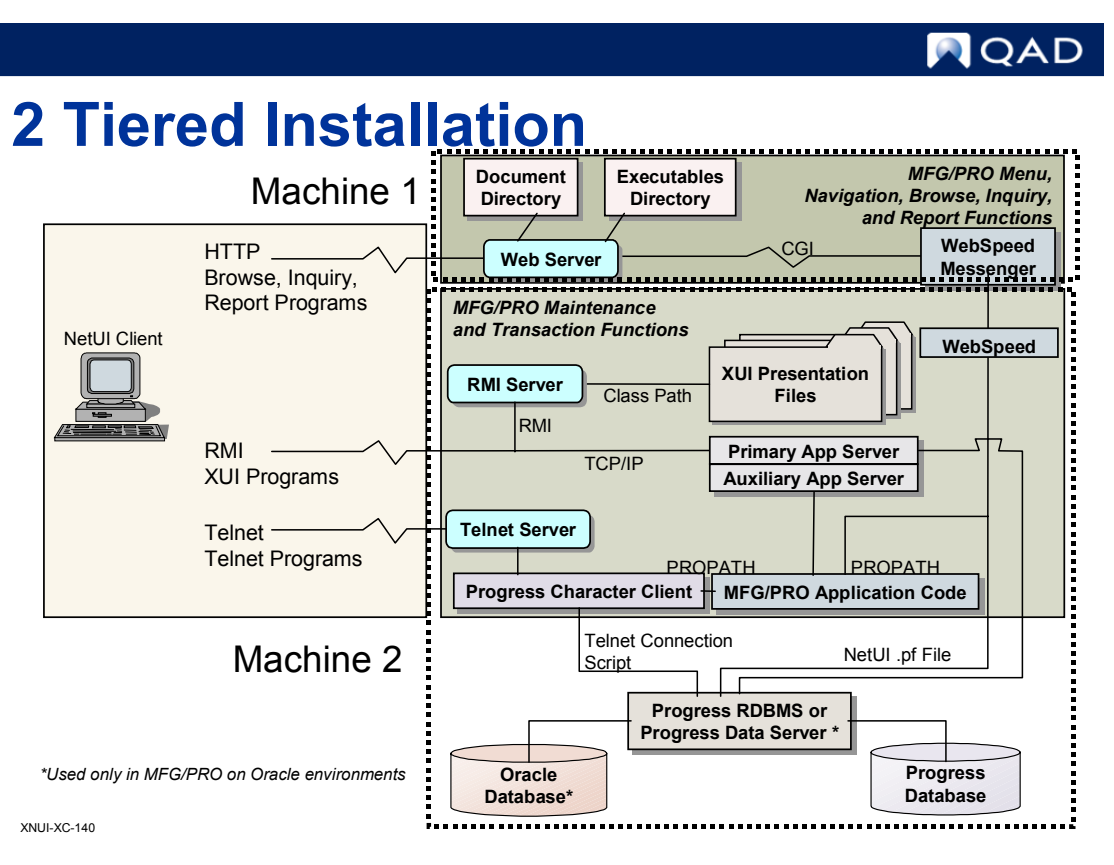
- ♦ Network Configuration
 - LAN, internet, intranet (WAN), dial-up
- ♦ Client type
- ♦ Web server type
- ♦ Progress Application Server, WebSpeed, and MFG/PRO database locations
- ♦ Telnet server location
- ♦ Network and application security

XNUI-XC-120

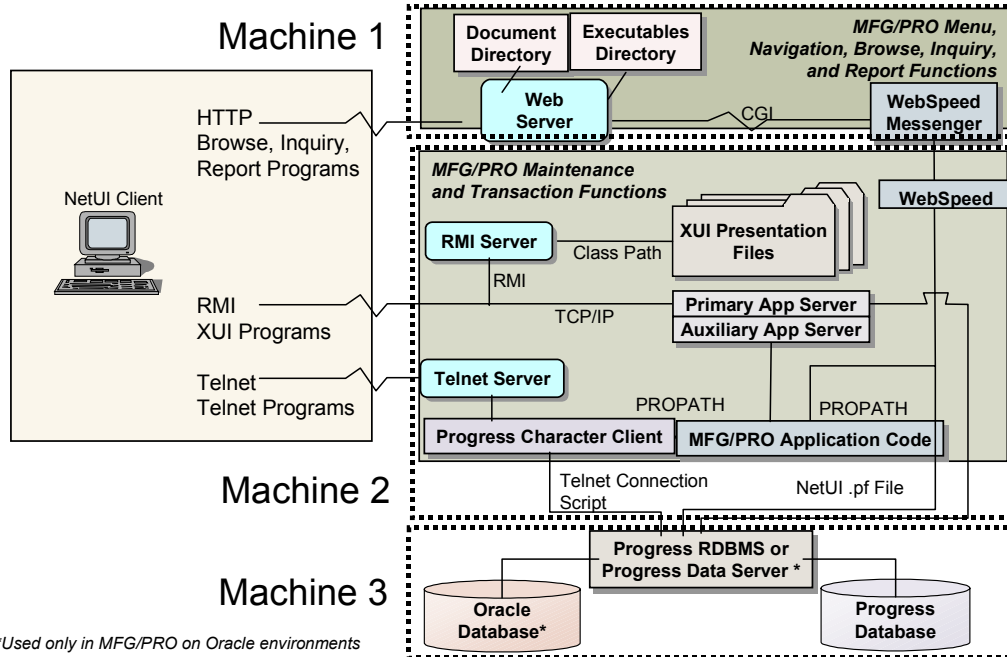
XUI/NetUI Deployment Considerations



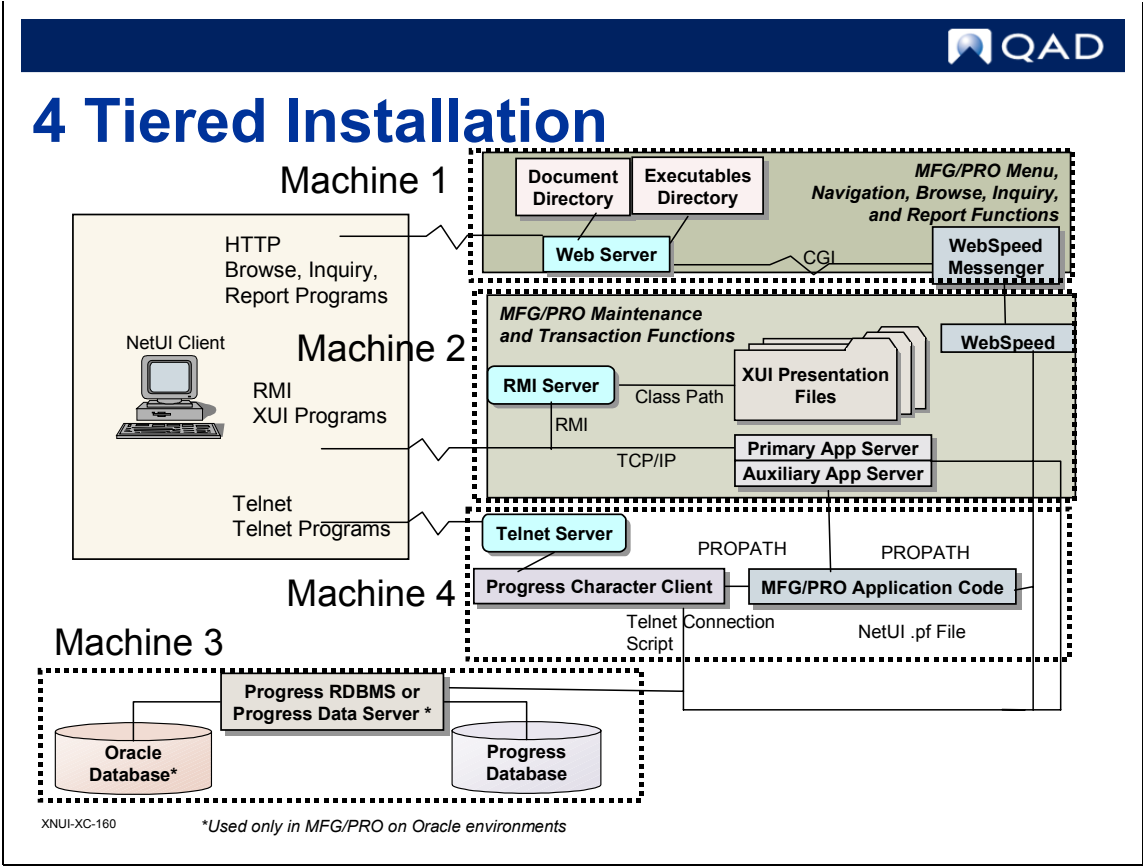
XUI/NetUI Configurations



3 Tiered Installation



XNUI-XC-150



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Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
 - ◆ System Requirements
 - ◆ UNIX Installation
 - ◆ NT Installation
 - ◆ Client Installation
 - ◆ User Interface
 - ◆ User Security
 - ◆ URL Links
 - ◆ System Security & Performance
 - ◆ NetUI Reconfiguration

XNUI-XC-170

CHAPTER 4

System Requirements





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ **System Requirements**
 - ♦ UNIX Installation
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-SR-010



System Requirements Overview

- ♦ Introduction
- ♦ Prerequisites
- ♦ Client requirements
- ♦ Web Server requirements
- ♦ WebSpeed Server requirements
- ♦ Progress Application Server requirements
- ♦ RMI Server requirements
- ♦ MFG/PRO Server requirements
- ♦ Disk space

XNUI-SR-020

System Requirements Overview



Introduction

- ♦ Installation and configuration of XUI/NetUI requires a wide variety of skills
 - MFG/PRO installation and administration
 - Web Server installation and administration
 - WebSpeed installation and administration
 - Progress AppServer installation and administration
 - Client PC Java setup and administration
 - Basic HTML experience
 - Basic Telnet experience on either NT or UNIX

XNUI-SR-030

Introduction





Prerequisites

- ♦ Before installing the NetUI components you should first install MFG/PRO eB and configure and start your databases for Client/Server access
- ♦ You should also insure network connectivity between each of the servers and clients in the configuration

XNUI-SR-040

Prerequisites



Client Requirements

- ♦ Operating Systems*
 - Microsoft Windows 95 and Windows 98
 - Microsoft Windows NT 4.0 and Windows 2000
- ♦ Web Browsers
 - Microsoft Internet Explorer 5.0 or later (5.5 for eB Desktop)
 - Netscape Navigator 4.6 or later
- ♦ Client Software
 - Java Plug-in for Windows 95/98 and NT/Windows 2000
 - Java Runtime Environment (JRE1.1.8) – Patches Java Plug-in
 - Java Runtime Environment (JRE1.3) – For eB Desktop

***Currently XUI/NetUI is not supported for UNIX clients**

XNUI-SR-050

Client Requirements



Client Requirements

- ♦ Client software – Optional for performance
 - multinet.jar file (located in the /docs/multinet/java directory on the Web Server)
 - Client HTML files (located in the /docs/multinet directory on the Web Server)
- ♦ Minimum client hardware
 - P233 or faster processor
 - 64 MB of RAM or more
 - Ability to display 65,536 colors
 - Network connection
 - Approximately 10 MB of disk space

XNUI-SR-060



Web Server Requirements

- ♦ Web Server software requirements
 - Any Web Server that supports a common gateway interface (CGI)
 - Netscape Enterprise Server version 3.6 or higher
 - Microsoft Internet Information Server version 4.0 or higher
 - Apache
- ♦ Web Server hardware requirements
 - Refer to the Web Server software providers sizing and configuration guidelines

XNUI-SR-070

Web Server Requirements



WebSpeed Server Requirements

- ♦ WebSpeed Server software requirements
 - PROGRESS WebSpeed Transaction server Version 3.1
 - Enough WebSpeed Agent licenses to support expected transaction volume
- ♦ Planning rule of thumb for WebSpeed Agents
 - One agent for every eight embedded UI users
 - One agent for every two full UI users
 - Refer to the ***WebSpeed Agent Sizing and Behavior*** section of the NetUI Installation Reference

XNUI-SR-080

WebSpeed Server Requirements



WebSpeed Server Requirements

- ♦ WebSpeed Server hardware requirements
 - If combining with MFG/PRO database server, need to insure sufficient capacity
 - Will be similar sizing for an equivalent number of MFG/PRO character clients
- ♦ Supported WebSpeed platforms
 - ♦ Windows NT (Intel and Alpha)
 - ♦ Sun Solaris (SPARC)
 - ♦ IBM AIX
 - ♦ Digital UNIX
 - ♦ HP-UX

XNUI-SR-090



Application Server Requirements

- ♦ Application Server software requirements
 - PROGRESS Application Server bundled with Progress 9.1
 - Enough AppServer Agent licenses to support expected transaction volume
- ♦ Planning rule of thumb for AppServer Agents
 - One agent for every two full XUI user

XNUI-SR-100

Progress Application Server Requirements



Application Server Requirements

- ♦ Application Server hardware requirements
 - If combining with MFG/PRO database server, need to insure sufficient capacity
 - Will be similar sizing for an equivalent number of MFG/PRO character clients
- ♦ Supported Application Server platforms
 - ♦ Windows NT (Intel and Alpha)
 - ♦ Sun Solaris (SPARC)
 - ♦ IBM AIX
 - ♦ Digital UNIX
 - ♦ HP-UX

XNUI-SR-110



Remote Method Invocation Server

- ♦ Used to manage XUI interface elements and online help
- ♦ Allows Java programs to call procedures and files from remote machines to facilitate dispersed computing environments
- ♦ The RMI is used to off-load procedure execution from the client, to the remote Application Servers local to the databases

XNUI-SR-120

RMI Server Requirements



MFG/PRO Server Requirements

- ♦ MFG/PRO Server software requirements
 - MFG/PRO eB01 or higher (Desktop require SP1)
 - PROGRESS 9.1
 - Supports PROGRESS or ORACLE databases
- ♦ MFG/PRO Server hardware considerations
 - Possible increase of Telnet activity
 - Will the additional components be installed on this machine?
 - What is the current utilization of the MFG/PRO database server?

XNUI-SR-130

MFG/PRO Server Requirements





Disk Space Requirements

- ♦ **Web Server**
 - Netscape – 75 MB
 - Microsoft IIS – 50 MB
 - QAD XUI/NetUI Web Server Component – 300 MB
- ♦ **WebSpeed Server**
 - Progress AppServer & WebSpeed – 150 MB
- ♦ **RMI Server**
 - Approximately 3 to 6 MB
 - Configured against JDK1.1.8 for XUI/NetUI & JDK1.3 for Desktop
- ♦ **Client PC**
 - Approximately 6 to 10 MB

XNUI-SR-140

Disk Space Requirements



Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ♦ UNIX Installation
- ♦ NT Installation
- ♦ Client Installation
- ♦ User Interface
- ♦ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-SR-150

CHAPTER 5

UNIX Installation





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ **UNIX Installation**
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-UX-010



UNIX Installation Overview

- ♦ Installation overview
- ♦ Web Server installation
- ♦ WebSpeed & Application Server installation (and included Administration components)
- ♦ Creating a database connection parameter file
- ♦ Configuring the Administration Components

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UNIX Installation Overview



UNIX Installation Topics (continued)

- ♦ Install the XUI/NetUI Software
- ♦ Installing and configuring the RMI Software
- ♦ Configuring the Help System
- ♦ Configuring labels and the Auxiliary Appserver in MFG/PRO
- ♦ Telnet configuration

XNUI-UX-030



Installation Overview

- ♦ Install or identify the Web Server
- ♦ Create or identify the Web Server instance's *Document* (docs) and *Scripts* (cgi-bin) Directories and Aliases
- ♦ Modify the Multi-purpose Internet Mail Extension (MIME) types for client setup files
- ♦ Install the Progress Components – WebSpeed and Application Server

XNUI-UX-040

Installation Overview



Installation Overview (continued)

- ♦ Create a Parameter File to control database connections
- ♦ Configure and test the WebSpeed and Application Server Brokers and Agents – specifying the parameter file
 - Edit the ubroker.properties files
 - Use the Intel based Progress Explorer Tool

XNUI-UX-050



Installation Overview (continued)

- ♦ Install the XUI/NetUI media, specifying the Web Server port, directories, and aliases, and the configured WebSpeed broker
- ♦ Install and Configure the RMI Software
- ♦ Configure the Help Subsystem
- ♦ Define MFG/PRO Constants (labels)

XNUI-UX-060



Installation Overview (continued)

- ♦ Define the Auxiliary AppServer in MFG/PRO
- ♦ Configure Telnet Access
- ♦ Define user settings for session limits & Web Security
- ♦ Setup client machine(s) via a web browser

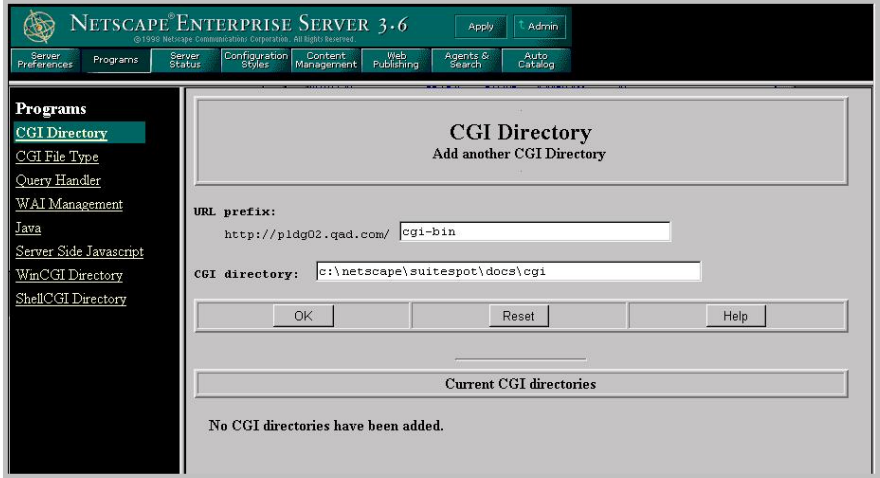
XNUI-UX-070



Web Server Configuration

CGI Directory and Alias

- Select *Programs*
- Select *CGI Directory*



XNUI-UX-080

Web Server Installation



Web Server Configuration

Multi-purpose Internet Mail Extensions

- Select *Server Preferences*
- Select *MIME Types*



The screenshot shows the Netscape Enterprise Server 3.6 configuration window. The 'Server Preferences' tab is selected, and the 'MIME Types' sub-tab is active. The 'Global Mime Types' section displays a table of MIME types with columns for Category, Content-Type, and File Suffix. There are buttons for 'New Type', 'Edit', and 'Remove' for each entry.

	Category	Content-Type	File Suffix
New Type	type		
Edit Remove	type	application/octet-stream	bin
Edit Remove	type	application/astound	asd,asn

XNUI-UX-090



Progress Components Installation

Welcome

WELCOME TO THE PROGRESS SOFTWARE
INSTALLATION UTILITY

Copyright (c) 1992-2000
Progress Software Corp.
All Rights Reserved._

[Enter=OK]

Product Configuration Data

Company Name: qad_____	[Enter=Additional]
Serial Number: 002915908	[Ctrl-E=Done]
Control Number: XFHZ XPAPD JM__	[CTRL-T=Quit]
	[CTRL-N=Release Notes]
	[CTRL-V=View]
	[TAB=Next Field]

XNUI-UX-

Progress Components Installation



Progress Components Installation

Before You Start

Before you start you will need to know the following:

- Web Server type API (NSAPI, CGI)
- Web Server script and Document Root directories
- Language for messages and data (English, French, etc...)
- Deployment architecture (Local or Distributed)

Please consult your System Administrator or Webmaster for Web Server information. For deployment information, see the "WebSpeed Installation and Configuration Guide".

[Enter=OK]

Type, Device and Destination

Select Type of Installation

Select Destination Pathname

Continue with Installation

View Release Notes

Cancel

Quit Installation

Type: Typical Install Device Name(s):

Destination pathname: /usr/dlc

Marking Dir pathname: /usr/urk

XNUI-UX-110



Progress Components Installation

+	Web Server Type	+
	Select Web Server Type	
	Select Web Server Script directory	
	Copy the static HTML to docroot	
+		+
	Select Web Server Script directory	
	Enter Destination Path: /data2/cgibin_____	
	[Enter=OK] [CTRL-N=Cancel]	
+		+

Type: Netscape or NSAPI - compatible
Script directory:
Document Root directory:

XNUI-UX-120



Progress Components Installation

```
+-----+
|Language Selection|
+-----+
| Russian          |
| Serbian          |
| Arabic           |
| Persian          |
| Portuguese - Brazilian |
| Spanish - Latin  |
| Chinese (Traditional) |
| Japanese         |
| Korean           |
| Turkish          |
| Chinese (Simple)  |
| Romanian         |
| English - International |
| *English - American(d) |
| Croatian         |
| Lithuanian       |
| Make Default     |
| Continue with Installation |
| Cancel           |
+-----+
```

XNUI-UX-130



Progress Components Installation

```

+-----+
| International Settings |
+-----+
| Select CharacterSet,Collation,Case |
| Select +-----+
| Select | Select Number Format |
| Continu+-----+
| Cancel | 1'234,56 (apostrophe, comma)
| Quit In| 1'234.56 (apostrophe, period)
+-----+ 1,234$56 (comma, dollar)
| Jap| 1,234.56 (comma, period)
| Kor| 1.234,56 (period, comma)
| Tur| 1.234$56 (period, dollar)
| Chil| 1 234,56 (space, comma)
| Rom| 1 234.56 (space, period)
| Eng| 1 234,56 (non-breaking space, comma)
| *Eng| 1 234.56 (non-breaking space, period)
| Cro+-----+

```

```

CharacterSet,Collation,Case: ISO8859-1, Basic, Basic
Date Format: mdy

```



Progress Components Installation

Complete Installation

The following products will be installed:
 'MS Ent Trans Svr (250 USERS)'

Disk Space Required for Products: 144,973,824 bytes
 Disk Space Required for Installation: 145,831,936 bytes
 Disk Space Remaining After Installation: 952,074,240 bytes

Selected Destination Path: /data2/dlctmp/dlc

Do you want to install the above listed product(s)?_

[Y=YES] [N=NO]

XNUI-UX-150



Progress Components Installation

```

+-----+
| Copy Scripts? |
+-----+
| Copy the scripts to /usr/bin? |
| [Y=YES] [N=NO] |
+-----+
  
```

```

+-----+
| Installing Files |
+-----+
| Installing subcomponent: JRE (m) |
| Installing file: libjava_g.a |
| 21%_ |
| ██████████ |
+-----+
| [CTRL-T=Quit] |
+-----+
  
```

XNUI-UX-160



Progress Components Installation

To Configure Progress

- a. Set up and start your Web server
 - If you did not select to "Copy static HTML files to Document Root directory", then manually copy the files or set a link.
 - For NSAPI Messenger, edit the "obj.conf" and "start" files on the Web server.
- b. Set up the Broker machine.
 - Set environment variables if necessary.
 - Edit the properties file (ubroker.properties), then start Broker.
- c. To validate your configuration through the Messenger Administration Page, enter ?WSMAdmin after the Messenger name in a URL.
 - (e.g. for CGI, `http://hostname/cgi-bin/wspd.cgi.sh?WSMAdmin`)
 - (e.g. for NSAPI, `http://hostname/wsnsa.dll?WSMAdmin`)

See the "WebSpeed Installation and Configuration Guide" for details.

[Enter=OK]

XNUI-UX-165



Creating the Parameter File

- ♦ The parameter file specifies:
 - Database Connection parameters
 - Client session resource parameters
 - The parameter file must be hand created/edited

**-db mfgtrain -ld qaddb -H arccux01 -S train91-SRV -N TCP -trig
triggers**

-db hlpprod -ld qadhelp -H arccux01 -S help91-srv -N TCP

-db admprod -ld qadadm -H arccux01 -S adm91-srv -N TCP

-d mdy -yy 1920 -Bt 350 -c 30 -D 100 -mmax 3000 -nb 200 -s 63

XNUI-UX-170

Creating the Parameter File



Configuring the Administration Components

- ♦ Administration Components consist of:
 - Databases
 - NameServers
 - WebSpeed Brokers and Agents
 - Application Server Brokers and Agents
 - WebSpeed Messengers (for multi-tiered installs)
- ♦ Administration Components are configured by:
 - Editing the *DLC/properties/ubroker.properties* file
 - Using the graphical Progress Explorer Tool (PC Based)
- ♦ Components may be started/stopped/queried by:
 - Command line syntax (dbman, nsman, wtman, asbman)
 - Progress Explorer Tool

XNUI-UX-180

Configuring The Administration Components



Ubroker.properties

Located in the *DLC/properties* subdirectory

Generic WebSpeed Broker Definition

[UBroker]	minSrvrInstance=1
appserviceNameList=	portNumber=3050
autoStart=0	priorityWeight=0
autoTrimTimeout=1800	PROPATH=@{WinChar Startup/PROPATH};@{WorkPath}
brkrLogAppend=1	registrationMode=Register-IP
brkrLoggingLevel=2	registrationRetry=30
brokerLogFile=@{WorkPath}/broker.log	requestTimeout=15
controllingNameServer=	srvrLogAppend=1
defaultService=0	srvrLogFile=@{WorkPath}/server.log
description=	srvrLoggingLevel=2
environment=	srvrMaxPort=3502
groupName=	srvrMinPort=3202
hostName=	srvrStartupTimeout=3
infoVersion=9010	userName=
initialSrvrInstance=5	uuid=
jvmArgs=@{JAVA/JVMARGS}	workDir=@{WorkPath}
maxClientInstance=512	
maxSrvrInstance=10	

XNUI-UX-190

Ubroker.properties



Ubroker.properties (continued)

Located in the *DLC/properties* subdirectory

Specific WebSpeed Broker Definition

```
[UBroker.WS.WSqadeb]
appserviceNameList=WSqadeb
brokerLogFile=@{WorkPath}\WSqadeb.broker.log
controllingNameServer=NS1
portNumber=26980
PROPATH=.;/qadeb/uschrcl;/qadeb/uschrcl/us/bbi
svrLogFile=@{WorkPath}\WSqadeb.server.log
svrMaxPort=27181
svrMinPort=26981
svrStartupParam=-p web/objects/web-disp.p -weblogerror
-pf /netui/netui.pf
uuid=167.3.57.202:111:e428a6bf4a:-7793
```

***A Unique UUID must be generated for each component ***

DLC/bin/genuuid

XNUI-UX-200

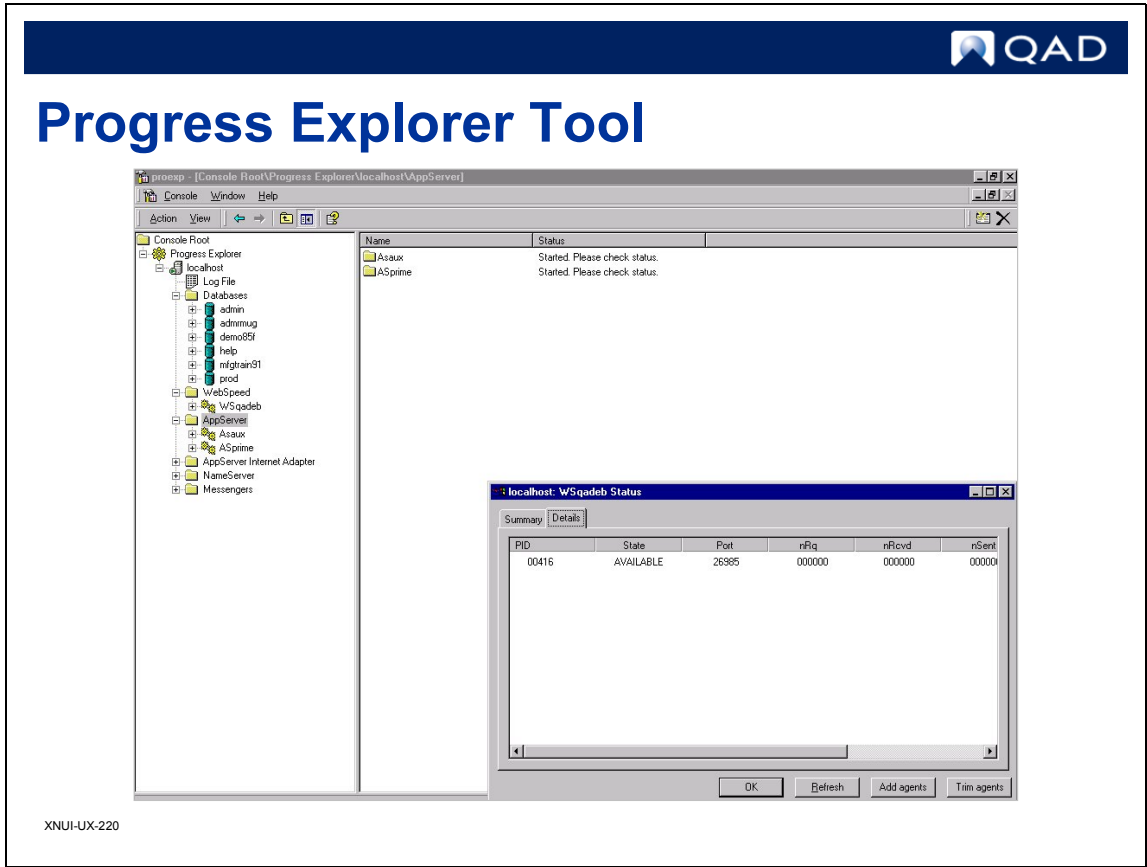


Progress Explorer Tool

- ♦ The Progress Explorer Tool is a graphical administration tool that can be used to:
 - Configure new administration components
 - Start/Stop/Query databases, webspeed & appserver brokers
 - Review log and error files
- ♦ It may be installed on an Intel based P.C., which is network connected to the Unix server, to manage the administration components for a Unix installation
- ♦ Intel Progress media is required

XNUI-UX-210

Progress Explorer Tool





XUI/NetUI Software Installation

- ♦ The XUI/NetUI Software is installed on the Web Server, in the *Documents* directory
- ♦ A *MULTINET* subdirectory will be created beneath the *Documents* directory to hold the QAD files.
- ♦ The software installation is a two step process
 - Language Specific Files (Creates the *multinet* dir)
 - XUI/NetUI client software (Only if *multinet* exists)

XNUI-UX-230

Install The XUI/NetUI Software



XUI/NetUI Language Files Installation

- ♦ The language files CD contains a *NETUI* subdirectory, which contains a *UNIX* subdirectory, which contains the install routine
- ♦ This routine will prompt for:
 - License agreement
 - Terminal type
 - Target directory (Web Server document directory)
- ♦ The installation will:
 - Create the *MULTINET* subdirectory (under documents)
 - Load language specific files

XNUI-UX-240



XUI/NetUI Software Installation

- ♦ The XUI/NetUI client CD has a *UNIX* subdirectory, which contains the install routine
- ♦ This routine will prompt for:
 - License agreement
 - Terminal Type
 - Directories (progress, documents, scripts, and work)
 - Web Server Instance port number
 - Script Alias
 - Web Speed Broker name
- ♦ This routine will fail if *MULTINET* does not exist
- ♦ This routine will load the XUI/NetUI client software

XNUI-UX-250



XUI/NetUI Software Installation

CONFIRMATION

Progress/WebSpeed Directory : /dr01/progress/dlc90b19
Progress with WebSpeed Version : 9.0B19
Document Directory : /users/cwp/work91/netui/docs
HTTP Port Number : 80
URL Prefix : cgi-bin
CGI Directory : /users/cwp/work91/netui/scripts
Webspeed Broker : netui
Working Directory : /tmp

Is this information correct (y/n) [y]:

...

XNUI-UX-260



NetUI Web Server Directories

YourWebServer/DocDir/multinet

- java <dir>
 - gnu <dir> (used for MFG/PRO telnet maintenance programs)
 - images <dir> (user-defined image files)
 - Ssl.cab
 - Ssl.jar
 - multinet.jar
 - o4glrt.jar
- full.html
- trace.html
- embedded.html
- multinet.html
- version.html
- title.html
- example.html
- index.html
- qadbg.jpg
- qadlogo.gif

XNUI-UX-270

NetUI Web Server Directories



NetUI Web Server Directories (continued)

- help <dir> (NetUI online help)
 - cgi-bin <dir> (Help script directory)
 - doc <dir> (Help HTML files)
- client_files <dir> (NetUI client directory)
 - client.js
 - client_setup.html
 - client_update.html
 - identitydb.obj
 - labels.js
 - qad_version.js
 - version.js
 - win32 <dir>
 - QADNetUIeBSetup.exe
 - eBEnvironmentSetup.exe
 - eBLocalSetup.exe

XNUI-UX-280



Installing and Configuring the RMI

- ♦ The Remote Method Invocation Software is located on the XUI/NetUI client software CD
- ♦ Copy the entire *RMI* subdirectory to a disk location
- ♦ Run config.ksh from the disk location – Prompts for:
 - JDK location (Version 1.1.8 for XUI/NetUI, 1.3 for eB Desktop – This JDK must be acquired independently)
 - Host Name
 - Port number for the RMI to use
- ♦ The routine creates rmi.ksh
- ♦ Run rmi.ksh
 - Check UNIX memory to verify 2 rmi processes exist

XNUI-UX-290

Installing And Configuring The RMI Software



Configuring the Help Subsystem

- ♦ The routines to configure the help system were installed as part of the XUI/NetUI client software
- ♦ Copy the contents of the *WebServer/documents/multinet/help/cgi-bin* directory to the Web Server *scripts* directory
- ♦ Run *config.ksh* in the *scripts* directory – Prompts for:
 - Web Server documents directory
 - JDK location
- ♦ The routine creates *ebhelp.ksh*
- ♦ Run *ebhelp.ksh*
 - An HTML document should display

XNUI-UX-300

Configuring the Help System



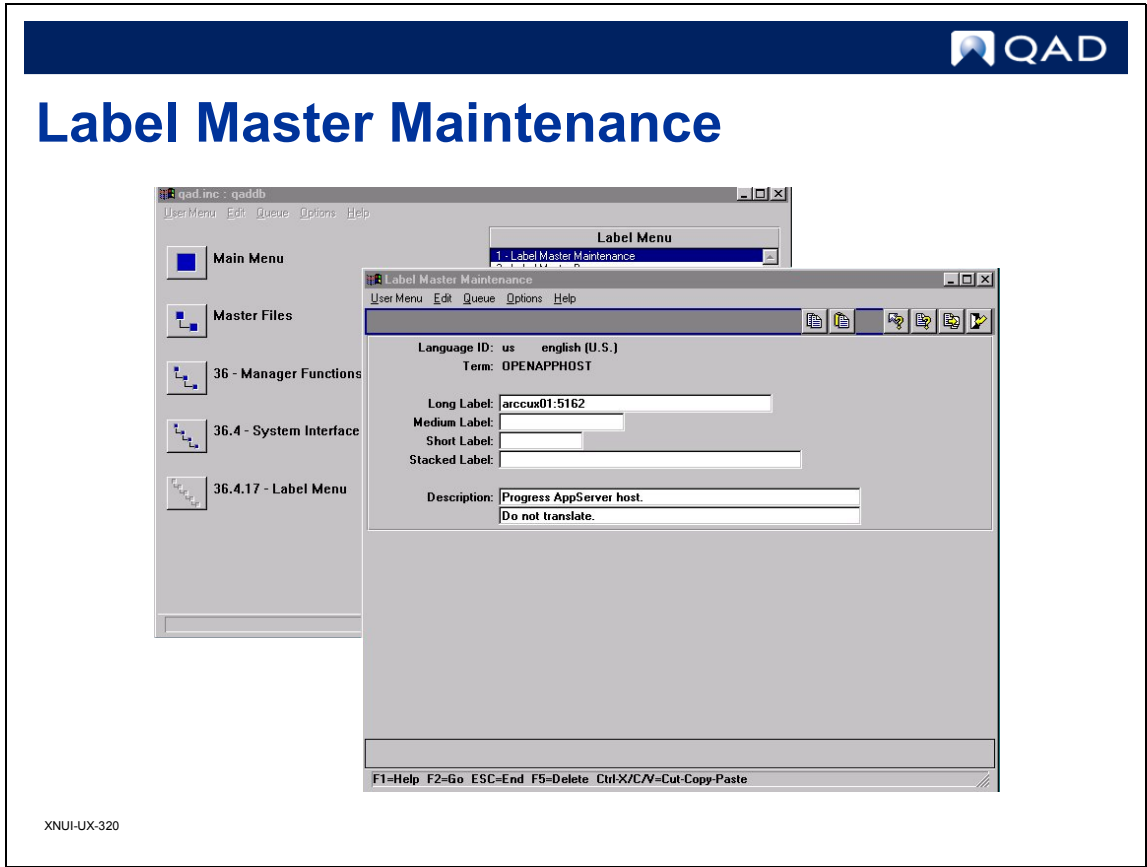


Defining MFG/PRO Constants

- ♦ MFG/PRO constants are application configured variable names, which specify port numbers, service names, and location
- ♦ These constants are set via Label Master Maintenance 36.4.17.1, within an eB client session
- ♦ Labels to be set consist of:
 - OPENAPPHOST (AppServer Host Name:Name Server Port)
 - OPENAPPSERVICE (Primary AppServer Broker Name)
 - RMIHOST (RMI Server Host Name)
 - RMIPORT (RMI Port Number)
 - HELPHOST (Web Server Host Name:Instance Port Number)
 - HELPSCRIPT (Path and Name of the Help .ksh file)

XNUI-UX-310

Defining MFG/PRO Constants



Label Master Maintenance

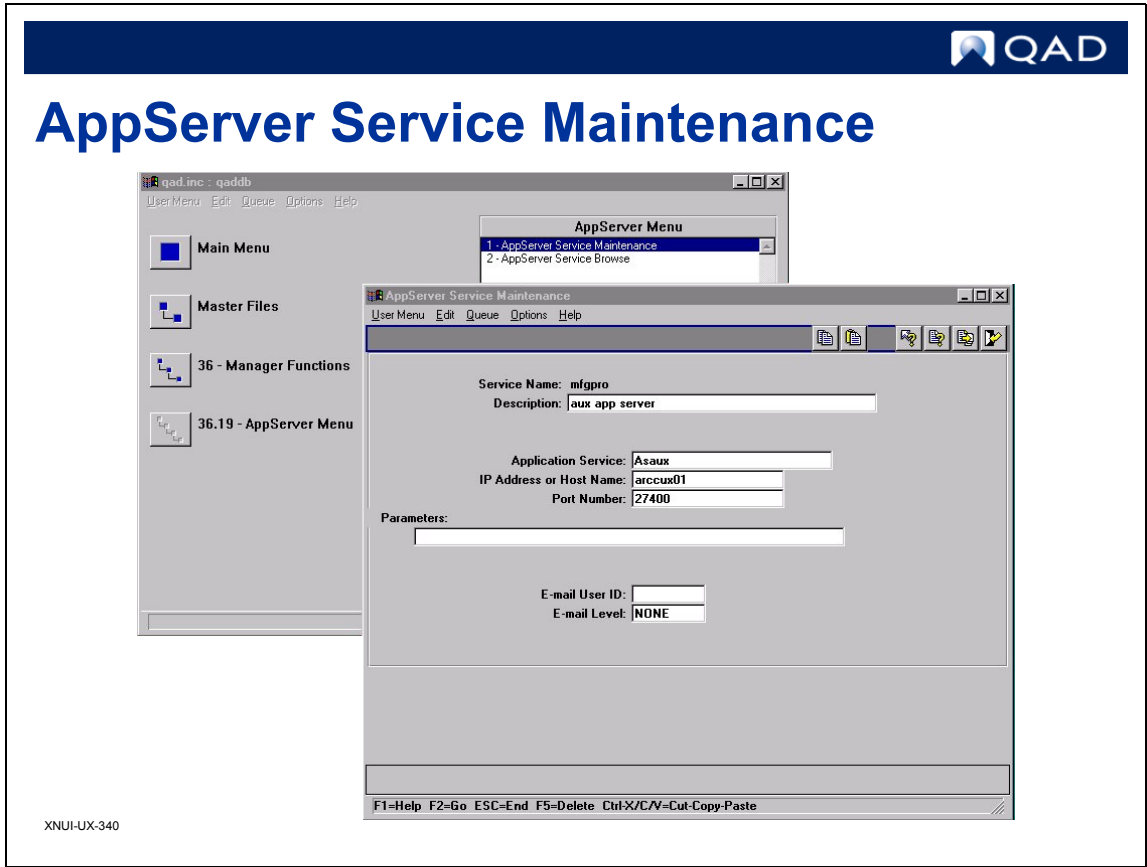


Configuring the Auxiliary AppServer

- ♦ The Auxiliary Application Service must be defined in AppServer Service Maintenance 36.19.1 from an eB client session
- ♦ The following fields must be completed:
 - The *Service Name* must be MFG/PRO
 - Enter to Auxiliary AppServer Broker Name in *Application Service*
 - Enter the machine name on which the Auxiliary AppServer Broker is running in *IP Address or Host Name*
 - Enter the Port Number of the Name Server controlling the Auxiliary AppServer in *Port Number*

