

# **MattWeb 3.06**



## **Setup and Reference Guide**

**2004**

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## Preface

These days many Tandem customers are considering going on the Internet. The Internet is hot. And *intranets* may become even hotter. At Skybeam we have committed ourselves to provide the Tandem world with the best Internet/intranet solution. Here it is: MattWeb. MattWeb is the only solution that is designed to present Pathway applications graphically on the World Wide Web. At the same time you may use MattWeb to establish your own intranet.

In the *MattWeb Setup and Reference Guide* you will explore the features and applications of MattWeb. The manual describes what MattWeb is all about, how it works and how to install and configure it on your system.

The manual is organized as follows:

- ⇒ Chapter 1: Introducing MattWeb
- ⇒ Chapter 2: Installing MattWeb
- ⇒ Chapter 3: Getting Started
- ⇒ Chapter 4: MattWeb Profiles
- ⇒ Chapter 5: Working With Screen Designer
- ⇒ Chapter 6: Operating MattWeb
- ⇒ Chapter 7: MattOpen for MattWeb

## About This Manual

Before you start installing and using MattWeb, please take your time to study this manual. Details on installing, configuring, and using MattWeb are all to be found on these pages.

The manual is organized as follows:

### *Chapter 1: Introducing MattWeb*

Chapter 1 introduces you to the basics of MattWeb. You will learn of its features and applications and its system requirements.

### *Chapter 2: Installation*

Chapter 2 explains how to install MattWeb, Matterhorn for Windows (on Tandem as well as on PC) and Screen Designer. The chapter also presents the MattWeb file and folder structure.

### *Chapter 3: Getting Started*

Chapter 3 takes you through the steps involved when setting up Tandem applications to be run on the Internet via MattWeb. You will learn to create Session Names, MattWeb profiles and HTML pages.

### *Chapter 4: MattWeb Profiles*

Chapter 4 details the purpose, structure and syntax of the MattWeb profile. The chapter also explains the connection between MattWeb profiles and Matterhorn Profiles.



### ***Chapter 5: Working With Screen Designer***

Chapter 5 describes how to configure and run Screen Designer. You will also learn to call HTML pages from within redesigned requesters. The chapter also presents the Data Explorer productivity tool.

### ***Chapter 6: Operating MattWeb***

Chapter 6 presents the MattWeb client interface and the various characteristics of navigating requesters running under MattWeb. The chapter also discusses the operation of MattWeb from a more technical point of view: from the point when a remote user enters an URL in his or her browser to the point when the legacy Pathway application appears in the remote user's browser screen.

### ***Chapter 7: MattOpen for MattWeb***

Chapter 7 presents the latest add-on API MattOpen for MattWeb. A feature designed to redirect the MattWeb applet to a Java Servlet of Your own making. The Java Servlet can receive, modify and send back data from the original Scobol program using the MattWeb Session created by the applet. A unique feature that gives You full control of the original Scobol data fields through modern Java Servlet technologies.

# Chapter 1: Introducing MattWeb

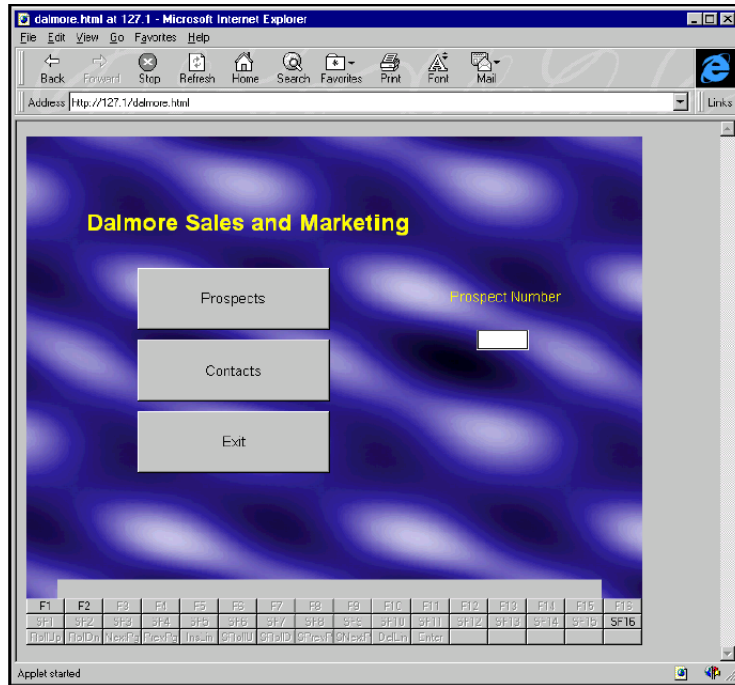
This chapter introduces you to the basics of MattWeb. You will learn of its features and applications and its system requirements.

The chapter is organized as follows:

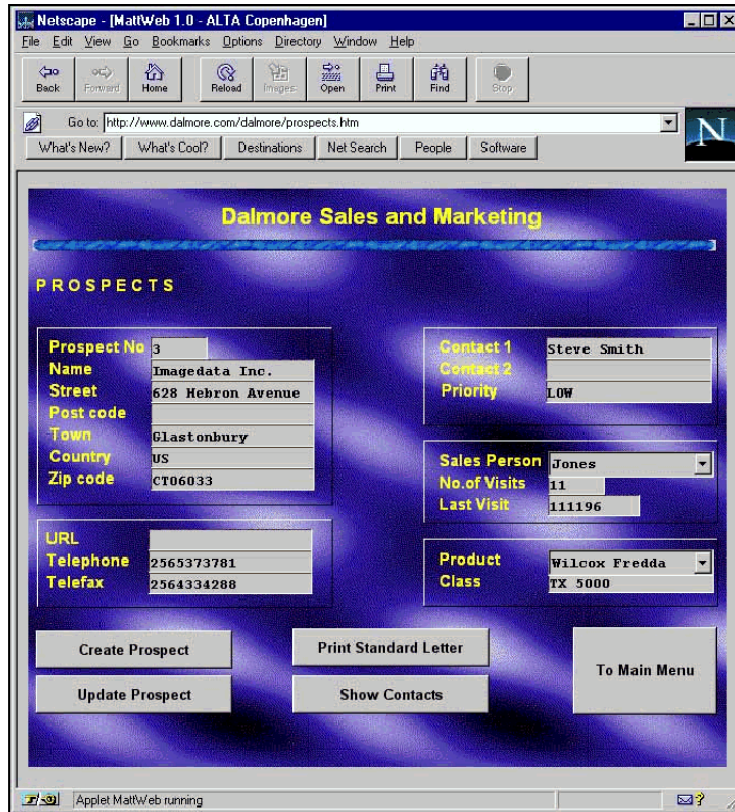
- ⇒ Features of MattWeb
- ⇒ Requirements for MattWeb

## Features of MattWeb

These years the World Wide Web is turning into a *planetary operating system*. Applications are no longer confined to stand-alone processors. They run on all sorts of computers, and they can share code and data with computers located anywhere in the world. Your business deserves to be part of this global open system and that's when MattWeb does itself justice. Using MattWeb you may integrate your legacy system with the Web. As you will learn, you may also use MattWeb to establish you own intranet.



**Figure 1.1:** A Tandem application running on the Word Wide Web. The browser is Microsoft Internet Explorer.



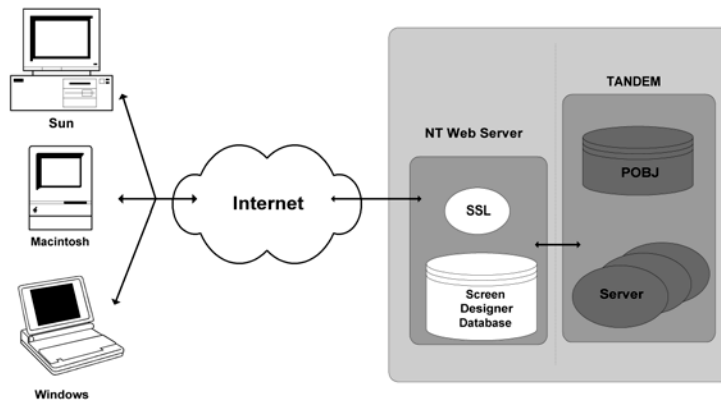
**Figure 1.2:** A Tandem application running on the World Wide Web. The browser is Netscape Navigator 3.0.

If you are already familiar with Matterhorn for Windows and Matterhorn Screen Designer, you will be pleased to know that the powerful features of these two solutions may easily be transported to the Internet, with MattWeb functioning as the mediator. This means that your pathway applications may be run on the Internet as fully operational Internet sessions, with intuitive, attractive and productive Screen Designer layouts.

## Let Your Customers Serve Themselves

Using a Web browser such as Netscape Navigator or Microsoft Internet Explorer, a remote computer may connect to your Web server and subsequently view or access data on your Tandem system.

The term *remote computer* may be widely interpreted: It may, for instance, be company employees (management personnel, sales personnel, programmers, system administrators etc.), logging on to your Tandem system to do their daily work from



**Figure 1.3:** *MattWeb makes your data available to the world.*

their homes, cars, hotel rooms, wherever. Or it may be customers dialing in to order products, or to obtain the latest exchange rates or fluctuations in stock prices, or maybe details in telephone bills. Whatever the demands of your organization are, MattWeb takes your data to the Internet, making it available to the world.

## Establish Your Own Intranet

You may also use MattWeb to establish your own intranet. This means that you may run some or all of your legacy applications on an intranet via MattWeb and a browser.

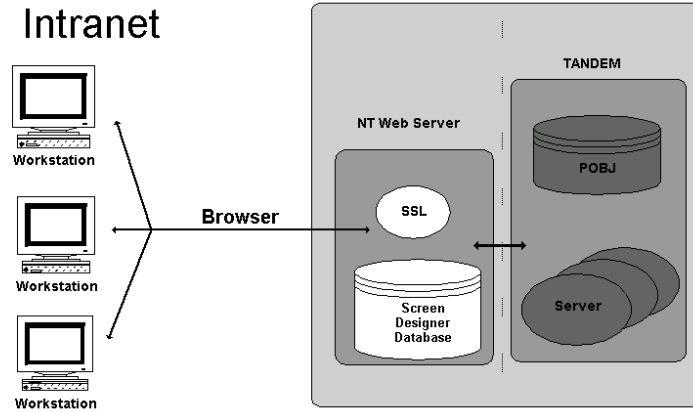


Figure 1.4 Use MattWeb to establish your own intranet.

## You Are Still in Full Control of Your Data

MattWeb moves your Tandem system to the World Wide Web, taking it one step beyond the place in which Matterhorn for Windows and Matterhorn Screen Designer have already put it. Whatever you can do with Matterhorn and Screen Designer, you can also do on the Internet. With MattWeb your Tandem requester system is as open as it will ever get.

The openness, however, does not mean that your vital data is not protected. All transactions are still located on the Tandem. MattWeb supports data encryption. For instance, you may use the Secure Socket Layer protocol (SSL) to ensure that your data travels safely across the network. SSL is supported on the

client side by Netscape and Microsoft Internet Explorer, and on the server side by MattWeb.

### ***MattWeb and Matterhorn***

MattWeb fully complements the functionality of Matterhorn for Windows. In fact, Matterhorn is an integral part of the MattWeb solution. This means that your existing hardware and software investments are protected. No changes to the current Scobol source code on the Tandem are necessary to place your legacy applications on the Internet. Since Matterhorn interprets the executable requester code, which is generated by the Screen Cobol compiler, directly on the PC, cost- and time-consuming source conversions are unnecessary.

### ***MattWeb and Screen Designer***

MattWeb also fully supports requester screens which has been designed with the graphic layout tool Matterhorn Screen Designer. Likewise, Screen Designer is an integral part of MattWeb. At runtime, each screen element will be presented on the remote user's monitor by an Java applet.

With MattWeb and Matterhorn Screen Designer in unison you may create *multiple mode applications*. Different versions of the same application can be run simultaneously on the Internet and your own network.

Screen Designer and MattWeb offer the same kind of flexibility to your company internally. You are not restricted to settle for a permanent client interface. For instance, one third of the users in your company may run requesters as Matterhorn sessions; another third may run the same requesters on the intranet via MattWeb and a browser; and the last third may run the original 6530/3270-sessions. With



Screen Designer and MattWeb you may easily switch from one client interface to another.

Screen Designer is discussed in Chapter 5 of this manual, [Working With Screen Designer](#) and the Screen Designer Setup and Reference Guide.

## Requirements for MattWeb

In order for MattWeb to operate, you must have licensed versions of both MattWeb, Screen Designer and the Matterhorn Pathway system. The Matterhorn Pathway system is the Tandem part of Matterhorn for Windows, performing the database I/O. The Matterhorn Client is also included in your MattWeb package, but it is not a required element for using MattWeb.

The MattWeb, Matterhorn and Screen Designer requirements are commented below.

### *MattWeb*

Use MattWeb to establish and maintain the link between the Matterhorn sessions and the Internet, or on your intranet. The MattWeb server is running on the NT server, operating as mediator. Screens will be presented on the remote users screen by the MattWeb Java client. [Chapter 2, Installation](#), describes how to install MattWeb.

### **MattWeb Server Requirements**

---

The MattWeb server should be Windows NT running on an Intel- or Intel compatible processor, since MattWeb has been written as a 32-bit application. To run MattWeb on a PC server the following system requirements should be matched:

System	Minimum	Recommended
Processor (Intel)	486 CPU	Pentium 100 Mhz
RAM	16 MB	64 MB*
Free disk space	3 MB	3 MB
Microsoft Windows NT Workstation or Server	Version 3.51	Version 4.0 or Windows 2000
Network Protocol	TCP/IP	TCP/IP
RSC <i>or</i> CSL	RSC for NT Installed	RSC for NT Installed
Web Server	IIS v. 3.0	IIS v. 5.0

\* The amount depends on the number of simultaneous users.