XNUI-UX-330

Configure the Auxiliary AppServer



AppServer Service Maintenance



Defining Telnet

- ♦ At initial install, telnet access to maintenance programs is not enabled
- ♦ To activate:
 - Create a UNIX script, through MFG/PRO Telnet Maintenance 36.20.10.3 to initiate telnet login to a host, as a specific UNIX user
 - Modify this UNIX user's .profile to evoke database connection and telnet startup – *EXEC* call the *qma.XXXXXXXXXX (dbset name)* script from the MFG/PRO eB directory as the last line in the edited .profile
 - Enter a value for maximum telnet connections

XNUI-UX-350

Telnet Configuration

Defining Telnet



Define User Settings – Telnet

36.20.10.3 User Option Telnet Maintenance (mgusrmt.p) 07/13/99 13:45

User ID:

Telnet Options

Host:

Host 0/S:

Port:

Image:

Script Timeout:

Idle Timeout:

Script Lines

Sequence:

Script Pattern:

Script Value:

Script Status:

Telnet Connections

Maximum:

Minimum:

F1=Go 2=Help 3=Ins 4=End 7=Recall 8=Clear 9=Prev 10=Next

XNUI-UX-360

User Settings



Defining Telnet Connections

♦ *Telnet Script Example*

Sequence	Pattern	Value	Status
1	login:	netui	Log in
2	Password:	netui	Password

XNUI-UX-370

Telnet Connections



Modified UNIX User .profile

```
PATH=/usr/bin:/etc:/usr/sbin:/usr/ucb:$HOME/bin:/usr/bin/X11:/sbin:.
```

```
export PATH
set up the shell environment:
set -u
trap "echo 'logout'" 0
```

```
# Set up the shell variables:
EDITOR=vi
export EDITOR
```

```
# SET ENVIRONMENT VARIABLES:
```

```
export PS1='$PWD >'
```

```
alias ls="ls -aF"
```

```
if [ -s "$MAIL" ]           # This is at Shell startup. In normal
then echo "$MAILMSG"       # operation, the Shell checks
fi                          # periodically.
```

```
TERM=vt100
export TERM
```

```
# EXEC the Progress session
exec /data2/mfgeb/qma.Training
```

XNUI-UX-380

Modifid UNIX User .profile



Defining User Settings

- ♦ Start a character or GUI session for MFG/PRO eB
 - Create a standard MFG/PRO user record for each NetUI user
 - User Maintenance 36.3.18
 - Establish configuration settings for NetUI users
 - User Option Maintenance 36.20.10.1

XNUI-UX-390



Define User Settings

36.20.10.1 User Option Maintenance (mgusromt.p) 07/13/99 13:43

User ID:

Restrict Menu:

Menu Substitution:

Program Execution:

Server Print:

Save Brw Settings:

Expiration Date:

Max Web Connections:

Max Browse Records:

Session Timeout:

Browse Timeout:

F1=Go 2=Help 3=Ins 4=End 7=Recall 8=Clear 9=Prev 10=Next

XNUI-UX-400



Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
 - ♦ NT Installation
 - ♦ Client Installation
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-UX-410

CHAPTER 6

NT Installation





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ **NT Installation**
 - ◆ Client Installation
 - ◆ User Interface
 - ◆ User Security
 - ◆ URL Links
 - ◆ System Security & Performance
 - ◆ NetUI Reconfiguration

XNUI-NT-010



NT Installation Overview

- ♦ Installation overview
- ♦ Web Server installation
- ♦ WebSpeed & Application Server installation
(and included Administration components)
- ♦ Creating a database connection parameter file
- ♦ Configuring the Administration Components
- ♦ Install the XUI/NetUI Software

XNUI-NT-020

NT Installation Overview



NT Installation Topics (continued)

- ♦ Installing and configuring the RMI Software
- ♦ Configuring the Help System
- ♦ Configuring labels and the Auxiliary Appserver in MFG/PRO
- ♦ Install and Configure Georgia Softworks Telnet

XNUI-NT-030



Installation Overview

- ♦ Install or identify the Web Server
- ♦ Create or identify the Web Server's *Document* (docs) and *Scripts* (cgi-bin) Directories and Aliases
- ♦ Modify the Multi-purpose Internet Mail Extension (MIME) types for client setup files – Not Required for Microsoft IIS WebServer
- ♦ Install the Progress Components – WebSpeed and Application Server

XNUI-NT-040

Installation Overview



Installation Overview (continued)

- ♦ Create a Parameter File to control database connections
- ♦ Configure and test the WebSpeed and Application Server Brokers and Agents – specifying the parameter file
 - Edit the ubroker.properties files
 - Use the Intel based Progress Explorer Tool

XNUI-NT-050



Installation Overview (continued)

- ♦ Install the XUI/NetUI media, specifying the Web Server port, directories, and aliases, and the configured WebSpeed broker
- ♦ Install and Configure the RMI Software
- ♦ Configure the Help Subsystem
- ♦ Define MFG/PRO Constants (labels)

XNUI-NT-060



Installation Overview (continued)

- ♦ Define the Auxiliary AppServer in MFG/PRO
- ♦ Install Georgia Softworks
- ♦ Configure Telnet Access
- ♦ Define user settings for session limits & Web Security
- ♦ Setup client machine(s) via a web browser

XNUI-NT-070

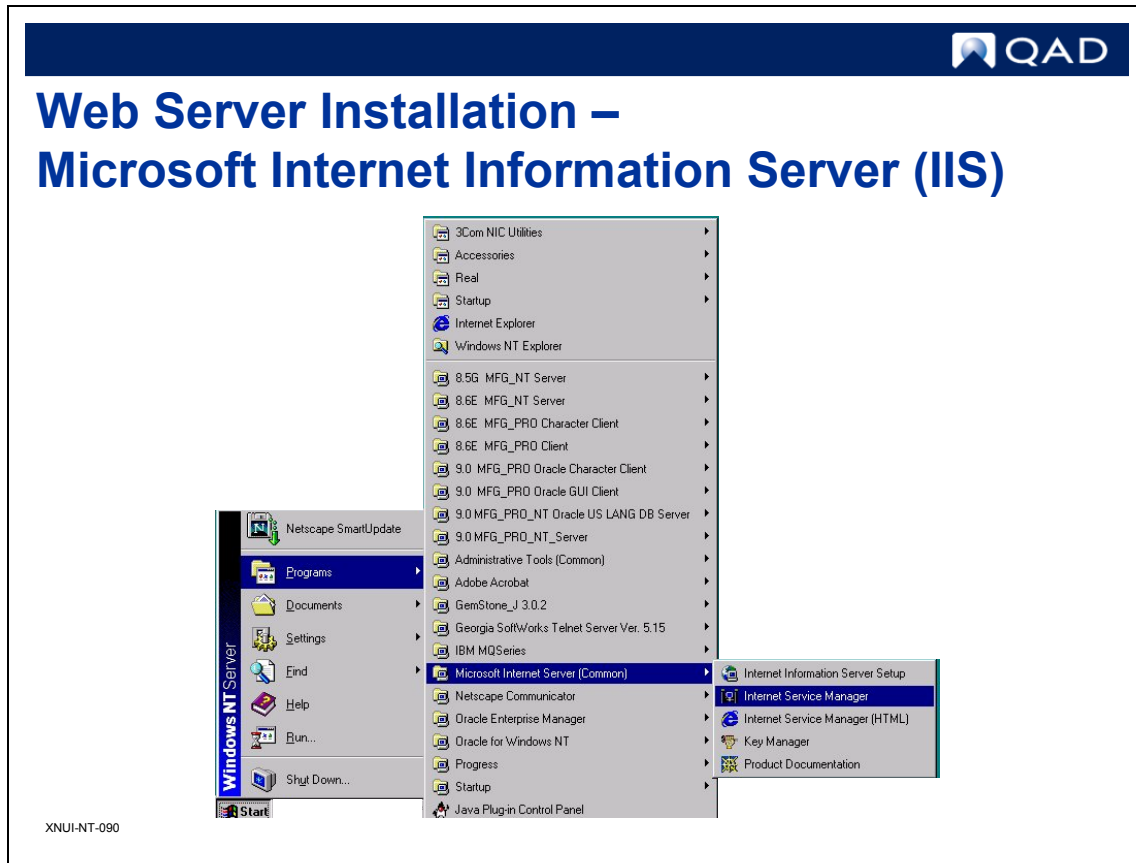


Web Server Installation

- ♦ MIIS Version 4.0
 - Installed with Microsoft Option Pack 4.0
 - Supports CGI
 - Allows easy Administration from the NT Server
 - Has HTML access to Administration

XNUI-NT-080

Web Server Installation

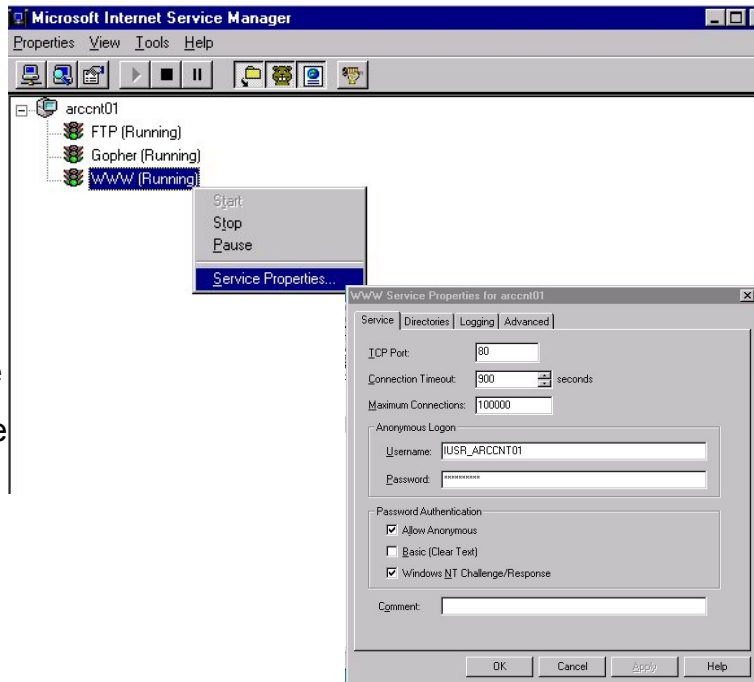


Web Server Installation

MIIS Installation Structure

Contains:

- Default FTP Site
- Default Web Site
- Admin Web Site

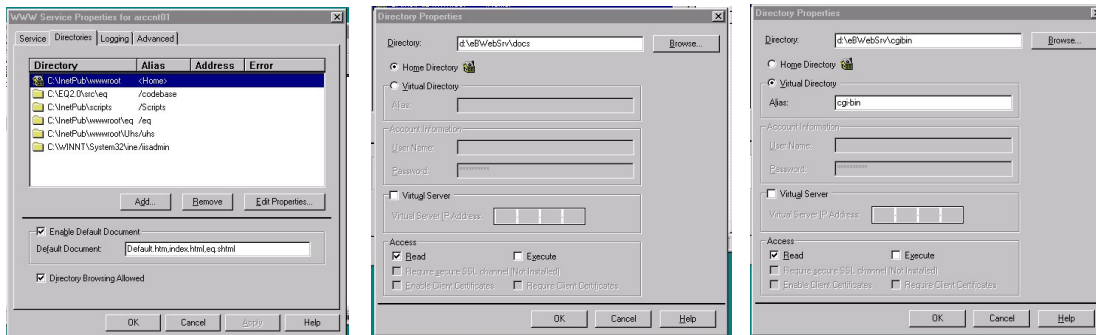


XNUI-NT-100



Web Server Installation

- ◆ Configure a new Web Site for XUI/NetUI
 - Create a *documents* directory for the new Web Site and make that the *HOME* directory
 - Create a *scripts* directory with the alias *cgi-bin*



Path d:\ebWebSrv\docs

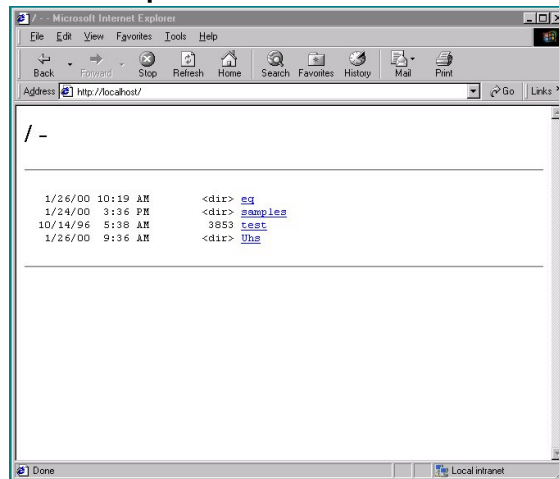
XNUI-NT-110



New Web Server Configuration

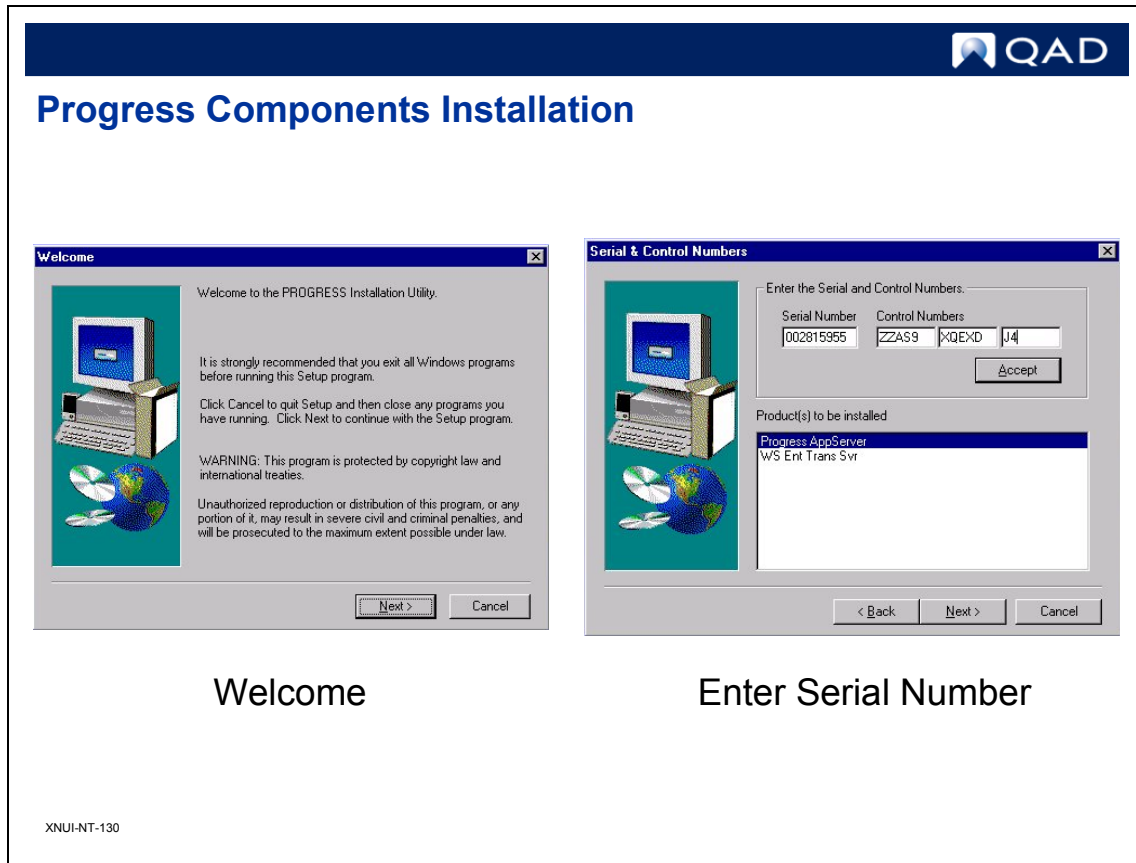
http://localhost/

From a Web
Browser, test
access to the
new XUI/NetUI
Web Site



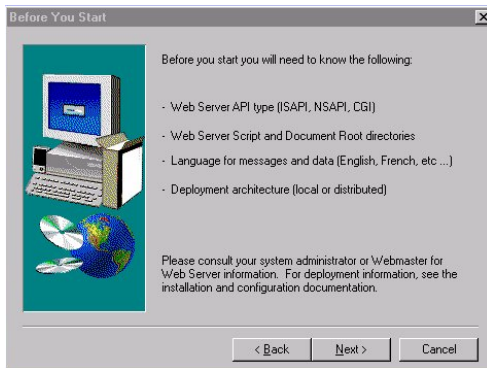
Allow Directory Browsing must be selected to get a listing

XNUI-NT-120

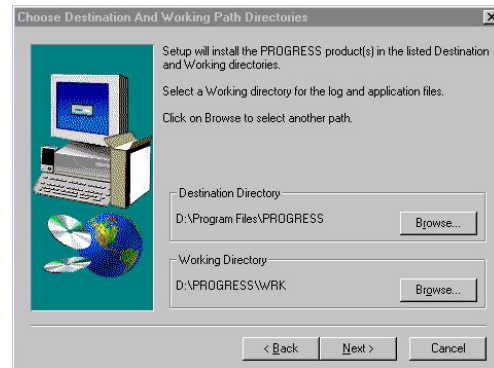


Progress Components Installation

Progress Components Installation

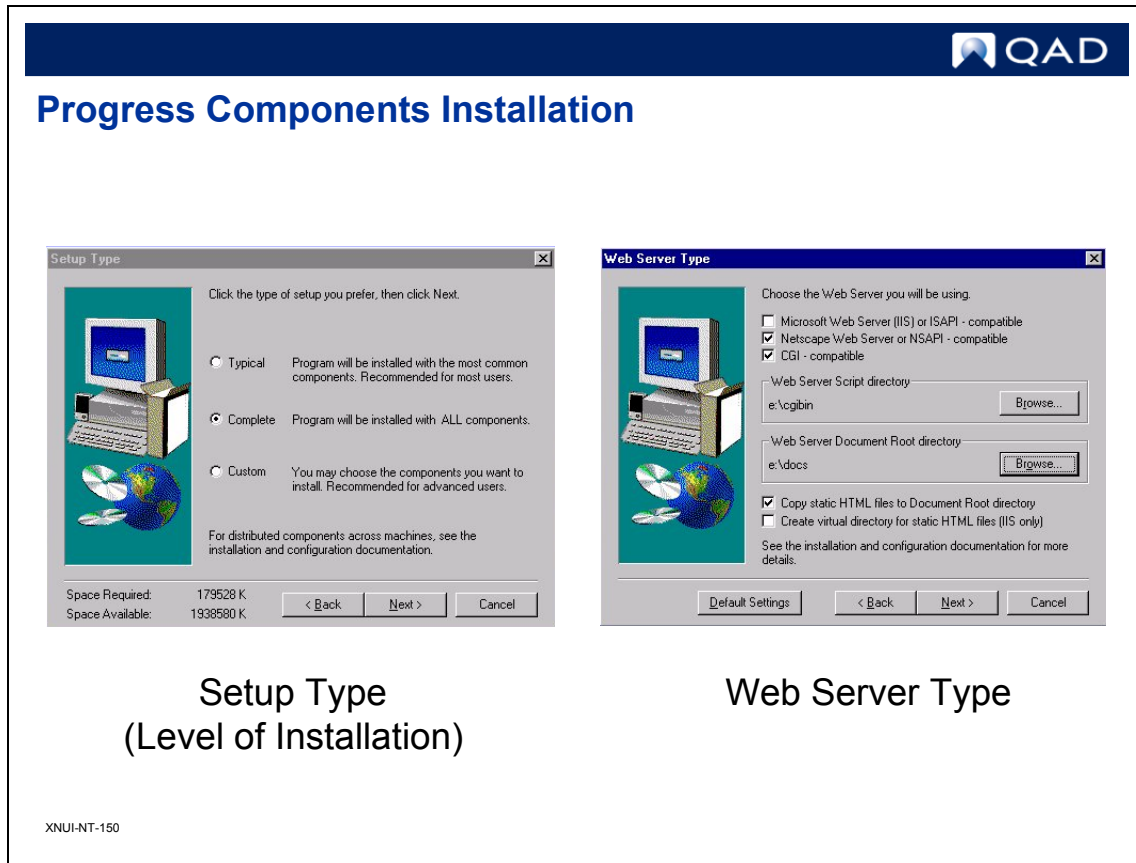


Prerequisites You Should Know

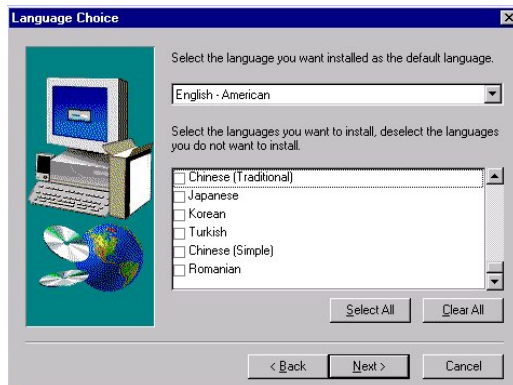


Installation Directories

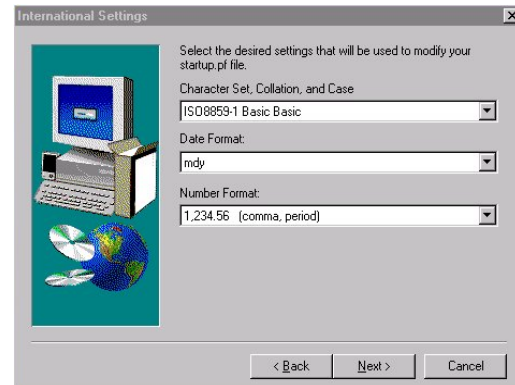
XNUI-NT-140



Progress Components Installation



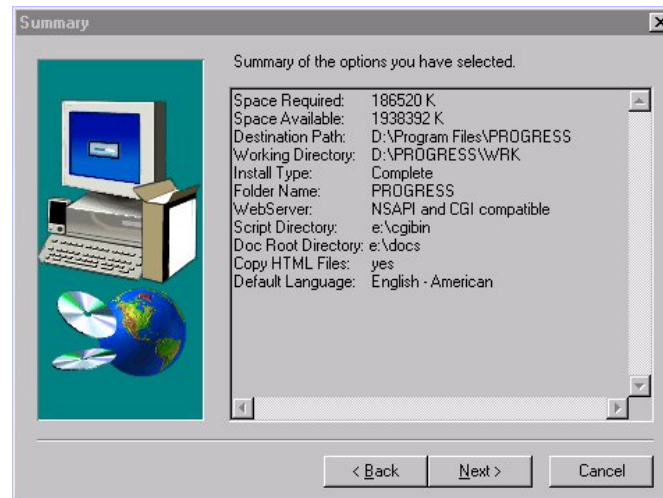
Language Choice



International Settings
(Character Set,
Date & Number Formats)

XNUI-NT-160

Progress Components Installation



Summary of Install Choices

XNUI-NT-170



Creating the Parameter File

- ♦ The parameter file specifies:
 - Database Connection parameters
 - Client session resource parameters
 - The parameter file must be hand created/edited

```
-db mfgtrain -ld qaddb -H arccNT01 -S train91-SRV -N TCP -trig triggers
```

```
-db hlpprod -ld qadhelp -H arccNT01 -S help91-srv -N TCP
```

```
-db admprod -ld qadadm -H arccNT01 -S adm91-srv -N TCP
```

```
-d mdy -yy 1920 -Bt 350 -c 30 -D 100 -mmax 3000 -nb 200 -s 63
```

XNUI-NT-180

Creating the Parameter File



Configuring the Administration Components

- ♦ Administration Components consist of:
 - Databases
 - NameServers
 - WebSpeed Brokers and Agents
 - Application Brokers and Agents
 - WebSpeed Messengers (for multi-tiered installs)
- ♦ Administration Components are configured by:
 - Editing the *DLC\properties\ubroker.properties* file
 - Using the graphical Progress Explorer Tool
- ♦ Components may be started/stopped/queried by:
 - Command line syntax (dbman, nsman, wtbman, asbman)
 - Progress Explorer Tool

XNUI-NT-190

Configuring the Administration Components





Ubroker.properties

Located in the *DLC\properties* subdirectory

Generic WebSpeed Broker Definition

[UBroker]	maxSrvrInstance=10
appserviceNameList=	minSrvrInstance=1
autoStart=0	portNumber=3050
autoTrimTimeout=1800	priorityWeight=0
brkrLogAppend=1	PROPATH=@{WinChar
brkrLoggingLevel=2	Startup\PROPATH};@{WorkPath}
brokerLogFile=@{WorkPath}\broker.log	registrationMode=Register-IP
controllingNameServer=	registrationRetry=30
defaultService=0	requestTimeout=15
description=	srvrLogAppend=1
environment=	srvrLogFile=@{WorkPath}\server.log
groupName=	srvrLoggingLevel=2
hostName=	srvrMaxPort=3502
infoVersion=9010	srvrMinPort=3202
initialSrvrInstance=5	srvrStartupTimeout=3
jvmArgs=@{JAVA\JVMARGS}	userName=
maxClientInstance=512	uuid=
	workDir=@{WorkPath}

XNUI-NT-200

Ubroker.properties



Ubroker.properties, (continued)

Specific WebSpeed Broker Definition

```
[UBroker.WS.WSqadeb]
appserviceNameList=WSqadeb
brokerLogFile=@{WorkPath}\WSqadeb.broker.log
controllingNameServer=NS1
portNumber=26980
PROPATH=.;e:\qadeb\uschrcl;e:\qadeb\uschrcl\us\bbi
svrLogFile=@{WorkPath}\WSqadeb.server.log
svrMaxPort=27181
svrMinPort=26981
svrStartupParam=-p web\objects\web-disp.p -weblogerror -pf e:\netui\netui.pf
uuid=167.3.57.202:111:e428a6bf4a:-7793
```

***A Unique UUID must be generated for each component ***

DLC\bin\genuuid

XNUI-NT-210

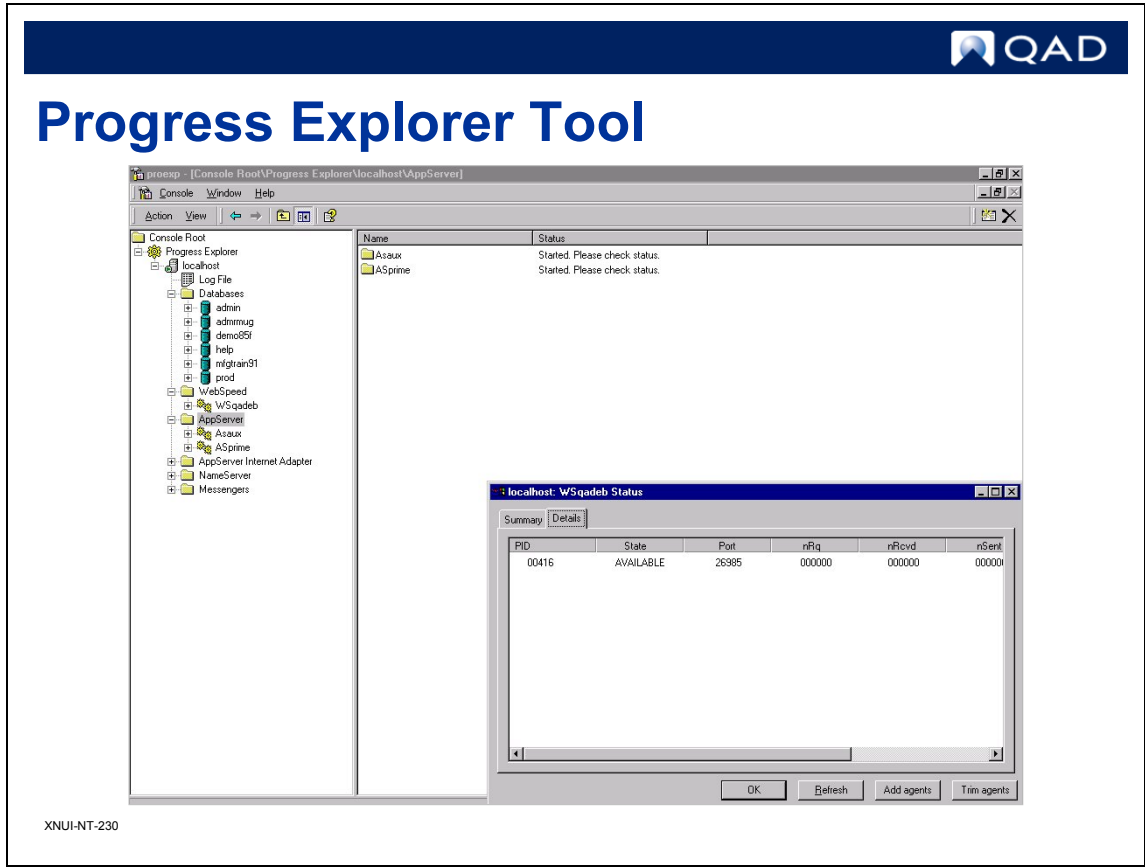


Progress Explorer Tool

- ♦ The Progress Explorer Tool is a graphical administration tool that can be used to:
 - Configure new administration components
 - Start/Stop/Query databases, webspeed & appserver brokers
 - Review log and error files
- ♦ It is installed on the Intel Based FileServer where the Progress Software is installed or on each client PC

XNUI-NT-220

Progress Explorer Tool





XUI/NetUI Software Installation

- ♦ The XUI/NetUI Software is installed on the Web Server, in the *Documents* directory
- ♦ A *MULTINET* subdirectory will be created beneath the *Documents* directory to hold the QAD files
- ♦ The software installation is a two step process
 - Language Specific Files (Creates the *multinet* dir)
 - XUI/NetUI client software (Only if *multinet* exists)

XNUI-NT-240

XUI/NetUI Software Installation



XUI/NetUI Language Files Installation

- ♦ The language files CD contains a *NETUI* subdirectory, which contains a *Setup.exe*
- ♦ This routine will prompt for:
 - License agreement
 - Target directory (Web Server document directory)
- ♦ The installation will:
 - Create the *MULTINET* subdirectory (under documents)
 - Load language specific files

XNUI-NT-250

Language Files

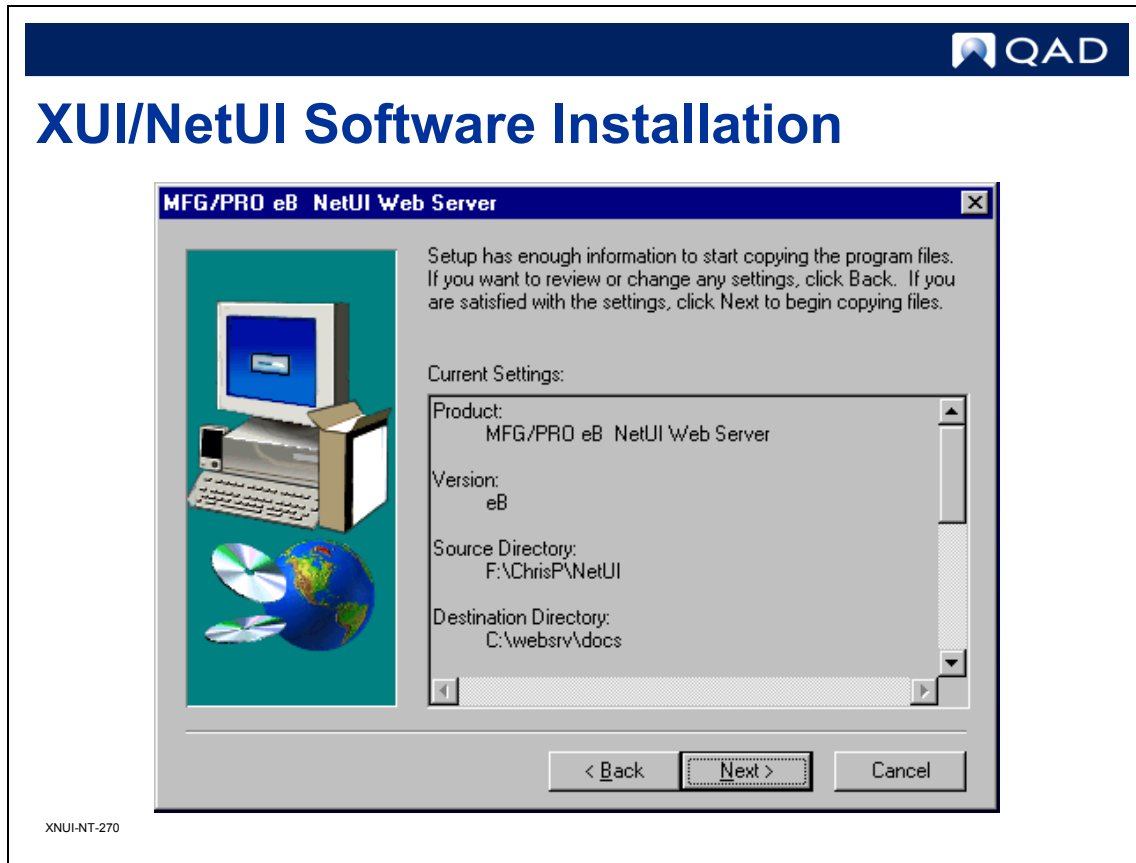




XUI/NetUI Software Installation

- ♦ The XUI/NetUI client CD has a *Setup.exe*
- ♦ This routine will prompt for:
 - License agreement
 - Directories (progress, documents, scripts, and work)
 - Web Server Instance port number
 - Script Alias
 - Web Speed Broker name
 - Web Speed Messenger Name
- ♦ This routine will fail if *MULTINET* does not exist
- ♦ This routine will load the XUI/NetUI client software

XNUI-NT-260





XUI/NetUI Web Server Directories

YourWebServer\DocDir\multinet

- java <dir>
 - gnu <dir> (used for MFG/PRO telnet maintenance programs)
 - images <dir> (user-defined image files)
 - Ssl.cab
 - Ssl.jar
 - multinet.jar
 - o4glrt.jar
- client_files <dir> (NetUI client directory)
 - client.js
 - client_setup.html
 - client_update.html
 - identitydb.obj
 - labels.js
 - qad_version.js
 - version.js
 - win32 <dir>
 - QADNetUIeBSetup.exe
 - eBEnvironmentSetup.exe
 - eBLocalSetup.exe

XNUI-NT-280

Web Server Directories



XUI/NetUI Web Server Directories (continued)

- help <dir> (NetUI online help)
 - cgi-bin <dir> (Help script directory)
 - doc <dir> (Help HTML files)
- full.html
- trace.html
- embedded.html
- multinet.html
- version.html
- title.html
- example.html
- index.html
- qadbg.jpg
- qadlogo.gif

XNUI-NT-290



Installing and Configuring the RMI

- ♦ The Remote Method Invocation Software is located on the XUI/NetUI client software CD
- ♦ Copy the entire *RMI* subdirectory to a disk location
- ♦ Run config.exe from the disk location – Prompts for:
 - JDK location (Version 1.1.8 for XUI/NetUI, 1.3 for eB Desktop – This JDK must be acquired independently)
 - Host Name
 - Port number for the RMI to use
- ♦ The routine creates rmi.exe
- ♦ Run rmi.exe
 - 2 DOS windows should spawn, and must remain open

XNUI-NT-300

Installing and Configuring the RMI Software



Configuring the Help Subsystem

- ♦ The routines to configure the help system were installed as part of the XUI/NetUI client software
- ♦ Copy the contents of the *WebServer\documents\multinet\help\cgi-bin* directory to the Web Server *scripts* directory
- ♦ Run config.exe in the *scripts* directory – Prompts for:
 - Web Server documents directory
 - JDK location
- ♦ The routine creates ebhelp.exe
- ♦ Run ebhelp.exe
 - An HTML document should display

XNUI-NT-310

Configuring the Help Subsystem



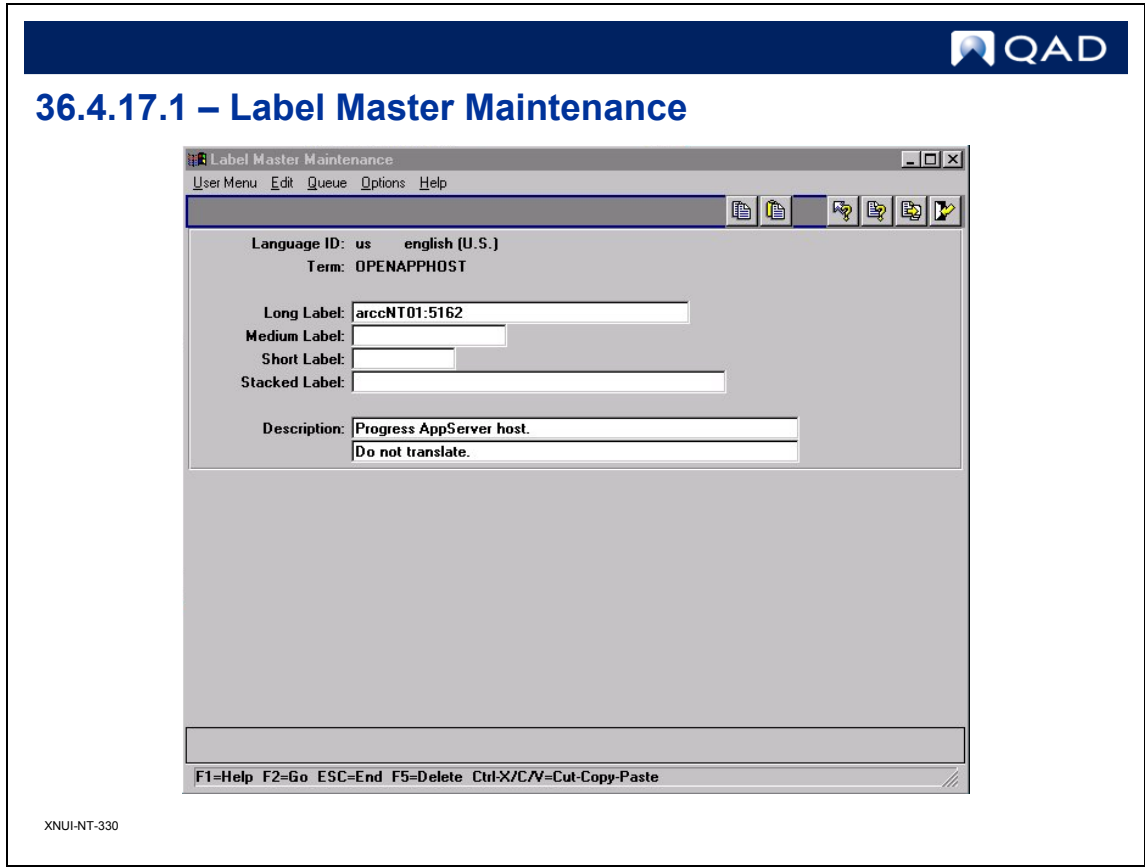


Defining MFG/PRO Constants

- ♦ MFG/PRO constants are application configured variable names, which specify port numbers, service names, and directory/file locations
- ♦ These constants are set via Label Master Maintenance 36.4.17.1, within an eB client session
- ♦ Labels to be set consist of:
 - OPENAPPHOST (AppServer Host Name:Name Server Port)
 - OPENAPPSERVICE (Primary AppServer Broker Name)
 - RMIHOST (RMI Server Host Name)
 - RMIPORT (RMI Port Number)
 - HELPHOST (Web Server Host Name:Instance Port Number)
 - HELPSCRIPT (Path and Name of the Help .exe file)

XNUI-NT-320

Defining MFG/PRO Constants



Label Master Maintenance

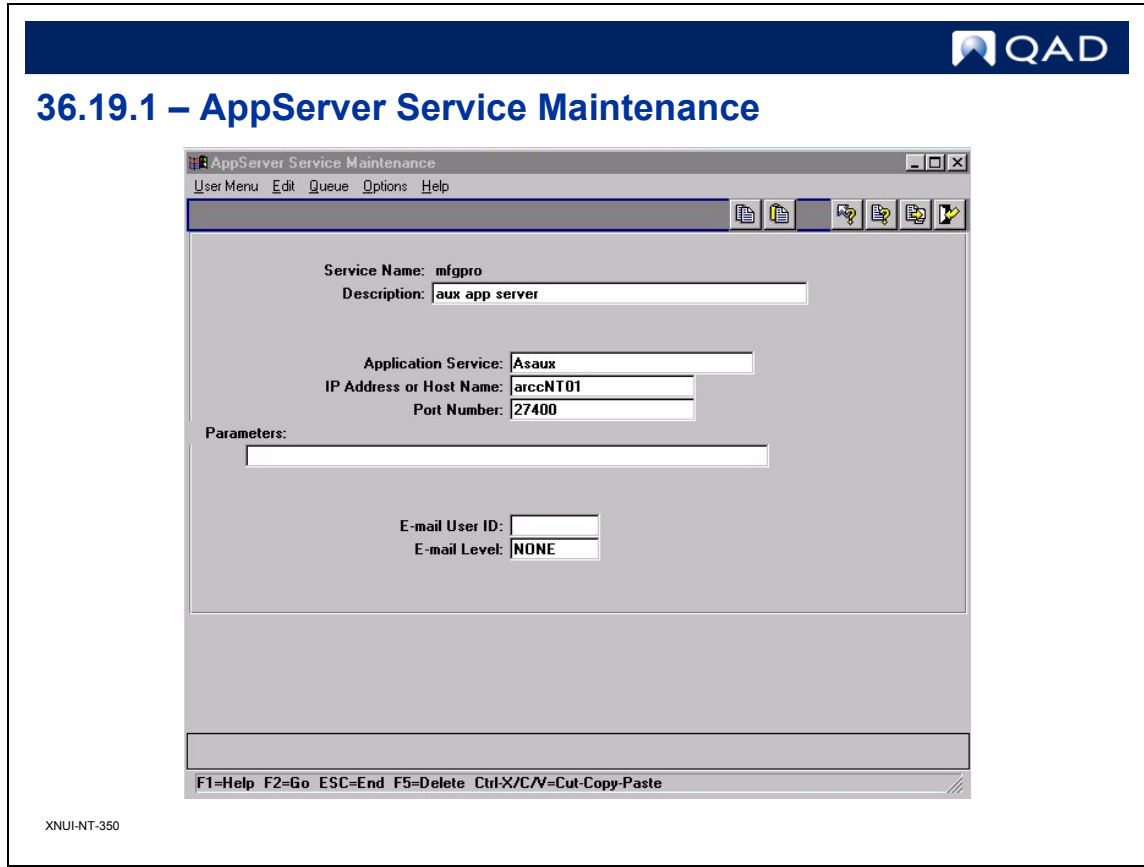


Configuring the Auxiliary AppServer

- ♦ The Auxiliary Application Server must be defined in AppServer Service Maintenance 36.19.1 from an eB client session
- ♦ The following fields must be completed:
 - The *Service Name* must be MFG/PRO
 - Enter to Auxiliary AppServer Broker Name in *Application Service*
 - Enter the machine name or address, on which the Auxiliary AppServer Broker is running in *IP Address or Host Name*
 - Enter the Port Number of the Name Server controlling the Auxiliary AppServer in *Port Number*

XNUI-NT-340

Configuring the Auxiliary AppServer





Installing Georgia Softworks Telnet

- ♦ The Georgia Softworks Telnet Server is contained on the XUI/NetUI software CD
- ♦ The Georgia Softworks *Setup.exe* is located in the *CDROM\nt\GeorgiaSoftWorks* subdirectory
- ♦ The setup routine prompts for:
 - Installation Type (Full)
 - Installation Directory
- ♦ After installation, you should register the product
 - The system comes with a minimal initial registration
- ♦ Use the registration icon to complete and submit your permanent registration request

XNUI-NT-360

Installing Georgia Softworks Telnet



Defining Telnet Session Script

- ♦ At initial install, telnet access to maintenance programs is not enabled
- ♦ To activate:
 - Create a Georgia Softworks startup file to set terminal characteristics
 - Create a User specific startup file. This 2nd file is created to setup environment variables and actuates an MFG/PRO telnet character client session
 - In MFG/PRO Telnet Maintenance 36.20.10.3, create an application script to initiate Georgia Softworks telnet login to a host as a specific NT user (evokes startup file), and initiate user startup file execution
 - Enter a value for maximum telnet connections

XNUI-NT-370

Defining Telnet Session Script





Georgia Softworks Startup File

- ♦ Create a file called k_start.bat
- ♦ Finish with a change directory section to leave the user in the directory where his specific user startup file is.
- ♦ Save this file in the *SCRIPTS* subdirectory beneath the Georgia Softworks Installation

```
@echo off
set gwnn_term=0
set gwnn_graphics=3
set gwnn_color=0
set LRA_TERMINATION=SIG-CTRL-C,SLEEP5,SIG-CTRL-
,SLEEP5,F4,SLEEP5,e,x,i,t,ENTER,SLEEP5,e,x,i,t,ENTER
e:
cd \uschrcl\telnet
```

XNUI-NT-380

Startup Files



User Specific Startup File

- ♦ Create a user specific batch file, preferably in a *TELNET* subdirectory beneath a client work directory
- ♦ This batch file will set environment variables and evoke a telnet character client session of MFG/PRO
- ♦ An MFG/PRO defined script will login to the server via Georgia Softworks, which automatically initiates the Georgia Softworks startup file. The MFG/PRO defined script then evokes the user specific startup file.

User1.bat

set DLC=e:\dlc91b

set MFGPRO=e:\qadeb\uschrcl

set INI=e:\uschrcl\progress.chr

set PF=e:\uschrcl\training.pf

set START_MFG=%DLC%\bin_progres -pf %PF% -iname %INI% -p
%MFGPRO%\mfwb01a.p

%START_MFG%

XNUI-NT-390



Define User Settings – Telnet

36.20.10.3 User Option Telnet Maintenance (mgusrtmt.p) 07/13/99 13:45

User ID:

Telnet Options

Host:	Script Timeout:
Host O/S:	Idle Timeout:
Port:	
Image:	

Script Lines

Sequence:

Script Pattern:

Script Value:

Script Status:

Telnet Connections

Maximum:	Minimum:

F1=Go 2=Help 3=Ins 4=End 7=Recall 8=Clear 9=Prev 10=Next

XNUI-NT-400

User Settings



Defining Telnet Connections

♦ *Telnet Script Example*

Sequence	Pattern	Value	Status
1	login:	netui	Log in
2	password:	netui	Password
3	domain:	arccNT01	Domain
4	telnet>	user1.bat	Startup

XNUI-NT-410

Telnet Connections

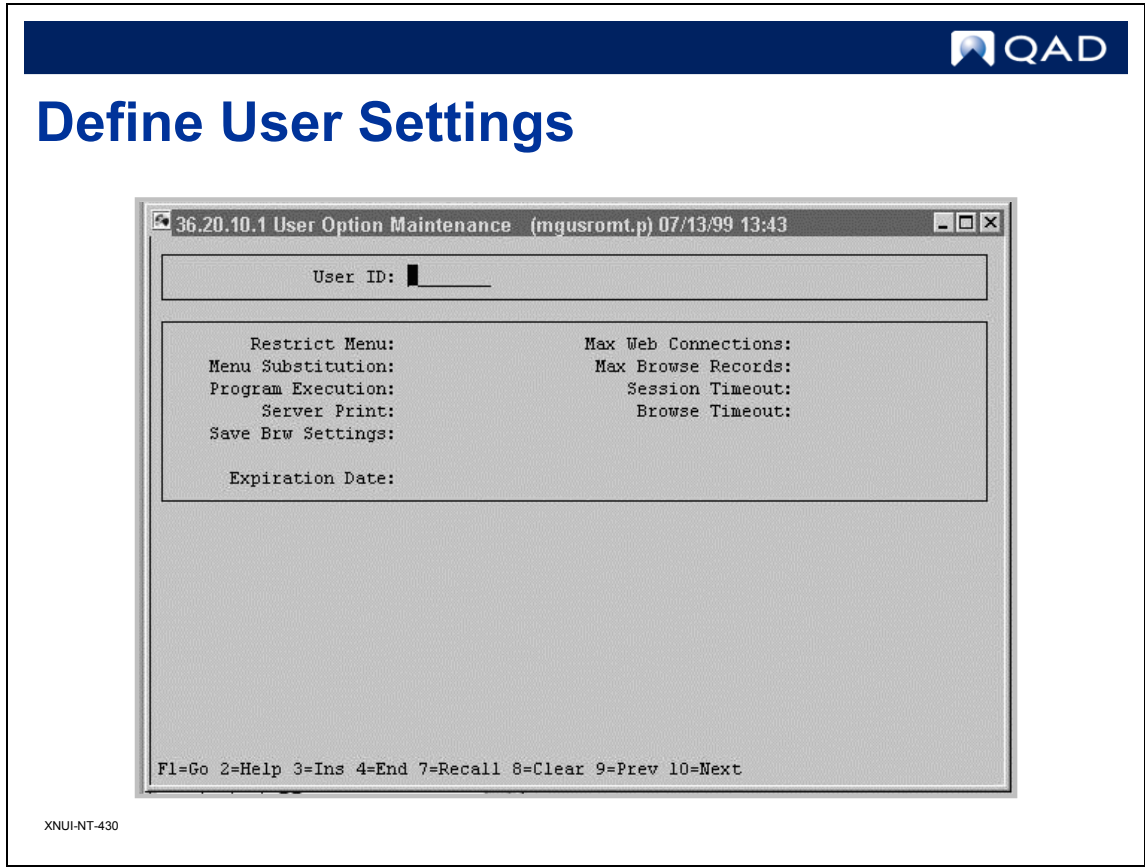




Defining User Settings

- ♦ Start a character or GUI session for MFG/PRO eB
 - Create a standard MFG/PRO user record for each NetUI user
 - User Maintenance 36.3.18
 - Establish configuration settings for XUI/NetUI users
 - User Option Maintenance 36.20.10.1

XNUI-NT-420





Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
 - ◆ Client Installation
 - ◆ User Interface
 - ◆ User Security
 - ◆ URL Links
 - ◆ System Security & Performance
 - ◆ NetUI Reconfiguration

XNUI-NT-440

CHAPTER 7

Client Installation





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ **Client Installation**
 - ♦ User Interface
 - ♦ User Security
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-CL-010



Client Installation Overview

- ◆ Connect to MULTINET directory on the Web Server
 - System determines if client setup is needed
- ◆ Download the eB Setup executable
- ◆ Run the eB Setup executable
- ◆ Install the JRE Plug-in
- ◆ Configure the Java Client
- ◆ Start XUI/NetUI

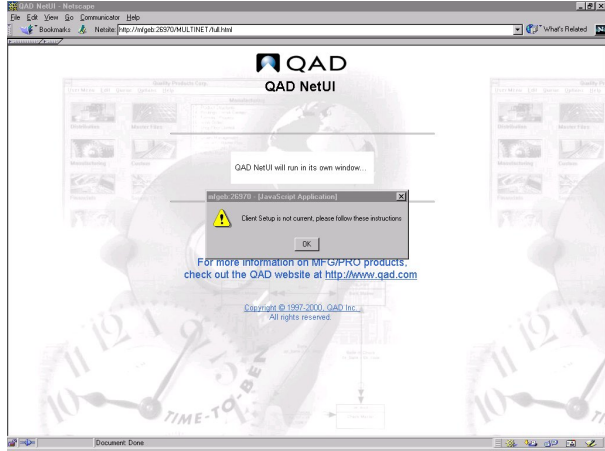
XNUI-CL-020

Client Installation Overview



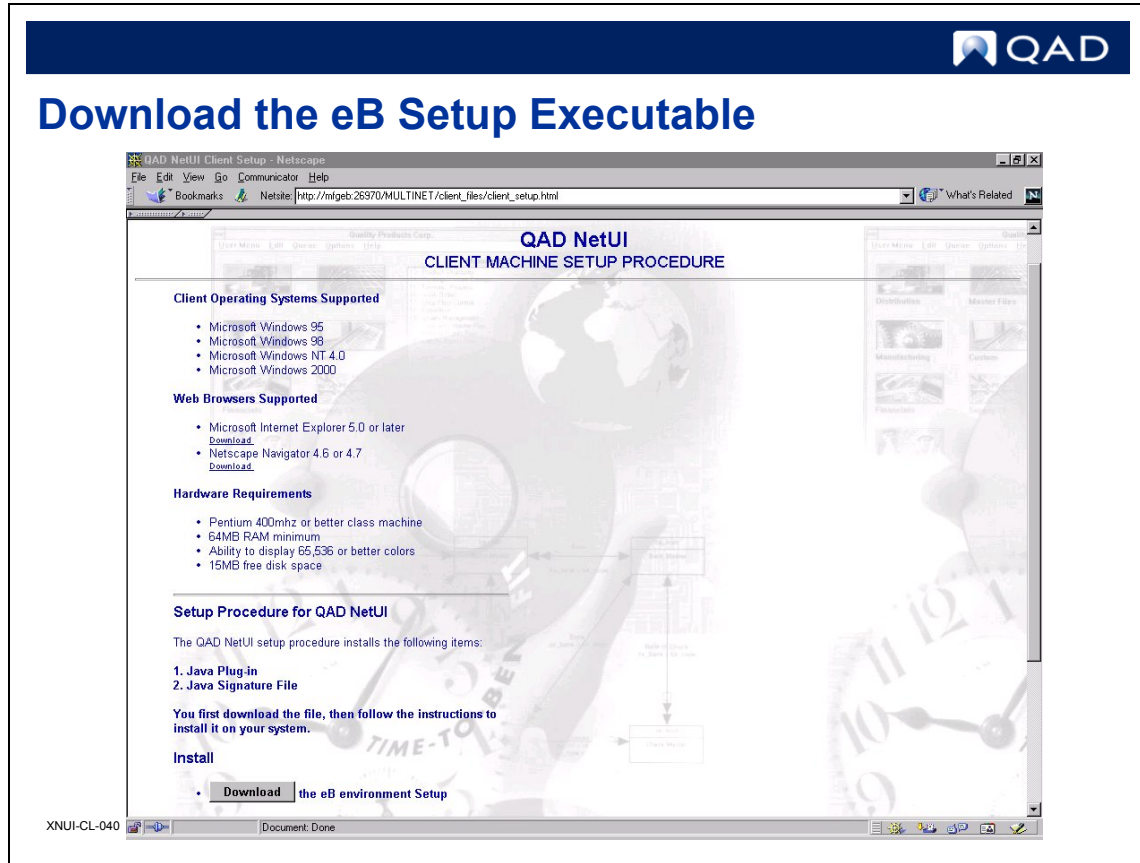
Connect Client to the WebServer

- ♦ Connect to the XUI/NetUI WebServer –
<http://mfgeb:26970/multinet>
- ♦ The client installation files are located on the Web Server in the *MULTINET/CLIENT_FILES* directory
- ♦ The system runs Full.html, or prompts for new client setup



XNUI-CL-030

Connect Client to Web Server

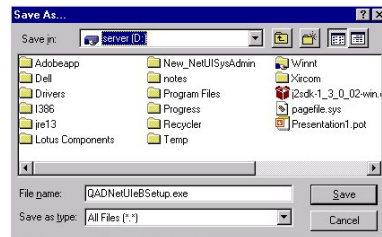


Download the eB Setup Executable

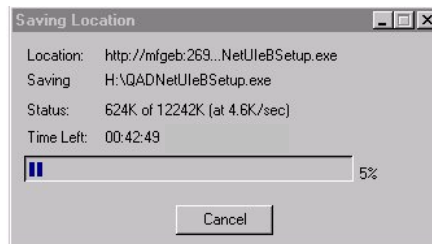


Download the eB Setup executable

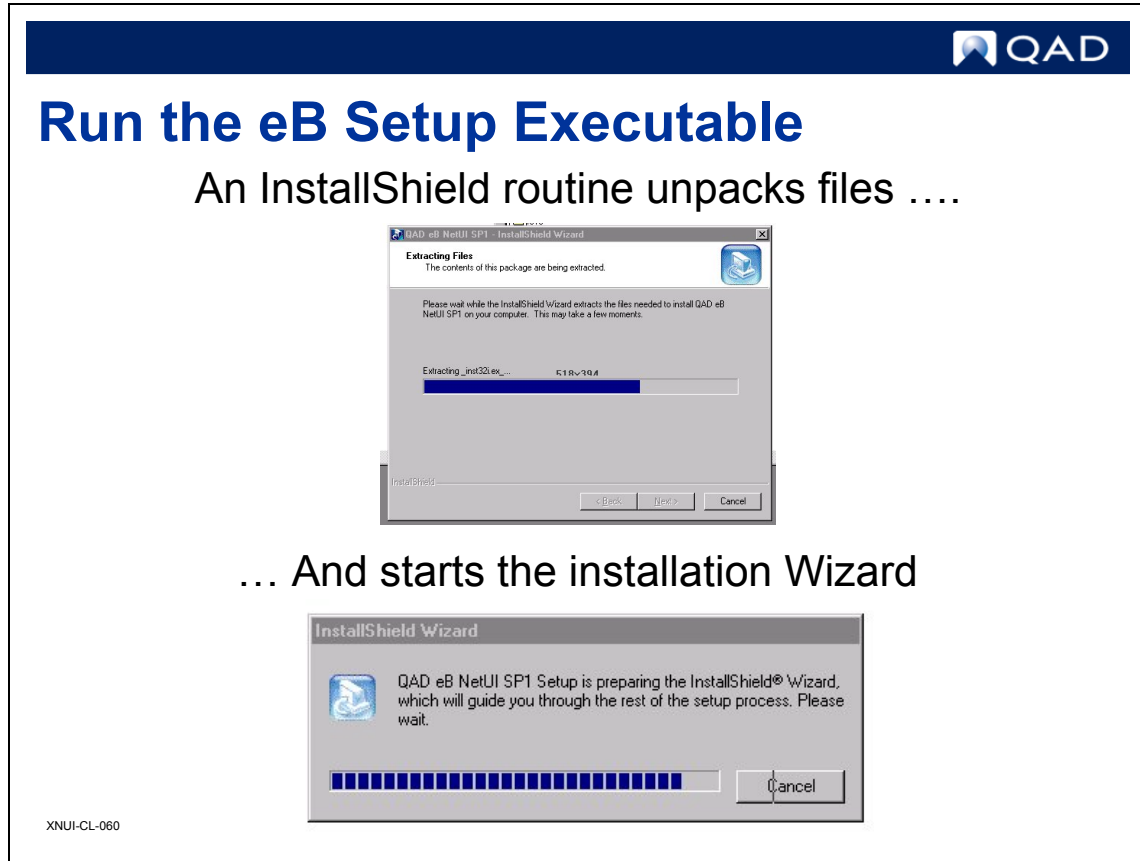
Prompts for disk location



After file is saved, the setup routine can be executed



XNUI-CL-050

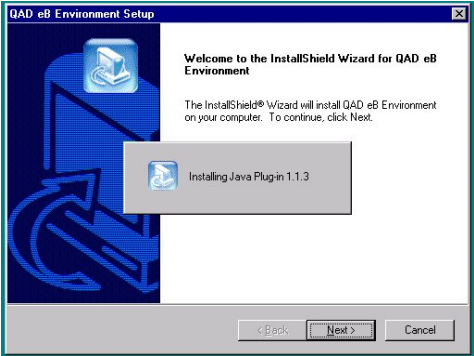


Run the eB Setup Executable



Install the JRE Plug-in

The Wizard prompts you to install the current Plug-in ...



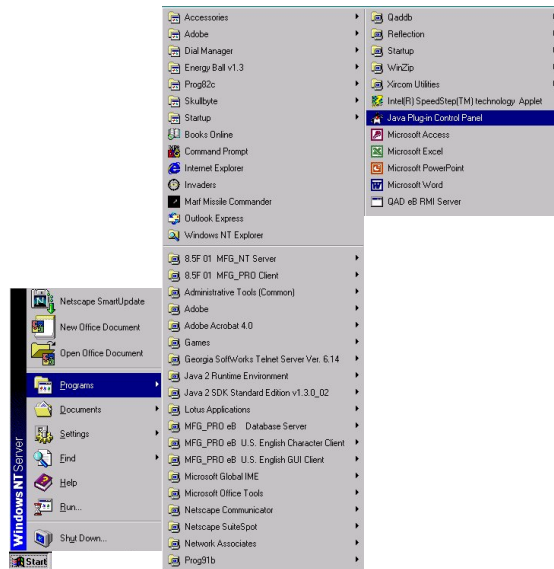
XNUI-CL-070

Install the JRE Plug-in



Configure the JAVA client

After installation, the *Java Plug-in Control Panel* is available



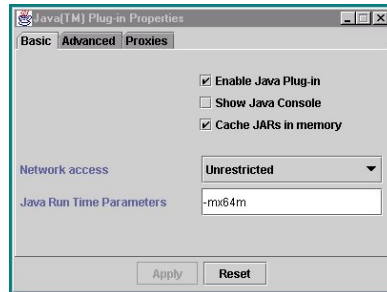
XNUI-CL-080

Configure the Java Client

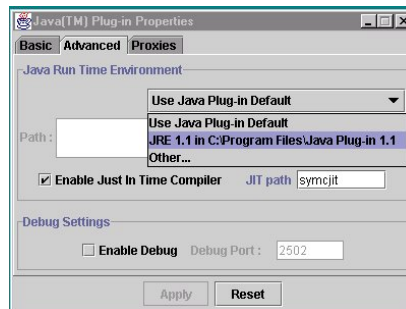


Configure the JAVA client

You may activate the *Java Console* for troubleshooting



You must select the current Plug-in under the *Advanced* Tab

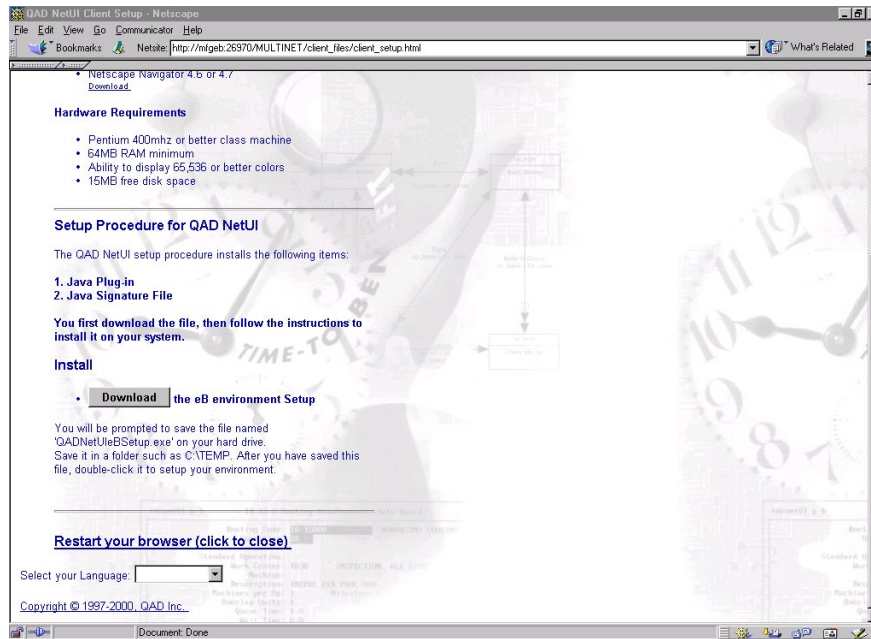


XNUI-CL-090



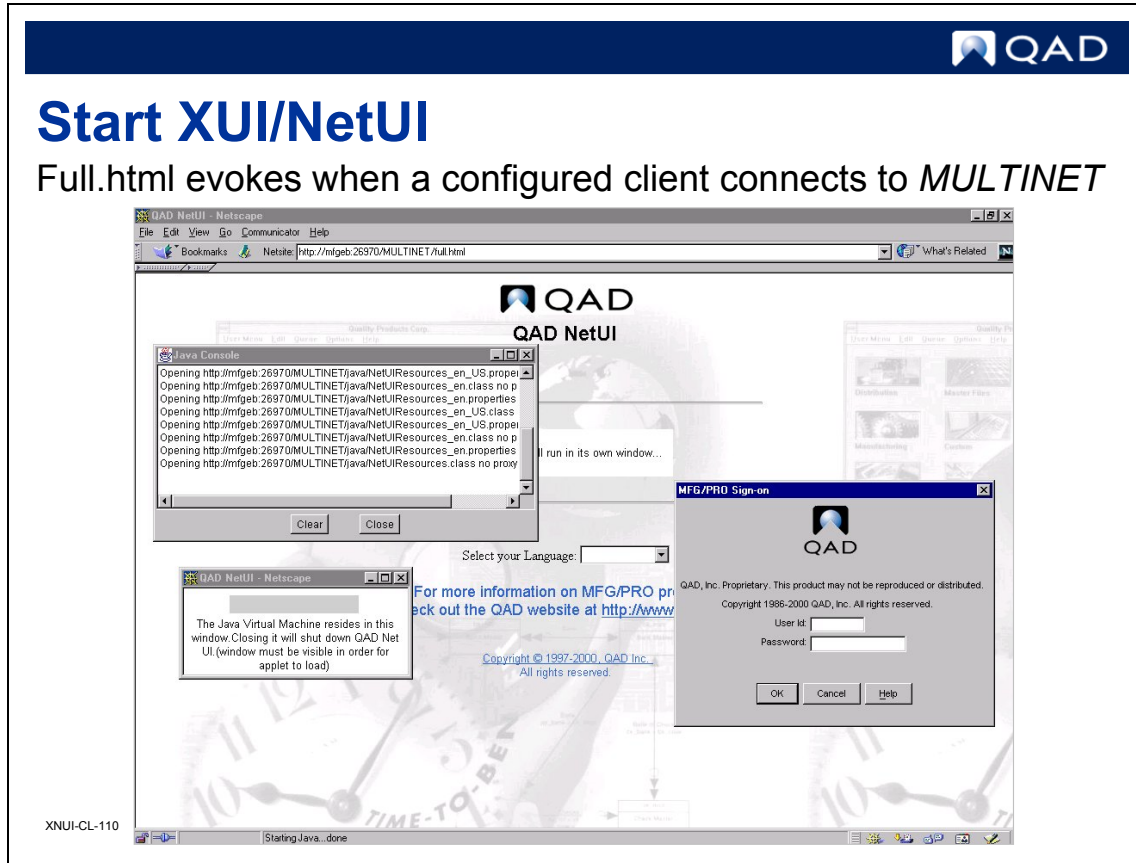
Start XUI/NetUI

Exit all browser session manually and restart – or use the link



XNUI-CL-100

Start XUI/NetUI





Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ♦ User Interface
- ♦ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-CL-120

CHAPTER 8

User Interface





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation

✓ **User Interface**

- ◆ User Security
- ◆ URL Links
- ◆ System Security & Performance
- ◆ NetUI Reconfiguration

XNUI-UI-010



User Interface Overview

- ♦ Introduction
- ♦ Screens & Menus
- ♦ Browsers, Reports & Maintenance Programs

XNUI-UI-020

User Interface Overview



Three Forms of Interface

- ♦ eB Desktop
 - Simplified *Tabular* Navigation
 - Detachable Screens
- ♦ Full Interface
 - Provides a tree menu
 - Ability to access multiple programs simultaneously
 - Consistent windows-based interface
- ♦ Embedded Interface
 - Allows access to specific programs from another web page

XNUI-UI-030

Introduction

Three Forms of Interface



XUI/NetUI Benefits

- ♦ Developed in Java
 - Optimized for networks and the internet
- ♦ User access and data security
 - Offers additional control, including restricting user access at the database-record level
- ♦ Local/remote printing
 - Many output options!

XNUI-UI-040

XUI/NetUI Benefits



XUI/NetUI Benefits

- ♦ Complete MFG/PRO documentation
 - Context-sensitive field and procedure help as well as MFG/PRO documentation
- ♦ Full UI with multi-window desktop
- ♦ Embedded MFG/PRO access from a web browser
- ♦ Access links to frequently-used web pages

XNUI-UI-050



Sign-On



- ◆ First screen of the XUI/NetUI
 - Enter user ID
 - Enter password
 - Get login help
 - Login to MFG/PRO
 - Cancel MFG/PRO

XNUI-UI-060

Screens & Menus

Sign-On



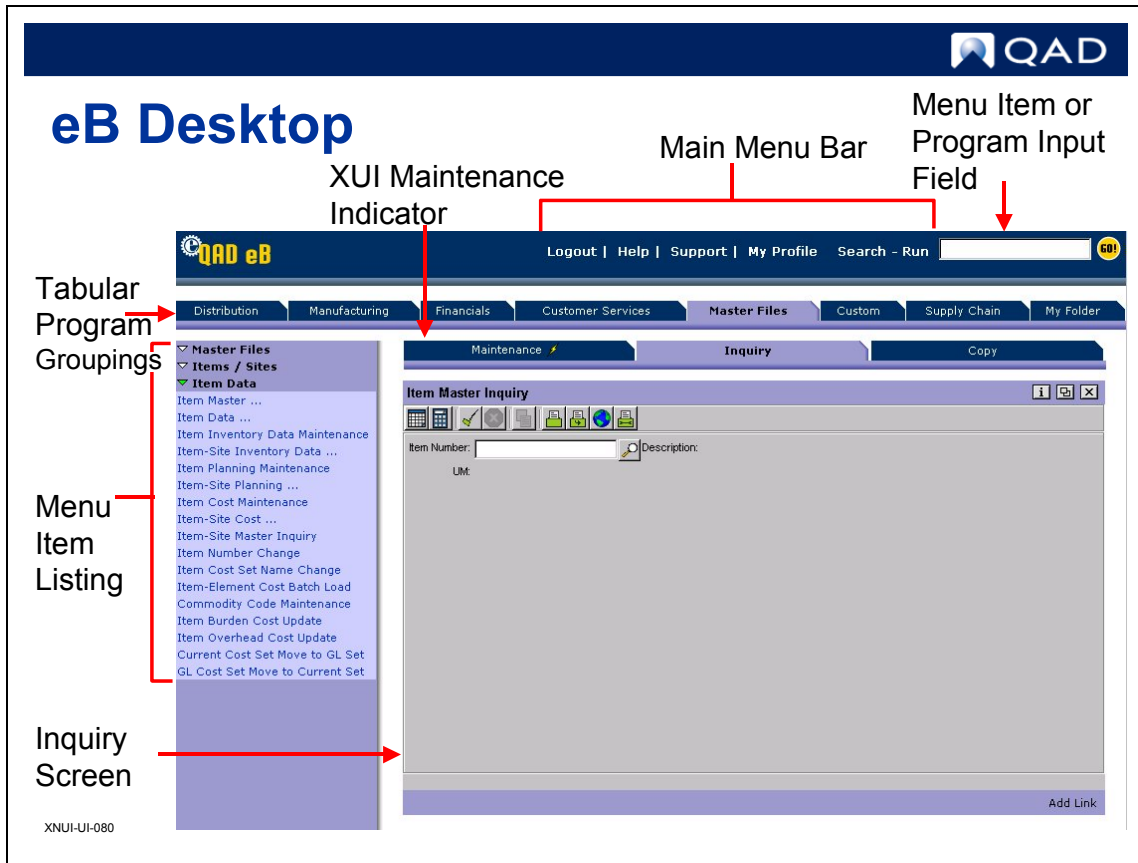
User Security Profile



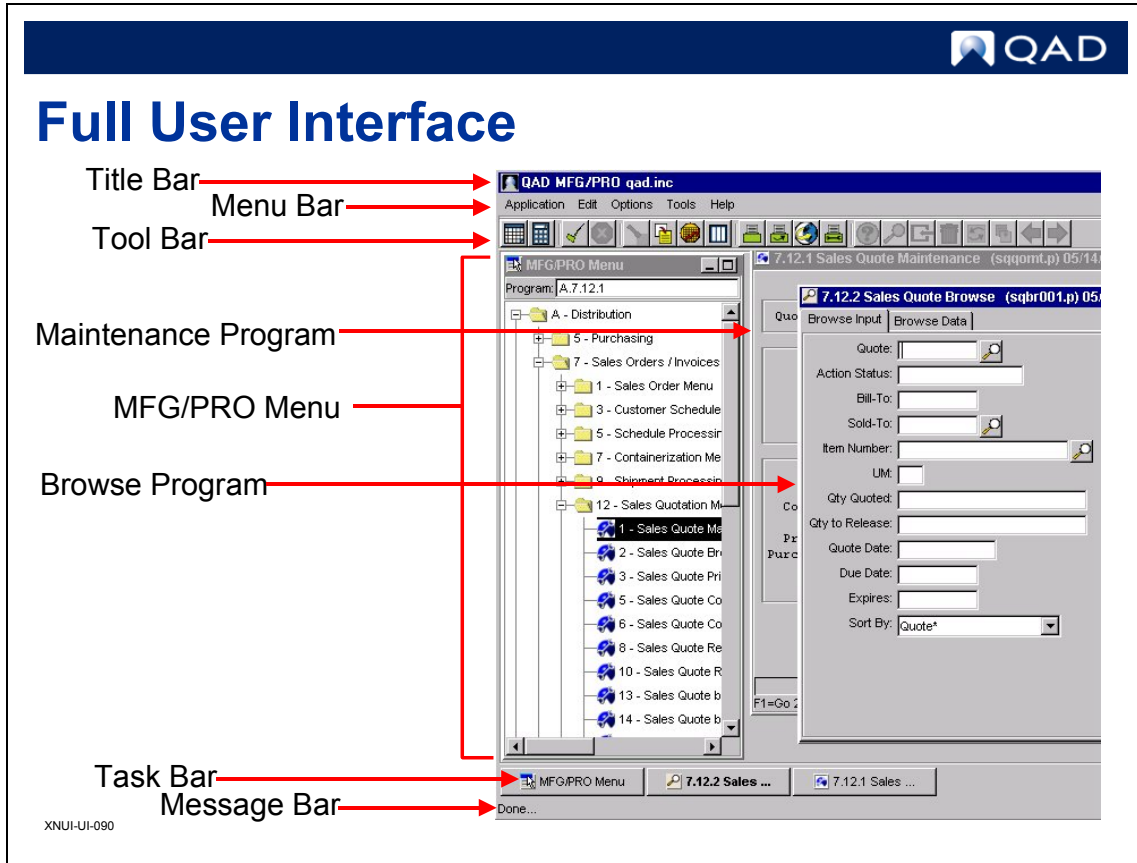
- ♦ Displays only if user belongs to more than one security profile
 - User must choose a profile for each session
- ♦ Does not display if user is assigned to only one security profile

XNUI-UI-070

User Security Profile

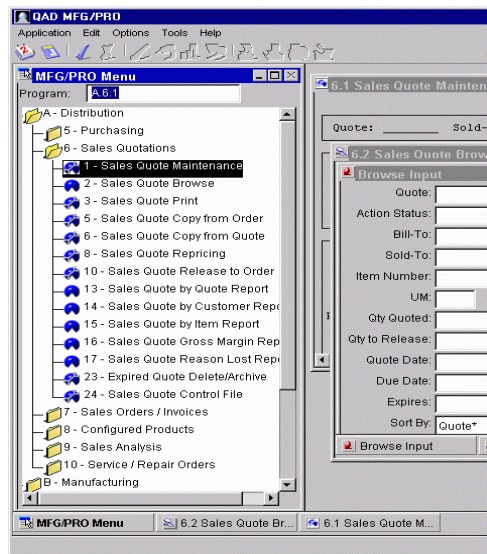


eB Desktop



Full User Interface

Full User Interface



- ◆ Discrete screen areas
- ◆ Contains standard Windows title bar, menu bar, tool bar and task bar
- ◆ Uses expanding tree menu structure
- ◆ Run multiple MFG/PRO programs simultaneously

XNUI-UI-100



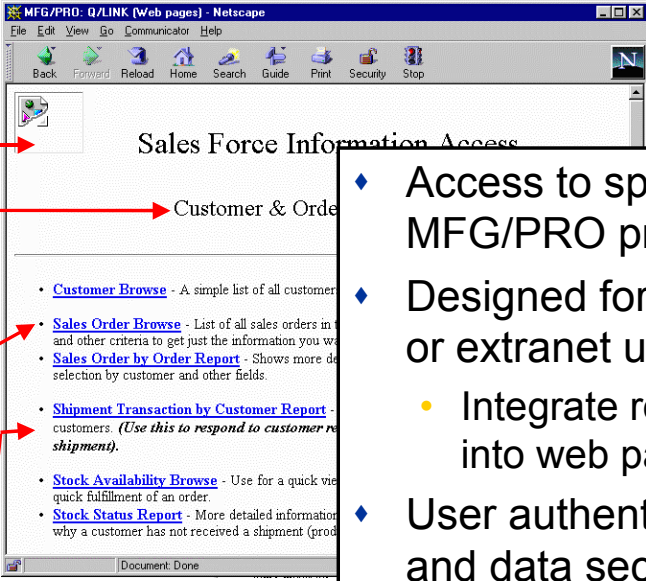
Embedded User Interface

Company Logo (Optional)

Company Description of embedded browses and reports

Name and hyperlink of browse or report

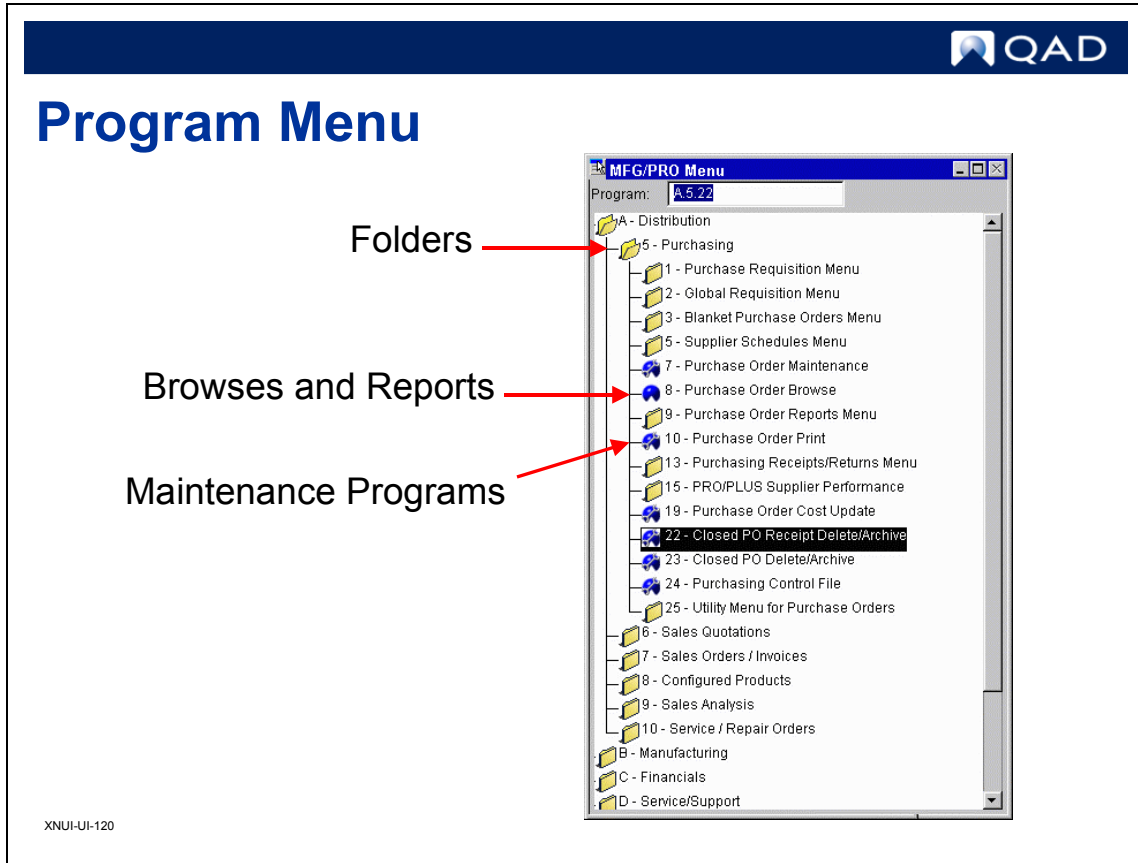
Description of browse or report



- ♦ Access to specific MFG/PRO programs
- ♦ Designed for intranet or extranet users
 - Integrate reports into web pages
- ♦ User authentication and data security

XNUI-UI-110

Embedded User Interface



Program Menu



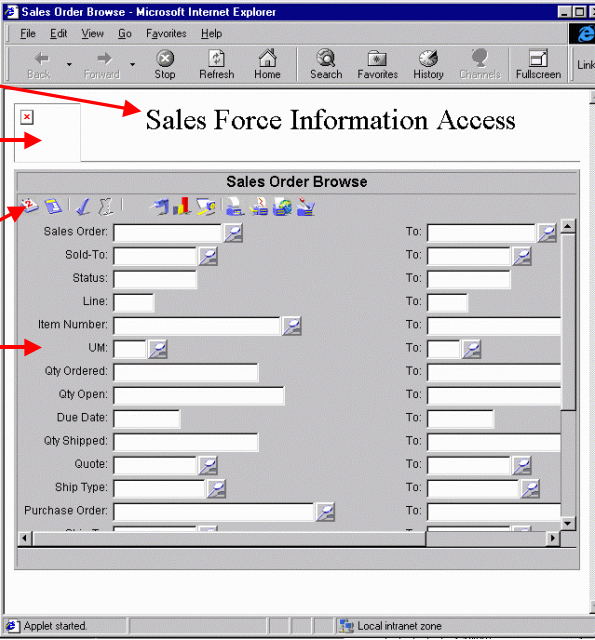
Embedded User Interface

Company embedded
browse title

Company Logo
(Optional)