### **MattWeb Client Requirements**

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The remote computer must run a Web browser which supports Java 1.0. Netscape Navigator 2.02 (or later) and Microsoft Internet Explorer 3.0 meet this demand. Java makes the remote computer platform-independent, which means that the user may connect with either Windows-, Macintosh-, OS/2- or UNIX-based remote computers.

### **Screen Designer**

Use Screen Designer to fashion and optimize the layout of your company's requesters. With Screen Designer you may create full-blown GUI-presentations: associate push buttons

with function keys; create and associate selection lists with edit fields; move or resize text and fields and use multiple fonts or colors for your screens. You may even insert graphics and multimedia clips. For more information, turn to [Chapter 5, Working With Screen Designer](#) of this manual and the Screen Designer Setup and Reference Guide. [Chapter 2, Installation](#), describes how to install Screen Designer.

### **Screen Designer Requirements**

To install and run Screen Designer on a PC network server, the following minimum requirements should be matched:

System	Minimum	Recommended
Processor	386 CPU	486 Mhz
RAM	4 MB	8 MB
Free disk space	3 MB	3 MB
CSL <i>or</i> RSC	Installed	Installed
Resolution	640x480	800x600

### ***The Matterhorn Pathway System***

The Matterhorn Pathway system, \$SKYB, must be installed on your Tandem system. \$SKYB will maintain the link to the legacy applications that have been set up as Matterhorn sessions.

[Chapter 2, Installation](#), describes how to install the Matterhorn Pathway system.

The Matterhorn Pathway system actually comprises four servers, MATT-POBJ, MATT-UMP, MATT-MON and MATT-CONF.

- ⇒ Server 1 - **MATT-POBJ**. This server will transfer the requester object to the web server.
- ⇒ Server 2 - **MATT-UMP**. This server controls UMP.
- ⇒ Server 3 - **MATT-CONF**. This server will handle and store the configuration information related to each Matterhorn session.
- ⇒ Server 4 - **MATT-MON**. This server will monitor all active Matterhorn sessions. For more information, turn to the Appendix in the Matterhorn Setup and Reference Guide.

### **Matterhorn Pathway System Requirements**

To install and run the Matterhorn Pathway system on Tandem, the following minimum system and software requirements should be matched:

System	Recommended
Available disk space	3 MB
Guardian	D20 or later
Cobol Runtime Library	D20 or later

CSL	Version 1
RSC	C30 or later
Scobol PATHTCP2	C21 or later
MAXLINKMONS	> 0
POBJ	Readaccess to POBJ

### *The Matterhorn Client*

The Matterhorn Client is the PC part of Matterhorn for Windows interpreting the executable requester code directly on the PC. Quite often, the Matterhorn Client is referred to by the name of its program filename, *Mattwin.exe*.

The Matterhorn Client is not a required element when running your Tandem applications on the Internet. *MattWeb* and *Screen Designer* manage this in unison. However, you may want to use the Matterhorn Client to test the redesigned screens on a PC *before* you launch them on the Internet. Since the Matterhorn Client is an integral part of Matterhorn for Windows it is included on the installation disks.

[Chapter 2, Installation](#), describes how to install the Matterhorn Client.

### **Matterhorn Client Requirements**

---

To install and run the Matterhorn Client on a PC network server, the following minimum requirements should be met:

System	Minimum	Recommended
Processor	386 CPU	486 Mhz
RAM	4 MB	8 MB
Free disk space	3 MB	3 MB
CSL <i>or</i> RSC	Installed	Installed
Resolution	640x480	800x600

## Chapter 2: Installation

Chapter 2 explains how to install MattWeb, Matterhorn for Windows (on Tandem as well as on PC) and Screen Designer. The chapter also presents the MattWeb file and folder structure.

Note that the chapter primarily discusses installation issues. For more information on configuring and using MattWeb, turn to [Chapter 3, Getting Started](#).

The chapter is organized as follows:

- ⇒ Installing MattWeb
- ⇒ The MattWeb File and Folder Structure
- ⇒ Installing the Matterhorn Pathway System
- ⇒ Installing Screen Designer and the Matterhorn Client

## Installing MattWeb

There are three types of MattWeb installation on NT server:

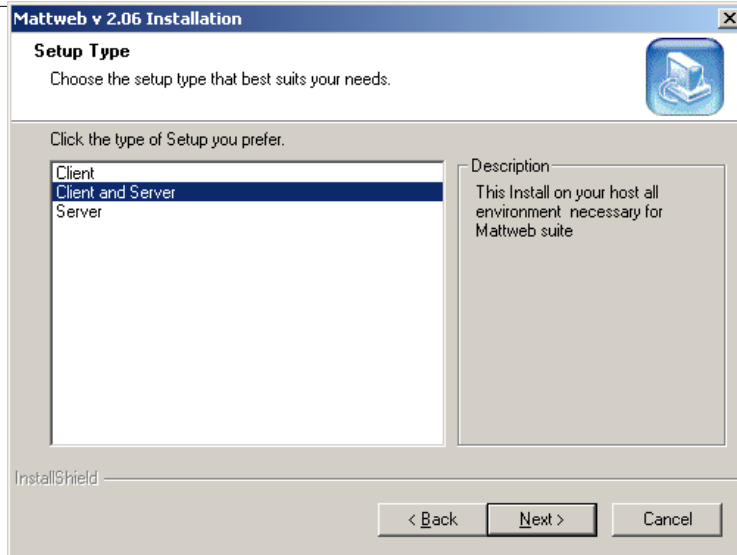
- Server;
  - Client;
  - Client-Server.
1. Server installations installs MattWeb ISAPI extension on IIS server running on your NT, creates a virtual directory and copies there client applets and html pages.
  2. Client installation copies Web Manager that is able to execute queries from one or several computers with server part installed, SCobol interpreter and other client utilities on the NT computer. Choose this installation type if you want queries to be executed on the separate computer (instead of that one where server is running).
  3. Client-Server installation sets up all components mentioned in the previous items on the single computer.

**Important:** Server and Client-Server installations require IIS 3.0, 4.0 or 5.0 installed on the NT computer.

Installation steps:

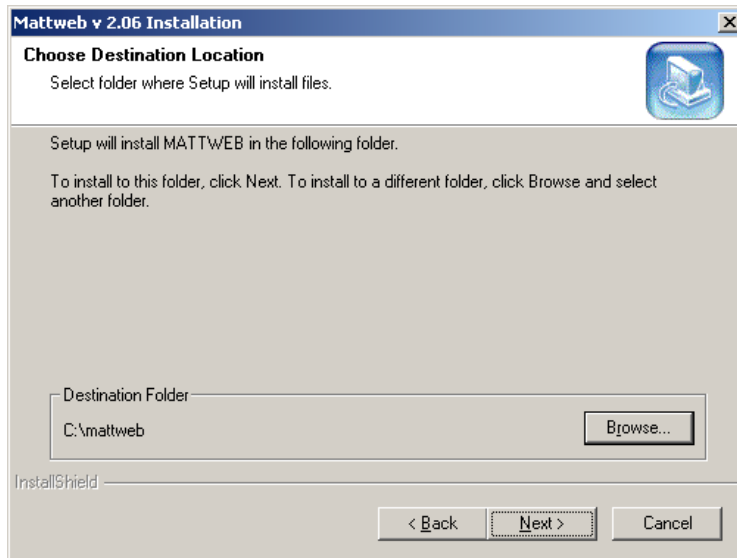
1. Insert the Matterhorn Suite CD-ROM in the CD-ROM drive. Select **Run** from the **Start** menu, locate the CD-ROM and launch the Setup.exe file.
2. In the opening screen, select installation type and press Next button.





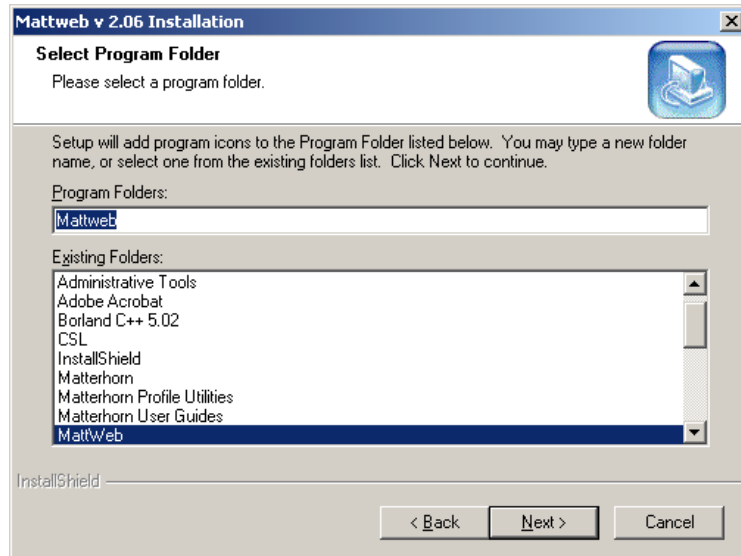
**Figure 2.1:** Select installation type and press Next.

3. Select destination path (where you wish to install



**Figure 2.2:** Choose the destination Folder.

4. The default destination directory is C:\Program Files\MattWeb, but you may change it to match your system's settings. Note that the drive on which you install must be available to both the MattWeb server and the workstation from which you are creating and maintaining your MattWeb sessions.
5. Choose the installation folder for the MattWeb Client (MattWeb by default).



**Figure 2.3:** *The installation path for MattWeb client.*

6. When installation is complete, a MattWeb folder has been created. Setup will offer you to restart your computer.

## The MattWeb File and Folder Structure

It is vital that you do not change the MattWeb file and folder structure. On the following pages we will describe each of the files in the MattWeb folder and its subfolders \Files, \Ini, and \Log.

<b>Mattwebx.exe</b>	The Matt Manager executable file. The MattWeb manager enables remote users to access your legacy Tandem applications and execute them on the Internet. The file is located in the MattWeb folder.
<b>Websetup.exe</b>	The MattWeb Profile Utility executable file. Use this program to create and maintain MattWeb profiles. The file is located in the MattWeb folder.
<b>Designer.exe</b>	The Screen Designer executable file. The file launches Screen Designer and enables you to fashion and customize the requester screens which have been set up for redesigning. The file is located in the MattWeb folder.
<b>DataExp.exe</b>	The Screen Designer Data Explorer. Data Explorer is detailed in Chapter 8 of the Screen Designer Setup and Reference Guide.
<b>Desihelp.hlp</b>	Screen Designer Help file.

<b>Matts32.exe</b>	This file is used by the MattWeb server to communicate with the Tandem. For more information, turn to the section <a href="#">Session Logging</a> in <a href="#">Chapter 6, Operating MattWeb</a> .
<b>Mattwin.exe</b>	The Matterhorn Client executable file. Use the Matterhorn Client to test your applications on PC, before launching them on the Internet or intranet. The file is located in the MattWeb folder.
<b>Mattweb.ini</b>	The MattWeb initialization file provides the MattWeb server with various types of important Tandem and PC information. Initialization files are also referred to as <i>profiles</i> . (See the sections <a href="#">Creating a MattWeb Profile</a> in <a href="#">Chapter 3, Getting Started</a> ). Mattweb.ini is merely a sample file. You may use this file as a basis of creating new .INI-files. The file is located in the MattWeb folder.
<b>Default.html</b>	Sample HTML file. The file is located in the MattWeb folder. The file contains a link to Demo.html. The file is located in the MattWeb folder.
<b>Demo.html</b>	Demo HTML that calls MattWeb. Load the file into your web designing program to see how MattWeb must be called from an HTML file. The file is located in the MattWeb folder.

- Sky16v3c.dll** Dynamic link library used for image conversions. The DLL has been provided by Skyline Tools.
- Userconv.dll** Dynamic link library which contains some dummy procedure definitions, which make standards for the system output, for instance when entering dates or large numbers. These definitions cover both text strings and functions belonging to the Tandem computer. See also the Matterhorn for Windows Setup and Reference Guide.
- Java .class files* MattWeb Java program files. Each file contains code that interprets different elements of the screen.
- MattISAPI.dll* MattWeb IIS ISAPI extension. It maintain streams interchange between applets and MattWeb manager.

## Installing the Matterhorn Pathway System

This section explains how to install and set up the Matterhorn Pathway system on a Tandem computer. The procedure comprises two stages; 1) transferring the Matterhorn files from the Matterhorn Suite CD-ROM to the Tandem and 2) creating the Matterhorn Pathway system, \$SKYB. Also, note that the MAXLINKMONS parameter must be set to a value greater than 0.

## ***Setting the MAXLINKMONS***

Note that the MAXLINKMONS parameter must be set to a value greater than 0. You may set this parameter during a cold start of the Pathway system. We recommend that you enter a value corresponding to the number of CPUs on your system.

## ***Transferring Matterhorn Files to the Tandem***

The first step when installing and setting up the Matterhorn server on a Tandem computer is to make a *binary transfer* of the three files, SETUPCOD, LICENSE, and UNPACK from the \Tandem subfolder on the CD-Rom to the Tandem.

- SETUPCOD contains a total of 17 files, including the three Matterhorn servers, various executable files, setup files and data files. Together, these files form the Matterhorn Pathway system.
- LICENSE describes your Matterhorn license.
- UNPACK is an object file which will subsequently unpack the SETUPCOD file and create the Matterhorn Pathway system.

To transfer the Matterhorn files, use a command like IXF Send a File or Guardian Access. Note that you must make a binary transfer. Thus, if you use the IXF command, add the following parameters to the command: BINARY NOEXT, EXT(50,50).

## ***Creating the Matterhorn Pathway System***

When the three Matterhorn files have been transferred to the Tandem, you must create the Matterhorn Pathway system,

\$SKYB. Enter the Tandem *conversational mode* and follow the step-by-step instruction below:

1. At the TACL prompt, type the command line:

**FUP ALTER UNPACK, CODE 100**

2. Next, launch the command:

**RUN UNPACK**

The UNPACK program will now unpack the SETUPCOD file.

3. Then, launch the command:

**RUN SETUP**

This command will run the TACL macro SETUP, which will ultimately create the Matterhorn Pathway system.

4. In a five stage operation you will have to make five different on-screen selections. Please follow the instructions carefully:
  - a. When you are prompted; **Enter PATHMON processname**, enter the name of the Matterhorn Pathway system. Default is \$SKYB.
  - b. When you are prompted; **Enter PATHMON cpu**, enter the number of the CPU that is to be used.
  - c. When you are prompted; **Enter PATHMON priority**, enter the relevant priority figure.
  - d. When you are prompted; **Enter name of PATHMON hometerminal (default *system hometerminal*)**, enter the name of your Pathway monitor home terminal.

When you are prompted; **Enter path to Designer database**, enter a path to a Screen Designer database. Default is C:\MATTHORN\, but note that you may also place the Screen Designer database on Tandem.

When you are asked; **OK to proceed? (Y/N)**, type Yes and press the **Enter** key.

The screen conversation is depicted in Figure 2.4.

```
MATTERHORN Setup. Copyright 2005 Skybeam Management Ltd.
Current Tandem Node is IMERMAID on volume DISK.MATTHORN

Please wait! Adding license to MATT-CONF server...Done

Enter PATHMON processname:$skyb
Enter PATHMON cpu:1
Enter PATHMON priority:170
Enter PATHMON hometerminal Default $TRM0. #OSP):$home
Enter PATH to Designer database C:\Matthorn\Designer

MATTERHORN Tandem Pathway setup specifications

Processname: $SKYB
Hometerminal: $home
Cpu:      1
Pri:     170
Designer path:C:\MATTHORN\DESIGNER

OK to proceed?(Y/N):y
```

**Figure 2.4:** Screen conversation during the creation of the Matterhorn Pathway system.

When the Matterhorn Pathway system has been created, the setup procedure will proceed to generate a TACL macro, which will start the Matterhorn Configuration program.



Matterhorn Configuration is the obligatory tool you must use when preparing your company's Pathway requesters to be executed as Matterhorn sessions. The process of creating Session Names in Matterhorn Configuration is described in [Chapter 3, Getting Started](#). For further information on Matterhorn Configuration, turn to Chapter 5, in the Matterhorn Setup and Reference Guide.

The Matterhorn Pathway system consists of the four servers MATT-CONF, MATT-MON, MATT-UMP and MATT-POBJ.

- ⇒ Server 1 - **MATT-POBJ**. This server will transfer the requester object to the web server.
- ⇒ Server 2 - **MATT-UMP**. This server controls UMP.
- ⇒ Server 3 - **MATT-CONF**. This server will handle and store the configuration information related to each Matterhorn session.
- ⇒ Server 4 - **MATT-MON**. This server will monitor all active Matterhorn sessions.

## Installing the Matterhorn Client and Screen Designer

This section explains how to install the Matterhorn Client, Screen Designer and Data Explorer on your PC. Note that you must install all programs on a network drive which is available to the web server. Make sure to map the drive correctly. This ensures that MattWeb is able to *see* the Matterhorn sessions and the Screen Designer database at runtime.

1. Insert the Matterhorn Suite CD-Rom in your CD-ROM drive. Select **Run** from the **Start** menu, locate the CD-ROM, and launch the Setup.exe file.
2. Select **Install Matterhorn Suite** in the opening screen and **Matterhorn for Windows** in the following screen. This option installs the files necessary to run Matterhorn for Windows, Screen Designer and Data Explorer.
3. Matterhorn Installation will now prepare the InstallShield Wizard. The wizard will guide you safely through the installation process.
4. When installation is complete, a Matterhorn folder containing a Matterhorn Profile Utility icon has been created. You must use this utility when creating and editing Matterhorn profiles and creating Matterhorn session icons in Windows. The Matterhorn Profile Utility is discussed in Chapter 10, Creating a Matterhorn Session Icon.

### *After Installation*

When installation is complete, the installation program has created:

- The folder Matthorn containing a number of Matterhorn and Screen Designer files. The files needed for 16-bit Matterhorn and Screen Designer are installed in the Matt16 folder, and the files needed for 32-bit Matterhorn and Screen Designer are installed in the Matt32 folder.
- A Matterhorn group window in Windows Program Manager (or folder in Windows 95).

A Matterhorn Profile Utility icon in the Matterhorn group window (or folder).

If you have installed the Matterhorn Client and Screen Designer in the same location as MattWeb, use the MattWeb Profile Utility to create the Matterhorn profiles and the associated icons for Matterhorn, Screen Designer and Data Explorer. This process is described in [Chapter 3, Getting Started](#). If you installed Matterhorn Client and Screen Designer on a different network drive for instance a file server, use the Matterhorn Profile Utility to create the Matterhorn and Screen Designer icons. Turn to the section, [Creating Matterhorn and Screen Designer Icons](#) in Chapter 3.

## Chapter 3: Getting Started

This chapter takes you through the steps involved when setting up Tandem applications to be run on the Internet via MattWeb. You will learn to create Session Names, MattWeb profiles and HTML pages. The chapter also details the purpose, structure and syntax of the MattWeb profile.

The chapter is organized as follows:

- ⇒ Getting Started
- ⇒ Creating Session Names
- ⇒ Creating MattWeb Profiles
- ⇒ Creating HTML pages
- ⇒ Configuring of ISAPI Extension and Matt Manger

## Getting Started

Getting started is quite simple. You must complete three semi-automated steps. These are:

1. Create Session Names in Matterhorn Configuration.
2. Create MattWeb profiles and generate HTML-files.
3. Create HTML pages

Note that the second stage, as described in this chapter, assumes that you have installed the Matterhorn Client and Screen Designer in the in the same location as MattWeb. This means that all relevant icons will be created at the same time.

## Creating Session Names

Matterhorn Configuration will automatically load when you have created the Matterhorn Pathway system. Matterhorn Configuration is the obligatory tool you must use when preparing your company's Pathway requesters to be executed as Matterhorn sessions.

In Matterhorn Configuration, each session is identified by a [Session Name](#). To a Session Name you link other important information necessary to the execution of the application as a Matterhorn session. This includes the name of the initial requester, POBJ search paths, server classes, requester environments and other types of information. For a full description of Matterhorn Configuration and step-by-step procedures, refer to Chapter 5 in the Matterhorn Setup and Reference Guide.

It is also in Matterhorn Configuration that you enable the Screen Designer database which stores information about screen layouts, etc. For more information, turn to [Chapter 5, Working With Screen Designer](#).

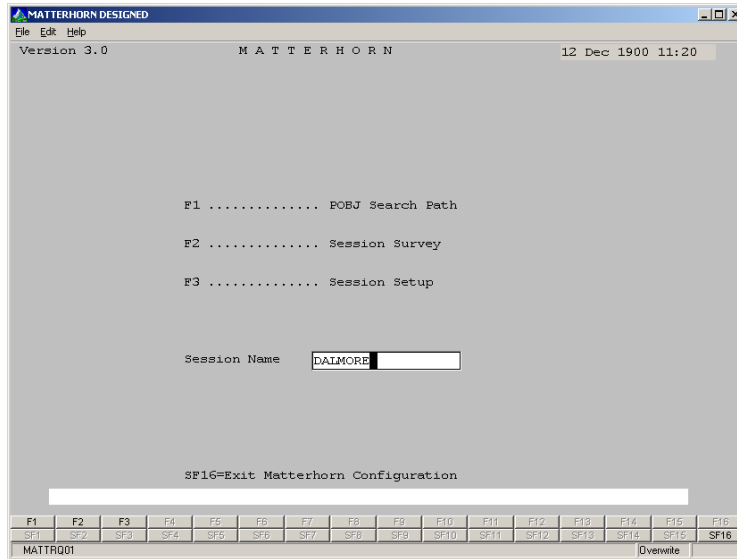


Figure 3.1: The Matterhorn Configuration main menu.

## Creating MattWeb Profiles

A *MattWeb profile* is the initialization file which the MattWeb server executable file, `Mattwebx.exe`, uses at runtime. The MattWeb profile provides `Mattwebx.exe` with various important pieces of information necessary for running MattWeb. When a remote user clicks an HTML-page which is connected with a Tandem session, MattWeb uses the information in the profile to determine *which* sessions should be executed and *how* they should be executed. The MattWeb profile is thoroughly discussed in [Chapter 4, The MattWeb](#)

[Profile](#) later in this chapter. The interrelation and cooperation of HTML pages, the MattWeb and Matterhorn profiles, and the Tandem at runtime is illustrated in [Chapter 6, Operating MattWeb](#).

A MattWeb profile contains paths to one or several Matterhorn profiles, which again contains paths to the sessions on the Tandem. Each session is identified by a Session Name. For each Session Name you indicate during the creation of a profile, a link to Screen Designer, the Matterhorn Client and the Screen Designer Database will also be created. Finally, a sample HTML-file will be created for each Matterhorn session.

MattWeb profiles are created and maintained using the MattWeb Profile Utility. You must create a profile for each MattWeb server.

When you create a MattWeb profile, the following items will be created:

- A MattWeb profile and a web server icon. Click the icon to activate the MattWeb server for the sessions indicated in the profile. For each profile you create, a new web server will be created.
- A Screen Designer profile and a Screen Designer icon for each session in the profile. Click the icon to open Screen Designer and redesign the requesters of the sessions indicated in the profile.
- A Matterhorn profile and a Matterhorn icon for each session indicated in the profile. Click the icon to preview the requesters before you make the sessions available to the Internet or your intranet.

- A Data Explorer icon. Click the icon to view the structure of the Screen Designer database related to the sessions indicated in the profile.
- An HTML file containing a link to the sessions on Tandem. The file will be stored in the MattWeb\Files folder

You can create MattWeb profiles in one of two ways; either by using the Profile Wizard or the advanced profile setup method. Both methods are described on the following pages.

### *Creating Profiles with the Profile Wizard*

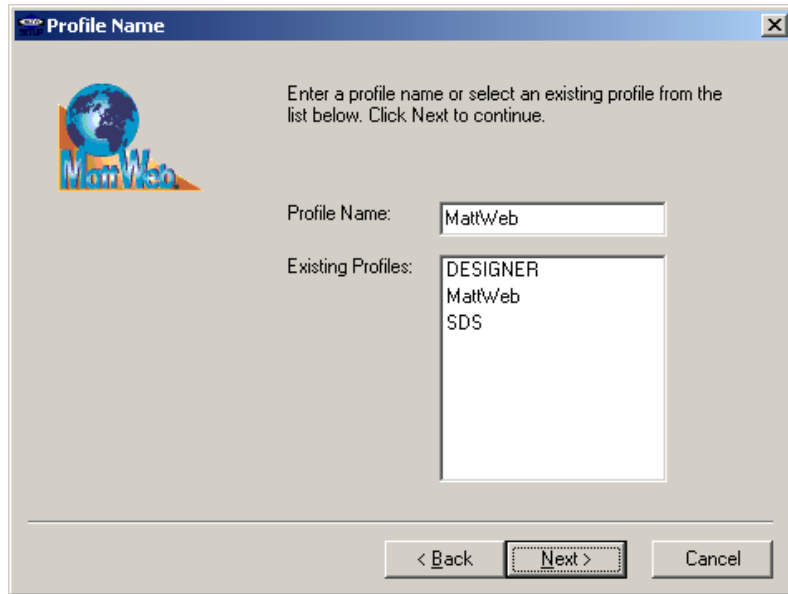
The most simple way to create a MattWeb profile is by using the Profile Wizard. You may also edit existing profiles with the wizard.

Note that the following description assumes that you have installed the Matterhorn Client and Screen Designer in the same location as MattWeb. If you have installed them on a file server, turn to the section [Creating Matterhorn and Screen Designer Icons](#) later in this chapter.

To create or edit profiles with the Profile Wizard:

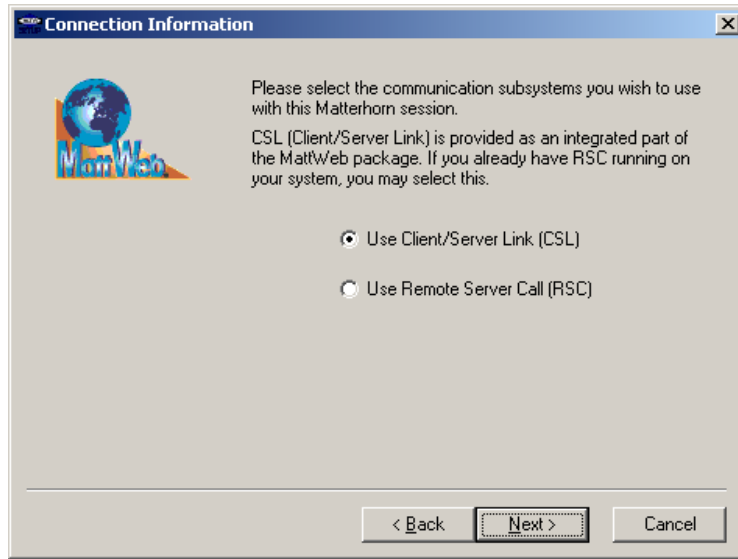
1. In the MattWeb Profile Utility opening screen, click the **Profile Wizard** button. The Profile Wizard starts.
2. In the **Profile Name** window, indicate a name for the profile. Click **Browse** if you wish to work with an existing profile. Click **Next** to continue.