Embedded Tool Bar

Embedded Browse



Sales Order Browse - Microsoft Internet Explorer

Sales Force Information Access

Sales Order Browse

Sales Order: _____ To: _____

Sold-To: _____ To: _____

Status: _____ To: _____

Line: _____ To: _____

Item Number: _____ To: _____

UM: _____ To: _____

Qty Ordered: _____ To: _____

Qty Open: _____ To: _____

Due Date: _____ To: _____

Qty Shipped: _____ To: _____

Quote: _____ To: _____

Ship Type: _____ To: _____

Purchase Order: _____ To: _____

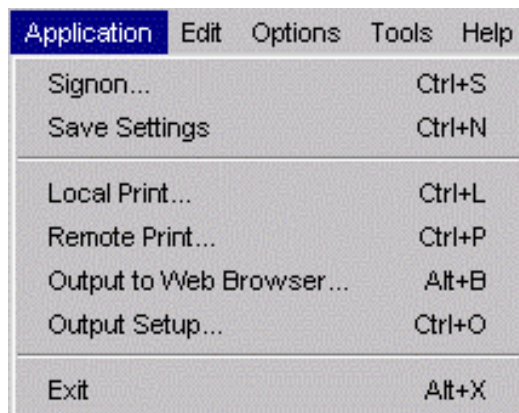
Applet started. Local intranet zone

XNUI-UI-130



Application Menu

* May contain additional options



♦ Signon

- Signon as a different user or change to a different security profile

♦ Save settings

- Saves output setup and preferences for each user

Options controlled by 36.20.10.1

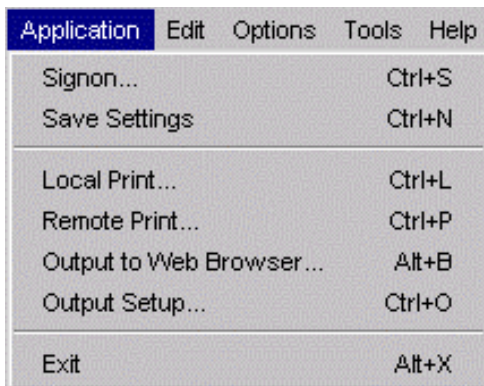
XNUI-UI-140

Application Menu



Application Menu

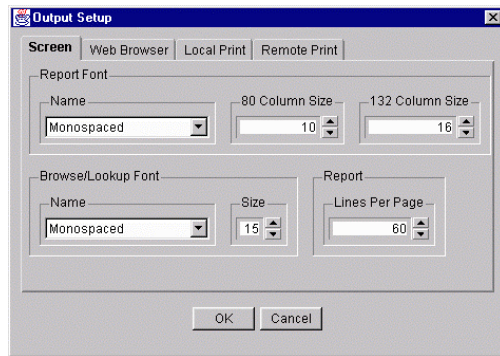
* May contain additional options



- ◆ Output Setup
 - Setup output for browses and reports
- ◆ Exit

XNUI-UI-150

Output Setup



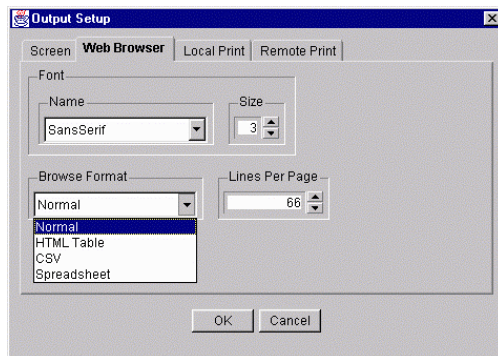
- ◆ Output to screen
 - Default output option

XNUI-UI-160

Output Setup



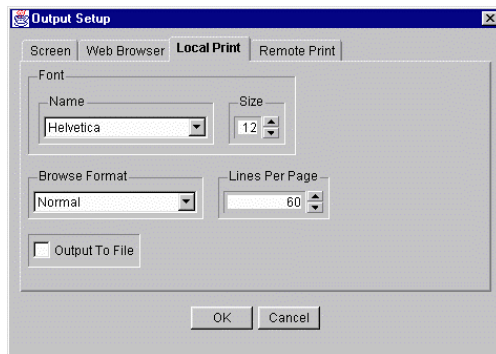
Output Setup



- ◆ Output to Web Browser
 - Normal format
 - HTML
 - Comma-separated values
 - Spreadsheet

XNUI-UI-165

Output Setup

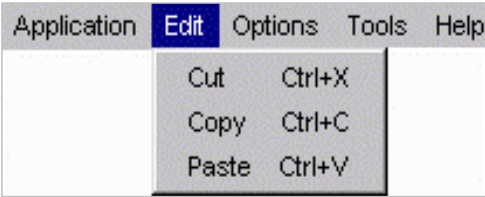


- ◆ Output to Local/Remote Printers
 - Normal format
 - Comma-separated values format
- ◆ Output to text file

XNUI-UI-170



Edit Menu

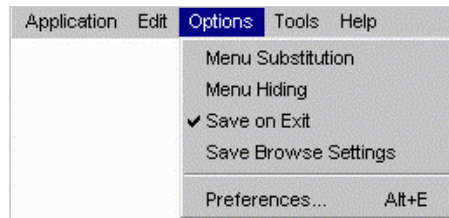


- ♦ **Cut**
 - Deletes selected text & copies to clipboard
- ♦ **Copy**
 - Copies selected text to clipboard
- ♦ **Paste**
 - Pastes text from clipboard to a current location

XNUI-UI-180

Edit Menu

Options Menu



Options controlled by
36.20.10.1

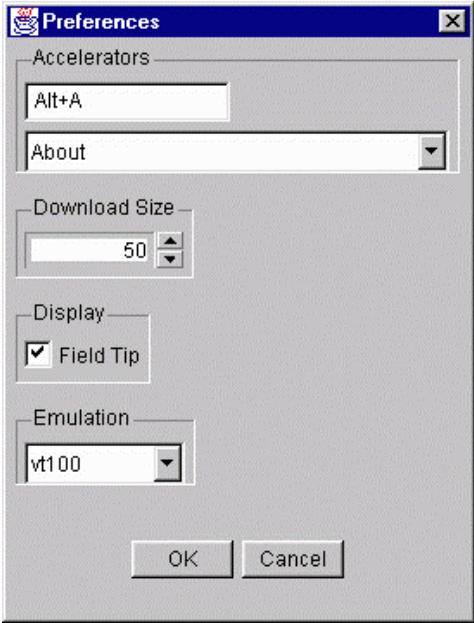
- ♦ Menu Substitution
- ♦ Menu Hiding
 - Restrict Menu
- ♦ Save On Exit
 - Saves output setup and preference settings
- ♦ Save Browse Settings
 - Saves custom browse settings
- ♦ Preferences

XNUI-UI-190

Options Menu



Preferences



XNUI-UI-200

- ◆ Accelerators
 - Customize key commands
- ◆ Download Size
 - Number of records browses display before client requests more
 - Limited by 36.20.10.1 Max Browse Records
- ◆ Emulation
- ◆ Field Tip

Preferences



Tools Menu

◆ Calendar

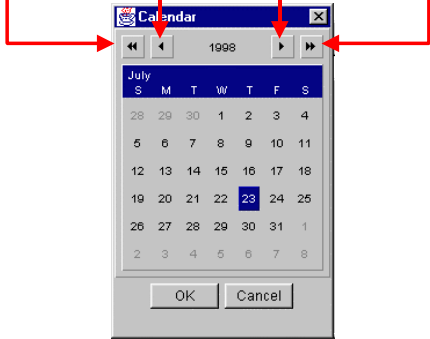
Application	Edit	Options	Tools	Help
Calendar...				Alt+C
Calculator...				Alt+U
Run				F1
Stop				F4
Find...				Ctrl+F
Drill Down...				Alt+D
Graph				Ctrl+G
Setup Columns...				Alt+P
Lookup...				Alt+L

Previous Year

Previous Month

Next Year

Next Month



XNUI-UI-210

Tools Menu



Tools Menu

- ◆ Calculator

Application	Edit	Options	Tools	Help
Calendar...				Alt+C
Calculator...				Alt+U
Run				F1
Stop				F4
Find...				Ctrl+F
Drill Down...				Alt+D
Graph				Ctrl+G
Setup Columns...				Alt+P
Lookup...				Alt+L

Calculator

0.

7

8

9

/

C

4

5

6

*

1

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3

+

0

+/-

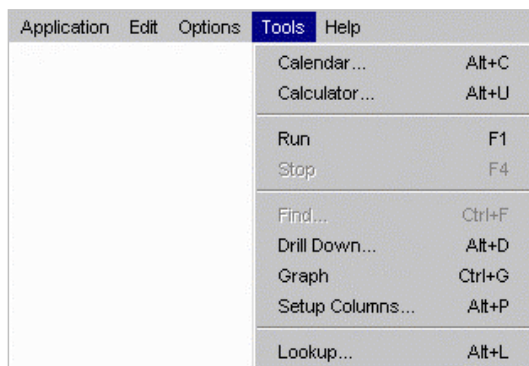
.

-

=

XNUI-UI-220

Tools Menu



- ♦ Run
 - Runs selected browse or report
- ♦ Stop
 - Close a currently running report or browse
- ♦ Find
 - Look for a value in a browse column
- ♦ Drill-Down Browse

XNUI-UI-230



Tools Menu

Application	Edit	Options	Tools	Help
Calendar...				Alt+C
Calculator...				Alt+U
Run				F1
Stop				F4
Find...				Ctrl+F
Drill Down...				Alt+D
Graph				Ctrl+G
Setup Columns...				Alt+P
Lookup...				Alt+L

- ◆ Graph
 - Display browse data in several different graph formats
- ◆ Setup Columns
 - Define which data columns to display in a browse
- ◆ Look-Up Browsers

XNUI-UI-240



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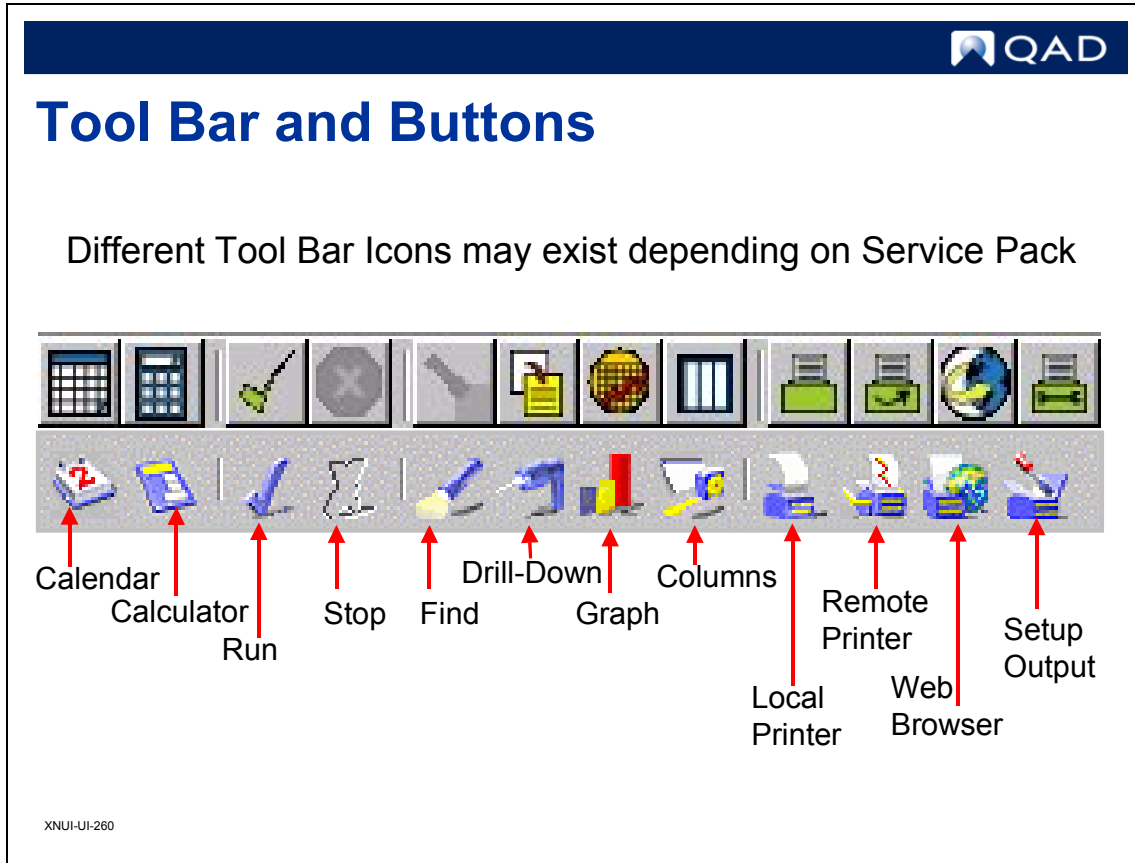
Help Menu



- ◆ MFG/PRO Help
- ◆ Interface Help
- ◆ Program Help
- ◆ Field Help
- ◆ About

XNUI-UI-250

Help Menu



Tool Bar and Buttons

Standard Browse

- ◆ Displays requested data in the form of a table
- ◆ Can be used to display, filter, graph, or print data

13.2 Product Structure Code Browse (bmbr002.p) 04/03/98 11:01

Browse Input

BOM Code: To:

Description: To:

Batch Size: To:

UM: To:

Comments: To:

Sort By:

Sort Order

☒ Ascending

☐ Descending

XNUI-UI-270

Browses, Reports, and Maintenance Programs



Standard Browse: Specifying Browse Criteria

- ◆ Browse input window is the first screen displayed
 - Filter browse data up front

13.2 Product Structure Code Browse (bmbf002.p) 04/03/98 11:01

Browse Input

BOM Code: To:

Description: To:

Batch Size: To:

UM: To:

Comments: To:

Sort By:

Sort Order:

☒ Ascending

☐ Descending

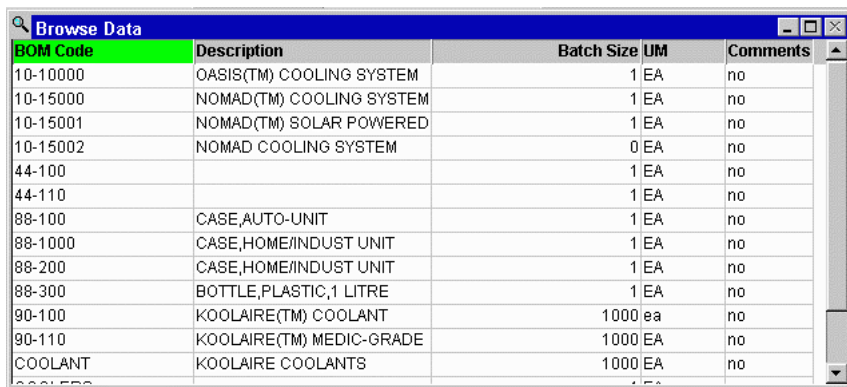
XNUI-UI-280

Standard Browsers



Standard Browse: Viewing Browse Data

- ◆ Information can be searched and sorted
- ◆ Columns can be resized and moved



The screenshot shows a window titled 'Browse Data' with a search icon in the top left corner. The window contains a table with the following columns: BOM Code, Description, Batch Size, UM, and Comments. The table lists various BOM items with their descriptions, batch sizes, units of measure, and comments.

BOM Code	Description	Batch Size	UM	Comments
10-10000	OASIS(TM) COOLING SYSTEM	1	EA	no
10-15000	NOMAD(TM) COOLING SYSTEM	1	EA	no
10-15001	NOMAD(TM) SOLAR POWERED	1	EA	no
10-15002	NOMAD COOLING SYSTEM	0	EA	no
44-100		1	EA	no
44-110		1	EA	no
88-100	CASE,AUTO-UNIT	1	EA	no
88-1000	CASE,HOME/INDUST UNIT	1	EA	no
88-200	CASE,HOME/INDUST UNIT	1	EA	no
88-300	BOTTLE,PLASTIC,1 LITRE	1	EA	no
90-100	KOOLAIRE(TM) COOLANT	1000	ea	no
90-110	KOOLAIRE(TM) MEDIC-GRADE	1000	EA	no
COOLANT	KOOLAIRE COOLANTS	1000	EA	no

XNUI-UI-290



Standard Browse: Viewing Browse Data

- ♦ Resizing columns – Select boundary and drag
- ♦ Moving columns – Drag & drop
- ♦ Sorting columns – Double-click

Browse Data				
BOM Code	Description	Batch Size	UM	Comments
10-10000	OASIS(TM) COOLING SYSTEM	1	EA	no
10-15000	NOMAD(TM) COOLING SYSTEM	1	EA	no
10-15001	NOMAD(TM) SOLAR POWERED	1	EA	no
10-15002	NOMAD COOLING SYSTEM	0	EA	no
44-100		1	EA	no
44-110		1	EA	no
88-100	CASE,AUTO-UNIT	1	EA	no
88-1000	CASE,HOME/INDUST UNIT	1	EA	no
88-200	CASE,HOME/INDUST UNIT	1	EA	no
88-300	BOTTLE,PLASTIC,1 LITRE	1	EA	no
90-100	KOOLAIRE(TM) COOLANT	1000	ea	no
90-110	KOOLAIRE(TM) MEDIC-GRADE	1000	EA	no
COOLANT	KOOLAIRE COOLANTS	1000	EA	no

XNUI-UI-300



Look-Up Browse

- ◆ Displays valid values for the field it is associated with
- ◆ Displays up to seven columns
- ◆ Cannot filter, graph, or print data

Lookup - Item Master Browse (gplu340.p) 06/23/98 14:18

Item Number	Description	Description 2	UM	Prod Line
10-15001	NOMAD(TM) SOLAR POWERED	COOLING SYSTEM	EA	1500
22-100	CORD,POWER,UK		EA	1000
22-110	CORD,POWER,EUROPE,WEST		EA	1000
22-120	CORD,POWER,USA		EA	1000
22-130	CORD,POWER,UNIVERSAL	ONE SIZE FITS ALL	EA	1000
30-100	BATTERIES,ALKALINE,STD.	ENDURACELL	EA	1000
30-1000	BATTERIES,ATOMIC,STD.	1,000,000 YR SHELF-LIFE	EA	1000
30-10000	BATTERIES,THERMONUCLEAR		EA	9000
44-100	CONTROL UNIT, HOME USE		EA	1000
44-1000	SENSOR UNIT,		EA	2000
44-110	CONTROL UNIT, AUTOMOTIVE		EA	1500
44-2000	COMPUTER,CONTROL UNIT,	MAIN-BOARD	EA	2000

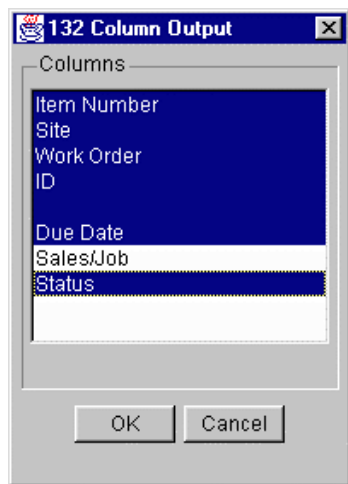
OK Cancel

XNUI-UI-310

Look-Up Browsers



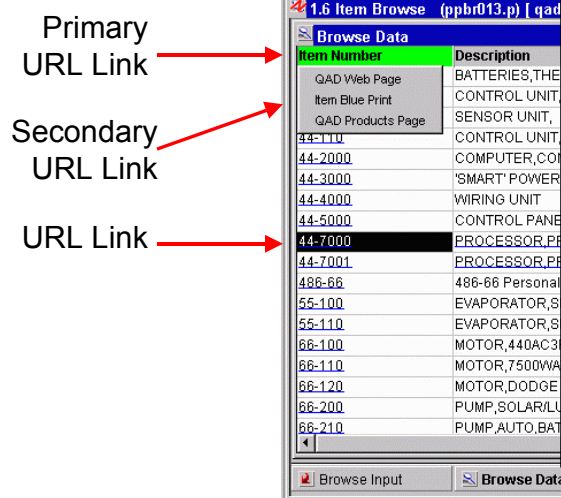
Standard Browse: Viewing Browse Data



- ◆ Hiding Columns
 - Tools Menu
 - Setup columns

XNUI-UI-320

Standard Browse: Viewing Browse Data



♦ Accessing URL Links

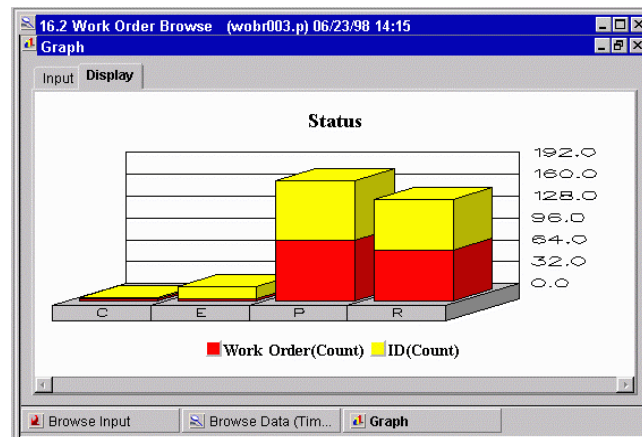
- Defined in Browse URL Maintenance 36.20.10.11
- Indicated by colored and underlined text in the browse cell
- Double-clicking launches the web browser

XNUI-UI-330



Graphing Browse Data

- ◆ Generate Graph
 - Enter required input data
 - GO

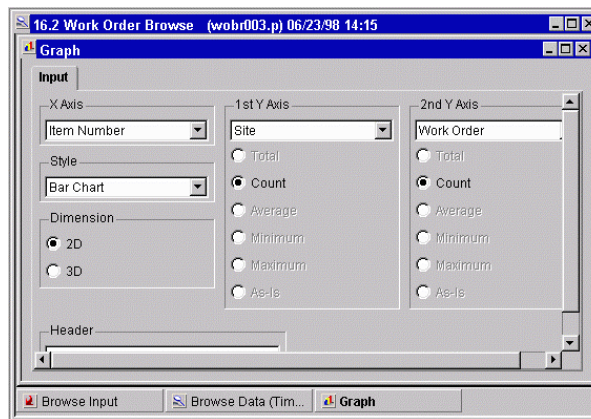


XNUI-UI-340

Graphing Browse Data

Graphing Browse Data

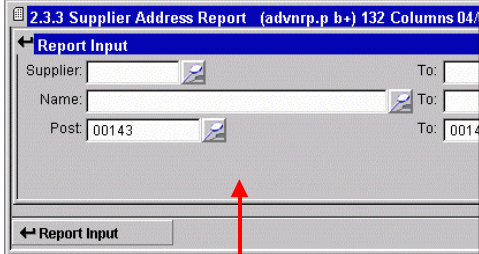
- ◆ Generate graphs of browse data on the screen
 - Select the Graph icon on the tool bar



XNUI-UI-350



Reports



Produces a report
for supplier addresses
with a postal code of 00143

- ◆ Report input window
 - Enter search criteria to select items to display in the report
- ◆ Report output window
 - Output displays to screen by default

XNUI-UI-360

Reports



XUI Maintenance Programs

- ♦ Used to review, add, modify, and delete database records
- ♦ Java programs separate business logic, which is executed by the AppServer, and client display logic

Key Field →

Program Window

XNUI-UI-370

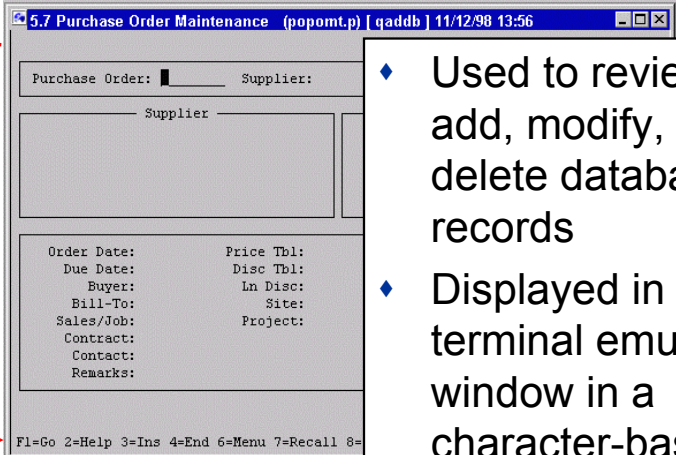
XUI Maintenance Programs



Telnet Maintenance Programs

Program window

Program status bar

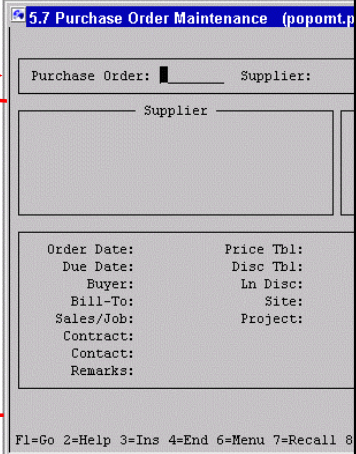


- ♦ Used to review, add, modify, and delete database records
- ♦ Displayed in a terminal emulation window in a character-based interface

XNUI-UI-380

Telnet Maintenance Programs

Telnet Maintenance Programs: Entering Key Data



Key data field

Inactive fields until record find occurs

- ♦ Program first prompts for key data
 - Use Enter and Tab to proceed from one field to the next
- ♦ Key Data is used to identify the record you want to review or modify

XNUI-UI-390



Summary

- ♦ Screens
 - Consistent Windows look and feel
- ♦ Menus
 - Standard pull-down menus allow you added functionality
- ♦ Browsers
 - Highly configurable and customizable
- ♦ Reports
 - Multiple output destinations

XNUI-UI-400

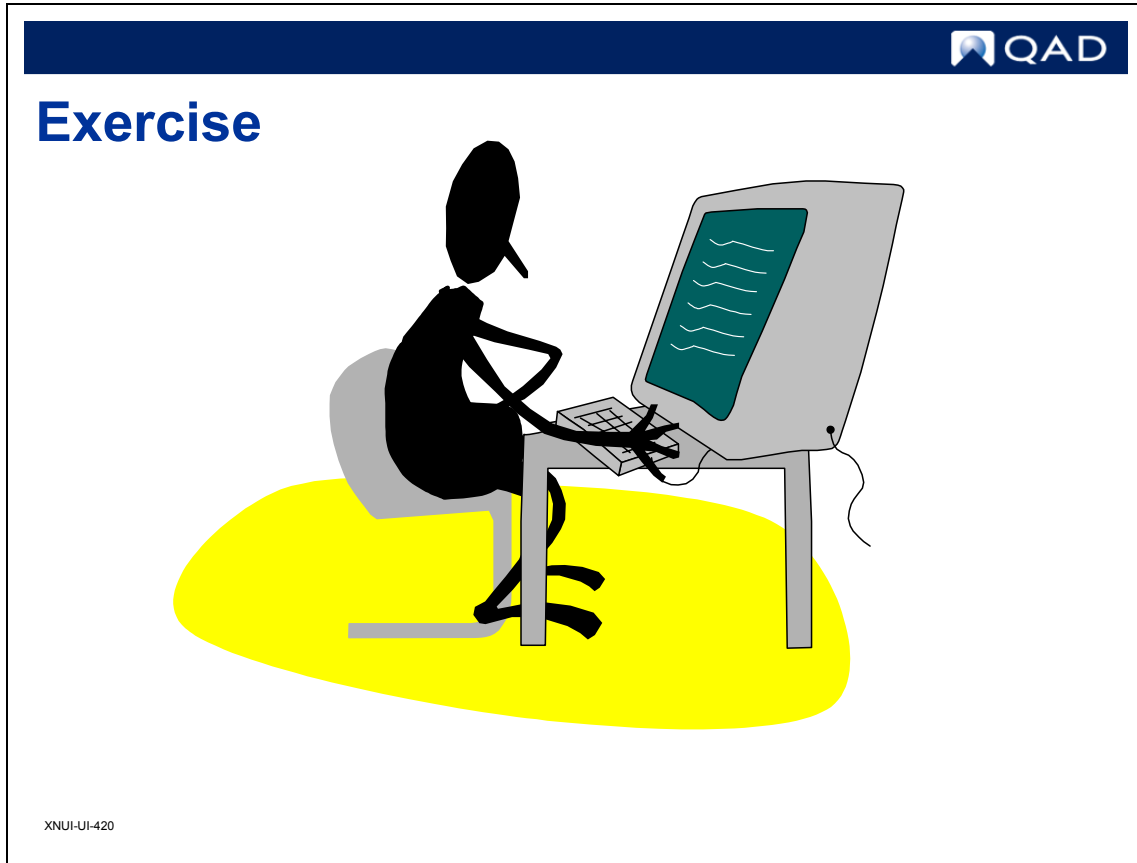
Summary



Summary

- ♦ Maintenance Programs
 - Full MFG/PRO functionality available

XNUI-UI-410



Exercises: Screen 1 of 5



QAD MFG/PRO

Application Edit Options Tools Help

1.6 Item Browse (ppbr013.p) 07/13/99 14:56

Browse Data

Item Number	Description	UM	Prod Line	Status
15		EA		
150		EA	mls	
151		EA		
16		EA		
160		EA		
161		EA	mls	
182224no		EA		
182224noc		EA		
182224yes		EA		
182224yesc		EA		
1972p	twin pack	EA	4000	ac

Group: To:

Sort By:

Sort Order

☒ Ascending

☐ Descending

Browse Input Browse Data

18 - Customer Item Report

MFG/PRO Menu 1.6 Item Browse ...

Done

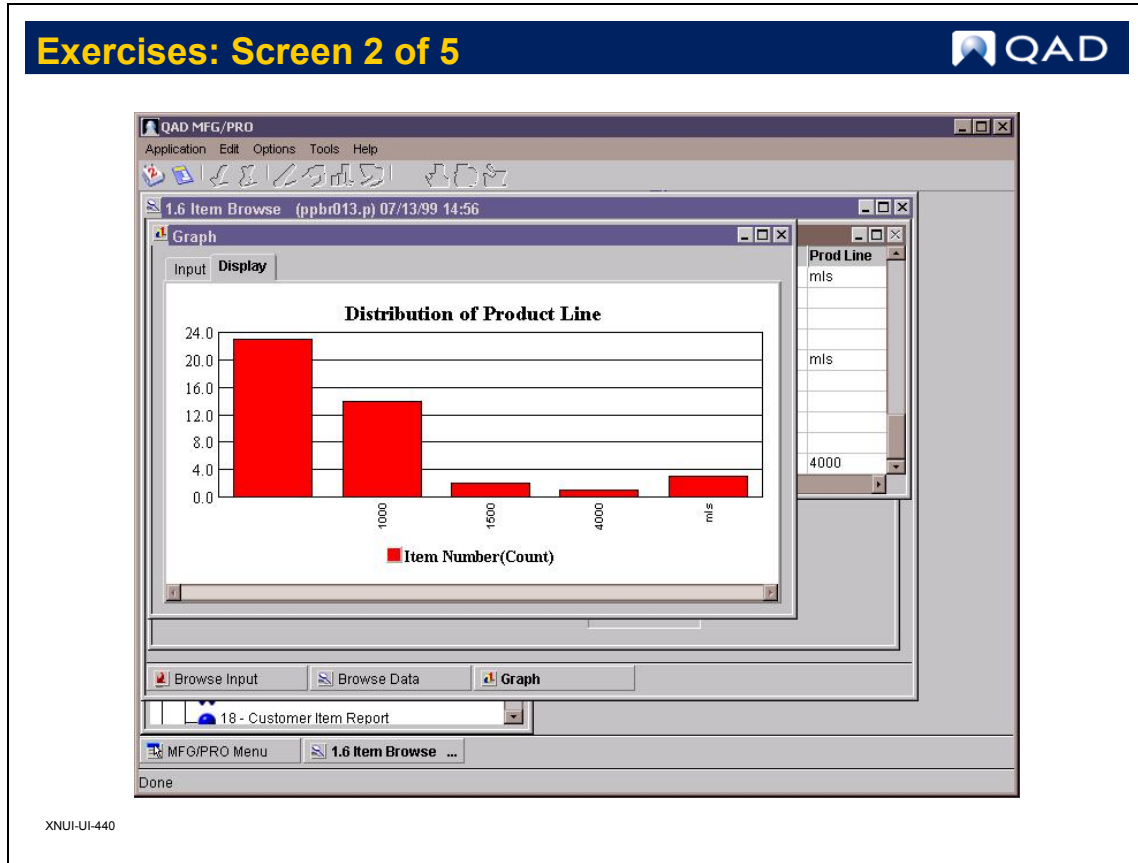
XNUI-UI-430

Exercise—User Interface

- 1 Start the Item Browse 1.6.

What are the three ways to "run" the browse to fill the "Browse Data" screen?

- 2 Configure the Item Browse to only display the following columns
 - Item Number
 - Description
 - UM
 - Product Line
 - Status



- 3 Select a small set of items in the item browse (ie. Item Number: 1 To: 2). Graph the distribution of the items into the various product lines. Change the header to read "Distribution of Product Line."

Exercises: Screen 3 of 5



1.6 Item Browse (ppbr013.p) - Microsoft Internet Explorer

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print Edit

Address [le%1166%125ansSerif%122%11pt_mstr.pt_part%12pt_mstr.pt_desc%12pt_mstr.pt_um%12pt_mstr.pt_prod_line%12pt_mstr.pt_status](#) Links

1.6 Item Browse (ppbr013.p)

Item Number	Description	UM	Prod Line	Status
1.		EA		
10-15000	NOMAD(TM) COOLING SYSTEM	EA	1500	AC
10-15001	NOMAD(TM) SOLAR POWERED	EA	1500	AC
100		EA		
100A	Finished Good A	EA	1000	AC
100A-01	Mfg Comp	EA	1000	AC
100A-01p	Purch Comp	EA	1000	AC
100B	Finished Good B	EA	1000	AC
100C	Finished Good C	EA	1000	AC
101		EA		

Internet zone

XNUI-UI-450

4 Output your Item Browse data to an HTML Table format

Exercises: Screen 4 of 5



Microsoft Excel - CA10C4CD.xls

File Edit View Insert Format Tools Data Window Help

Arial 10 B I U

	A	B	C	D	E	F	G	H	I	J
	Item Number	Description	Description 2	UM	Prod Line	Rev	Drawing	Item Type	Status	Group
1	3910	part		EA	1000					
2	4			EA						
3	007-10	desc 10		EA						
4	007-11	desc 11		EA						
5	007-ct1	desc ct1		EA						
6	007-ct2	desc ct2		EA						
7	107			ea	1000					
8	0107trsbottom			EA	1000				avail	
9	0107TRSMIDDLE-1			EA	1000				avail	
10	0107trsparent			EA	1000				avail	
11	12299			EA	1000				ac	
12	128 JAVA-CODE			EA	1000				AC	
13	20399			EA	1000					
14	020399-cmb			EA	1000				AC	
15	0205-cmb			EA	1000				ac	
16	20599			EA	1000				ac	
17	0205trs.01	Version 3		EA	1000				AC	
18	0205trs.02			EA	1000				AC	
19	21099			EA						
20	21699			EA						
21	22699			EA						

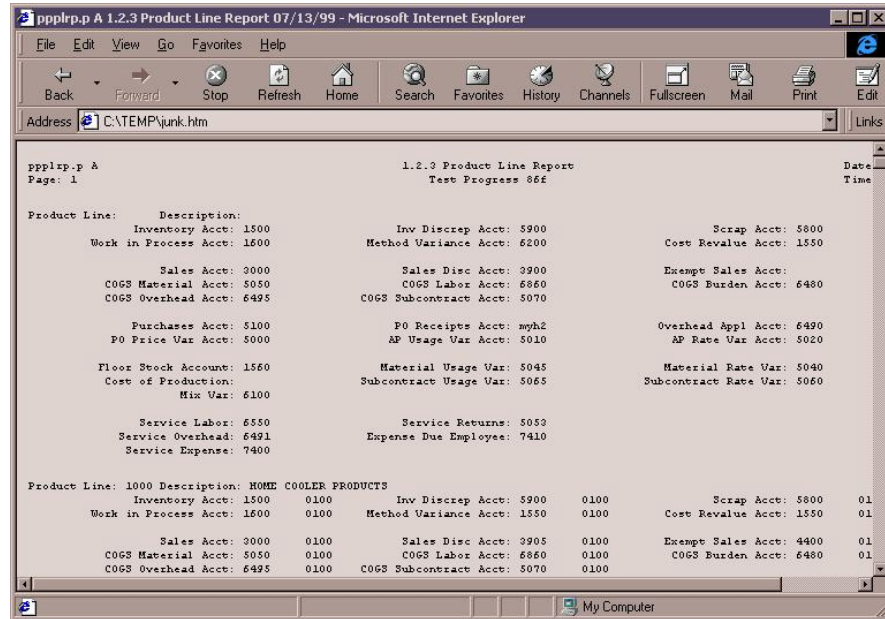
CA10C4CD /

Ready

XNUI-UI-460

- 5 Save your browse settings. Verify that they were saved.
- 6 Output browse to a spreadsheet format and open it in Microsoft Excel

Exercises: Screen 5 of 5



XNUI-UI-470

- 7 Run the Product Line Report 1.2.3. Output the report to web browser in normal format. Save the output to an HTML file (in your c:\temp directory). From your Windows Explorer, double-click on your new HTML file. What different uses could this feature have?



Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ♦ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-UI-480

CHAPTER 9

User Security





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ **User Security**
 - ♦ URL Links
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-US-010



User Security Overview

- ♦ Web Security Model
- ♦ Security Elements
- ♦ Security Levels
- ♦ Security Maintenance Programs
 - Web Security Control File
 - User/Group Maintenance
 - Program Information Maintenance
 - Profile Maintenance
 - Rule Maintenance
 - Constant Maintenance

XNUI-US-020

User Security Overview



Overview (continued)

- ♦ Web Security for Custom Programs
 - Program Information Update
- ♦ Web Security Utilities
 - Profile Copy Utility
 - Browse UI Record Maintenance
 - Constant Maintenance

XNUI-US-030



Web Security Model

- ♦ Standard Security and Web Security
 - XUI/NetUI defaults to standard security for maintenance, browse, and reports
 - Maintenance Programs always default to standard security
 - Security is enhanced for reports and browses at the user, program and record level
 - Setup is independent except that User records are shared between the two security models; groups are not the same!