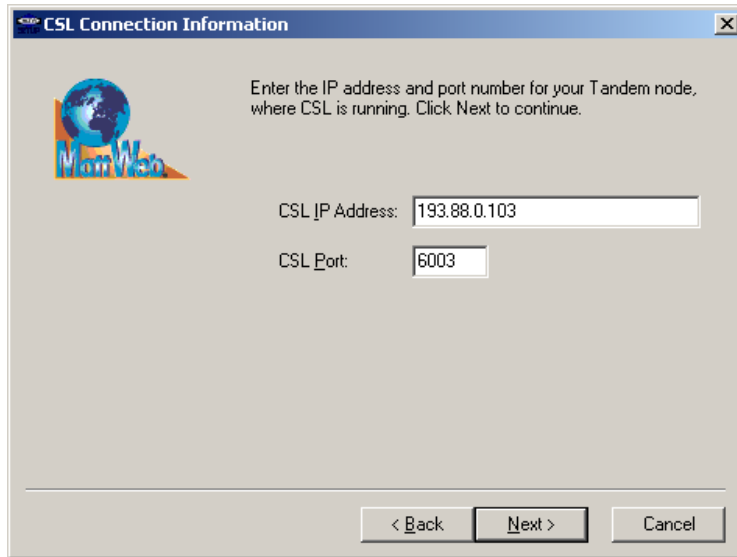
**Figure 3.2:** *The Profile Name window.*

3. Proceed to the **Connection Information** window. In this window, select the transport layer to use, CSL or RSC. Click **Next** to proceed.



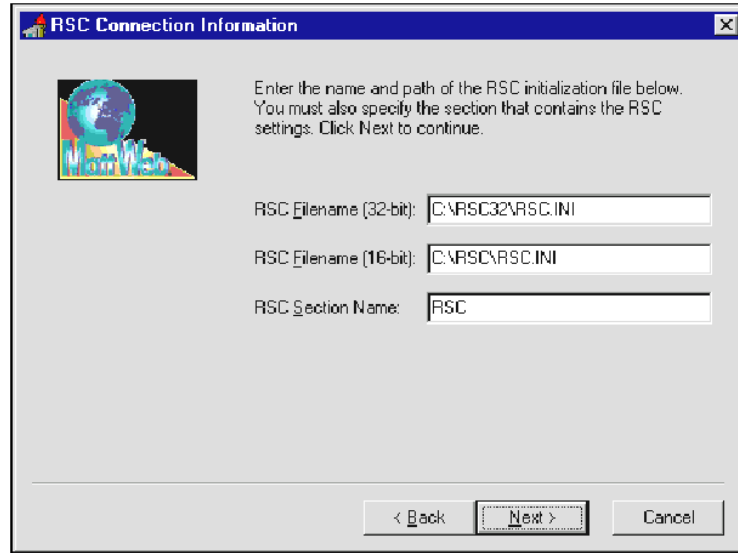
**Figure 3.3:** In the *Connection Information* window, select the transport layer to use, CSL or RSC.

4. If you have selected the **Use Client/Server Link (CSL)**, button the **CSL Connection Information** window opens. In this window, enter an IP address and a port to be used for the connection. The CSL-process on the Tandem require this information. For more information about how to obtain this information, turn to Chapter 7, Client Server Link (CSL) in the Matterhorn for Windows Setup and reference Guide. Click **Next** to proceed to stage 5.



**Figure 3.4:** *In the CSL Connection Information window enter an IP address and a CSL port to use for the connection.*

5. If you have selected the **Use Remote Server Call (RSC)** button, the **RSC Connection Information** window opens where you enter the filename of the relevant RSC initialization file (16- or 32-bit version) and the RSC section name. Click **Next** to proceed to stage 5.



**Figure 3.5:** *The RSC Connection Information window.*

6. In the Matterhorn Configuration server window, specify where the Matterhorn configuration information for each terminal is available. This path should lead to the Matterhorn Pathway system \$SKYB, and the MATT-CONF server.

**Matterhorn Tandem Node** Name of your Tandem computer. The name has to match the Tandem setup.

**Matterhorn Pathway Monitor** Name of the Matterhorn Pathway system. Unless you have changed the name of the Matterhorn Pathway system, use the default \$SKYB.

**Matterhorn Pathway Server** Name of the Matterhorn configuration server. Unless you have changed the name of the Matterhorn

Server

Configuration server, use the default MATT-CONF.

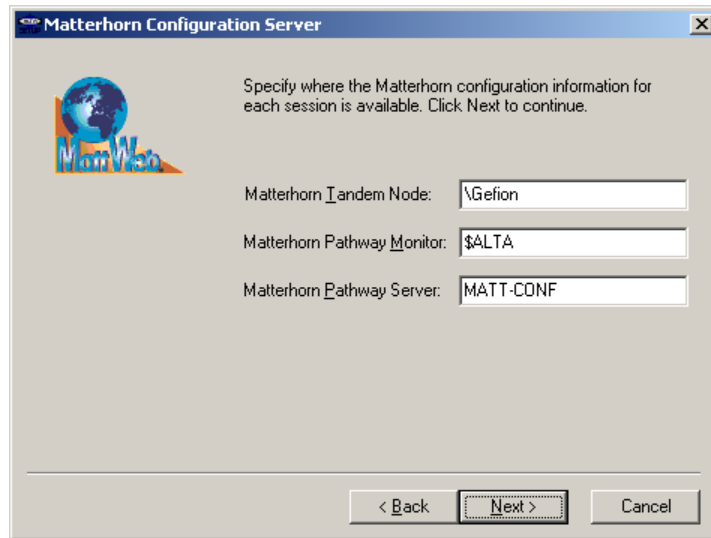
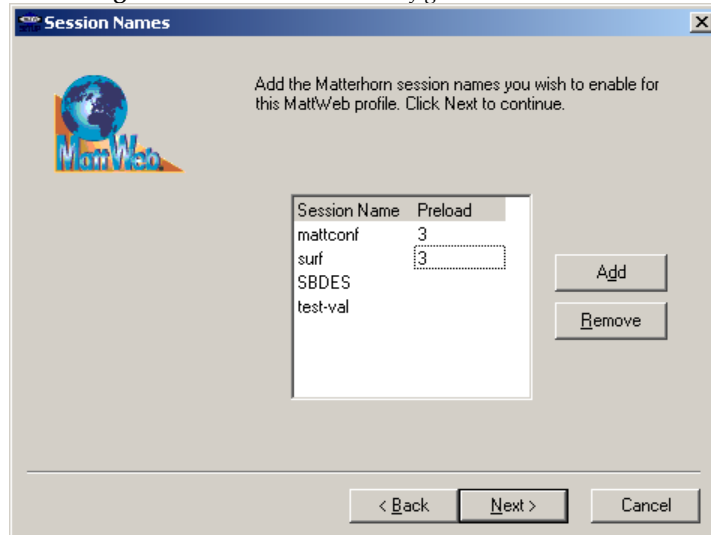


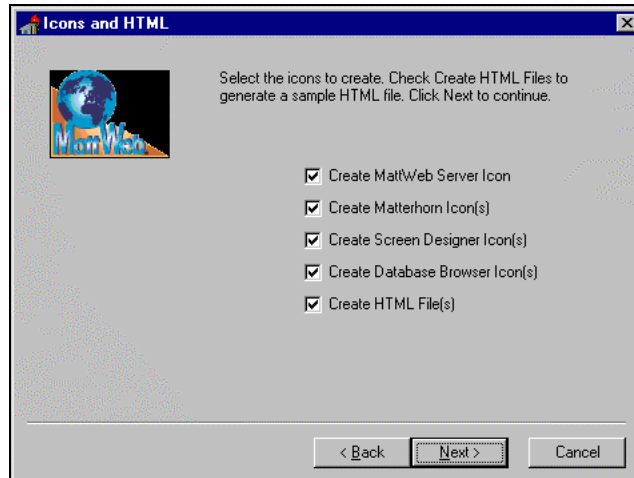
Figure 3.6: The Matterhorn Configuration Server window.



**Figure 3.7:** *The Session Names window.*

7. In the **Session Names** window, select the Matterhorn sessions you wish to activate for this server. The names must be the unique names of valid Matterhorn sessions as they have been indicated on the Tandem system. (The Session Name is identical to the Session Name specified in Matterhorn Configuration). Please refer to Chapter 5, Matterhorn Configuration in the Matterhorn Setup and Reference Guide. In the **Session Names** window, the following fields are available (see Figure 3.7):

<b>Session Name</b>	One or several session names created in Matterhorn Configuration. Click <b>Add</b> to add new sessions to the list. Click <b>Remove</b> to remove.
<b>Preload</b>	The number in this field indicates how many versions of the session will be launched when the web server is started. If new versions of the same session is already running, as the user dials in, response times will be reduced significantly.



**Figure 3.8:** *The Icons and HTML window.*

8. In the **Icons and HTML** window, select the icons to create. The Profile Utility will create icons for the MattWeb server, Matterhorn, Screen Designer and Data Explorer.

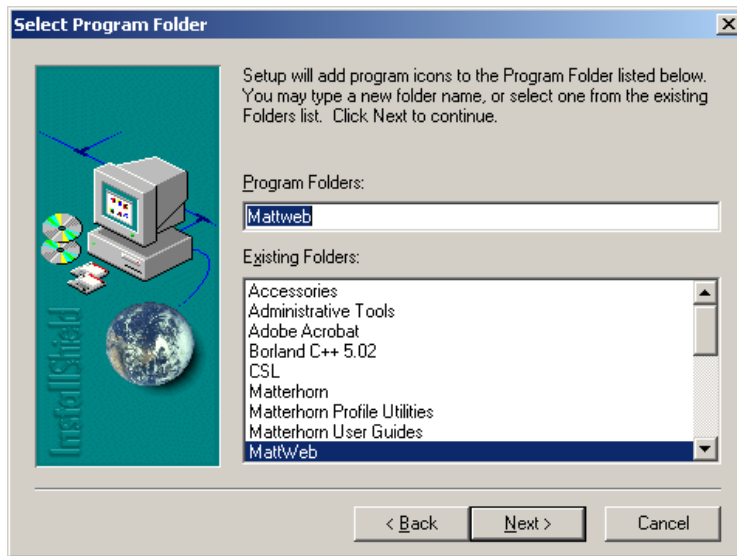
Note that the check boxes for Matterhorn, Screen Designer and Data Explorer will be dimmed if you have not installed the Matterhorn Client and Screen Designer in the same location as MattWeb. MattWeb Profile Utility *will* create the Matterhorn and Screen Designer profiles, but not the associated icon.

If this is the case, you will have to create the icons using the Matterhorn Profile Utility after you have completed the MattWeb Profile Utility. Please turn to the section, [Creating Matterhorn and Screen Designer Icons](#) later in this chapter.

Check the **Create HTML File(s)** check box if you wish

to create a sample HTML file for each of the sessions. Click **Next** to continue.

9. In the **Select Program Folder** window, indicate the folder in which to place the profiles. Click **Next** to continue.
10. The Profile Wizard will now create (or update) the profile(s). Click **Finish** to close the wizard.
11. The chosen icons are inserted in the specified program folder. Also, a MattWeb server icon is inserted. The MattWeb profile will be stored in the Mattweb\Ini folder; and so will the Matterhorn and Screen Designer profiles. The HTML file will be stored in the Mattweb\Files folder.



**Figure 3.9:** *The Select Program folder window.*



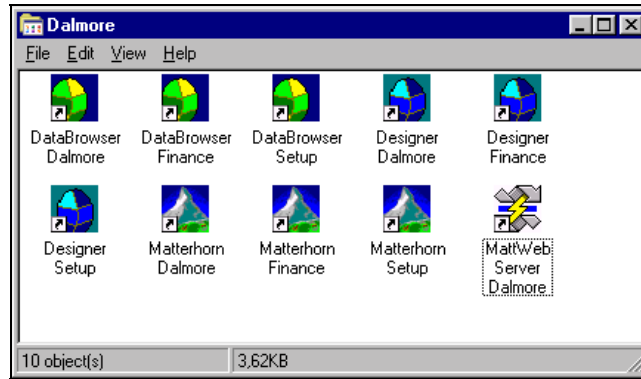


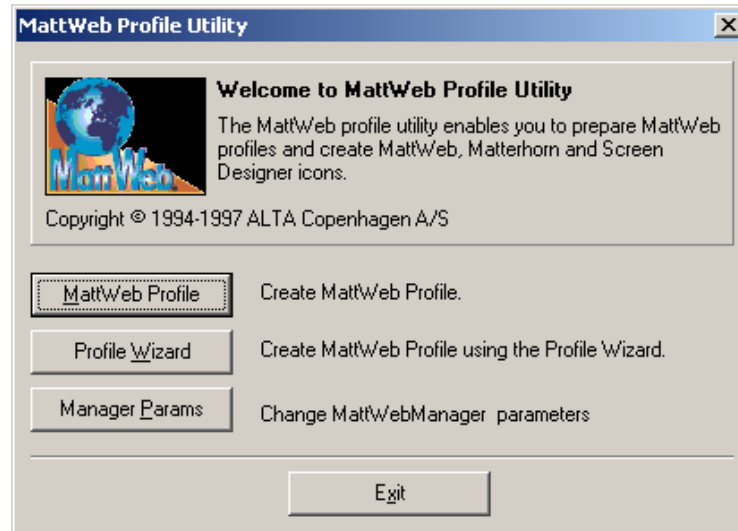
Figure 3.10: The Dalmore program folder with icons.

### Creating a MattWeb Profile - (Advanced)

The following process is more or less identical to using the Profile Wizard described on the previous pages. The dialog is a bit different, though. Again, the procedure assumes that you have installed the Matterhorn Client and Screen Designer in the same location as MattWeb.

To create or edit a profile:

1. Click the MattWeb Profile Utility icon in the MattWeb folder.
2. Click **MattWeb Profile**.

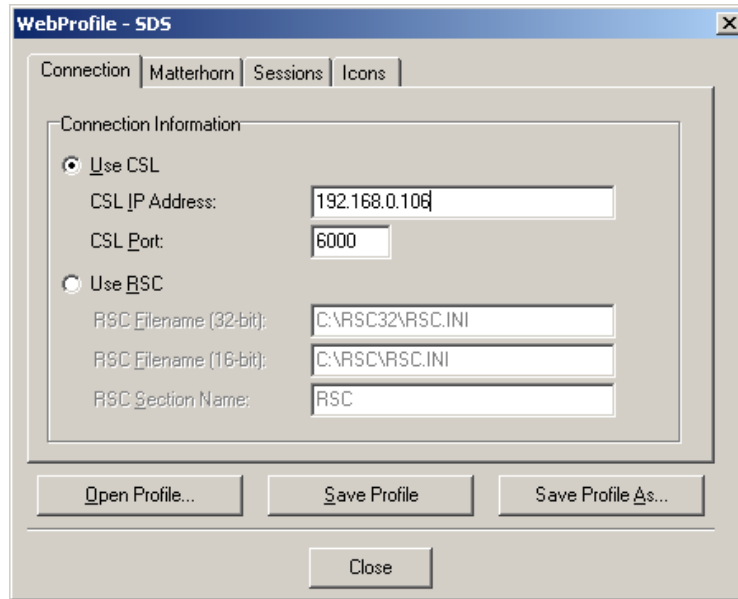


**Figure 3.11:** Click *MattWeb Profile*.

3. The **MattWeb Profile** dialog box opens. The dialog box contains four tabs: **Connections**, **Matterhorn**, **Sessions** and **Icons**. You must make entries in all these tabs in order to create your MattWeb profiles and the associated icons for Matterhorn and Screen Designer.

If you wish to edit the session in an existing profile, click the **Open Profile** button to display the **Open Profile** dialog box. Profiles have the file extension `.ini`.

4. In the **Connections** tab, select the transport layer you wish to use, CSL or RSC, and enter the required information. enter an IP address and a port to be used for the CSL-connection. Or enter the filename of the relevant RSC initialization file (16- or 32-bit version) and the RSC section name. This information is essential to Matterhorn.

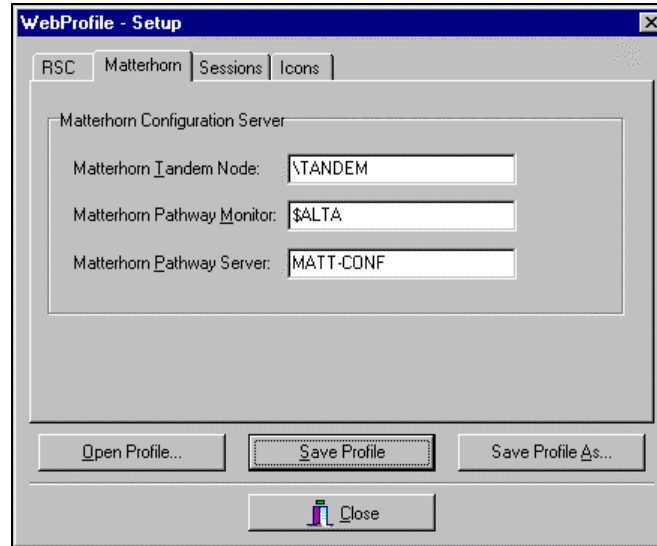


**Figure 3.12:** Enter the relevant RSC connection information in the RSC Tab.

5. In the **Matterhorn** tab, specify where the Matterhorn configuration information for each terminal is available. This path should lead to the Matterhorn Pathway system \$SKYB, and the MATT-CONF server:

<b>Matterhorn Tandem Node</b>	Name of your Tandem computer. The name has to match the Tandem setup.
<b>Matterhorn Pathway Monitor</b>	Name of the Matterhorn Pathway system. Unless you have changed the name of the Matterhorn Pathway system, use the default \$SKYB.
<b>Matterhorn Pathway Server</b>	Name of the Matterhorn configuration server. Unless you have changed the name of the

**Server** Matterhorn Configuration server, use the default MATT-CONF.



**Figure 3.13:** In the *Matterhorn* tab, specify where the Matterhorn configuration information for each terminal is available.

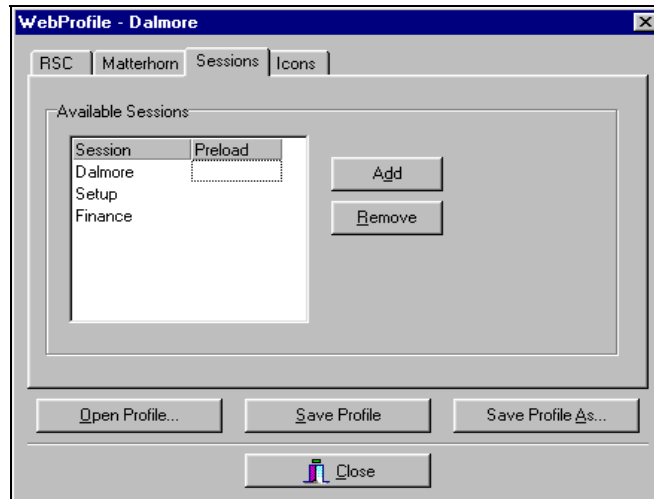
6. In the **Sessions** tab, select the Matterhorn sessions you wish to activate for this server. The names must be the unique names of valid Matterhorn sessions as they have been indicated on the Tandem system. (The Session Name is identical to the Session Name specified in Matterhorn Configuration). Please refer to Chapter 5, Matterhorn Configuration in the *Matterhorn Setup and Reference Guide*.

In the Session Names window, the following fields are available:

**Session** One or several session names created

**Name** in Matterhorn Configuration. Click **Add** to add new sessions to the list. Click **Remove** to remove sessions from the list.

**Preload** The number in this field indicates how many versions of the session will be launched when the web server is started. If several versions of the same session is already running, as the user dials in, response times will be reduced significantly.



**Figure 3.14:** In the *Sessions* tab, select the Matterhorn sessions you wish to run on the Internet on this server.

In the **Icons** tab, select the icons to create. MattWeb Profile Utility will create icons for the MattWeb Manager, Matterhorn, Screen Designer and Data Explorer.

Note that the check boxes for Matterhorn, Screen

Designer and Data Explorer will be dimmed if you have not installed the Matterhorn Client and Screen Designer in the same location as MattWeb. The MattWeb Profile Utility *will* create the Matterhorn and Screen Designer profiles, but not the associated icon.

If this is the case, you will have to create the icons using the Matterhorn Profile Utility after you have completed the MattWeb Profile Utility. Please turn to the section, [Creating Matterhorn and Screen Designer Icons](#). Check the **Create HTML File(s)** check box if you wish to create an HTML file for each of the sessions. When you have made entries in all four tabs, click **Save Profile** or **Save Profile As**. The name of the profile will be used as the MattWeb Manager icon title.

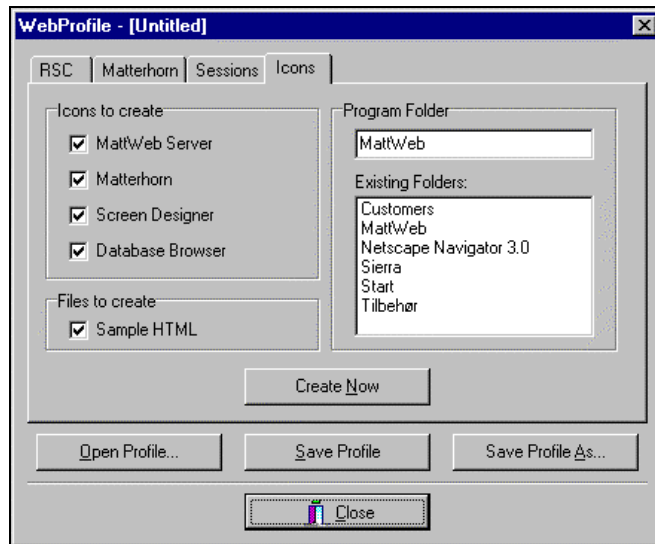


Figure 3.15: In the *Icons* tab, select the icons to create.

9. Click **Close** to return to Windows. The chosen icons are inserted in the specified program folder. Also, a MattWeb server icon is inserted. The MattWeb profile will be stored in the Mattweb\Ini folder; and so will the Matterhorn and Screen Designer profiles. The HTML file will be stored in the Mattweb\Files folder.

### *Configuring Matt ISAPI and Matt Manager*

Matt Manager retrieves information about Matt Manager's IP and socket from the Registry. When Matt Manager is launched it loads information about the listen port from the INI file that is specified in the command line. By default ISAPI uses

PortNo = 4000

MattManAdr = 127.0.0.1

If you wish to change these parameters please use MattWeb Configurator.

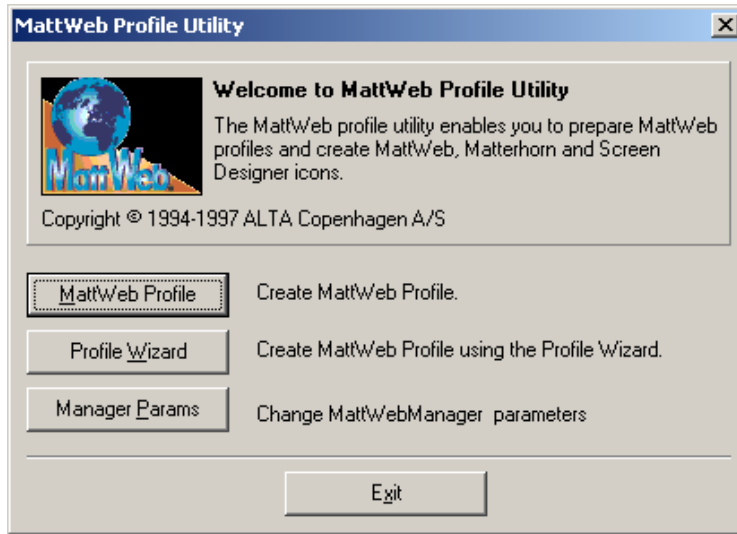


Figure 3.16: Click MattWeb profile.

Press Manager Params button:

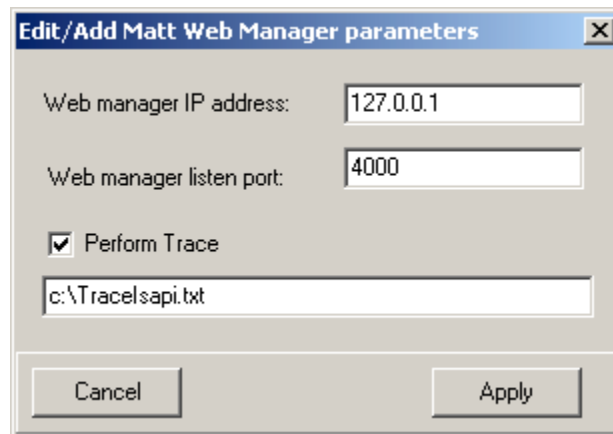


Figure 3.17: Specify Matt Manager parameters.



In order to change address and port please enter their valid parameters and press Apply button. If you want to turn on logging of ISAPI extension then check the 'Perform Trace' checkbox and type a full path and name of the file, which will be used for logging.

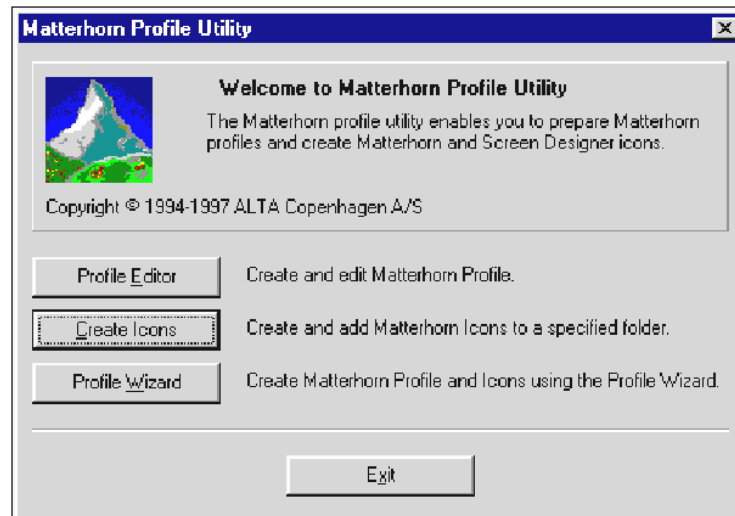
### ***Creating Matterhorn and Screen Designer Icons***

If you have installed the Matterhorn Client and Screen Designer program files on another disk drive than the web manager drive, for instance on a file server, you must use a different approach when creating the icons for the Matterhorn Client, Screen Designer and Data Explorer.

Since the MattWeb Profile Utility is located on the MattWeb Manager and the program files of the Matterhorn Client and Screen Designer are located on a file server, the MattWeb Profile Utility cannot *see* these files and consequently cannot create the shortcuts and insert the three icons. Instead, you must use the *Matterhorn* Profile Utility in your Matterhorn program folder to create the icons.

To create Matterhorn and Screen Designer icons:

1. In your Matterhorn program folder on the file server, click the Matterhorn Profile Utility icon. This will open the Matterhorn Installation and Setup window.



**Figure 3.18:** *The Matterhorn Installation and Setup window.*

2. Click the **Icon** button to open the **Create Matterhorn Icon** dialog box (see Figure 3.16). Click **Browse** and locate the relevant Matterhorn profile in the Mattweb\Ini folder on the same drive as you have installed MattWeb.
3. In the **Icon Titles** section, type the text which is to appear below the Matterhorn and Screen Designer icons. This title should reflect the application of the requester.
4. In the **Program Manager Group** field, state the name of the program folder.
5. When you are satisfied with the settings, click the **Create** button.
6. Finally, click the **Close** button to return Windows. The new icons will appear in this program folder.