XNUI-US-040

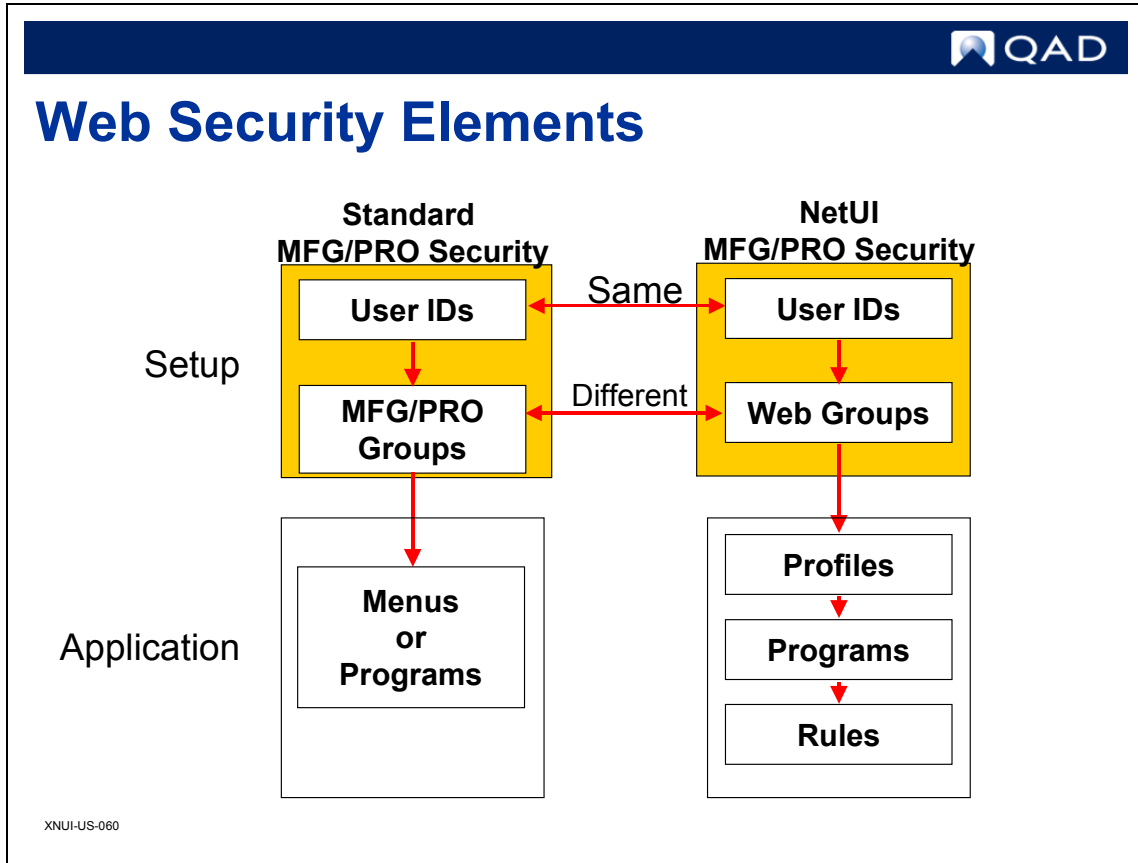
Web Security Model



Web Security Model (continued)

- If enabled, Web Security only applies to XUI/NetUI users
- Standard security affects all users, regardless of interface (Character, GUI, XUI/NetUI)
- Web security allows database access at the record level—not at the field
- Web Security does not provide data encryption
- Web security is built by grouping users, and assigning them to profiles that grant or revoke access to programs and records

XNUI-US-050



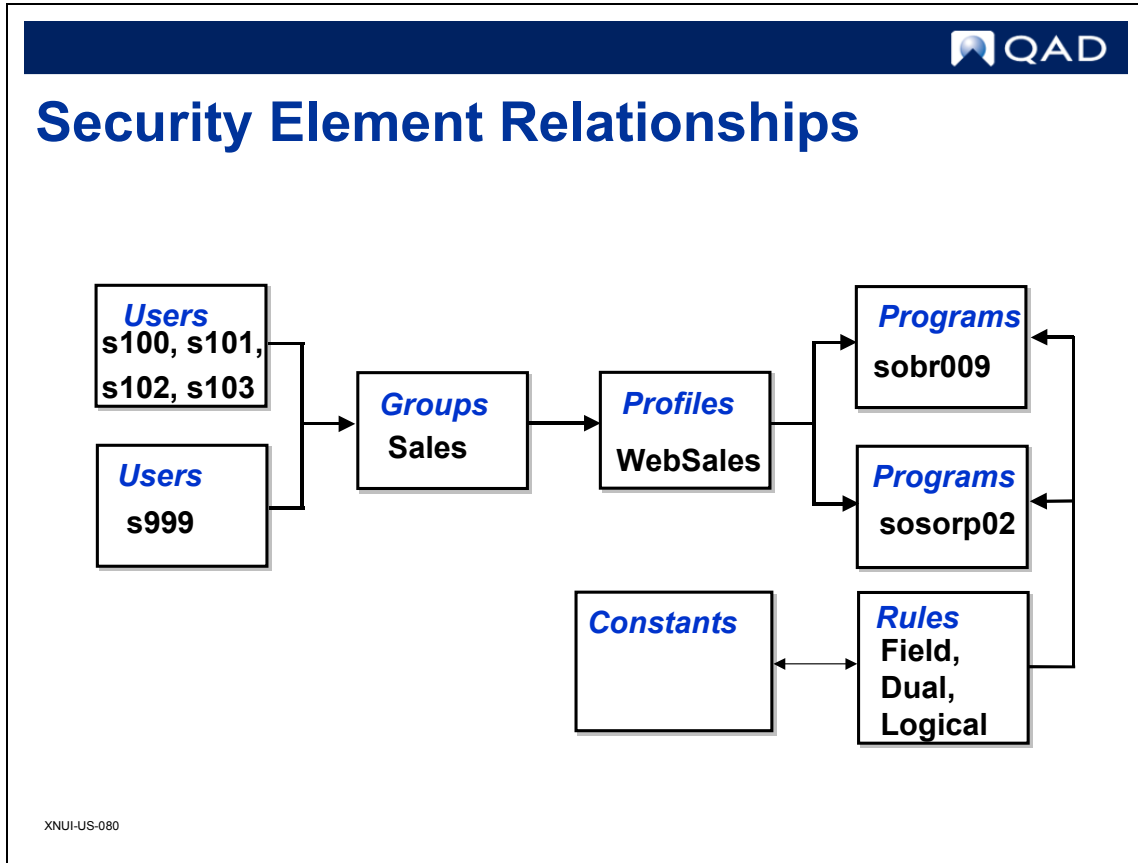
Web Security Elements



Security Elements

- ♦ **Users** – Employees, customers, suppliers or anyone that needs access
- ♦ **Groups** – A set of users that typically access the same programs
- ♦ **Profile** – Defines a set of MFG/PRO programs that can be accessed
- ♦ **Rules** – Define the conditions under which specific DB records can be accessed

XNUI-US-070





Security Levels

- ♦ **User Restriction** – Determines if the user can login thru the XUI/NetUI. If not set, login is determined by standard MFG/PRO security.
- ♦ **Program Restriction** – Restricts access to individual MFG/PRO programs. If menu security is set in standard security than user must be authorized in both systems or no access.
- ♦ **Record Restriction** – Restricts access to db records displayed in browse or report. Access is restricted by setting up Rules.

XNUI-US-090

Security Levels



Security Maintenance Programs

<u>Task</u>	<u>Program</u>	<u>Menu #</u>
Define MFG/PRO users	User Maintenance	36.3.18
Define information for custom programs	Program Information Maint.	36.3.21.1
Set up control file parameters	Web Security Control File	36.3.21.24
Define security profiles	Profile Maintenance	36.3.21.7
Define security groups	Group Maintenance	36.3.21.14
Assign users to web security groups & specify web options	User Group Security Maint.	36.3.21.18
Associate programs w/profiles	Profile Program Maint.	36.3.21.9
Define rules qualifying record access	Rule Maintenance	36.3.21.3
Associate rules w/ programs	Profile Program Rule Maint.	36.3.21.11
Optionally define constants	Constant Maintenance	36.3.21.5
Assign group constant values	Group Constants Value Maint.	36.3.21.16
Assign user constant values	User Constants Value Maint.	36.3.21.20

XNUI-US-100

Security Maintenance Programs

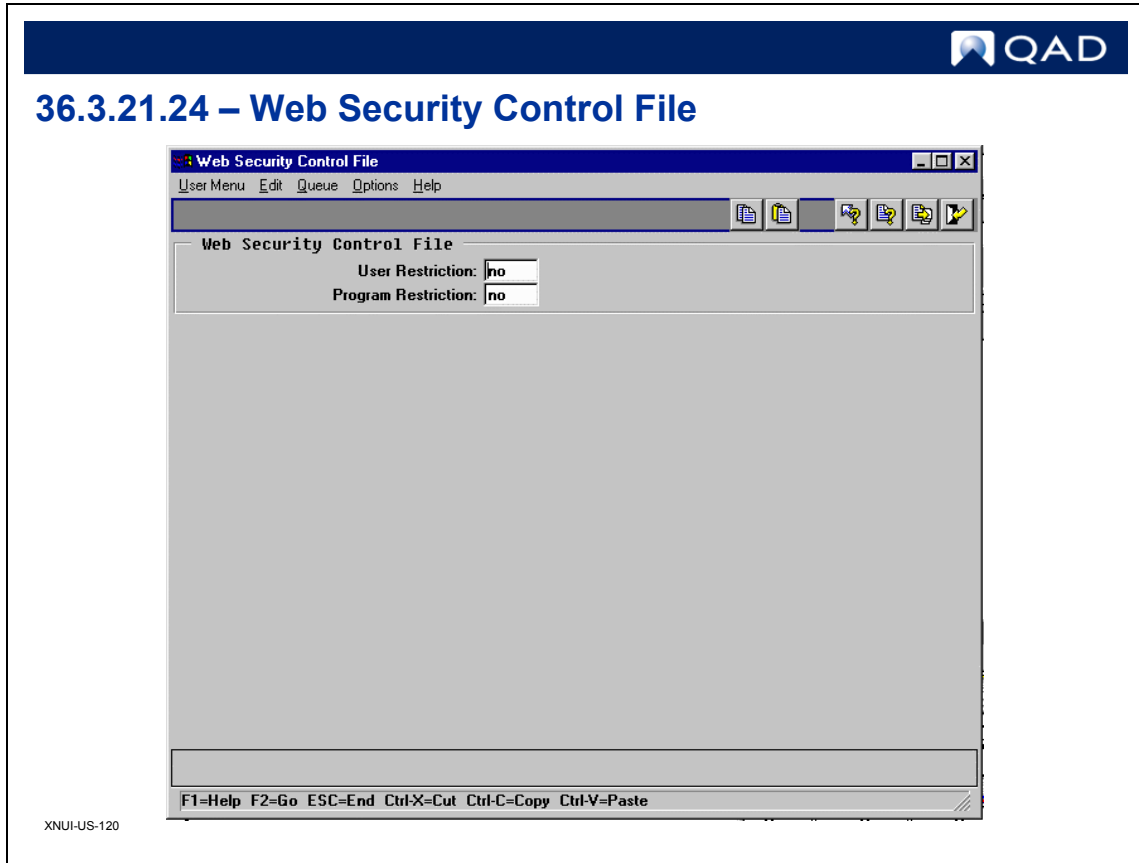


Web Security Control File

- ◆ Allows you to set operating modes of the Web Enabled Interface at the system level
 - User Restriction
 - Set to NO to default to standard user security. If YES, must define users in User Group Security Maintenance and User Maintenance.
 - Program Restriction
 - Set to YES to restrict access to browse and report programs defined in the Profile. If set to NO, defaults to standard menu security.

XNUI-US-110

Web Security Control File



Menu Number 36.3.21.24



User Option Maintenance

- ♦ Define settings that control XUI/NetUI features
 - Max web connections
 - Max browse records
 - Timeouts
 - Save user created browse views/settings
- ♦ Define users interface options
 - Control display of restricted menu item
 - Control menu substitutions
 - Control program execution & printing

XNUI-US-130

User/Group Maintenance



36.20.10.1 – User Option Maintenance

QAD MFG/PRO

Application Edit Options Tools Help

36.20.10.1 User Option Maintenance (mgusromt.p) 07/13/99 13:43

User ID:

Restrict Menu:	Max Web Connections:
Menu Substitution:	Max Browse Records:
Program Execution:	Session Timeout:
Server Print:	Browse Timeout:
Save Brw Settings:	
Expiration Date:	

F1=Go 2=Help 3=Ins 4=End 7=Recall 8=Clear 9=Prev 10=Next

XNUI-US-140

Menu Number 36.20.10.1



Exercise

User Option Maintenance Exercise – Program Restriction



XNUI-US-150

Exercise—User Option Maintenance: Program Restriction

The purpose of this lab is to configure a user to run a program that is not displayed on the menu if they know the program name.

- 1 Go to Application from Main Menu Line.
- 2 Select Sign On.
- 3 Login as any user.
- 4 Set up three MFG/PRO users:
 - a Go to Menu Option 36.3.18
 - b Enter the following:

User ID	Your three initial: xxx1
Language	US
User Name	Your full name
Password	Your-three-initials plus pw: xxx1pw

c Enter the following:

User ID	Your three initial: xxx2
Language	US
User Name	Your full name
Password	Your-three-initials plus pw: xxx2pw

d Enter the following:

User ID	Your three initial: xxxadmin
Language	US
User Name	Your full name
Password	Your-three-initials plus pw: adminpw

Note This sets up the users required to complete all the exercises. This lab uses the xxx1 user.

- 5** Remove 36.20.10.3 (User Option Telnet Maintenance from the menus). (Only one user can complete this step.)
- 6** Go to menu 36.4.4 (Menu System Maintenance).
 - a** Enter through Default Language (US).
 - b** Enter 36.20.10 in the Menu Field and press F1.
 - c** Enter 3 in the Sel Field and press F1.
Notice Delete becomes an Option.
 - d** F5 to delete Selection 3.
 - e** Select Yes to confirm delete.
You have now deleted program mgusrtmt.p from the menu.
- 7** Type MGUSRTMT in the Program field on the MFG/PRO menu. (All users to complete steps 8 through 12.)
Notice the program does not run.

- 8** Go to Menu 36.20.10.1 User Option Maintenance.
 - a** Input your three letter initials plus "1" (xxx1) in the UserID field and press F1.
 - b** Toggle Program Execution to Yes and press F1.
- 9** Go to Application from Main Menu Bar.
- 10** Select Sign On.
- 11** Login as your three letter initials plus "1": xxx1
- 12** Type MGUSRTMT in the Program field on the MFG/PRO menu.

Notice the program does run.
- 13** Re-add 36.20.10.3 User Option Telnet Maintenance to the menus. (Only one user can complete this step.
 - a** Go to menu 36.4.4 Menu System Maintenance.
 - b** Enter through Default Language (US).
 - c** Enter 36.20.10 in the Menu Field and press F1.
 - d** Enter 3 in the Sel Field and press F1 twice.
 - e** Enter Option Telnet Maintenance in the Selection Label field.
 - f** Enter mgusrtmt.p in the exec file field and press F1.

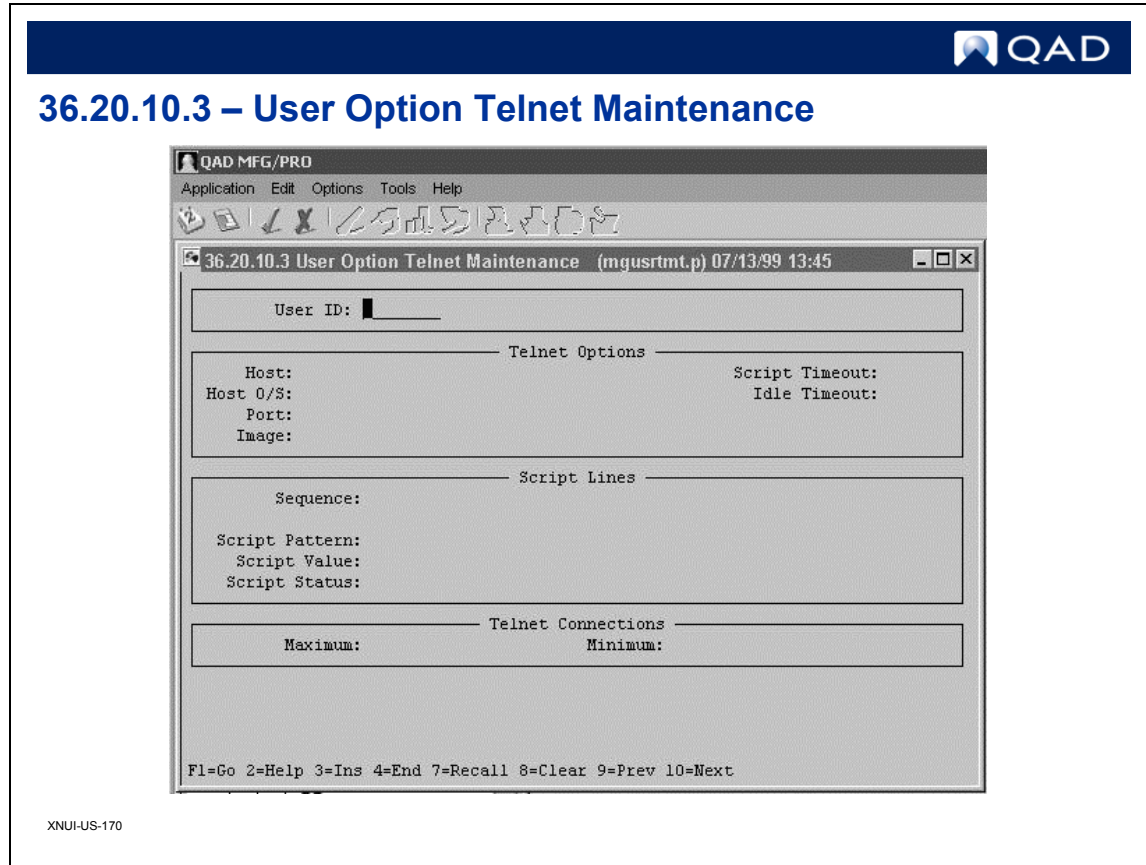
You have now re-added program mgusrtmt.p to the menu.



User Option Telnet Maintenance

- ◆ Must be performed before users can access Telnet Maintenance programs through the XUI/NetUI
 - Generic user record or specific userID
 - Define host connection parameters
 - Host name, port, connections, timeouts
 - Define logins & script execution
 - String syntax used to login and initialize
 - Strings defined as sequences of values

XNUI-US-160



Menu Number 36.20.10.3



Program Information Maintenance

- ◆ Before a program can be run from XUI/NetUI:
 - It must be customized to include web and security logic following QAD programming standards
 - The program name must be entered into Program Information Maintenance 36.3.21.1
 - The Web logic implemented field must be set
 - The security enabled field must be set

XNUI-US-180

Program Information Maintenance



Program Information Maintenance (continued)

- ♦ Cannot add or remove QAD programs
- ♦ Can disable Web logic and security fields on QAD programs

XNUI-US-190



Exercise

Program Information Exercise – Disabling a Web-Enabled Program



XNUI-US-200

Exercise—Program Information: Disabling a Web-Enabled Program

The purpose of this lab is to show how to enable/disable the NetUI Web-enabled program.

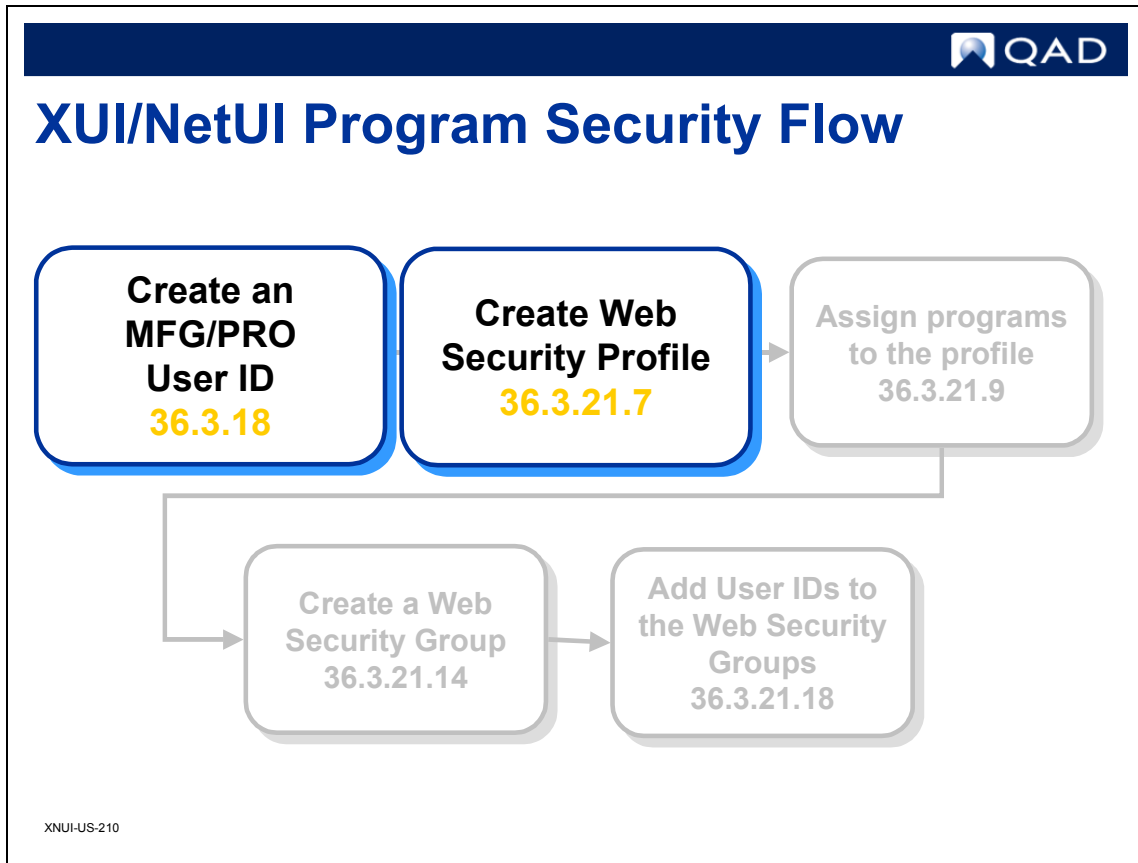
- 1 Go to Menu option 36.3.17 Site Security Report - clsisrp.p
Note the appearance of the criteria input screen.
- 2 Run the report.
To leave the report either click on the parent Windows close icon (X) or press Ctrl-F4.
- 3 Go to Menu Option 36.3.21.1 Program Information Maintenance.
- 4 Enter clsisrp.p Site Security Report into the Program field and set the Web Logic Implemented field to No.

The subsequent frame allows you to set the Security Enable Flag which determines whether web security logic is performed. Leave this flag set to Yes. Additionally, database file record access is set here. Currently, only read access is active since all the MFG/PRO web-enabled programs are ready only in the 9.0 release

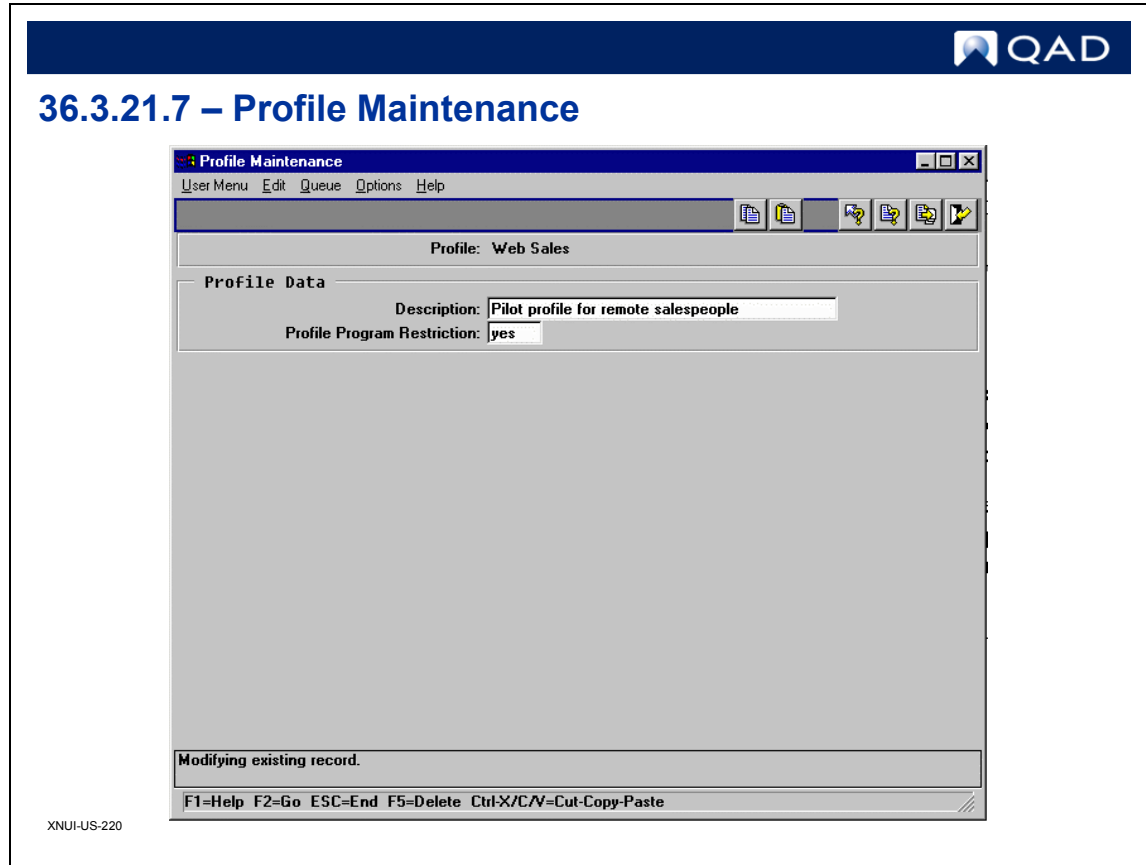
5 Return to 36.3.17.

Notice the Telnet appearance of the window.

6 Return clsisrp.p to Web-enabled and verify.

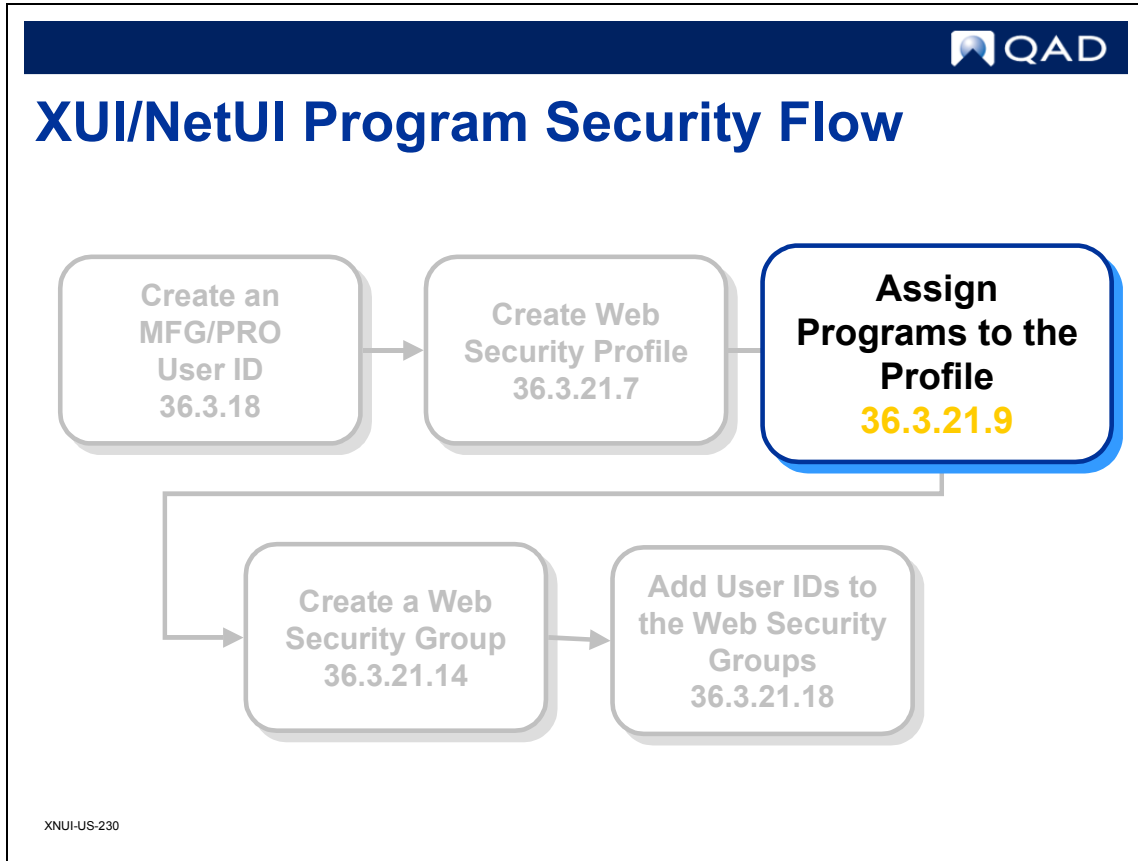


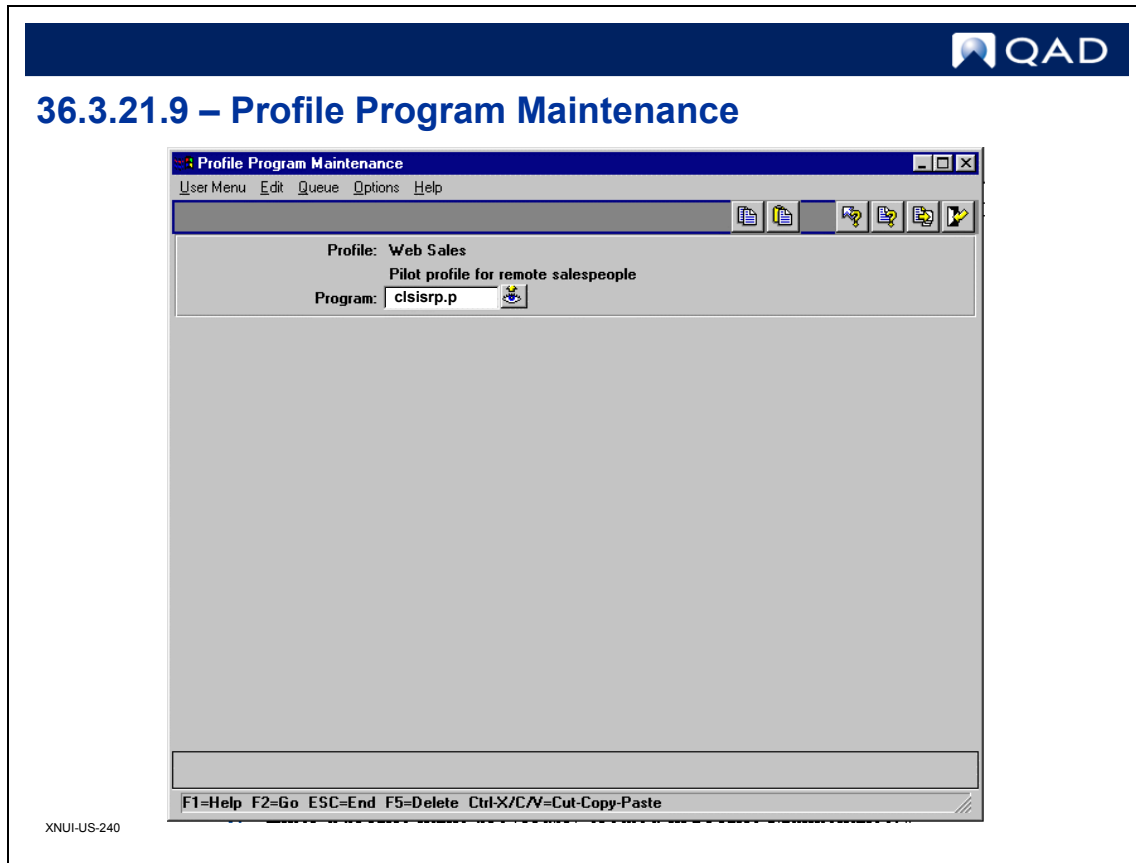
XUI/NetUI Program Security Flow



Profile Maintenance

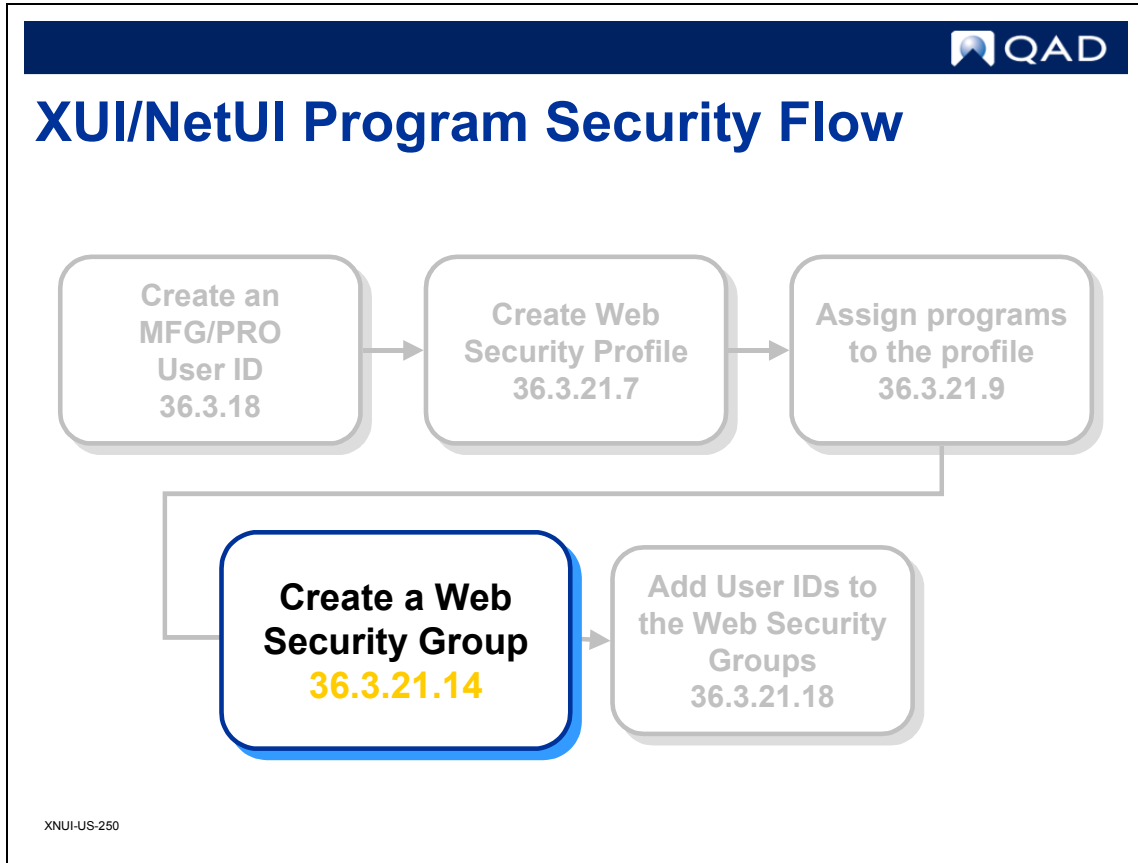
Menu Number 36.3.21.7

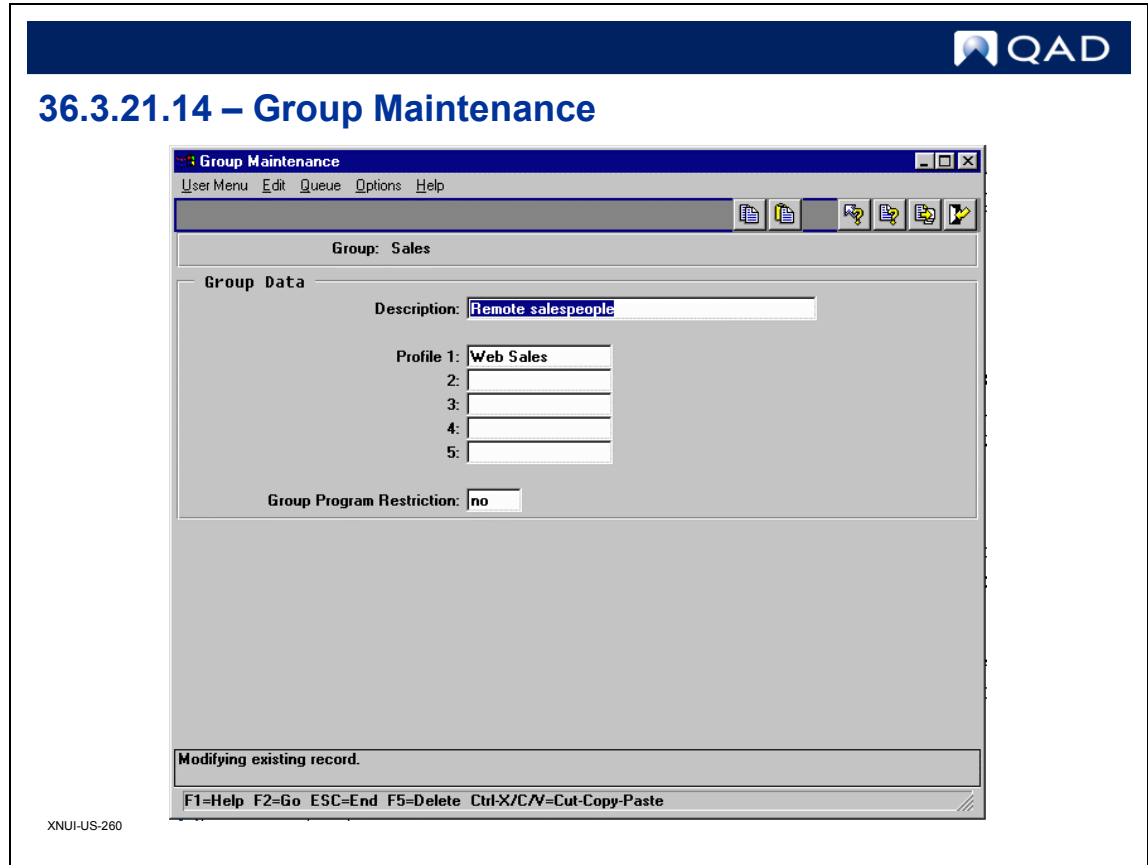




Profile Program Maintenance

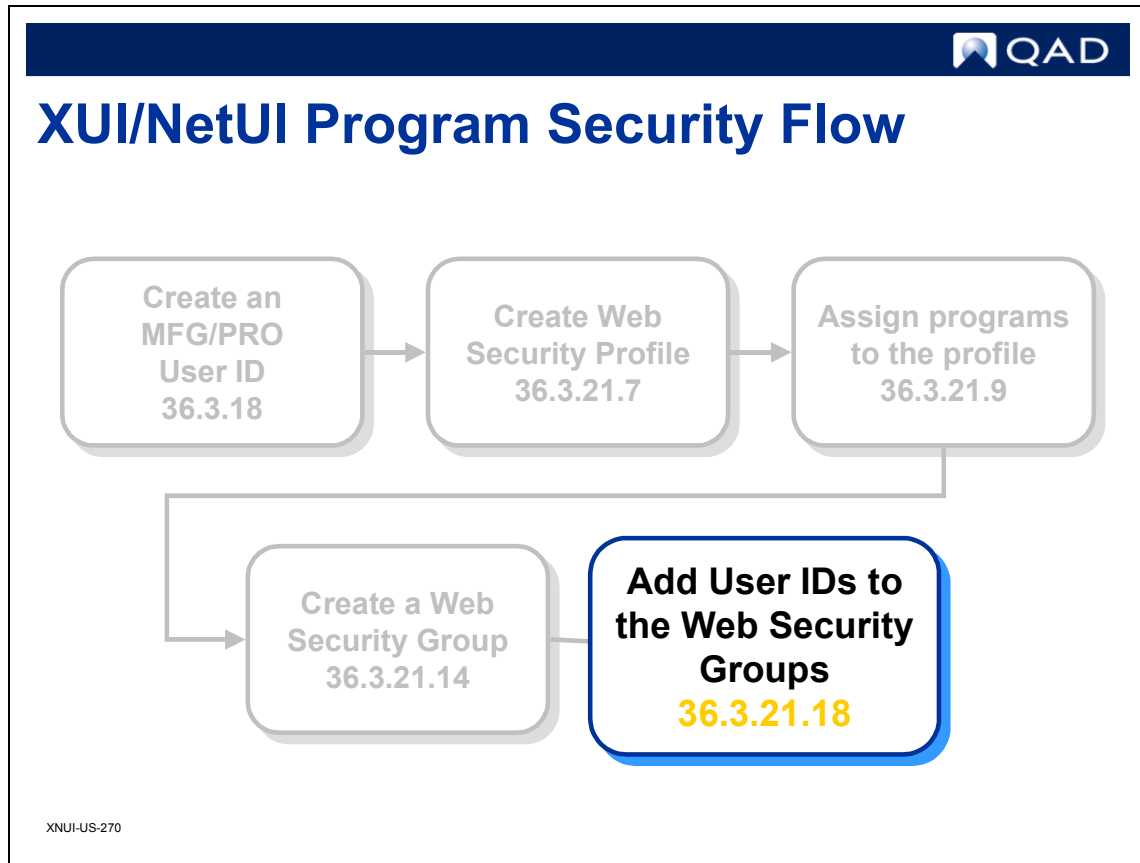
Menu Number 36.3.21.9

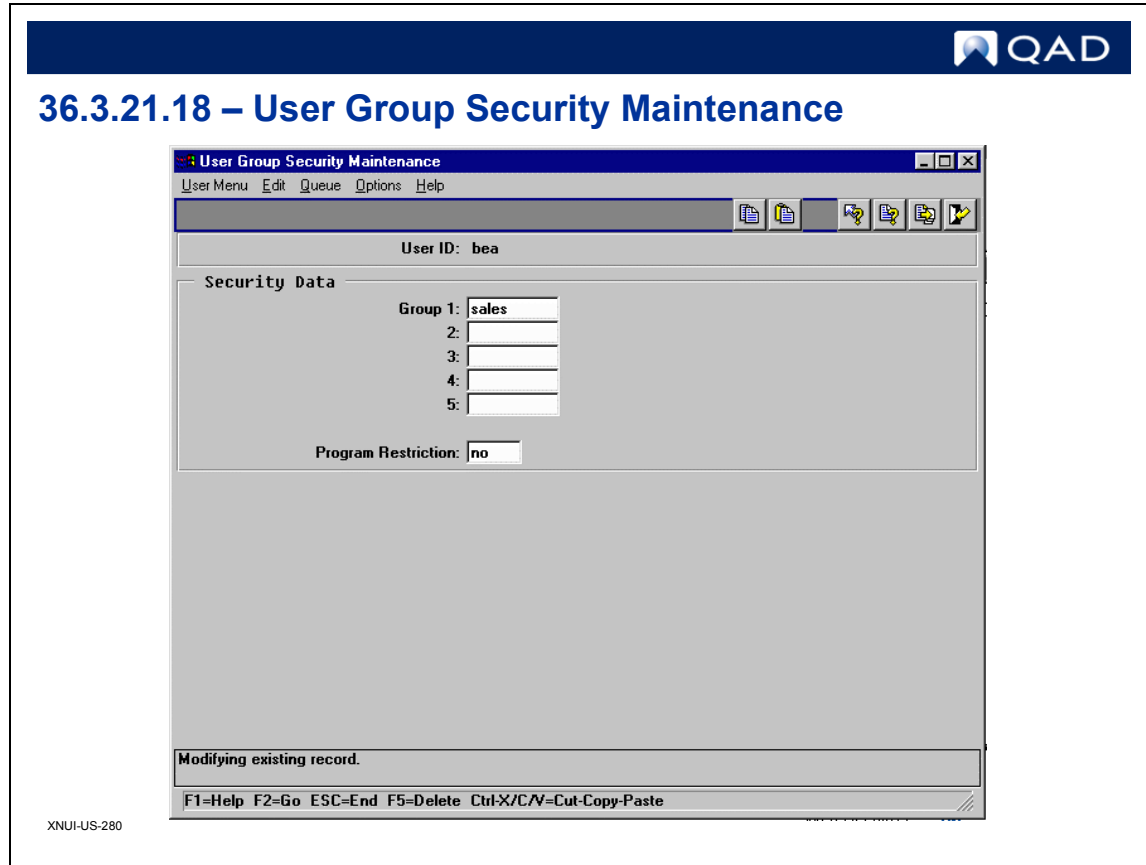




Group Maintenance

Menu Number 36.3.21.14





User Group Security Maintenance

Menu Number 36.3.21.18



Exercise

Security Program Restriction Exercise



XNUI-US-290

Exercise—Security Program Restriction

The purpose of this lab is to restrict a user's program access to specific sales order report

- 1 Go to menu Menu Password Maintenance 36.3.1 and disable Purchase Order Maintenance 5.7 for your three letter initials plus "admin" user (xxxadmin)
 - a Enter the following:

Menu	5
Selection	7
Password	!xxxadmin
- 2 Set up a profile for Web Customers.

- a** Go to menu option 36.3.21.7 Profile Maintenance
- b** Enter the following:

Profile	Your three initials plus "webcust": xxxWebCust
Description	Your initials plus " Web Customer Profile": xxx Web Customer Profile
Profile Program Restriction set to No	

Setting this value to "No" does not restrict all users assigned this profile to run only the programs listed in the profile. This flag can be set to "YES" at the group or user level which you will see later in the exercise.
- 3** Assign programs to the profile.
 - a** Go to menu option 36.3.21.9 Profile Program Maintenance.
 - b** Enter the following:

Profile	Your three initials plus "WebCust": xxxWebCust
Program	sobr009
- 4** Repeat step 4 for the following programs: sopirp01, sosorp01, sosorp08
- 5** Create a NetUI Group of customers that are Buyers and associate it with the profile.

Remember these groups are different from the normal MFG/PRO login groups.

 - a** Go to menu option 36.3.21.14 Group Maintenance.
 - b** Enter the following:

Description	Your initials plus " Buyers Group ": xxx Buyers Group
Profile:	Your initials plus "WebCust": xxxWebCust
Group Program Restriction:	No
- 6** Assign the MFG/PRO User IDs to the NetUI Group.
 - a** Go to menu option 36.3.21.18 User Group Security Maintenance.
 - b** Enter the following:

User ID	Your three initials plus "1": xxx1
Group	Your initials plus " Buyers": xxxBuyers
Program Restriction Flag:	Yes

c Enter the following:

User ID Your three initials plus "2": xxx2
 Group Your initials plus " Buyers": xxxBuyers
 Program Restriction Flag: Yes

d Enter the following:

User ID Your three initials plus "admin": xxxadmin
 Group Your initials plus " Buyers": xxxBuyers
 Program Restriction Flag: No

You set the Program Restriction Flag here since it has not been set at the group or profile level. This will secure all other programs except those explicitly associated to the profile for this user. If set to "No" at this level, the user defaults to standard MFG/PRO security.

7 Test it

a Select "Application" from the Main Menu Bar.

b Select "Sign On."

c Log in as your three initials plus "1": xxx1

d Go to menu option 7.1.

Notice all options are grayed out except the sales order reports

e Run the program sobr009 with no selection criteria.

Record the unique sold-to customer values listed in the browse, and exit the report after documenting.

f Select "Application" from the Main Menu Bar.

g Select "Sign On"

h Log in as your three letter initials plus "admin": xxxadmin

i Go to menu option 36.3

Notice that all options are available except for Purchase Order Maintenance 5.7 resulting from setting the Program Restriction Flag to "No" for the user which invokes standard MFG/PRO security. Recall in step 1 that we restricted xxxadmin from this program.

j Go to "Options" from the Main Menu Bar.

k Select Menu Hiding.

Note the appearance of menu selection 5.7 as you toggle this option.

Note User Option Maintenance 36.20.10.1 disables menu hiding if you do not want users to have this option toggle on the user interface menu.



Securing Records in XUI/NetUI

- ◆ Overview
 - Security can be established to restrict which data records a user can access
 - Programs that are available to the users will only reflect data allowed by the data record security features
 - Security can be applied to all users in a group by associating that group to a profile with data record restrictions

XNUI-US-300

Securing Records in XUI/NetUI



Securing Records in XUI/NetUI

- ♦ Definitions
 - Rules – logical expressions which can be evaluated to determine data record access
 - Rules are associated to profiles
 - 3 types – Field, Logical, and Dual Rules
 - Constants – A generic variable identifying a category of data that gets compared with a value of a database field or a logical when a rule is evaluated – Example: so_slspsn[1] EQ SALESID
 - Constants must be assigned a data type and a value

XNUI-US-310

Definitions



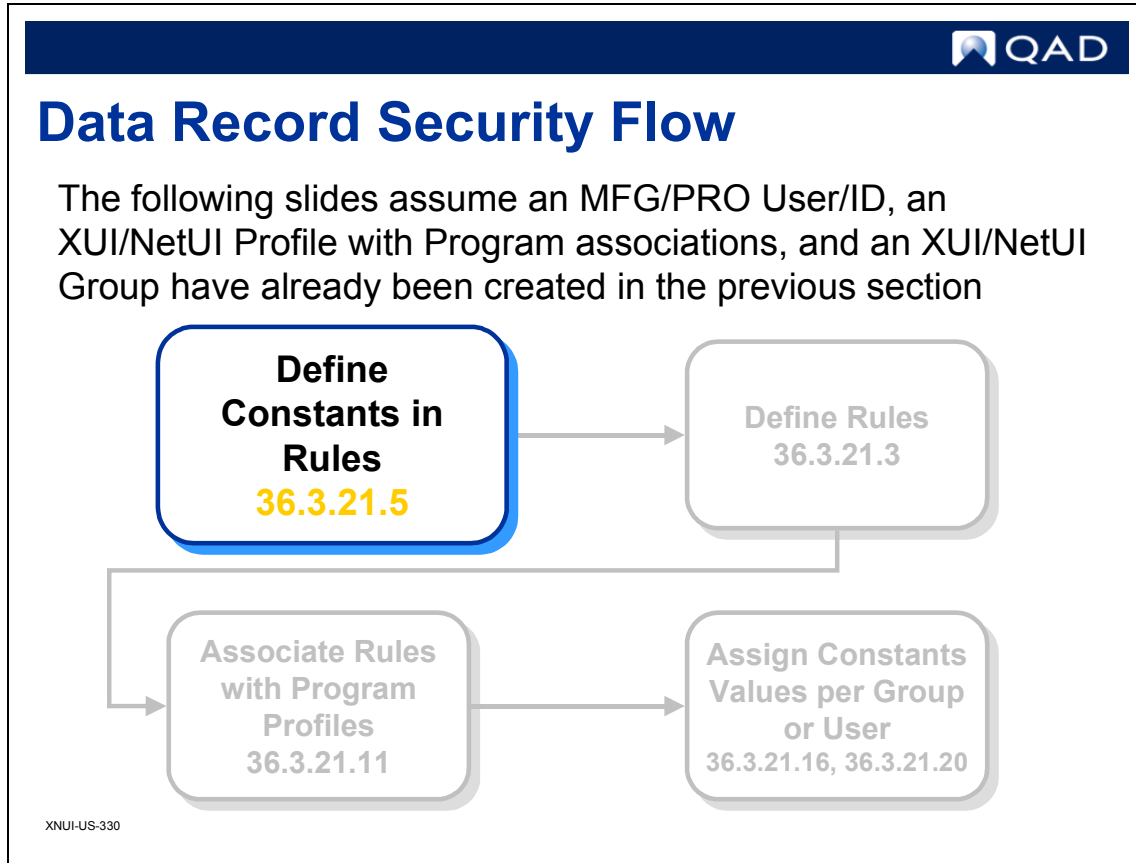


Rules

- ♦ Rules must reference a database file/field
- ♦ Field Rule
 - Compares the value of a Constant against the value in a database field
- ♦ Logical Rules
 - A Constant value of Yes/No is assigned to control data record access
- ♦ Dual Rule
 - Multiple Rules can be joined together via an operator to create complex rules

XNUI-US-320

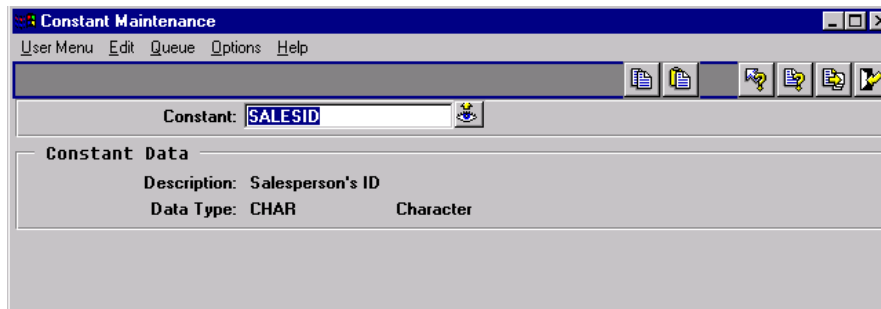
Rules



Data Record Security Flow



36.3.21.5 – Constant Maintenance

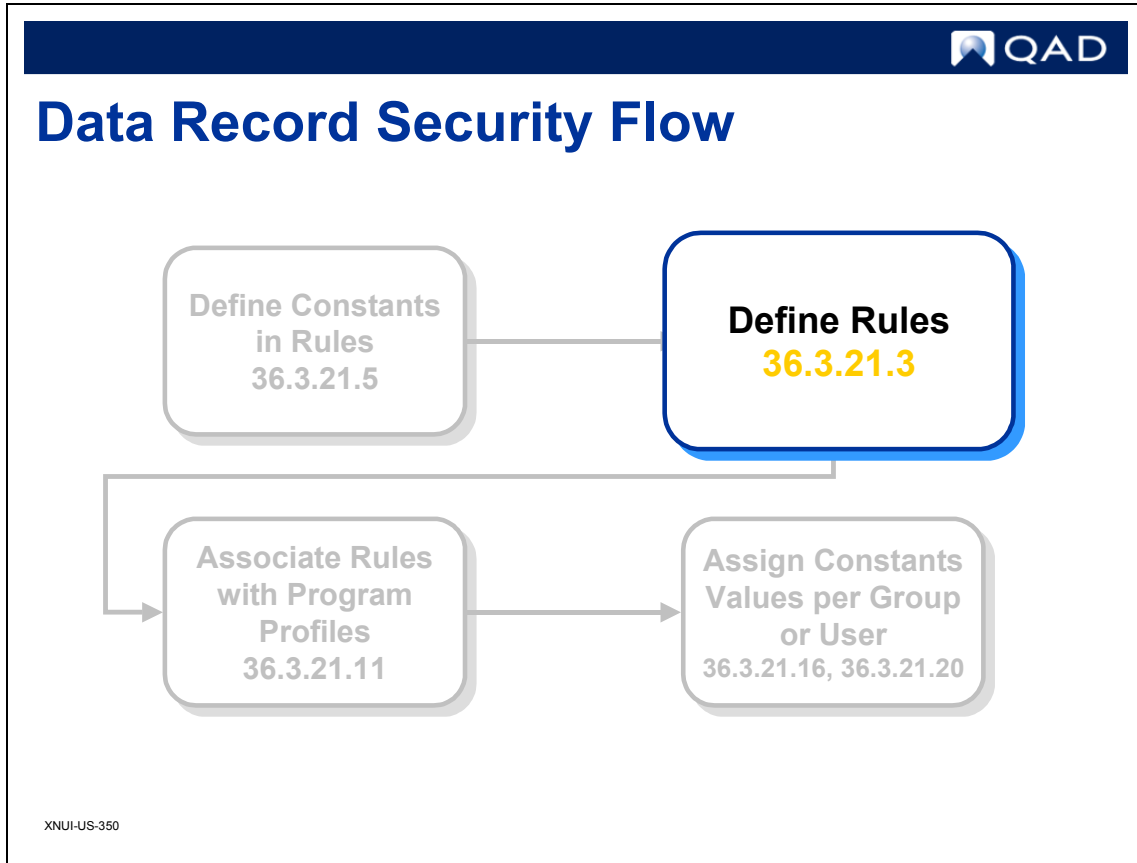


- ◆ Use Constant Maintenance to define data types
- ◆ Constants can also be defined when creating rules

XNUI-US-340

Constant Maintenance

Menu Number 36.3.21.5



36.3.21.3 – Rule Maintenance: Field

The screenshot shows the 'Rule Maintenance' window with the following details:

- Rule:** Field1
- Description:** Restrict salespeople to their own sales id
- Rule Data:**
 - Type:** Field Rule (selected, highlighted with a red box and an arrow)
 - Table:** so_mstr
- Rule Condition:**

Field	Operator	Constant
so_slspn[1]	MT	SALESID

- ♦ Field rules use database values to compare against constant values

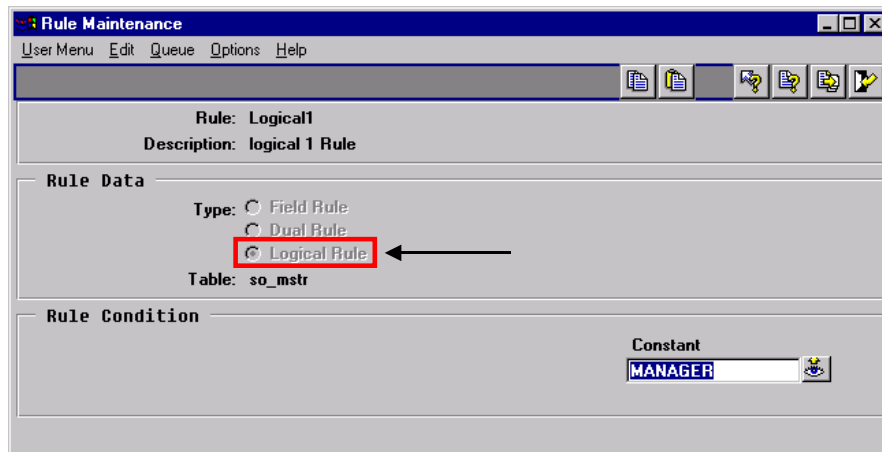
XNUI-US-360

Rule Maintenance

Menu Number 36.3.21.3

Rule Type = Field Rule

36.3.21.3 – Rule Maintenance: Logical



The screenshot shows the 'Rule Maintenance' window with the following details:

- Rule:** Logical1
- Description:** logical 1 Rule
- Rule Data:**
 - Type:** Radio buttons for Field Rule, Dual Rule, and Logical Rule. The 'Logical Rule' option is selected and highlighted with a red box and an arrow.
 - Table:** so_mstr
- Rule Condition:**
 - Constant:** MANAGER

- ♦ Logical rules use constant yes/no value to control data record access by group or user

XNUI-US-370

Rule Type = Logical Rule

36.3.21.3 – Rule Maintenance: Dual

The screenshot shows the 'Rule Maintenance' window with the following details:

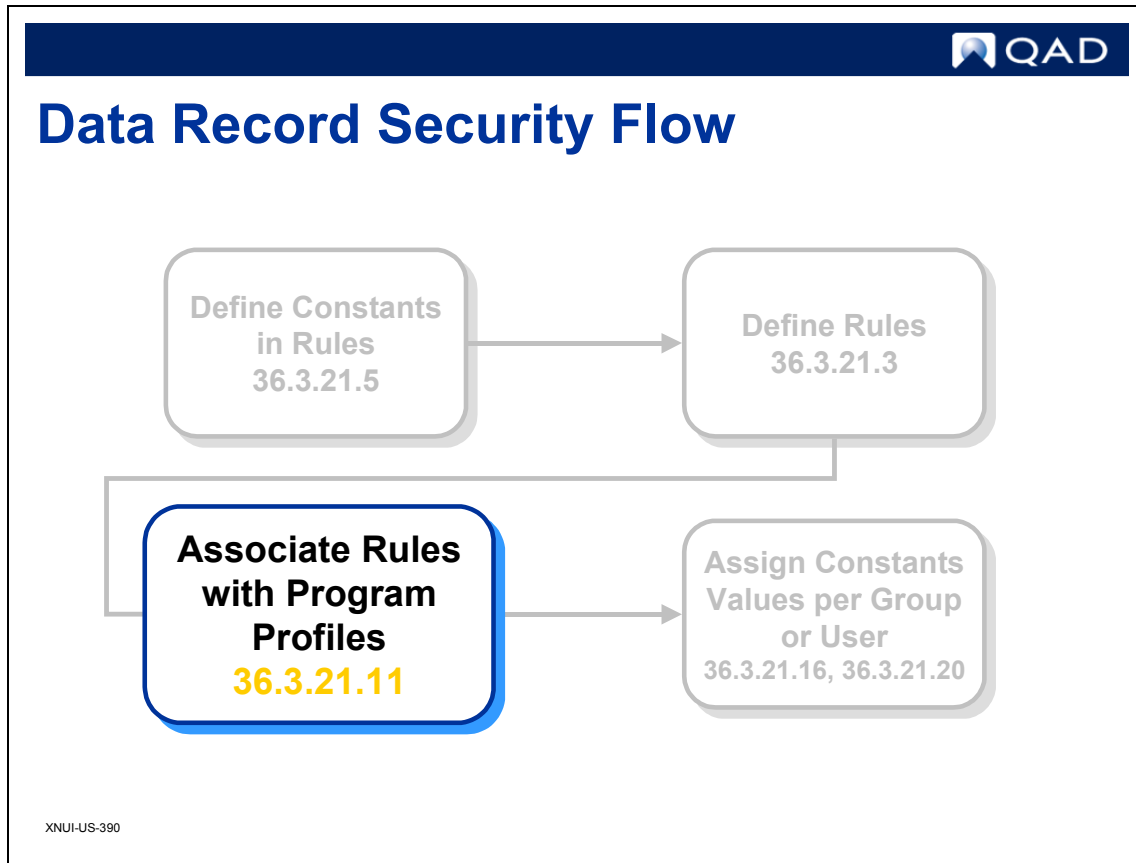
- Rule:** Dual1
- Description:** logical 1 OR'd with Field 1
- Rule Data:**
 - Type:** ☒ Dual Rule (highlighted with a red box and an arrow), ☐ Field Rule, ☐ Logical Rule
 - Table:** so_mstr
- Rule Condition:**

Rule	Operator	Rule
Field1	OR	Logical1

- ♦ Dual rules join two other rules with an operator to create complex access logic

XNUI-US-380

Rule Type = Dual Rule



36.3.21.11 – Profile Program Rule Maintenance: Field Rule

The screenshot shows a window titled "Profile Program Rule Maintenance" with a menu bar (User Menu, Edit, Queue, Options, Help) and a toolbar. The main form contains the following fields and sections:

- Profile:** Web Sales (with a help icon)
- Program:** sosorp02
- Rule:** Field1
- Rule Condition:** so_slspsn[1] Matches SALESID
- Categories:**
 - Create: no
 - Delete: no
 - Read: yes
 - Write: no

Additional text on the right side of the form includes "Pilot profile for remote salespeopl" and "Restrict salespeople to their own s".

- ◆ Associates a Rule to a Program and Profile when record level security is required

XNUI-US-400

Profile Program Rule Maintenance

Menu Number 36.3.21.11

Rule Type = Field Rule



36.3.21.11 – Profile Program Rule Maintenance: Logical Rule

The screenshot shows a window titled "Profile Program Rule Maintenance" with a menu bar (User Menu, Edit, Queue, Options, Help) and a toolbar with icons for file operations and help. The main area displays the following information:

Profile: Web Sales	Pilot profile for remote salespeopl
Program: sobr009	
Rule: Logical1	logical 1 Rule

Below this, there is a section for "Rule Condition" with the value "MANAGER". At the bottom, a "Categories" section contains four fields: "Create: no", "Delete: no", "Read: yes" (with a text input field), and "Write: no".

- ◆ Associates a Rule to a Program and Profile when record level security is required

XNUI-US-410

Rule Type = Logical Rule

36.3.21.11 – Profile Program Rule Maintenance: Dual Rule

The screenshot shows a window titled "Profile Program Rule Maintenance" with a menu bar (User Menu, Edit, Queue, Options, Help) and a toolbar. The main area displays the following information:

Profile: Web Sales	Pilot profile for remote salespeopl
Program: sobr009	
Rule: Dual1	logical 1 OR'd with Field 1

Below this is a section labeled "Rule Condition" containing "Field1 OR Logical1".

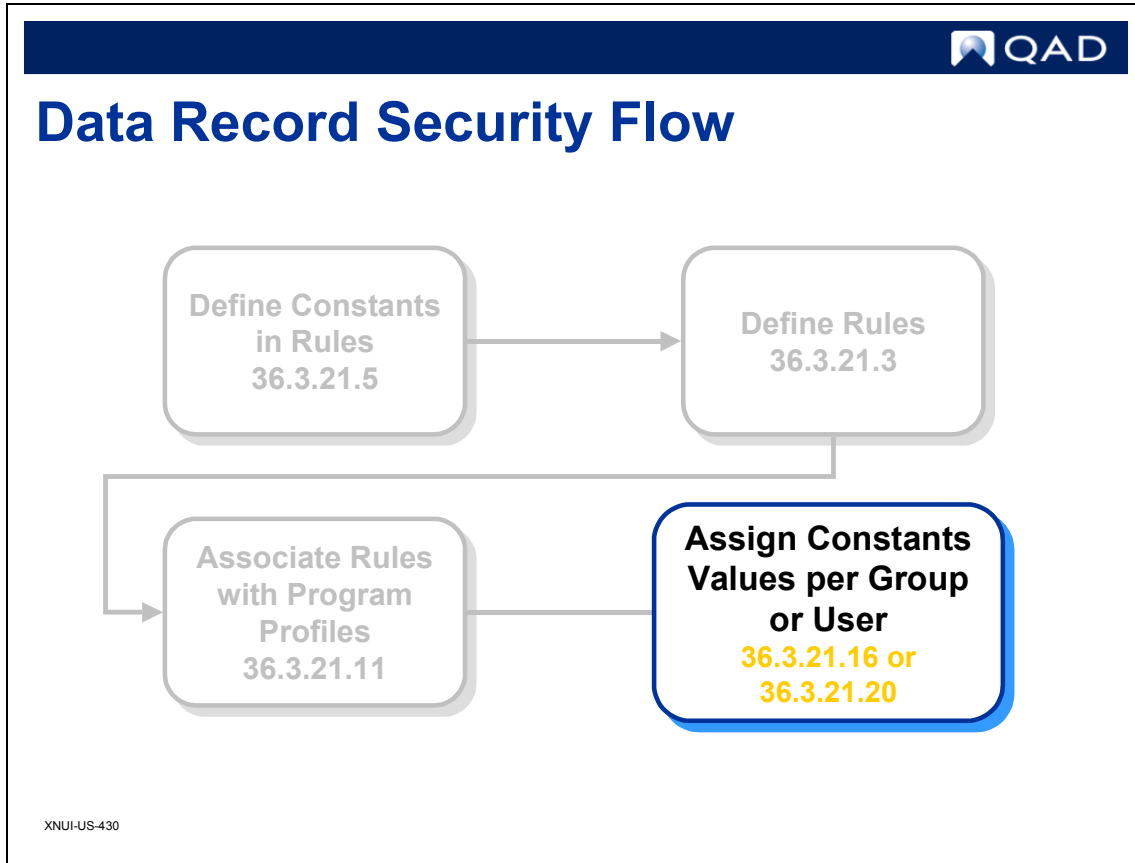
At the bottom is a section labeled "Categories" with the following settings:

Create: no	Delete: no	Read: ☒ yes	Write: no

- ◆ Associates a Rule to a Program and Profile when record level security is required

XNUI-US-420

Rule Type = Dual Rule





36.3.21.20 – User Constants Value Maintenance

User Constants Value Maintenance

User Menu Edit Queue Options Help

User ID: s100

Constant: SALESID

User Constant Value

Type: Character

Value: s100

- ♦ For each user ID, assigns a unique value to a constant used in a Field Rule
- ♦ Each user in the XUI/NETUI group must be assigned a value or run-time error occurs

XNUI-US-440

User Constants Value Maintenance

Menu Number 36.3.21.20



36.3.21.16 – Group Constants Value Maint

Group Constants Values Maint

User Menu Edit Queue Options Help

Group: sales
Constant: manager

Group Constant Value

Type: Logical
Value: no

- ♦ For logical constants, when fewer users are authorized than are not, set the group constant value to “no”

XNUI-US-450

Group Constants Value Maint

Menu Number 36.3.21.16



36.3.21.20 – User Constants Value Maintenance

User Constants Value Maintenance

User Menu Edit Queue Options Help

User ID: s999
Constant: Manager

User Constant Value

Type: Logical
Value: yes

- ◆ Create user constant value records to set the logical constant to “yes” for exceptions to the group constant value

XNUI-US-460

User Constants Value Maintenance

Menu Number 36.3.21.20



Exercise

Security Data Record Restriction Exercise



XNUI-US-470

Exercise—Security Data Record Restriction

The purpose of this lab is to restrict the Sales Order Browse to only display sales orders assigned to a particular user.

Define a logical constant to use when testing if a user is an Administrator.

1 Go to menu option 36.3.21.5 Constant Maintenance.

a Enter the following:

Constant	Your initials plus "IsAdmin": xxxIsAdmin
Description	Your initials plus " Define logical constant to test for admin users":
Data Type	Logical

Define three types of Rules: Logical, Field, and Dual to demonstrate record restriction

2 Go to menu option 36.3.21.3 Rule Maintenance

Define a logical rule to determine if a user is an administrator

a Enter the following:

Rule	Your initials plus "AdminUser"xxxAdminUser
Description	Rule to test for administrators
Type	Logical Rule
Table	so_mstr
Rule Condition Constant	Your initials plus "IsAdmin" xxxIsAdmin

Define a field rule to match customer number values against the sold-to customer field in the Sales Order Master Table

b Enter the following:

Rule	Your initials plus "CustNum": xxxCustNum
Description	Rule to match customer number with sold-to customer field
Type	Field Rule
Table	so_mstr
Rule Condition Field	so_cust
Rule Condition Operator	EQ
Rule Condition Constant	Your initials plus "SoldTo": xxxSoldTo

Define a Dual rule that combines the logical xxxAdminUser rule with the xxxCustNum field rule to allow administrator users to view sales order records of other users

c Enter the following:

Rule	Your initials plus "WebAdmin": xxxWebAdmin
Description	Rule to combine xxxAdminUser and xxxCustNum rules
Type	Dual Rule
	xxxAdminUser OR xxxCustNum

Assign a value to the xxxIsAdmin constant to default all users in the group xxxBuyers to a logical value of "No."

3 Go to menu option 36.3.21.16 Group Constants Value Maintenance.

a Enter the following:

Group	Your initials plus "Buyers": xxxBuyers
Constant	Your initials plus "IsAdmin" xxxIsAdmin
Type	Fills in automatically
Value	no

Assign specific values to the xxxSoldTo constant for each user in User Constant Value Maintenance. This will override any value set at the Group Constant Value Maintenance.

4 Go to menu option 36.3.21.20 User Constants Value Maintenance.

a Enter the following:

Userid	Your initials plus "admin": xxxadmin
Constant	Your initials plus "IsAdmin" xxxIsAdmin
Type	Fills in automatically
Value	yes

b Enter the following:

Userid	Your initials plus "1": xxx1
Constant	Your initials plus "SoldTo" xxxSoldTo
Type	Fills in automatically
Value	1005000

c Enter the following:

Userid	Your initials plus "2": xxx2
Constant	Your initials plus "SoldTo" xxxSoldTo
Type	Fills in automatically
Value	1012000

Assign programs and rules to the xxxWebCust Profile.

5 Go to menu option 36.3.21.11 Profile Program Rule Maintenance.

a Enter the following:

Profile	Your initials plus "WebCust": xxxWebCust
Program	sobr009
Rule	Your initials plus "WebAdmin": xxxWebAdmin

Read	Yes (at least one access type must be activated)
- b** Enter the following:
- | | |
|---------|--|
| Profile | Your initials plus "WebCust": xxxWebCust |
| Program | sopirp01 |
| Rule | Your initials plus "WebAdmin": xxxWebAdmin |
| Read | Yes (at least one access type must be activated) |
- c** Enter the following:
- | | |
|---------|--|
| Profile | Your initials plus "WebCust": xxxWebCust |
| Program | sosorp08 |
| Rule | Your initials plus "AdminUser": xxxAdminUser |
| Read | Yes (at least one access type must be activated) |
- d** Enter the following:
- | | |
|---------|--|
| Profile | Your initials plus "WebCust": xxxWebCust |
| Program | sosorp01 |
| Rule | Your initials plus "WebAdmin": xxxWebAdmin |
| Read | Yes (at least one access type must be activated) |
- 6** Test it.
- a** Go to Application from the Main Menu Bar.
- b** Select SignOn.
- c** Log in as your initials: xxx1
- d** Go to menu option 7.1.2
- e** Run the report with no selection criteria.
Notice only customer number 1005000 is represented on the report. Exit the report after viewing.
- f** Run the program sosorp08 with no selection criteria.
Notice that no records are displayed since this program uses the xxxAdminUser rule only.
- g** Go to Application from the Main Menu Bar.
- h** Select Sign On.

316 MFG/PRO TRAINING GUIDE — XUI/NETUI & EB DESKTOP SYSTEM OVERVIEW

- i** Log in as xxxadmin.
- j** Go to menu option 7.1.2
- k** Run the report with no selection criteria.
Notice all sold-to customer number are represented on the report. Exit the report after viewing



Reports and Utilities Menu

- ♦ Most maintenance functions have a browse option to view current setups
- ♦ Additional Reports are found on menu 36.3.21.23
- ♦ For example:
 - Program Information Update
 - Profile Copy Utility
 - Browse UI Records Maintenance

XNUI-US-480

Web Security Utilities



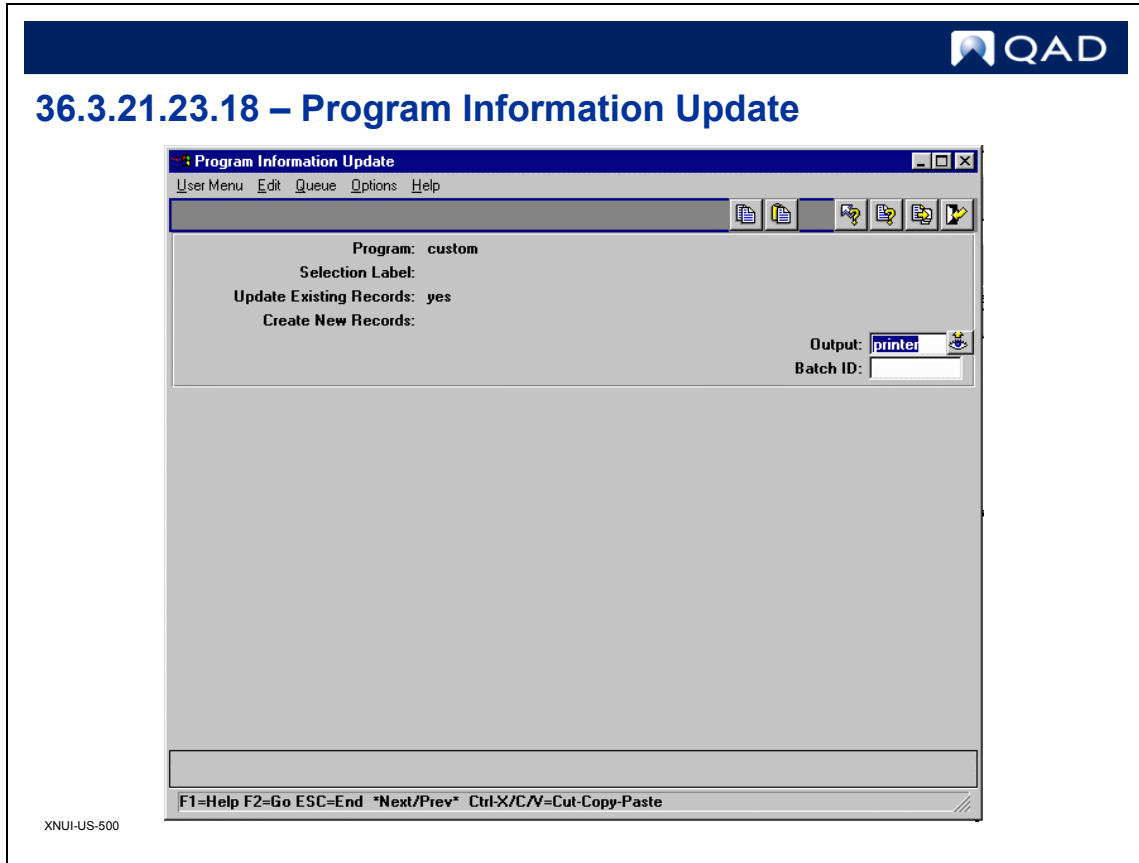
Program Information Update

- ♦ Utility to automatically update the Program Information File
 - Includes creation of accessed table records
- ♦ Helpful for creating the Program Information File entries for custom programs
 - Searches custom code for accessed tables and creates appropriate entry
- ♦ Covered in Customizing XUI/NetUI module

XNUI-US-490

Program Information Update





Menu Number 36.3.21.23.18



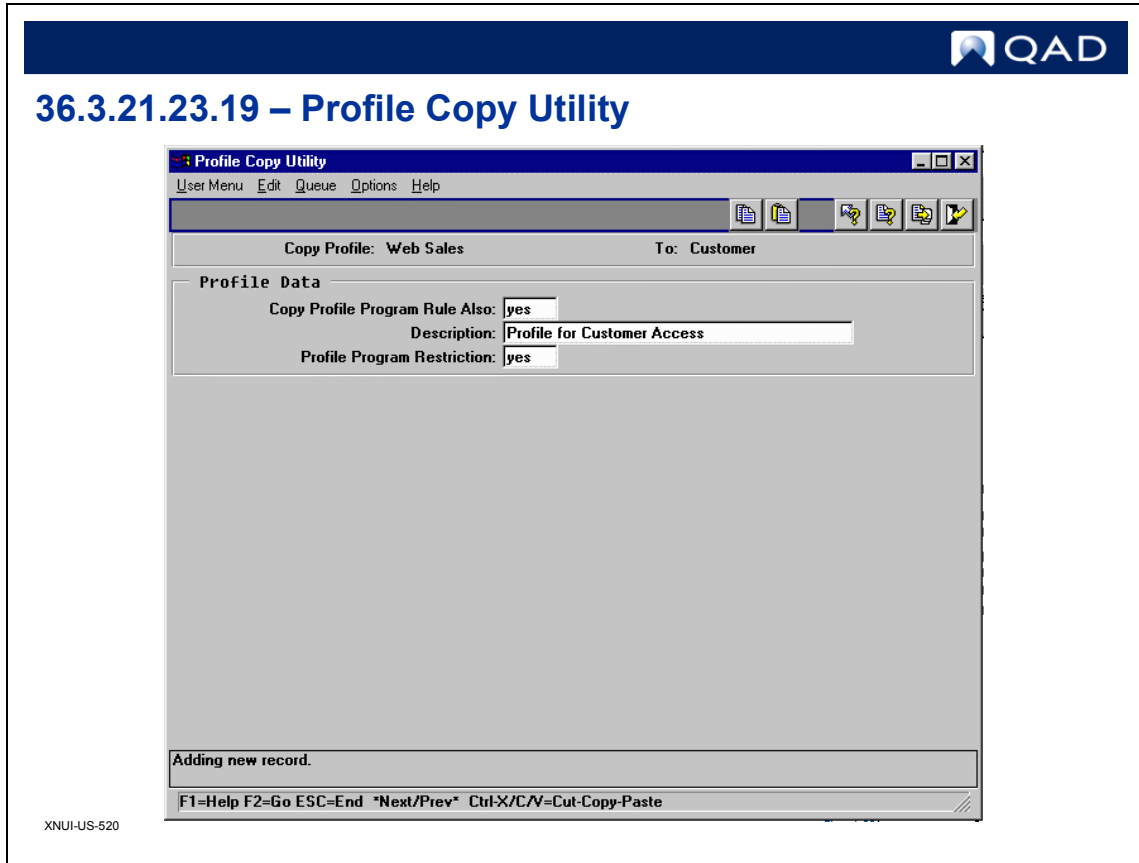
Profile Copy Utility

- ♦ Allows creation of a new profile by copying an existing profile including the program associations
- ♦ Optionally can be set to copy any existing profile program rules also