7. If you wish to create additional icons, simply repeat the above procedure.

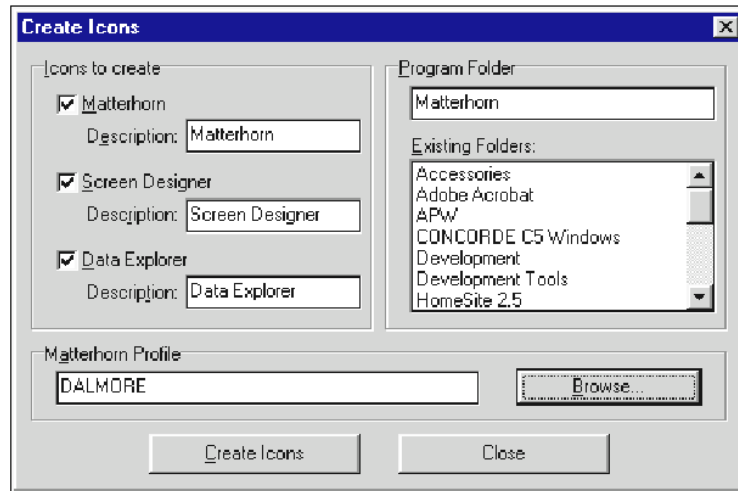


Figure 3.19: Use this window to create a new icons.

## Creating HTML Pages

When you have created the Session Names and the MattWeb profiles, the final stage is to create and design your Web page system so that the relevant links are established to the MattWeb profiles and ultimately to the Matterhorn sessions on the Tandem.

The setup program automatically creates an HTML file for each profile. This file is located in the Mattweb\Files folder. If, for instance, you have created a profile called Dalmore.ini, the HTML file will be labeled Dalmore.html.

If your IIS web server is connected to the Internet, all files you place in this folder and its subfolders will be available to all

remote clients. Do not place files or documents that you do not wish to share with the rest of the world! If you are running an intranet it is perfectly safe to place files in this location.

### *Default.html*

The Mattweb\Files folder also includes a Default.html file. In this file you can see how to establish the link to the MattWeb HTML pages. In the example below, the <A href> tag establishes a link to the web page Dalmore.html (see the section *Dalmore.html*).

```
<HTML>
<HEAD>
<TITLE>Your Company Name Goes Here</TITLE>
</HEAD>
<BODY>
<A href="Dalmore.html">Link to Dalmore HTML page</A>
</BODY>
</HTML>
```

### *Dalmore.html*

No the next page you see the sample HTML file, Dalmore.html:

```
<HTML>
<BODY>
<APPLET CODE="MattWeb.class" WIDTH=640 HEIGHT=528>
```

```
<PARAM Name = "IniName" Value = "DALMORE">
<PARAM Name = "DirName" Value="MATTWEB">
<PARAM Name = "Protocol" Value="http://">
</APPLET>
</BODY>
</HTML>
```

A couple of the tags in Dalmore.html are worth describing, since they are standards for all MattWeb HTML pages:

```
<APPLET CODE="MattWeb.class" WIDTH=640 HEIGHT=528>
```

In the APPLETT CODE tag, MattWeb.class points to the Java program files which are used during the session. The WIDTH and HEIGHT parameter determine the size of the browser screen. For more information on screen resizing, turn to the section [Resizing the Browser Screen](#) in Chapter 6.

```
<PARAM Name = "IniName" Value = "DALMORE">
```

This tag defines a parameter IniName which has the value DALMORE. *Never change the "IniName" entry!!!* DALMORE identifies a corresponding Dalmore entry in the INI-section of the MattWeb profile. Via the Matterhorn profile, this entry points to the Matterhorn sessions on the Tandem.

The Value entry will, of course, vary with the HTML file related to each Matterhorn session.

```
<PARAM Name = "DirName" Value="MATTWEB">
```

Applet reads this tag to determine in which virtual subdirectory ISAPI extension it is dealing with is located.

Once this directory is renamed you should change this parameter manually or using WebSetup.exe utility.

```
<PARAM Name = "Protocol" Value="http://">
```

This tag defines the protocol that will be used by applet to send requests on the Web Server. 'https://' means that SSL will be used. With 'http://' data will not be crypted.

In [Chapter 6, Operating MattWeb](#), you can see an illustration of the interrelation and cooperation of HTML pages, the MattWeb profile and the Matterhorn profile, and the Tandem during runtime.

## Chapter 4: The MattWeb Profile

This chapter details the purpose, structure and syntax of the MattWeb profile. The chapter also explains the connection between MattWeb profiles and Matterhorn Profiles.

The chapter is organized as follows:

- ⇒ MattWeb Profiles
- ⇒ Elements of the MattWeb Profile
- ⇒ Command Line of Mattwebx.exe
- ⇒ Editing MattWeb Profile
- ⇒ MattWeb Profiles vs. Matterhorn Profiles

## MattWeb Profiles

A MattWeb profile is the initialization file which the MattWeb Manager executable file, *Mattwebx.exe*, uses at runtime. The MattWeb profile provides *Mattwebx.exe* with various important pieces of information necessary for running MattWeb. The profile also specifies which Matterhorn sessions to return to the remote users as Internet sessions.

```
[Directories]
FilePath=X:\MATTWEB\FILES\
Download=X:\MATTWEB\FILES\
LogFiles=X:\MATTWEB\LOGS\
Virtual=MATTWEB

[INI]
Dalmore=X:\MATTWEB\INI\Dalmore.INI

[Config-Setup]
RSCSECTION=RSC
RSCFILE=C:\RSC\RSC.INI
SYSTEM=\TANDEM
PATHMON=$SKYB
SERVER=MATT-CONF

[MattWeb]
Portno=4000
MattWin=X:\MattWeb
```



## Elements of the MattWeb Profile

Figure 4.1 depicts the sample MattWeb profile, `Mattweb.ini`, which is part of the MattWeb package. You may use this file as a basis of creating new profiles. The most important entries in the profile are located in the `[Directories]`-section, the `[MattWeb]`-section and the `[Config-Setup]`-section. Other entries specify various display settings like window size, font, and color attributes.

### *The [Directories]-section*

In the `[Directories]`-section, the profile informs the MattWeb Manager about various file locations.

#### **FilePath**

---

The `FilePath` entry informs the MattWeb Manager where to locate the HTML-files to use and the Java classfiles. If your web server is connected to the Internet, all files you place in this folder and its subfolders will be available to all remote clients. Do not place files or documents that you do not wish to share with the rest of the world! If you are running an intranet it is perfectly safe to place files in this location.

#### **Download**

---

The `Download` entry informs the MattWeb manager in which folder temporary files, like bitmaps for conversions and JPEGs or GIFs stored in the Screen Designer database, are placed.

## **LogFiles**

---

The LogFiles entry informs the MattWeb Manager where the log files generated by the server should be stored. The file will tell you which user has visited the server.

### *The [INI]-section*

In the [INI]-section, the MattWeb profile informs the MattWeb Manager which Matterhorn profiles should be executed via the browser. In the section, each session will be represented by a path pointing to a valid Matterhorn profile, which again points to a valid Matterhorn session on the Tandem.

### *The [Config-Setup]-section*

In the [Config]-section you find the entries related to the communication between the Tandem and the MattWeb Manager.

## **RscFile**

---

The RscFile entry is the path to the RSC initialization file. The RSC initialization file is used when RSC loads. For further information, turn to Chapter 8, Configuring RSC for Matterhorn.

## **RscFile32**

---

The RscFile32 entry is the path to the RSC initialization file when you are running 32-bit RSC. For further information, turn to Chapter 8, Configuring RSC for Matterhorn.

## **RscSection**

---

The RscSection entry points to the RSC section in the RSC initialization file. Do not include the brackets [] in the string containing the section name. Note that the entry value 'RSC' is our suggestion for a name. You may of course use another section name provided that this section name is part of the RSC initialization file.

## **System**

---

The System entry provides the Matterhorn Client with the name of the Tandem system. The value in this entry should match your current Tandem setup.

## **Pathmon**

---

The Pathmon entry provides the Matterhorn Client with the name of the Matterhorn Pathway system, \$SKYB. Do not change the value in this entry unless you have renamed the Matterhorn Pathway system.

## **Server**

---

The Server entry provides the Matterhorn Client with the name of the Matterhorn configuration server, MATT-CONF. Do not change the value in this entry, unless you have renamed the Matterhorn configuration server.

## **TransportLayer**

---

The TransportLayer entry determines whether or not the session will use CSL as a transport layer. Options are *Yes* and *No*. CSL is the subject of Chapter 7, in the Matterhorn for Windows Setup and Reference Guide.

## Command Line of Mattwebx.exe

The profile, or initialization file, is the first parameter taken by the MattWeb Manager executable file, Mattwebx.exe.

**X:\MattWeb\Mattwebx.exe X:\MattWeb\Mattweb.ini**

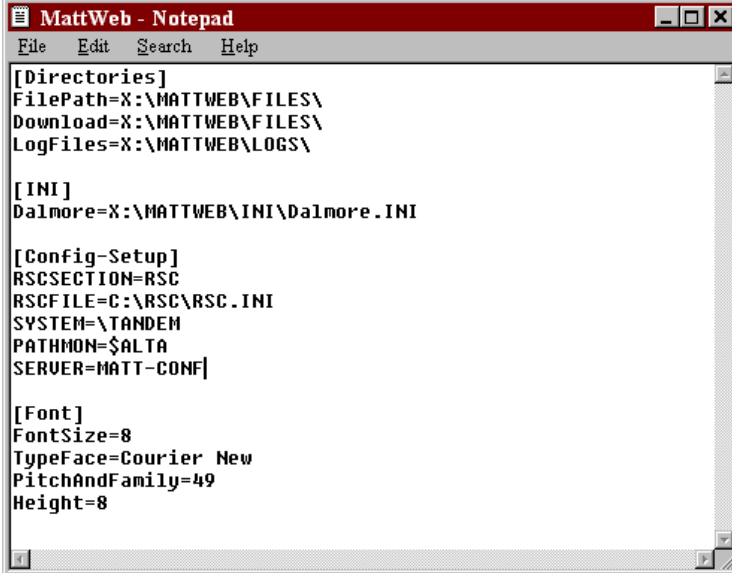
## Editing MattWeb Profiles

MattWeb profiles may also be edited using the MattWeb Profile Utility.

To edit an existing profile:

1. Click the Profile Utility icon in the MattWeb folder.
2. Click **MattWeb Profile**.
3. Click **Open Profile** to open the **Open Profile** dialog box. Select the profile you wish to edit.
4. When you have made all your changes, click **Save Profile**.
5. Click **Close** and **Exit** to exit MattWeb Profile Utility.

As mentioned, you may also edit the profile using the Profile Wizard. In the Profile Name screen, select the profile from the list box.



```
[Directories]
FilePath=X:\MATTWEB\FILES\
Download=X:\MATTWEB\FILES\
LogFiles=X:\MATTWEB\LOGS\

[INI]
Dalmore=X:\MATTWEB\INI\Dalmore.INI

[Config-Setup]
RSCSECTION=RSC
RSCFILE=C:\RSC\RSC.INI
SYSTEM=\TANDEM
PATHMON=$ALTA
SERVER=MATT-CONF

[Font]
FontSize=8
TypeFace=Courier New
PitchAndFamily=49
Height=8
```

**Figure 4.2:** You may also edit MattWeb profiles using a text editor such as Notepad.

## MattWeb Profiles vs. Matterhorn Profiles

In this manual you often meet the terms, *MattWeb profiles* and *Matterhorn profiles*. In this section, we will discuss the difference between the two items, as well as the connection between them.

As you have learned, the MattWeb profile provides the MattWeb Manager executable file, `Mattwebx.exe`, with

various important pieces of information necessary for running MattWeb. When a remote user clicks an HTML-page which is connected with a Tandem session, MattWeb uses the information in the profile to determine *which* sessions should be executed and *how* they should be executed.

*Matterhorn profiles* work in the same way as MattWeb profiles, only one level closer to the Tandem. A Matterhorn profile informs the Matterhorn Client and Screen Designer with information necessary for addressing the Tandem system and executing the current session on PC.

When you create a MattWeb profile, a Matterhorn profile is also created to be used by the Matterhorn Client and Screen Designer for each of the Session Names you have indicated. These profile are located in the Mattweb\Ini folder on the same drive on which you have installed MattWeb. Matterhorn profiles take their name after the Session Name(s) indicated in the MattWeb profile. If, for instance, you have added the Session Name, *Dalmore*, during the creation of the MattWeb profile, the Matterhorn profile will be labeled, *Dalmore.ini*. For more information on Matterhorn profiles, turn to Chapter 11, in the Matterhorn Setup and Reference Guide.

A MattWeb profile contains links to one or several Matterhorn profiles each pointing to Matterhorn sessions on the Tandem. Figure 4.3 in [Chapter 6, Operating MattWeb](#), illustrates the interrelation and cooperation of HTML pages, the MattWeb profile and the Matterhorn profile and the Tandem during runtime.

## Chapter 5: Working With Screen Designer

This chapter describes how to configure and run Screen Designer. You will also learn to call HTML pages from within redesigned requesters.

The chapter is organized as follows:

- ⇒ Getting Started on Tandem
- ⇒ Getting Started on PC
- ⇒ Using Screen Designer
- ⇒ Data Explorer
- ⇒ Previewing Your Screens

## Getting Started on Tandem

In many ways a Screen Designer session resembles a Matterhorn session. They both use the same profile (i.e. initialization file) and consequently use the same Session Name key to locate the relevant record in the MATT-CONF server on the Tandem. Unlike Matterhorn sessions though, Screen Designer sessions do not display the screen indicated in the field Initial Requester of the Session Name in question. Instead, Screen Designer displays an empty application window.

Once Screen Designer is running you may open any requester that may be tracked down using the POBJ search paths specified in the POBJ Search Path window.

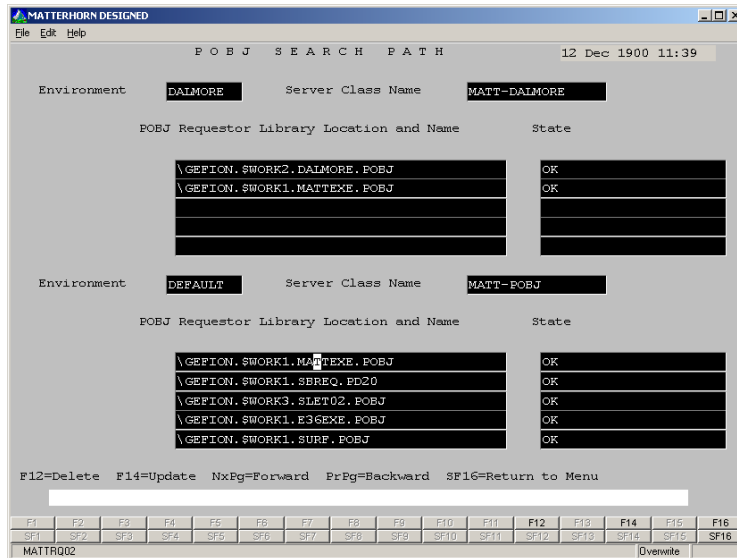


Figure 5.1: The search paths indicated in the POBJ Search Path window



*determine which requesters may be loaded into Screen Designer.*

Other fields in Matterhorn Configuration, which are relevant to Screen Designer, is located in the Miscellaneous section (see Figure 5.2):

**Use Screen Designer Layout**

Your choice for this field determines whether or not the users will see the designed version of the requester when the requester is executed. Options for the field are *Yes* and *No*. You must choose *Yes* in this field, both when you wish to run Screen Designer and when you wish to run the requester with the designed screen.

**Screen Designer Group Name**

In this field, enter the name of the user group that will use the current layout, You can create up to 7 different screen layouts based on the same requester. For instance, you may create one layout for the finance department, another layout for the accounting department, etc. You may use up to 8 characters for a group name.

**Screen Designer Database Location**

Use this field to indicate the location of the Screen Designer database. The database may be located either on Tandem or on PC. Note that you cannot design requesters before you have indicated a path to a database. There is no limit as to the number of requesters that may be handled by the same database.

You must enter a path to a database in this field before you can design any requester with Screen Designer. Screen Designer will

create the database for you, when you run Screen Designer for the first time.

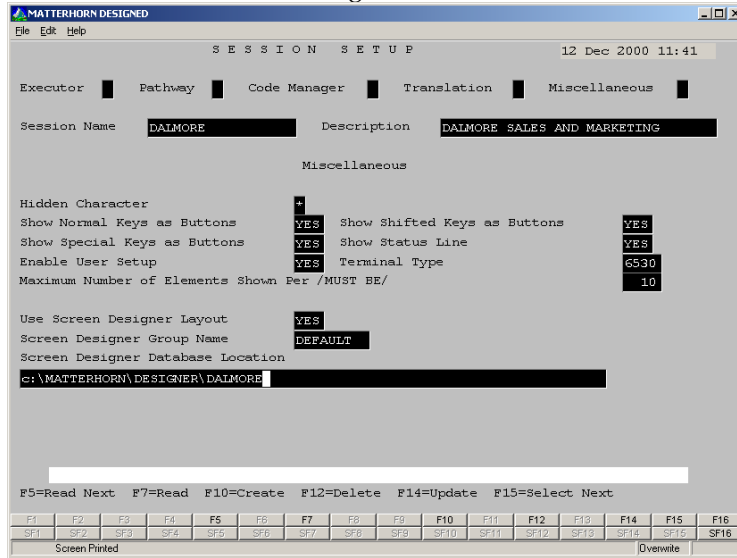


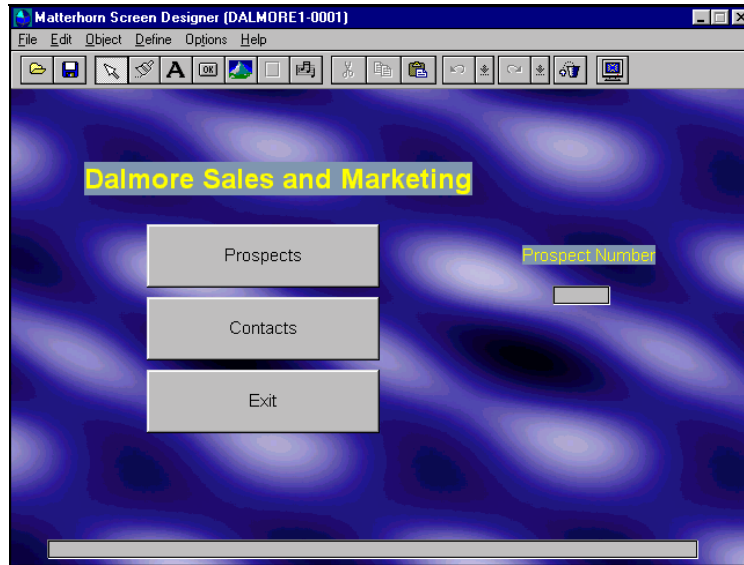
Figure 5.2: Use the Miscellaneous section to enter information necessary to run Screen Designer.

## Getting Started on PC

How to get started on PC was described in [Chapters 2](#) and [3](#). In [Chapter 2](#) you learned how to install Screen Designer and in [Chapter 3](#) we discussed how to configure MattWeb profiles and create the associated Screen Designer session icons. Please turn to these chapters for further information.

## Using Screen Designer

To run Screen Designer, double-click the relevant Screen Designer icon. The Screen Designer application window appears. Load the requesters into Screen Designer one by one.



**Figure 5.3:** *With Screen Designer you may redesign your requesters.*

It is beyond the scope of this manual to describe all features and functions of Screen Designer. For more information, turn to the Screen Designer Setup and Reference Guide, chapters 4 through 8.

There are, however, certain issues which are relevant to MattWeb only and which must be discussed at this point.

## *Associating HTML Pages with Objects*

Screen Designer enables you to activate different HTML pages from within your requesters. You can use this feature to establish a connection to a server on the Internet or when you are creating your own company intranet. When the user clicks an object associated with an URL, the HTML page will be displayed.

In Screen Designer the object types *text*, *picture*, *button*, and *multimedia* may all be associated with HTML pages.

To associate an HTML page with an object:

1. Select (or create) the object you wish to associate with an HTML page. The Object Inspector displays (see Figure 5.4).
2. Enter the URL in the URL property.
3. Set the URLUse property to *True*
4. Return to Screen Designer.

For further information on the Screen Designer Object Inspector, turn to the Screen Designer Setup and Reference Guide.

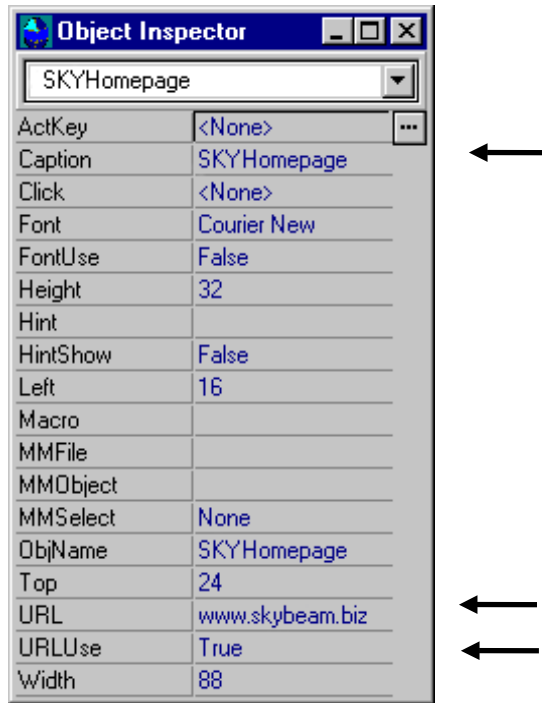


Figure 5.4: A button designed to activate the SKYBEAM Homepage.

## Data Explorer

The Data Explorer productivity tool provides a fast and easy way of monitoring and maintaining your Screen Designer databases on a large scale.

Data Explorer provides a structured overview of your Screen Designer databases. You may create entirely new databases and construct them on the basis of existing databases. Thus, you may drag requesters from one database and drop them in

another database. Using Data Explorer, you may drag selected objects from one requester to another and from one database to another - a technique known from Microsoft Explorer.

Data Explorer allows you to create multiple requester layouts on the fly and preview your screens. Data Explorer will also help you rebuild or reindex your databases in case of disk or file errors.

You can launch Screen Designer directly from Data Explorer to perform online screen editing. A click in the menu and Screen Designer will display the current requester. This feature also enables you to preview and monitor the changes you make to the databases using Data Explorer.

Data Explorer enables you to move from test to production in a matter of seconds. Simply drag your changes from the test database to the production database and users will be up and running instantly (see Figure 5.5).

Data Explorer will also help you rebuild or reindex your databases in case of disk or file errors. For a full description of Data Explorer, turn to Chapter 8 in Screen Designer Setup and Reference Guide.

To activate Data Explorer, click the related Data Explorer icon in the MattWeb folder.

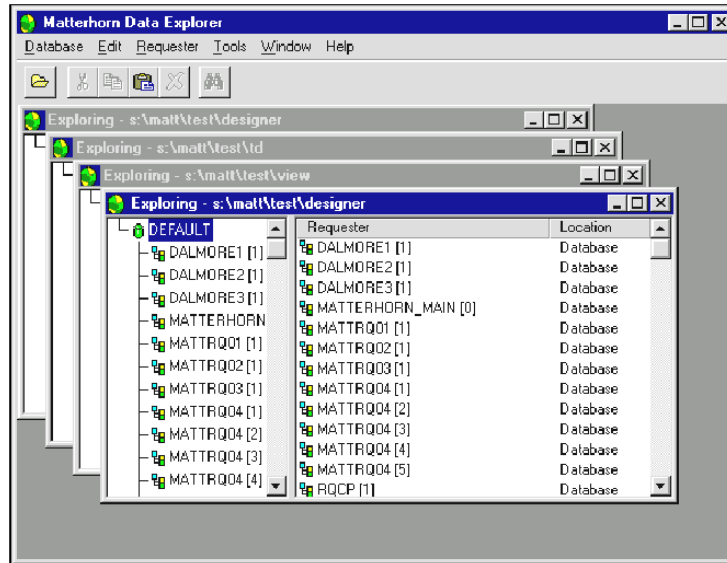


Figure 5.5: The Data Explorer application window.

## Previewing Your Screens

To preview the Windows version of the Matterhorn sessions, click the related Matterhorn icon. The Matterhorn Client will visualize the redesigned requester in accordance with the changes you have made with Screen Designer.

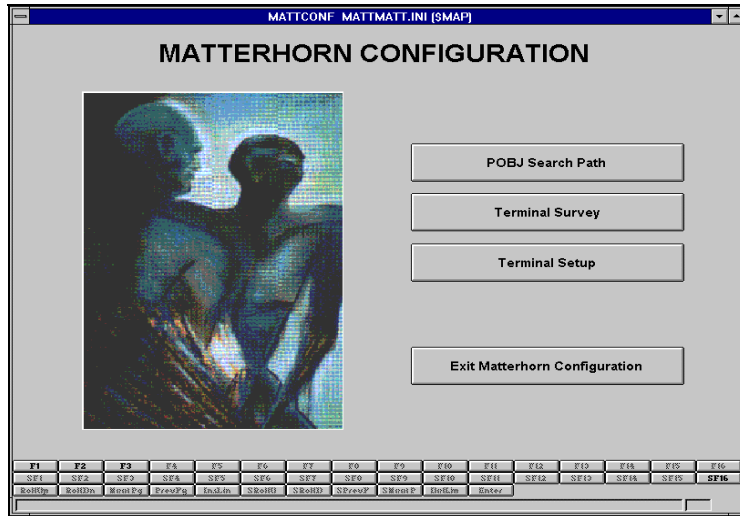


Figure 5.6: Preview your applications before use.



## Chapter 6: Operating MattWeb

This chapter presents the MattWeb client interface and the various characteristics of navigating requesters running under MattWeb. The chapter also discusses the operation of MattWeb from a more technical point of view: from the point when a remote user enters an URL in his or her browser to the point when the legacy Pathway application appears in the remote user's browser screen.

The chapter is organized as follows:

- ⇒ The MattWeb Interface
- ⇒ How Does MattWeb Work
- ⇒ Starting the Web Manager
- ⇒ Operation Flow
- ⇒ Session Timeout
- ⇒ Session Logging
- ⇒ Java Log

## The MattWeb Client Interface

On the remote computer, MattWeb sessions are run via a web browser that supports Java, such as Netscape Navigator 3.0 or Microsoft Internet Explorer 3.0. It is beyond the scope of this manual to describe the interfaces of these browsers. We assume that you obtain this knowledge elsewhere. What we will describe, however, are the characteristics of operating a MattWeb session.