XNUI-US-510

Profile Copy Utility





Menu Number 36.3.21.23.19

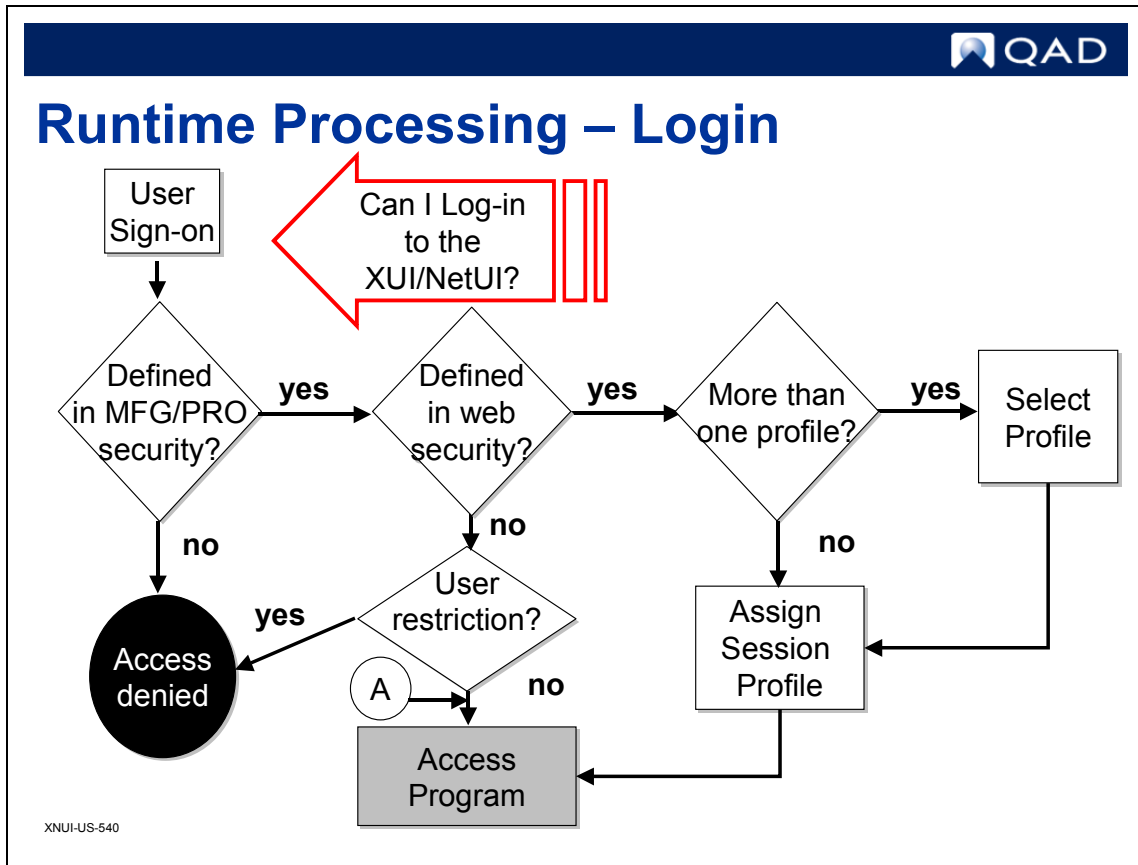


Browse UI Records Maintenance

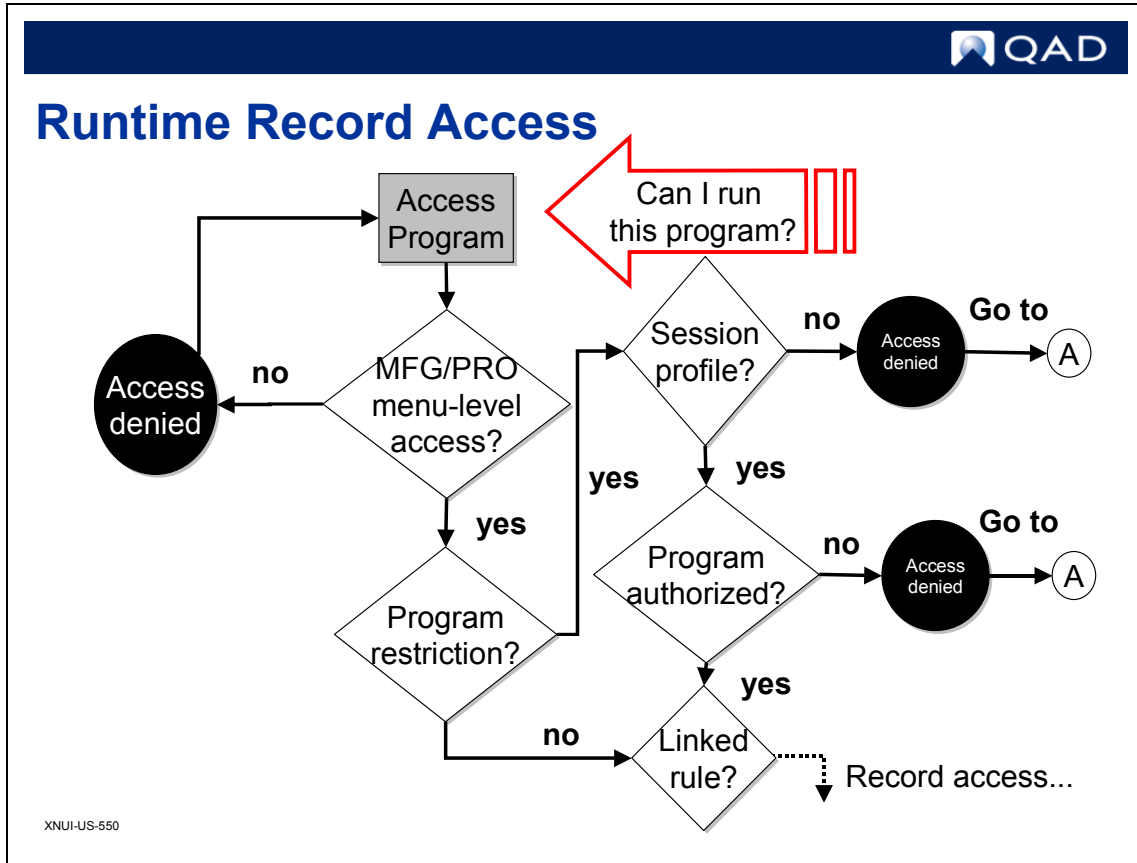
- ◆ Used to delete custom browse definition created by XUI/NetUI users
 - You may mass delete all custom browse definitions for a particular user
 - You may select specific custom browse definitions to delete for a particular user

XNUI-US-530

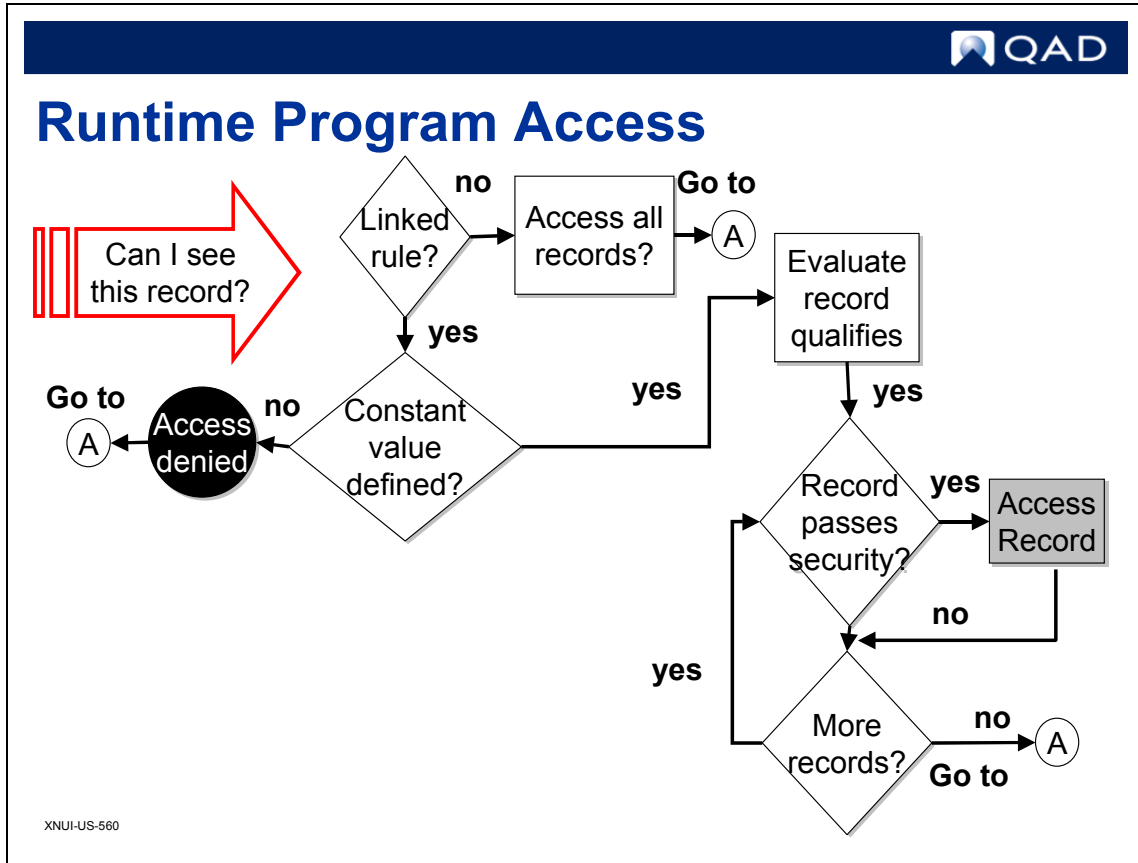
Browse UI Record Maintenance



Runtime Processing



Runtime Record Access





Summary

- ♦ Programs can be secured with the Web security model or the standard security model (menu maintenance)
- ♦ Standard security is enforced for XUI/NetUI users, Web Security is not invoked for Char or GUI users
- ♦ XUI/NetUI security can limit program access for browses and reports

XNUI-US-570

Summary



Summary (continued)

- ♦ XUI/NetUI Security can limit the data access to specified data records on browses and reports
- ♦ XUI/NetUI security always requires creation of users, and may require creation of profiles, groups, rules, and constants
- ♦ Utilities are available to ease administration

XNUI-US-580



Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ♦ URL Links
- ♦ System Security & Performance
- ♦ NetUI Reconfiguration

XNUI-US-590

CHAPTER 10

URL Links





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ **URL Links**
 - ♦ System Security & Performance
 - ♦ NetUI Reconfiguration

XNUI-LI-010



URL Links Overview

- ♦ URL Management
- ♦ Session Monitoring
- ♦ Summary

XNUI-LI-020

URL Links Overview



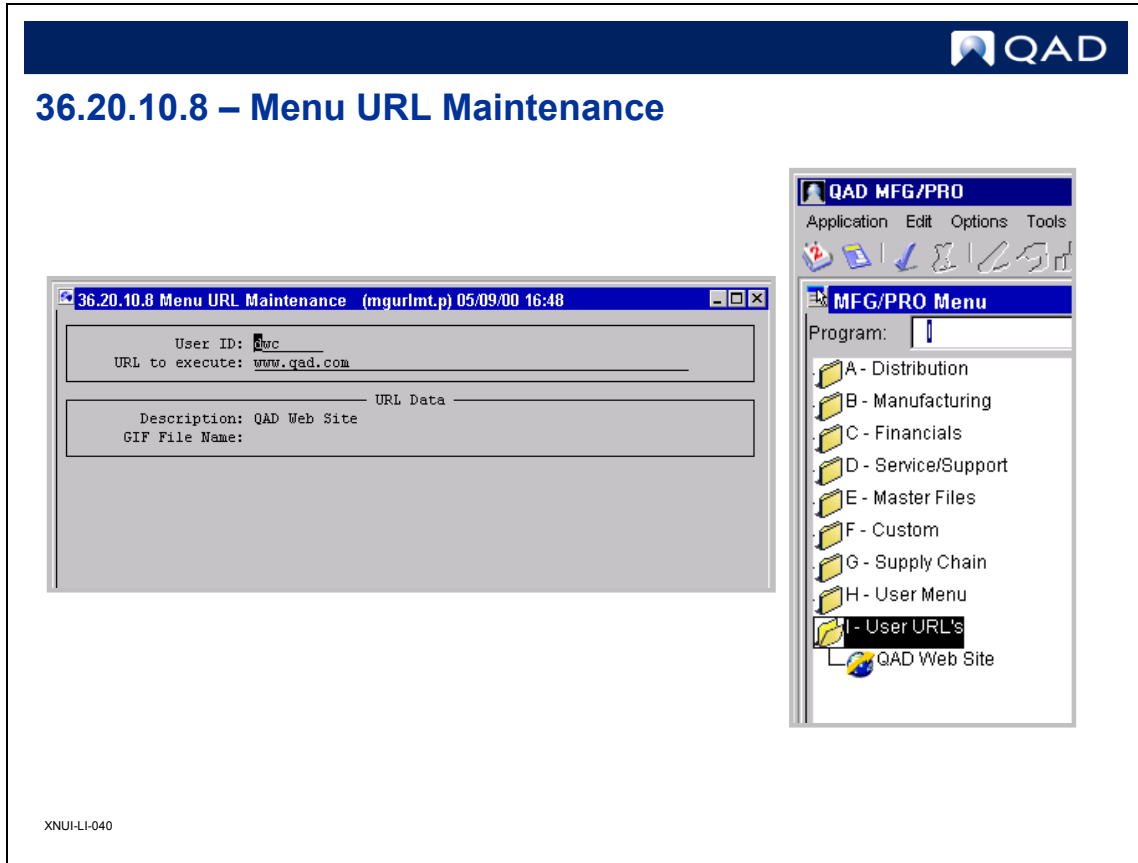
URL Management

- ◆ Menu URL Maintenance
 - Assign intranet/internet URLs to the User URL's Menu
 - Optional GIF files can be used as Icon

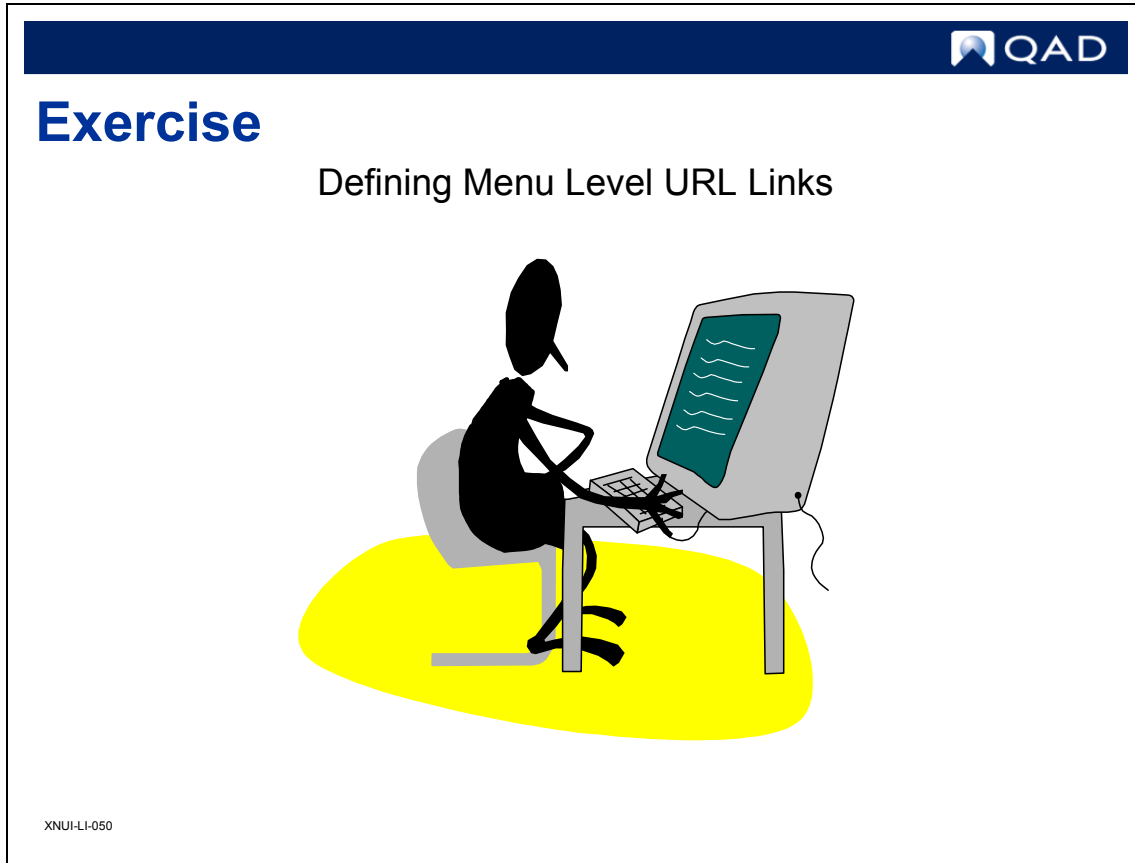
XNUI-LI-030

Menu URL Maintenance





Menu Number 36.20.10.8



Exercise—Defining Menu Level URL Links

- 1 Go to menu 36.20.10.8 Users URL Maintenance.
- 2 Enter your initials plus "2" in the User ID Field (xxx2).
- 3 Enter www.progress.com in the URL to Execute field and press F1.
- 4 Put a description in the Description field and press F1.
- 5 If you have a GIF File to use as the icon you can specify that in the last field.
- 6 Go to Application from Main Menu Bar.
- 7 Select Sign On.

- 8** Log back in as your initials plus "2": xxx2
- 9** Go to the Users URL Folder off of the top-level MFG/PRO Menu (Selection I).
Notice an icon labeled with the description you entered.
- 10** Select the icon you created.
It should take you to www.progress.com.
- 11** Log back in as your initials plus "1" (xxx1) and this icon is not available.



URL Management

- ◆ Browse URL Maintenance
 - Assign intranet/internet URLs to data fields
 - Fields shown in browses can link to URLs

XNUI-LI-060

Browse URL Maintenance



36.20.10.11 – Browse URL Maintenance

36.20.10.11 Browse URL Maintenance (mgburlmt.p) 03/24/00 12:02

Browse: adbr001

User ID: *

Field: cm sort Value: *

Defined URL

URL: http://search.yahoo.com/bin/search?p=#b#cm_sort#e#

Description: Yahoo Search on Company Name

Primary: yes

Scripted URL

URL Script: _____ Determine: _____

Defined URL Parameters

Fields In Browse	URL Substitution String
>cm_addr	#b#cm_addr#e#
cm_sort	#b#cm_sort#e#
ad_phone	#b#ad_phone#e#

F1=Go 2=Help 3=Ins 4=End 7=Recall 8=Clear 9=Prev 10=Next

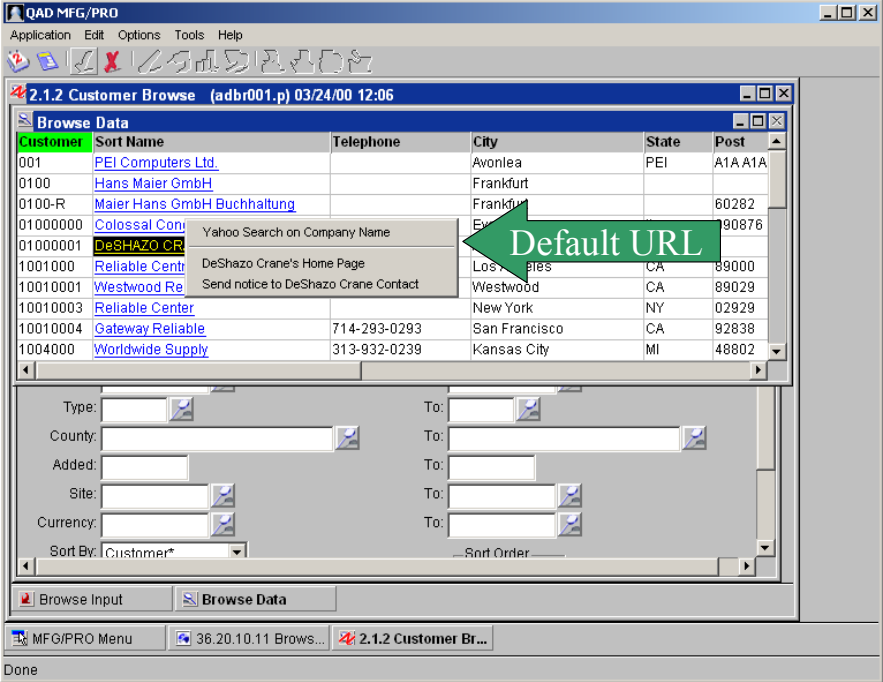
http://search.yahoo.com/bin/search?p=#b#cm_sort#e#

XNUI-LI-070

Menu Number 36.20.10.11



36.20.10.11 – Browse URL Maintenance



Customer	Sort Name	Telephone	City	State	Post
001	PEI Computers Ltd.		Avonlea	PEI	A1A A1A
0100	Hans Maier GmbH		Frankfurt		
0100-R	Maier Hans GmbH Buchhaltung		Frankfurt		60282
01000000	Colossal Con		Ev		90876
01000001	DeSHAZO CR				
1001000	Reliable Centr		Los Angeles	CA	89000
10010001	Westwood Re		Westwood	CA	89029
10010003	Reliable Center		New York	NY	02929
10010004	Gateway Reliable	714-293-0293	San Francisco	CA	92838
1004000	Worldwide Supply	313-932-0239	Kansas City	MI	48802

Type: To:

County: To:

Added: To:

Site: To:

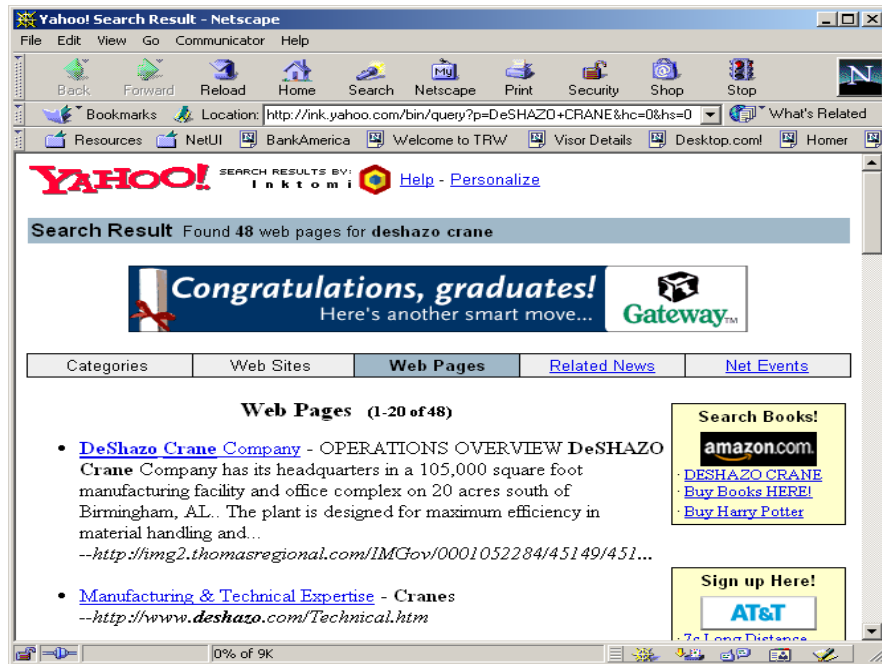
Currency: To:

Sort By: Customer* Sort Order:

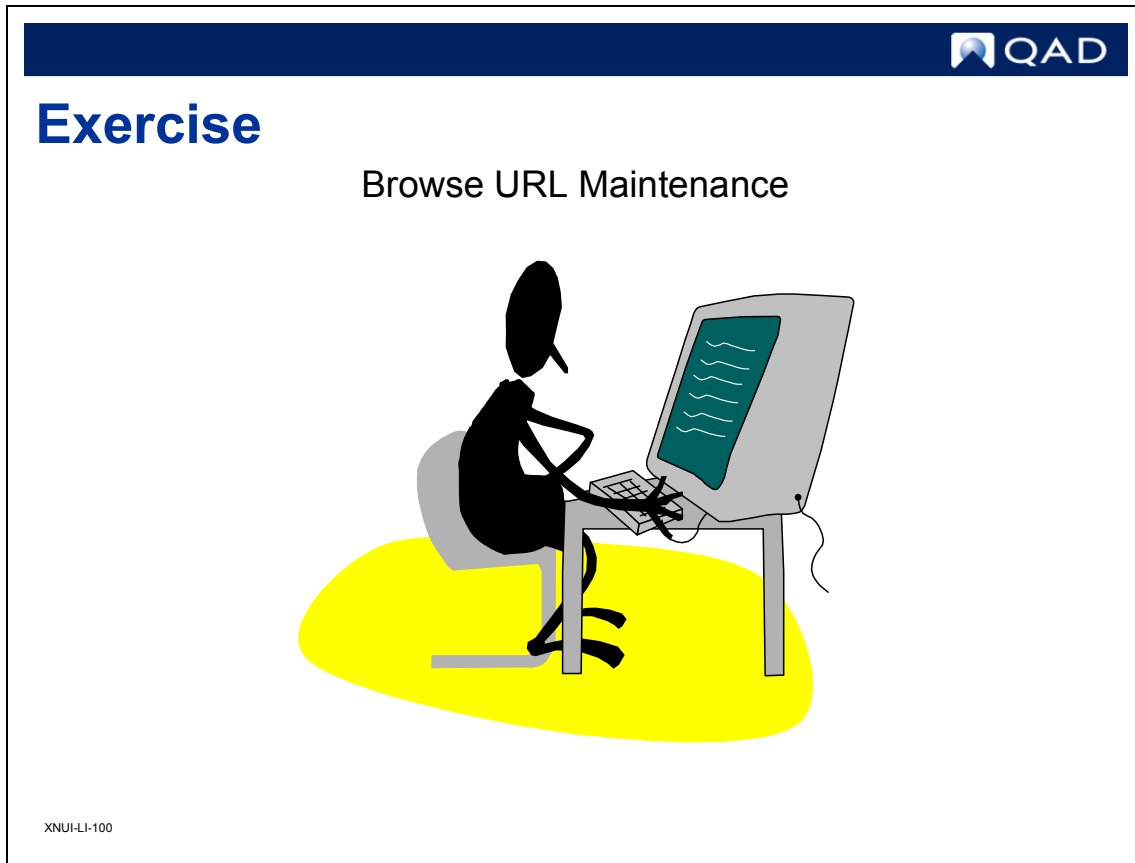
Done

XNUI-LI-080

36.20.10.11 – Browse URL Maintenance



XNUI-LI-090



Exercise—Browse URL Maintenance

- 1 Go to Application from Main Menu Bar.
- 2 Select Sign On.
- 3 Login using your initials plus "2": xxx2

Add yourself as a default printer user to be seen in the default printer browse.

- 4 Go to menu 36.13.4 Printer Default Maintenance.
- 5 Input your initials plus "2" (xxx2) in the User ID field and press F1.
- 6 Select "Terminal "in the Output To field and press F1.

- 7** Go to 36.20.10.11 Browse URL Maintenance and enter the following:.

Browse	mgbr009
User Id	Your initials plus "2": xxx2
Field	upd_userid
Value	Your initials plus "2": xxx2
URL	www.nasdaq.com and press F1
Description	Any valid description and press F1

- 8** Go to menu 36.13.5 Printer Default Browse.

- 9** Run the browse with no selection criteria.

When the browse appear, notice your login is linked.

- 10** Click on your login in the browse window.

Notice it takes you to www.nasdaq.com.



Session Monitoring

- ♦ Session Master Maintenance – 36.20.10.15
 - No maintenance done in this screen
 - Can be used to delete defunct users
 - Specifies a system generated session ID
 - Reflects data/options setup in:
 - User Options
 - User Telnet Options
 - Web Security
 - General Ledger/Financial

XNUI-LI-110

Session Master Maintenance

36.20.10.15 – Session Master Maintenance

QAD MFG/PRO

Application Edit Options Tools Help

36.20.10.15 Session Master Maintenance (mgssmt.p) 05/09/00 17:43

Session ID: 957925075951
User ID: dwc
User Name: Doug Campbell

Session Master

Client IP Address: 167.3.28.63 Security Profile:
Session Timeout: 60 Min Idle Time : 55.28 Min
Active Web: 0 Active Telnet: 1
Number of Records: 100 Menu Substitution: yes

Session Context Detail

Context ID: 1 Logical Database:
Gl Entity: 1000 Current Entity: 1000
Sub Length: 2 Base Currency: USD

F1=Go 2=Help 3=Ins 4=End 5=Delete 7=Recall 8=Clear

XNUI-LI-120

Menu Number 36.20.10.15

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Summary

- ♦ URL Management facilitates ease of use and Web access from within MFG/PRO
- ♦ URL Management allows configuration flexibility
- ♦ Session Master Maintenance shows an Assigned Session ID and Various Types of User Specific Data and Settings

XNUI-LI-130

Summary



Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ URL Links
- ◆ System Security & Performance
- ◆ NetUI Reconfiguration

XNUI-LI-140

CHAPTER 11

System Security and Performance





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ URL Links
- ✓ **System Security & Performance**
 - ♦ NetUI Reconfiguration

XNUI-SP-010



System Security and Performance Overview

- ◆ Secure Communications
- ◆ Improving Performance
- ◆ Troubleshooting Tips

XNUI-SP-020

System Security and Performance Overview



Securing Internal Ports

- ♦ The System Administrator (SA) must consider what ports to expose to the internet and how to secure those ports
 - Telnet service (Port 23)
 - HTTP (Port 80)
 - Database service ports (-H -S)
 - NameServer port
 - WebSpeed ports (broker and agents)
 - AppServer ports (broker and agents)
 - RMI Port

XNUI-SP-030

Secure Communications

Securing Internal Ports





Securing Internal Ports

- ♦ Consider security settings for routers on the network
- ♦ Consider security settings within Web server (user or partial server access)
- ♦ Don't use default ports for access
- ♦ Turn off defaults for listening on a port to deter "sniffing"

XNUI-SP-040



Secure Internet Communication

- ♦ Internet traffic between the XUI/NetUI client and Web server is unsecured
- ♦ To secure browses and reports, enable the Secure Sockets Layer (SSL) applet provided by QAD
- ♦ Reference “Securing Internet Communications for XUI/NetUI” technical bulletin for enabling SSL
- ♦ Maintenance programs use telnet and are not secured in the current release

XNUI-SP-050

Secure Internet Communication



Maximizing Security for Telnet

- ♦ Telnet user IDs are kept in the DB for reference by the telnet login
- ♦ SA's should create generic user IDs restricted to logging into a PROGRESS session only
- ♦ Disable the 36 menu (Mgr Functions) for all XUI/NetUI users; specifically 36.24.1 (Exit to the Operating System)
- ♦ Always "exec" the script for launching PROGRESS to prevent the generic telnet user from getting to the UNIX shell

XNUI-SP-060

Telnet Security



Improving Performance – Client

- ♦ Running Java code from clients
 - To reduce client start-up time, place the Java code on the client or a LAN network share:
 1. Copy HTML files from server to client
 2. Copy .jar file to **ljava** subdir under HTML directory
 3. Add HostName & PortNumber to multinet.html file
 4. Copy .gif or .jpeg files to HTML dir on client
 5. Copy custom .gif files to images subdir on client

XNUI-SP-070

Improving Performance

Client Improvement





Improving Performance – Client

- ◆ Cache Your Telnet Sessions
 - Startup of telnet is an expensive process
 - XUI/NetUI allows telnet sessions to “warm-start”
 - Set in User Option Telnet Maintenance 36.20.10.3
 - Min is how many telnet sessions are waiting in “warm start”
 - Max is how many this user can launch
 - Affects performance, memory, PROGRESS Database connections, and user count

XNUI-SP-080



Improving Performance – Agents

- ♦ Stateless vs. State-aware agents
 - State-aware agents are locked to the requesting web client, even in lieu of active requests
 - Stateless agents are returned to agent pool on completion of request

XNUI-SP-090

Agent Improvement





Improving Performance – Agents

- ◆ State-aware browse conditions
 - Browsers go state-aware (lock to client) when it cannot return all the records in one call, and:
 - User sorts on a non-indexed column
 - Browse returns data set ending on a non-unique key
 - Browse takes an unusually long time to start returning data

XNUI-SP-100



Improving Performance – Agents

♦ Agent usage states and performance

<u>Activity</u>	<u>Agent State</u>	<u>Time Agent Held</u>
Building log-in screen	Stateless	Less than one second
Building menu or desktop	Stateless	Less than one second
Navigating down menu	Stateless	Less than one second
Starting browse	Stateless	Less than one second
Starting report	Stateless	Less than one second
Running report	Stateless	While report generates data
Running a browse for which the # of recs is less than the download size	Stateless	Less than one second
Running a browse for which the # of recs exceeds the download size	Stateless	Less than one second
Running a browse for which the # of recs exceeds the download size	State-aware	While browse is incomplete or until timeout is reached

XNUI-SP-110



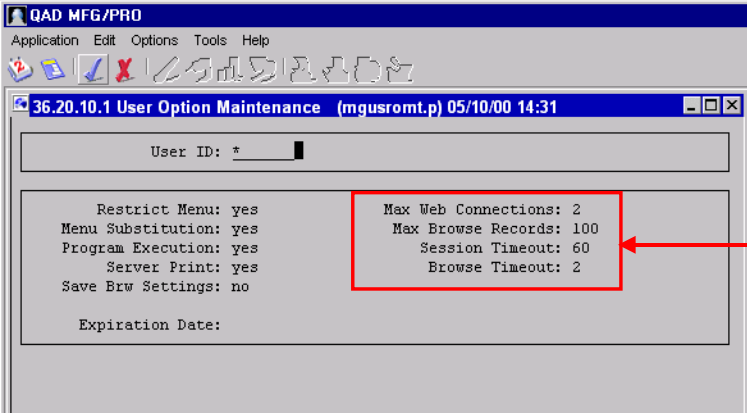
Improving Performance – Agents

- ♦ Optimizing agent settings
 - Define in User Option Maintenance
36.20.10.1
 - *Max Web Connections*
 - *Max Browse Records*
 - *Browse Timeout*
 - *Session Timeout*

XNUI-SP-120



36.20.10.1 – User Option Maintenance

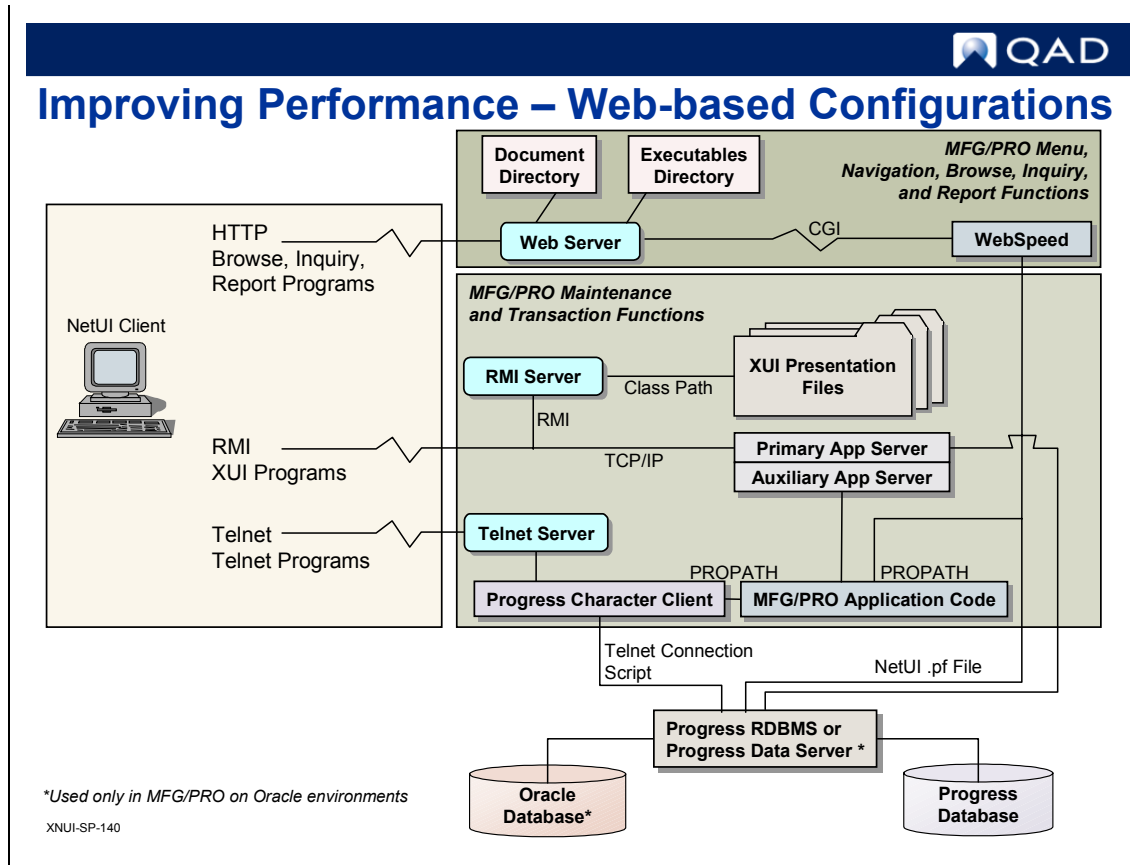


Optimize each User's WebSpeed agent usage

XNUI-SP-130

User Option Maintenance

Menu Number 36.20.10.1



Web-Based Configurations



Troubleshooting Tips

- ♦ Enable Java console to trace XUI/NetUI client requests
 - Useful for troubleshooting telnet script problems
 - Displays:
 - User's home directory
 - Java version
 - Proxy settings (if any)
 - Data and messages between client and WebSpeed (with Session Trace enabled)
 - Error messages

XNUI-SP-150

Troubleshooting Tips

Java Console





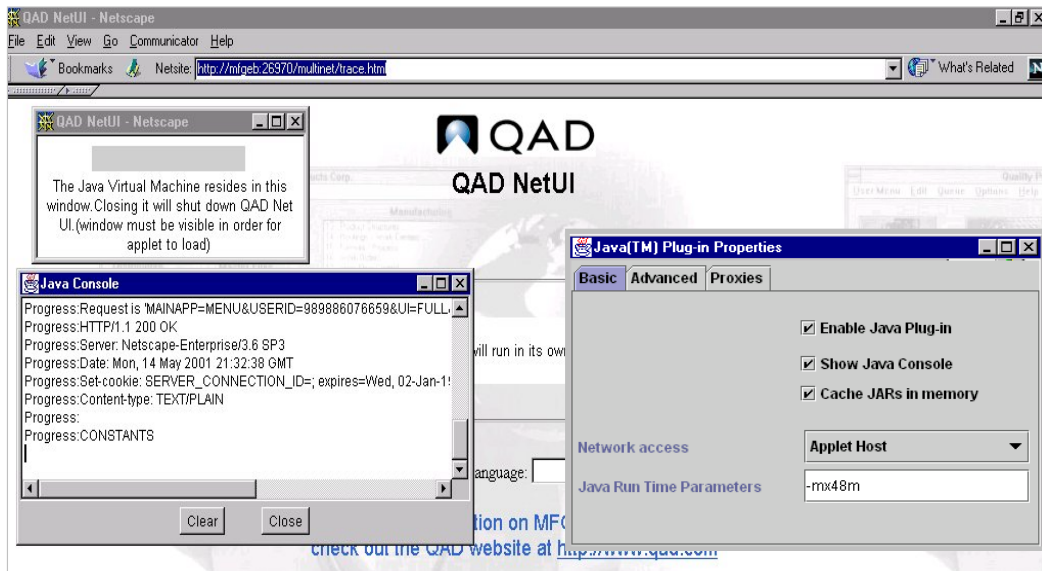
Troubleshooting Tips

- ♦ Java console to trace XUI/NetUI client requests
 - Enable the Java console by:
 1. In Windows, open the Java Plug-in Control Panel from the Start menu
 2. Choose the Basic tab and check Show Java Console
 3. Choose Apply and exit the Control Panel
 4. Restart the browser
 5. Open the trace.html or full.html file in the client browser. A console window opens automatically that you can use for session trace.
 - Reverse these steps (uncheck Show Java Console) to turn off the Java console

XNUI-SP-160

Troubleshooting Tips

- ♦ Using the Java Console along with trace.html

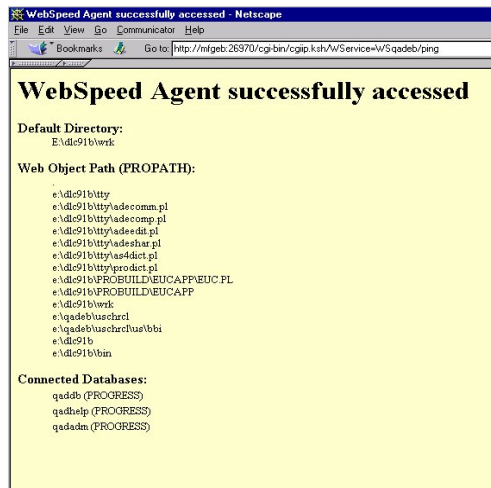


XNUI-SP-170



Troubleshooting Tips

- ◆ Browser URL commands
 - Ping the WebSpeed Broker to verify that the Web Server can communicate with it



XNUI-SP-180

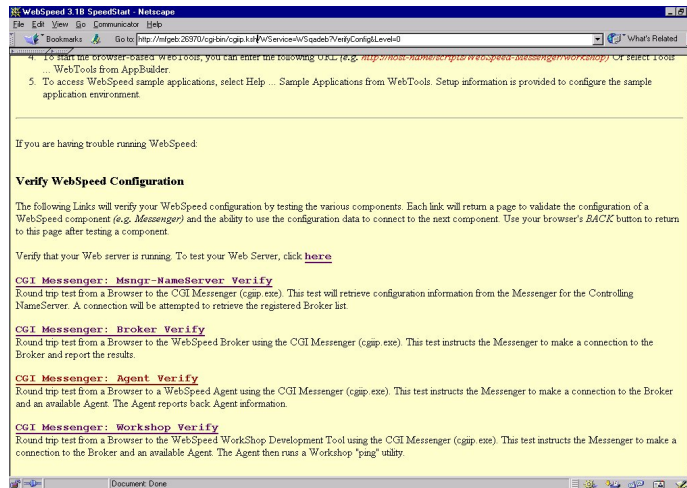
Browser URL Commands



Troubleshooting Tips

- ♦ Browser URL commands
 - Test WebSpeed Broker Configuration

<http://mfgeb:26970/cgi-bin/cgiip.ksh/Wservice=Wsqadeb?WSMAdmin>



XNUI-SP-190



Troubleshooting Tips

- Verify Name Server and Broker Communication

CGI Messenger: Msngr-NameServer Verify

Round trip test from a Browser to the CGI Messenger (cgip.exe). This test will retrieve configuration information from the Messenger for the Controlling NameServer. A connection will be attempted to retrieve the registered Broker list.

WebSpeed Messenger internal command status

NameServer NS1 running on Host sra-1c Port 5162 Timeout 30 seconds.							
Application Service	UUID	Name	Host	Port	Weight	Timeout	
AS_Anaux	167.3.57.202:1111e428a8f4a1-6c5b	AS_Anaux	sra-1c	167.3.51.39	27400	0	30
WS_WSqadeb	167.3.57.202:1111e428a8f4a1-7793	WS_WSqadeb	sra-1c	167.3.51.39	26980	0	30
AS_ASprime	167.3.57.202:1111e428a8f4a1-703c	AS_ASprime	sra-1c	167.3.51.39	27180	0	30

CGI Messenger: Broker Verify

Round trip test from a Browser to the WebSpeed Broker using the CGI Messenger (cgip.exe). This test instructs the Messenger to make a connection to the Broker and report the results.

WebSpeed Broker Accessed Successfully.

Current Broker Configuration.

Broker - WSqadeb

- Broker Name : WSqadeb
- Operating Mode : Stateless
- Broker Status : ACTIVE
- Broker Port : 26980
- Broker PID : 418
- Active Agents : 2
- Busy Agents : 0
- Locked Agents : 0
- Available Agents : 2
- Active Clients (now peak) : (1 1)
- Client Queue Depth (cur max) : (0 0)

XNUI-SP-200



Troubleshooting Tips

- ♦ WebSpeed broker or agents won't start or die
 - Check session & error logs from XUI/NetUI UNIX scripts install directory or Intel Based Progress Explorer
 - Ensure that broker & agents ports are contiguous (e.g., Broker = 16000, AgentMinPort = 16001, AgentMaxPort = 16200)
 - Ensure that DBs are running, started in client/server mode
 - Attempt connection to DB with the Progress client executable and WebSpeed Agent's .pf file
 - Check .pf and .cnf files for errors
 - If NetUI desktop screen paints slowly, verify display is set are set for 65,536 colors
 - Use Solution Publisher

XNUI-SP-210

WebSpeed Broker or Agents





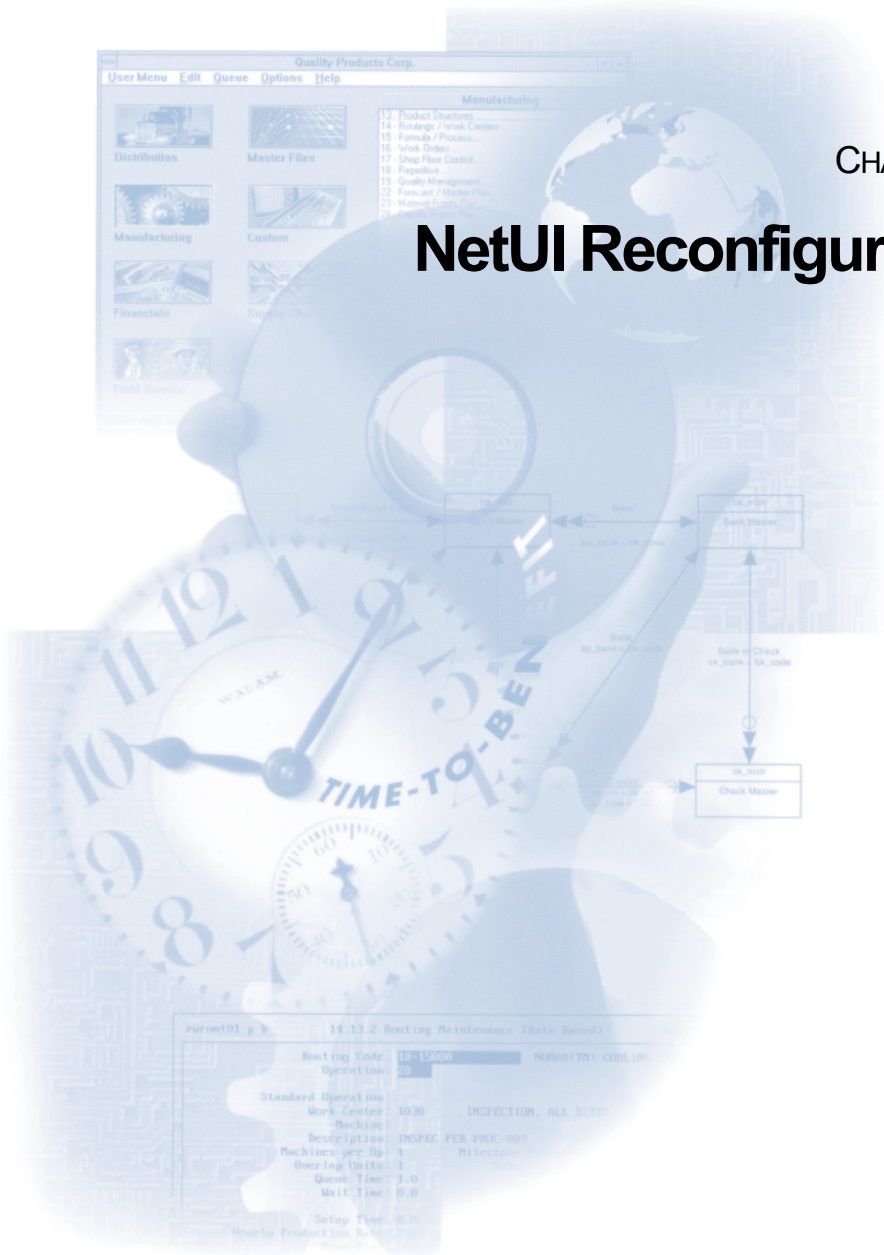
Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ URL Links
- ✓ System Security & Performance
- ◆ NetUI Reconfiguration

XNUI-SP-220

CHAPTER 12

NetUI Reconfiguration





In This Section:

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ URL Links
- ✓ System Security & Performance

✓ NetUI Reconfiguration

XNUI-RE-010



NetUI Reconfiguration Overview

- ♦ XUI/NetUI HTML and JavaScript
- ♦ WebSpeed Remote Brokers
- ♦ WebSpeed on Separate Machine
- ♦ Multiple WebSpeed Services with one database
- ♦ Multiple WebSpeed Services with multiple databases
- ♦ Remote Telnet Servers
- ♦ Local Client files

XNUI-RE-020

NetUI Reconfiguration Overview



XUI/NetUI HTML and JavaScript

- ♦ Client connection to *MULTINET* starts default routine
 - Index.html (or Default.html) calls Full.html
 - Full.html set browser environment and calls client.js
 - Client.js test for client setup and calls multinet.html
- ♦ Multinet.html starts the Java Applet and connects to the specified webspeed service

XNUI-RE-030

XUI/NetUI HTML and JavaScript



XUI/NetUI HTML and JavaScript

- ♦ Full.html, client.js, and multinet.html can be copied/edited to create unique sets to connect to different database environments
- ♦ Index.html (or default.html) could be edited to contain a link to each unique database environment

XNUI-RE-040



XUI/NetUI HTML and JavaScript

Full.html

```
<html>

<!-- This is the NetUI full desktop interface launcher
program... -->

<!-- This file, once loaded, will launch "multinet.html"
in a new window -->

<head>

<script LANGUAGE="JavaScript">

    qadNetui = 0;

</script>

    <script LANGUAGE="JavaScript"
SRC="client_files/labels.js"></script>

    <script LANGUAGE="JavaScript"
SRC="client_files/version.js"></script>

    <script LANGUAGE="JavaScript"
SRC="client_files/client.js"></script>

    <script language="JavaScript">
```

XNUI-RE-050

Examples





XUI/NetUI HTML and JavaScript

Client.js

```
{  
  
    window.open('multinet.html?trace', 'applet',  
'width=260,height=75,resizable=1,status=0,scrollbars  
=0');  
  
    }  
    else  
    {  
  
        window.open('multinet.html',  
'applet',  
'width=260,height=75,resizable=1,status=0,scrollbars  
=0');
```

XNUI-RE-060



XUI/NetUI HTML and JavaScript

Multinet.html

```
// The following set of variables contain the parameters that are used by the
// Java code
// on the Client to find and access the Server-side Webspeed processes. For a
// full description
// of these parameters, please review the QAD Net UI Installation &
// Configuration Guide.

    var hostport = "26970";
    var javaarchive = "multinet.jar,o4glrt.jar";

//      RMI Values used if you wish to override global configurations
//      Set and uncomment these variables, and their use below
//      var RMIHost = hostname.host.com;
//      var RMIPort = 2000;

    var filename = "/cgi-bin/cgiip.exe/WService=WSqadeb/mfwb01.p";
    var width = 150;
    var height = 21;
    var pargs = "" + document.location;
    var index = 1;
    var arg = new Array();
    var done = false;
```

XNUI-RE-070



XUI/NetUI HTML and JavaScript

- ♦ To create links to different database sets:
 - Rename/edit index.html and/or default.html
 - Copy Full.html to FullDBNAME.html
 - Client.js to ClientDBNAME.js
 - Multinet.html to MultinetDBNAME.html
 - Edit FullDBNAME.html to call ClientDBNAME.js
 - Edit ClientDBNAME.js to call MultinetDBNAME.html
 - Edit MultinetDBNAME.html to point to a specific WebSpeed Service (WService=WSqadeb)

XNUI-RE-080



XUI/NetUI HTML and JavaScript

- ♦ WebSpeed Agents connect to specific databases
 - The WebSpeed Service is configured via PROGRESS
 - AppServers must also be configured for the database

XNUI-RE-090



XUI/NetUI HTML and JavaScript

Full **DBNAME**.html

```
<html>
<!-- This is the NetUI full desktop interface launcher
program... -->
<!-- This file, once loaded, will launch
"multinetDBNAME.html" in a new window -->
<head>
<script LANGUAGE="JavaScript">
    qadNetui = 0;
</script>

    <script LANGUAGE="JavaScript"
SRC="client_files/labels.js"></script>
    <script LANGUAGE="JavaScript"
SRC="client_files/version.js"></script>
    <script LANGUAGE="JavaScript"
SRC="client_files/clientDBNAME.js"></script>
    <script language="JavaScript">
```

XNUI-RE-100

Examples of DBName Included



XUI/NetUI HTML and JavaScript

Client~~DBNAME~~.js

```
{  
  
    window.open('multinetDBNAME.html?trace', 'applet',  
'width=260,height=75,resizable=1,status=0,scrollbars=0');  
    }  
    else  
    {  
        window.open('multinetDBNAME.html',  
'applet',  
'width=260,height=75,resizable=1,status=0,scrollbars=0');
```

XNUI-RE-110



XUI/NetUI HTML and JavaScript

Multinet~~DBNAME~~.html

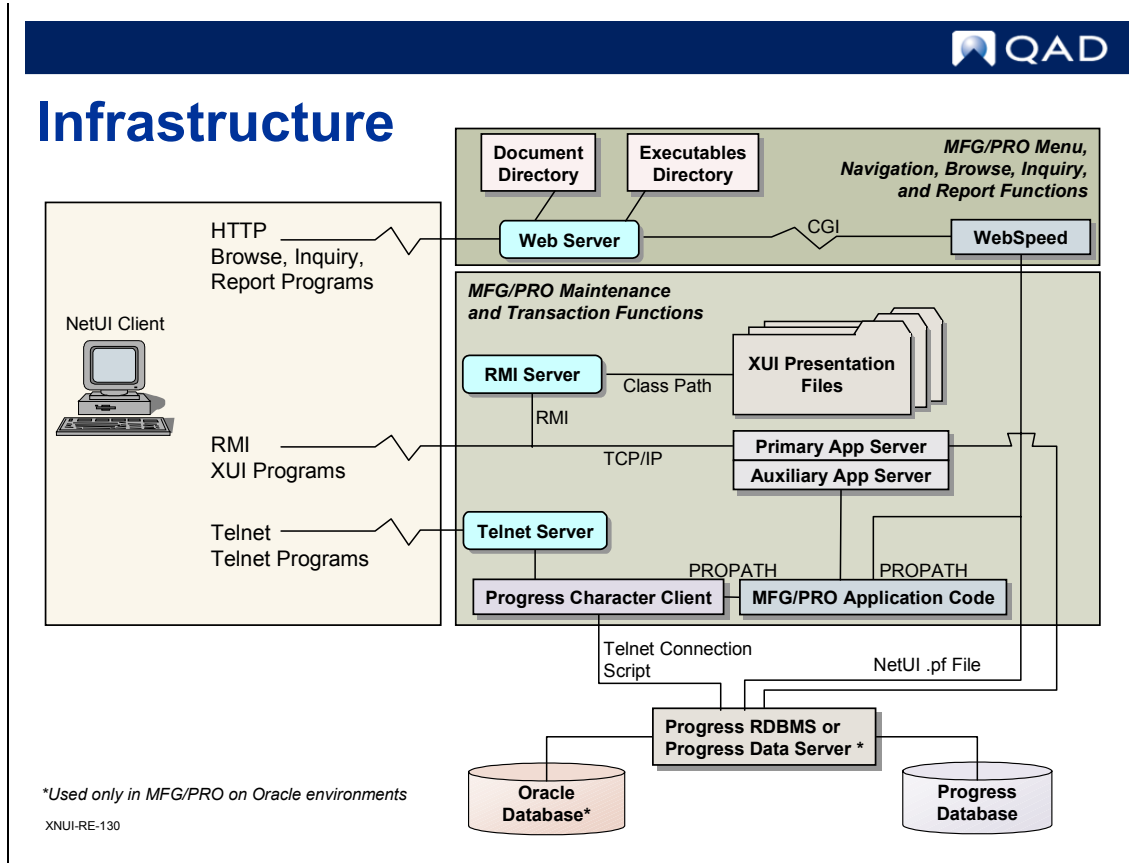
```
// The following set of variables contain the parameters that are used by the Java code
// on the Client to find and access the Server-side Webspeed processes. For a full
// description
// of these parameters, please review the QAD Net UI Installation & Configuration Guide.

    var hostport = "26970";
    var javaarchive = "multinet.jar,o4glrt.jar";

//      RMI Values used if you wish to override global configurations
//      Set and uncomment these variables, and their use below
//      var RMISHost = hostname.host.com;
//      var RMIPort = 2000;

    var filename = "/cgi-bin/cgiip.exe/WService=WSNEWSERVICE/mfwb01.p";
    var width = 150;
    var height = 21;
    var pargs = "" + document.location;
    var index = 1;
    var arg = new Array();
    var done = false;
```

XNUI-RE-120



Infrastructure

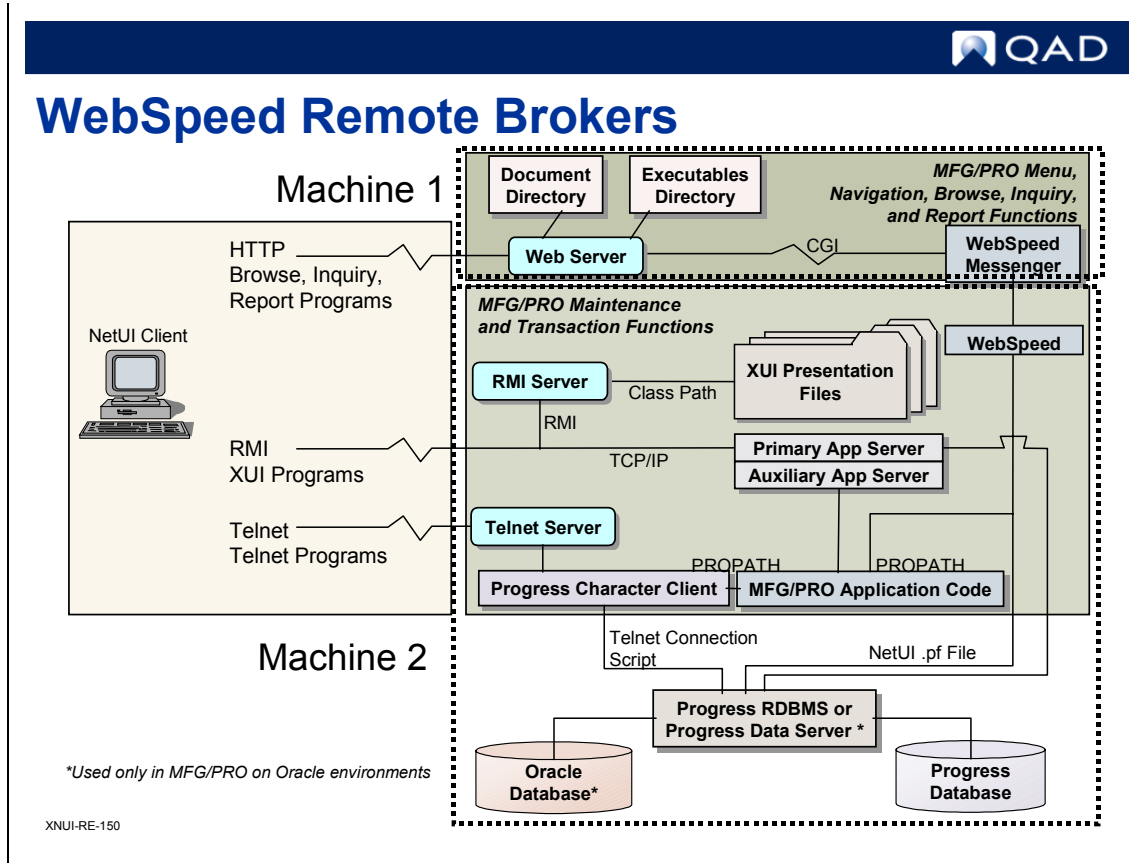


WebSpeed Remote Brokers

- ♦ Required if the Web Server and the WebSpeed Application Server are separate machines
- ♦ A very common configuration alternative
- ♦ Requires installation and configuration of a remote WebSpeed Messenger
- ♦ The WebSpeed Brokers and Agents must reside on the same machine

XNUI-RE-140

WebSpeed Remote Brokers





Installing a Remote Web Server

- ♦ Steps
 - Install the Web Server
 - Install the Platform specific Remote WebSpeed Messenger Executable in the *SCRIPTS* directory
 - Install the Web Server Component of XUI/NetUI
 - Configure the Remote WebSpeed Broker
 - Use the Progress Explorer
 - Edit *DLC/properties/ubroker.properties*
 - ♦ Create a NAMESERVER with the same, and port, as on the database server
 - ♦ Specify remote
 - ♦ Specify database server Host name
 - ♦ Specify database server NAMESERVER port

XNUI-RE-160

WebSpeed on Separate Machine

Installation



Installing a Remote Web Server

- ♦ Install Platform specific WebSpeed Messenger Executable
 - Install from WebSpeed media if available
 - You may choose custom install and only select the WebSpeed Messenger and associated components
 - or
 - Download the Platform specific Remote WebSpeed Messenger Executable
 - Install the Remote WebSpeed Messenger using instructions and Serial Numbers from Progress WebSite <http://www.progress.com>

XNUI-RE-170



Installing a Remote Web Server

Supported Platforms

- ♦ Windows NT Intel
- ♦ Windows NT Alpha
- ♦ Sun Solaris
- ♦ IBM AIX
- ♦ Digital Unix
- ♦ HP-UX
- ♦ SCO Unixware

XNUI-RE-180



Installing XUI/NetUI

Install the Web Server portion of XUI/NetUI on the Remote Web Server

- ♦ XUI/NetUI HTML
- ♦ GIFs
- ♦ Client Setup files and HTML pages
- ♦ MFG/PRO Help HTML
- ♦ XUI/NetUI Help HTML
- ♦ Java files

XNUI-RE-190



Configuring the Remote Broker

Use the Progress Explorer or Edit the Ubroker.Properties file

One entry in the ubroker.properties file for each remote service

[NameServer.remoteNS]

hostName=arccNT01

location=remote

portNumber=2222

svrLogFile=e:\nswebsrv\logs\remoteNS
.ns.log

Name - Same as on the db
server

Host that Name Server is
active on

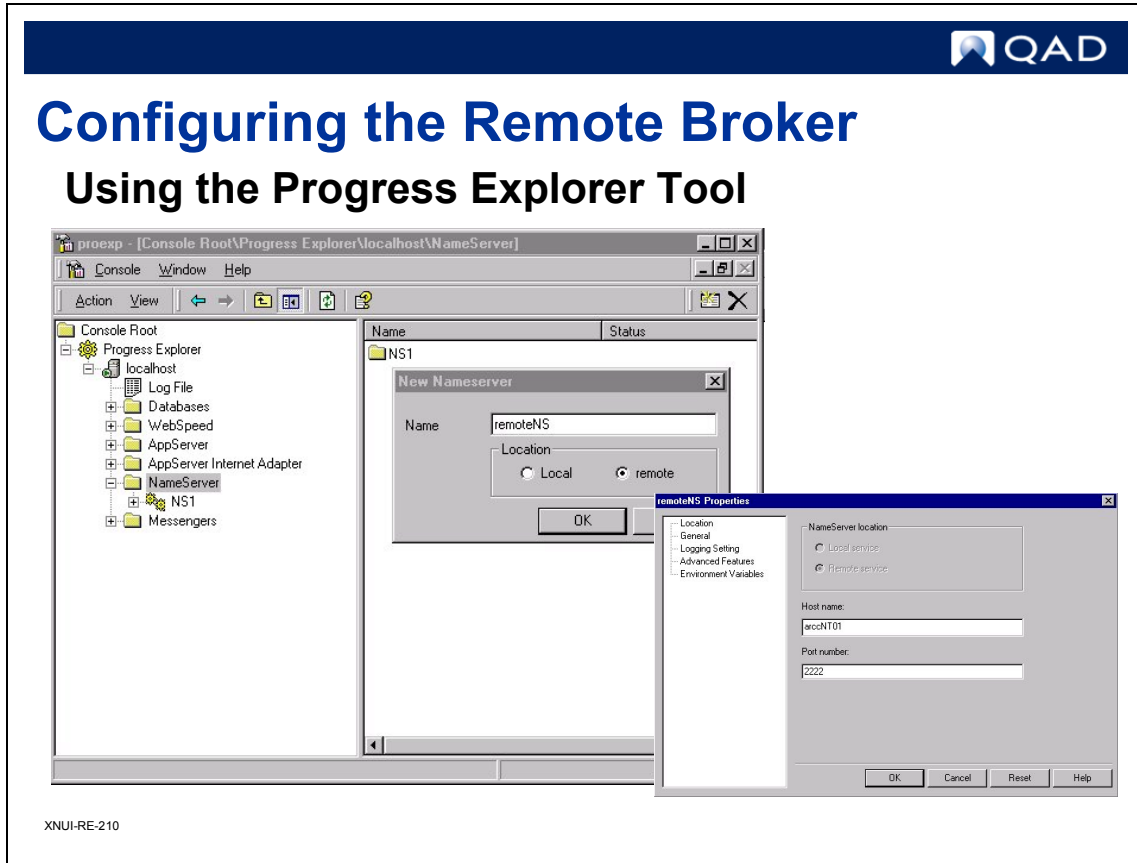
remoteNS is NOT a local
service

Name Server port on
arccNT01

Log file location

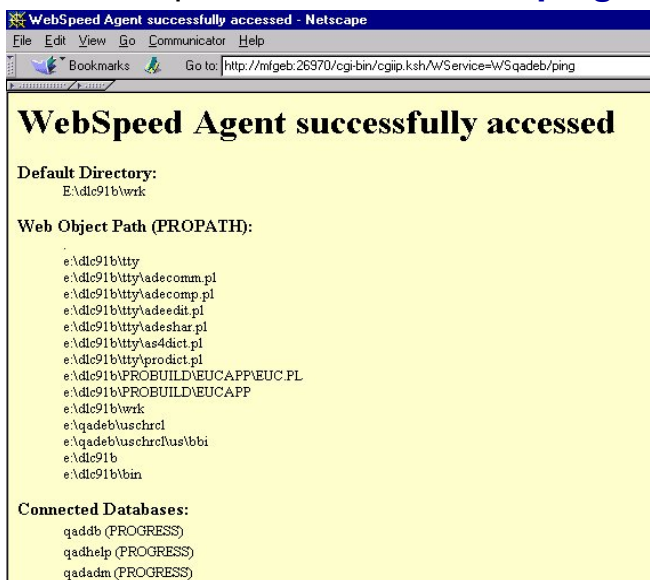
XNUI-RE-200

Configuration



Test the Remote WebSpeed Broker

- ♦ Verify access, through the Remote Broker, to the main XUI/NetUI WebSpeed Service with the **ping** command



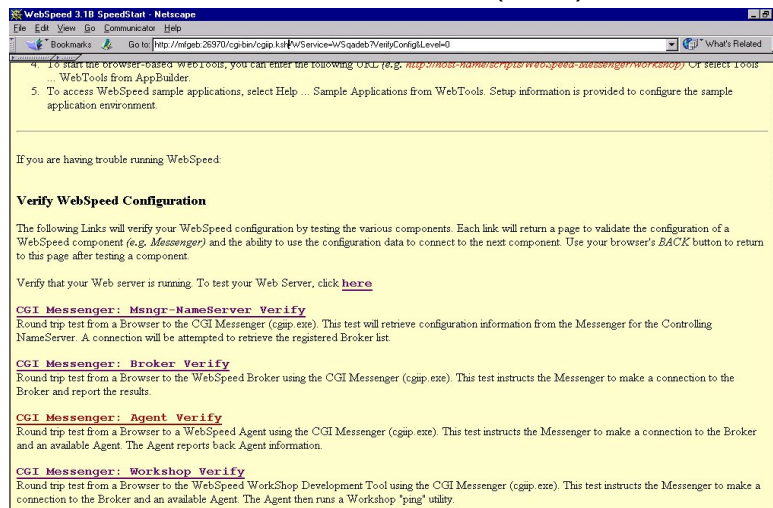
XNUI-RE-220

Testing



Test the Remote WebSpeed Broker

- ♦ Specify the remote WebServer and WebSpeed Service in the URL command
 - Executable name is CGIIP.EXE (Intel) or CGIIP.KSH (Unix)



XNUI-RE-230



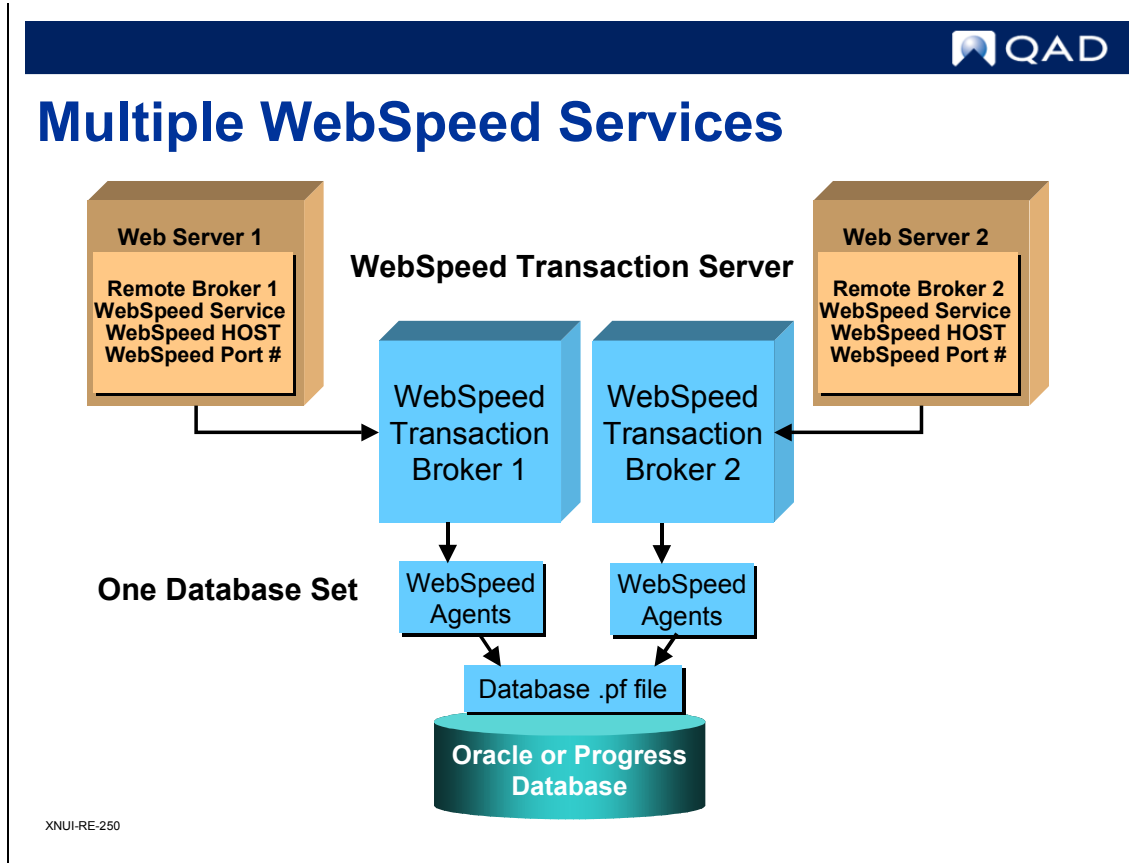
Multiple WebSpeed Brokers

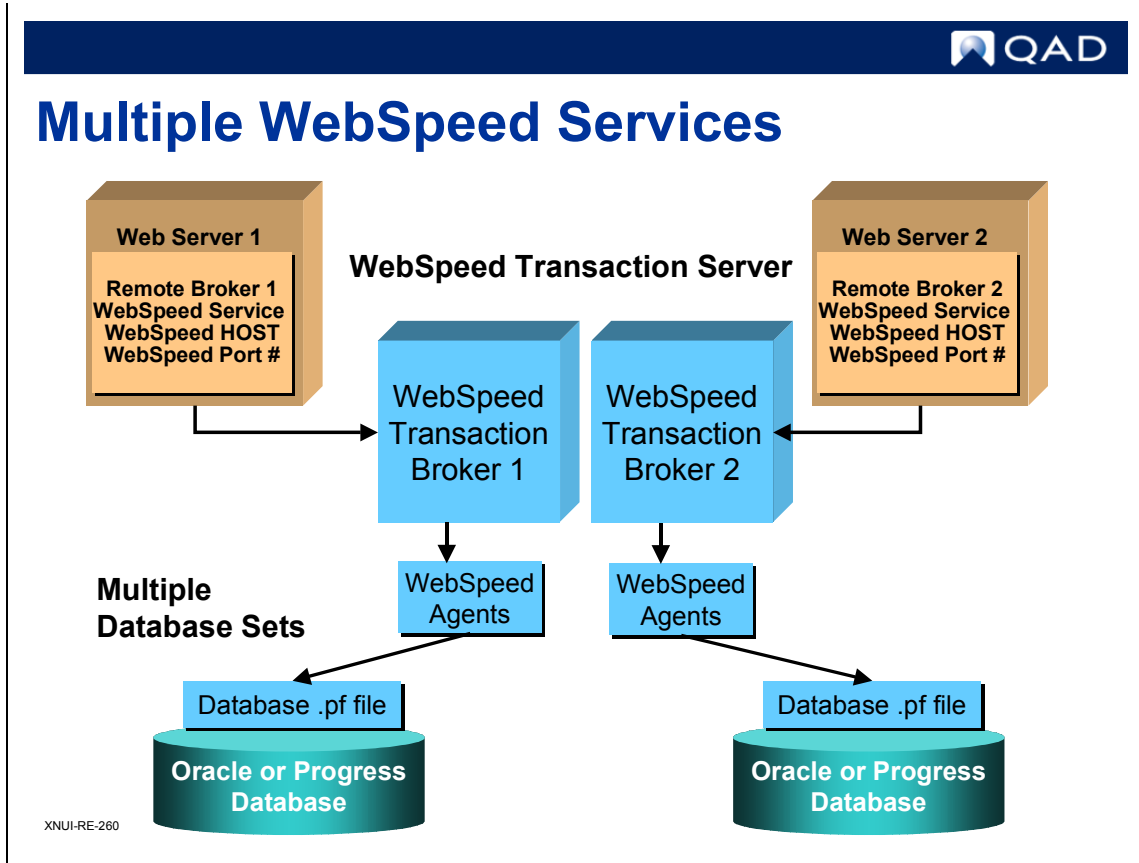
- ♦ Allows you to run multiple instances of the WebSpeed broker
- ♦ Allows for static load balancing
- ♦ Allows user isolation and resource limitations
- ♦ Allows distributed Web requests
- ♦ Allows for Multiple Database sets
 - Setup multiple Primary and Auxiliary AppServers to distribute XUI maintenance load

XNUI-RE-240

Multiple WebSpeed Services

With One Database





With Multiple Databases



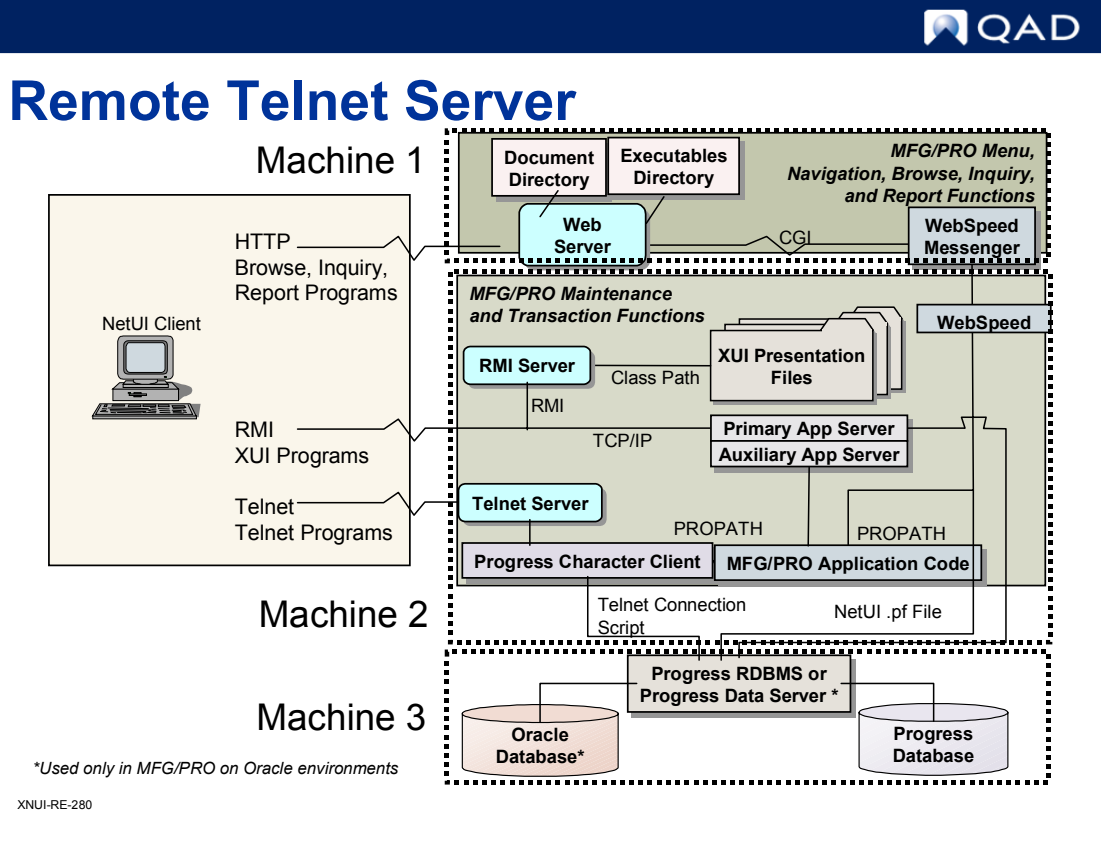
Remote Telnet Server

- ♦ Used for Application isolation
- ♦ Used if Database Server is short on resources
- ♦ Common with NT Servers
- ♦ Used to isolate the telnet process outside of a firewall
- ♦ Database connections for telnet will be client/server

XNUI-RE-270

Remote Telnet Servers







Local Client Files

- ♦ HTML, JAVASCRIPT and .JAR file can be moved to the client
- ♦ Helpful with slow networks to speed up client start up
- ♦ Requires modifications to the HTML and JavaScript file sets

XNUI-RE-290

Local Client Files



Local Client Files

- ♦ To configure local client files:
 - Copy the HTML from the Web Server to Client Machine
 - Copy the Java Jar file to a **\\JAVA** subdirectory below the HTML files on the client machine
 - Modify the MULTINET.HTML file to add the **HostName** variable
 - Modify the **PortNumber** if necessary
 - Add the **HostName** parameter to the browser specific sections of the MULTINET.HTML file
 - Copy any .gif or .jpeg files referenced by the HTML from the Web Server to the Client Machine

XNUI-RE-300



HTML Modifications

- ♦ MULTINET.HTML Example:

- HostName Section

```
var hostport = "26970";  
var hostname = "arccNT01"  
var javaarchive = "multinet.jar,o4glrt.jar";
```

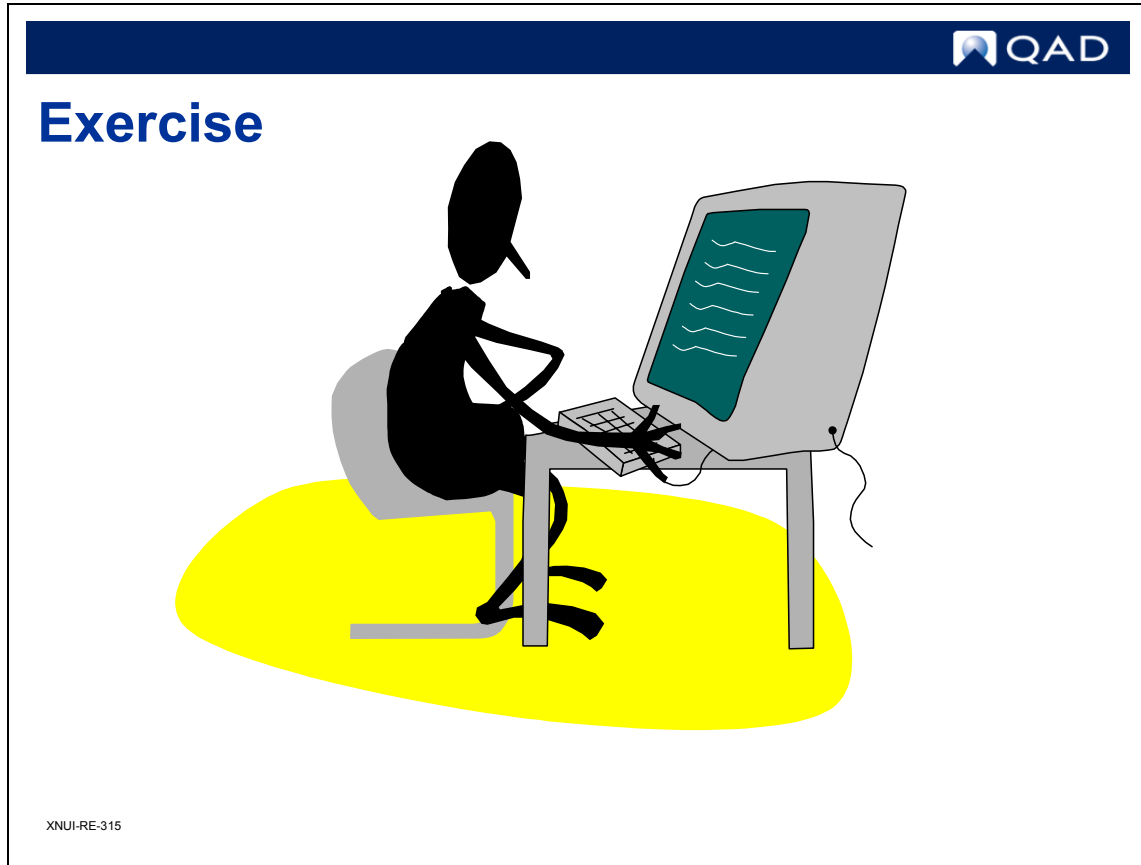
- Browser Section

```
document.writeln("PortNumber = " + hostport);  
//      Uncomment the following line to override using the  
local jar files  
//      document.writeln("java_ARCHIVE = " + javaarchive);
```

XNUI-RE-310

HTML Modifications







Lab Exercise

- ♦ On your assigned Client PC
 - Locate the HTML and Java files in the network share specified by the instructor
 - Copy the correct files and directory structures to your Client PC
 - Modify the FULL.HTML, MULTINET.HTML, and CLIENT.JS files to run locally and use the local copy of the MULTINET.JAR file
 - Launch XUI/NetUI on your Client PC from the Explorer

XNUI-RE-320

Exercise





Course Overview

- ✓ Overview
- ✓ Web Components
- ✓ XUI/NetUI Components
- ✓ System Requirements
- ✓ UNIX Installation
- ✓ NT Installation
- ✓ Client Installation
- ✓ User Interface
- ✓ User Security
- ✓ URL Links
- ✓ System Security & Performance
- ✓ NetUI Reconfiguration

XNUI-RE-330