Roughly, the characteristics may be divided into the following subcategories:

- ⇒ Cutting and pasting text
- ⇒ Right-click popup menu
- ⇒ Resizing the browser screen
- ⇒ The button panel
- ⇒ Dealing with error messages
- ⇒ Dropdown list boxes

### *Copying, Cutting and Pasting Text*

Since the Windows Clipboard is not supported on all platforms, MattWeb provides its own clipboard for edit fields. Use Ctrl+C for copying, Ctrl+X for cutting, and Ctrl+V for pasting the contents of edit fields. These commands are the standard Windows commands of the CIU keyboard layout.

## *Right-Click Popup Menu*

In some browsers, a popup menu will display when you right-click the mouse button in an edit field. MattWeb does not support this feature.

## *Resizing the Browser Screen*

You cannot change the size of a MattWeb session dynamically, i.e. while it is running. However, MattWeb supports two types of static resizing:

⇒ Float/Fix Resizing

⇒ HTML Resizing

### **Float/Fix Resizing**

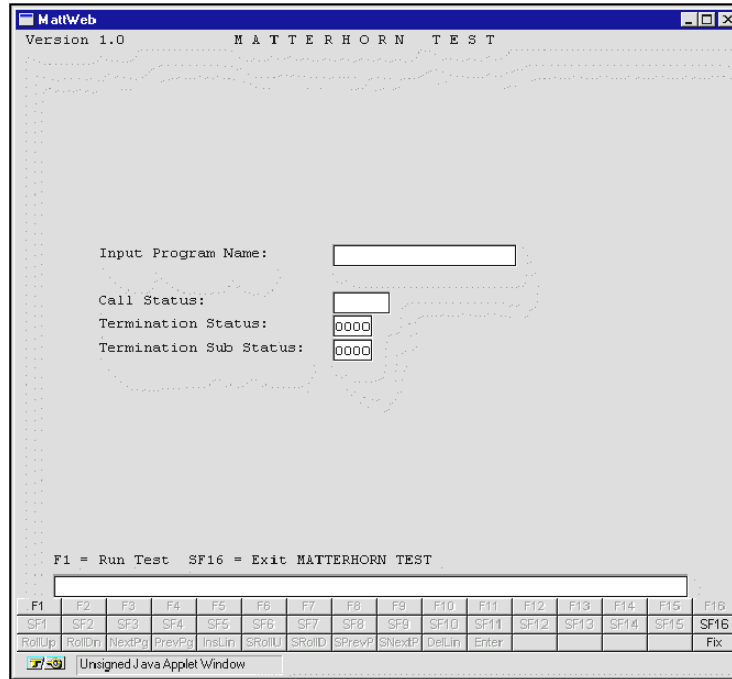
---

Float/Fix resizing may be activated at runtime. In the button panel, click the **Float** button. MattWeb will now transfer the applet to separate application window, known as a *floating* window. It is not possible to further resize the floating window. It has the same size as the original screen in the web browser, only the tools and menus of the web browser is no longer present.

In the floating window, a string appearing across the bottom of the floating window, will remind the user that this is a floating window. In Netscape, the string is "Unsigned Java applet window". As long as the session is running in the floating window, you can use the web browser for other browsing purposes.

Note that you cannot terminate the MattWeb session from the floating window, nor close the window from the Control menu. You must return to the original browser presentation.

To return to the original web browser presentation, click the **Fix** button.



**Figure 6.1:** The MattWeb session is running in a floating window. Click Fix to return to the browser.

## HTML Resizing

HTML resizing refers to the fact that you may control the browser's screen size via the code of the current HTML page.

Below you see the APPLET CODE tag of an MattWeb HTML file:

```
<APPLET CODE="MattWeb.class" WIDTH=640 HEIGHT=528>
```

The Width and Height parameters determine the size of the browser screen at runtime and may be adjusted to accommodate different resolutions or monitor sizes. For more information on the MattWeb HTML file, turn to [Creating HTML Pages in Chapter 3](#).

Part of your MattWeb package are four sample HTML files in four different sizes. The files, presented below, are stored in the MattWeb\Files subfolder.

HTML file	Resolution	Height	Width
Size50.htm	640x480	320	312
Size63.htm	800x600	400	384
Size75.htm	1024x768	480	432
Size100.htm	1024x768	640	552

### *The Button Panel*

MattWeb inserts a button panel across the bottom of the browser screen. The buttons on this panel are graphic representations of the Tandem keys which apply to the current session. Note that you cannot use the Tab key to navigate to the keys of the button panel.

In addition to the Tandem keys, MattWeb inserts the **Float** button. This button may be used to resizing the browser screen (see the section [Resizing the Browser Screen](#) in this chapter).

Note that you may use Screen Designer to control whether or not the button panel of Tandem keys will display at runtime. The Float/Fix buttons, however, will always display.

## Dealing with Error Messages

On the browser screen, error messages generated on the Tandem will be presented as shown in the figure on next page. The most common error messages are: "Unable to locate MattWeb host", "Unable to send data to MattWeb host", "Error in datastream from host" or "Unable to initialize time-out".

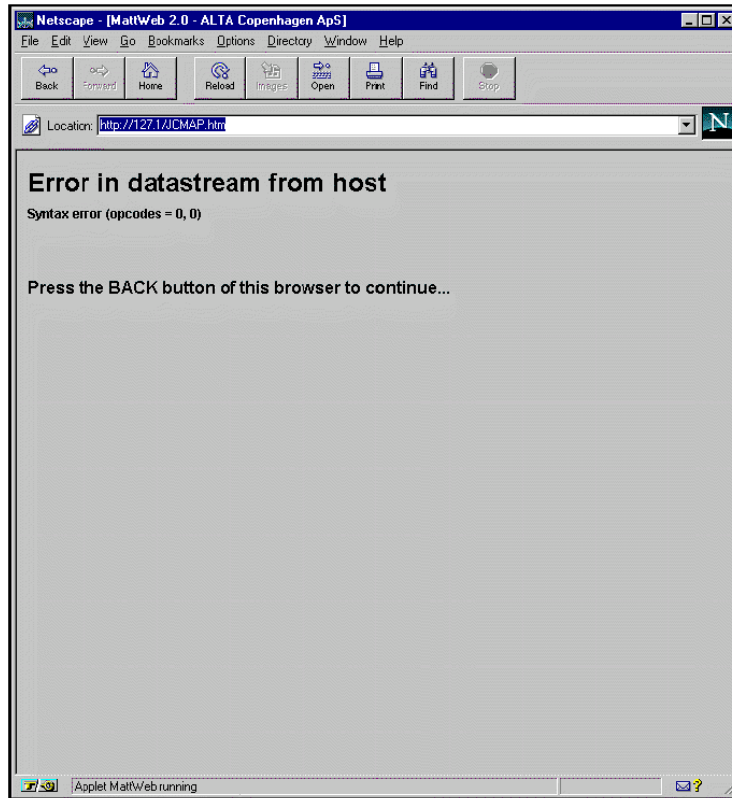


Figure 6.2: An error message in MattWeb.

There is nothing the user can do about these messages except try to establish the connection once again. If it still does not work, he or she should contact the system administrator.

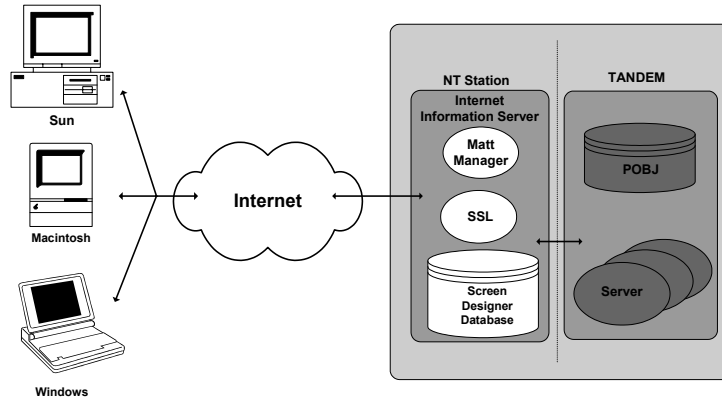
### *DropDown List Boxes*

MattWeb supports the standard presentation of dropdown list boxes. Consequently, you cannot enter values in dropdown list boxes, nor can you display the contents of a dropdown list box by pressing the Space key.

## How Does MattWeb Work

MattWeb requires no particular technical skill of the remote user dialing in via the Internet. MattWeb is transparent to the user, and the connection will be just like any other Internet-connection. The user simply clicks a URL to gain access to the Web server and ultimately to your Tandem system.

Once the connection has been established, and the user activates a MattWeb page, the session will be executed exactly as it would run in a client/server environment.



**Figure 6.1:** *MattWeb will make your data available to the world. Note that the Screen Designer database may also be located on the Tandem.*

## Starting the IIS

In order to start working with MathWeb you should launch IIS on your NT workstation. To do so please enter Start >> Settings >> Control Panel >> Administrative Tools >> Services and select World Wide Web Publishing service there. Right click on it and choose 'Start'. It is recommended to set Startup Type to Automatic mode. In this case sever will automatically start every time computer starts.

## Starting the Matt Manager

To start the Matt Manager, click the MattWeb Manager icon in your MattWeb program folder. This will launch the web server executable file, Mattwebx.exe. As described in [Chapter 4](#), the Mattweb exe takes the MattWeb profile as a first and only parameter. The MattWeb Manager window is depicted in Figure 6.2.





**Figure 6.2:** *The MattWeb server is ready to answer incoming calls.*

## Operation Flow

From a technical viewpoint, this is what happens when a remote user dials in order to establish a connection to the web server and subsequently requests to launch a Matterhorn session.

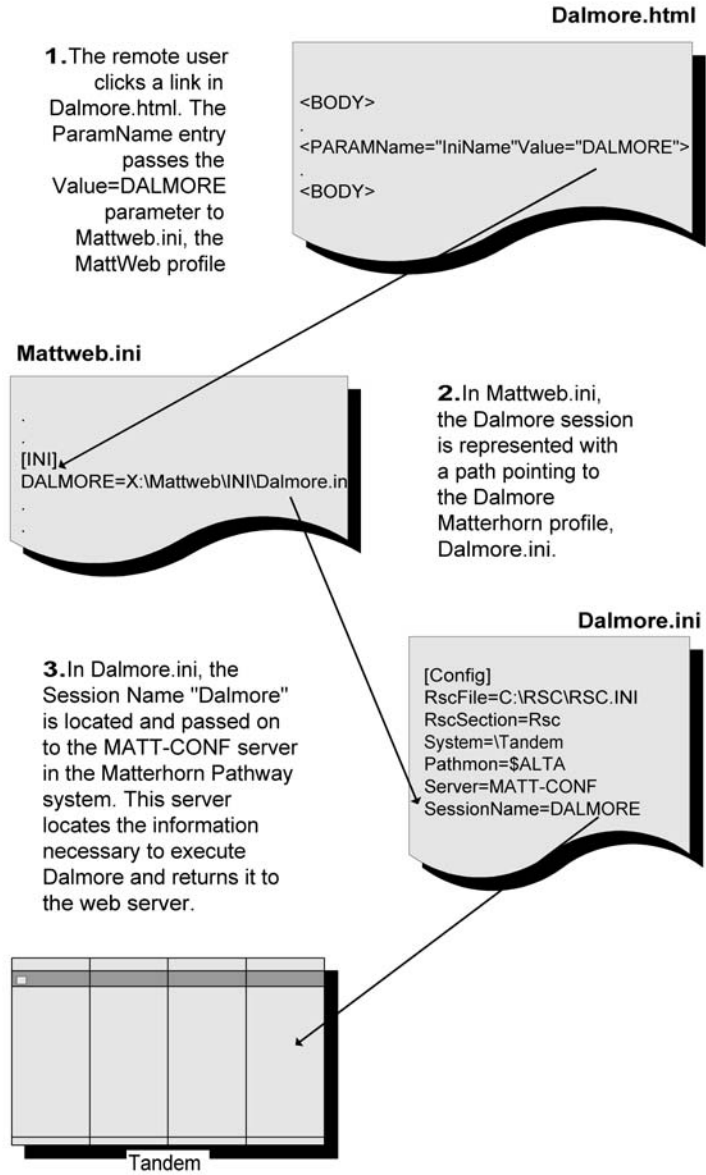
1. On the remote computer, the user launches a Web browser such as Netscape Navigator or Internet Explorer.
2. The remote user then enters the URL or IP address of your web server.
3. At some point the remote user clicks a MattWeb page which has got a link to a Matterhorn session. When the user clicks the MattWeb page, HTML will instruct the Web browser to launch the Java applet. If the

browser does not have this applet, it will automatically be downloaded from the Web server.

4. The Java applet will now contact the MattISAPI extension in MattWeb virtual directory of company Web Server. MattISAPI extension transfers data to MattManager and receives its reply sending it back to the applet. Session Name as a parameter (see the section [MattWeb Profiles](#)) is being sent to the Manager with the first request. If the applet locates the SessionName in Mattweb.ini, the session will be launched.
5. The session will then be executed in accordance with the Screen Designer layout you have previously created. It will be a fully operational Internet session with an attractive and productive Screen Designer layout, ready for use.

Once the connection has been established, the Java applet will visualize the screen on the remote computer and shift data from the remote computer to the Web server and ultimately to the Tandem and vice versa. Note that all transactions are still located on the Tandem. The Java applet merely works as a presentation tool.

Figure 6.3 next page, illustrates the interrelation and cooperation of an HTML page, the MattWeb and Matterhorn profiles, and the Tandem during runtime.



## Session Timeout

MattWeb has a *session timeout* of 90 minutes. When a session has been activated by a remote client, that client may use the session for as long as he or she wishes. But if - at some point - the session has been inactive for 90 minutes, MattWeb automatically terminates the session. In this case, the user must click the **Back** button in the browser and activate the session again.

**Note:** Session Timeout value is limited also by IIS. By default for virtual subdirectory MattWeb this value is set to 20 minutes. If you are not going to use this resource with many users then you can increase the Session Timeout value (see IIS help).

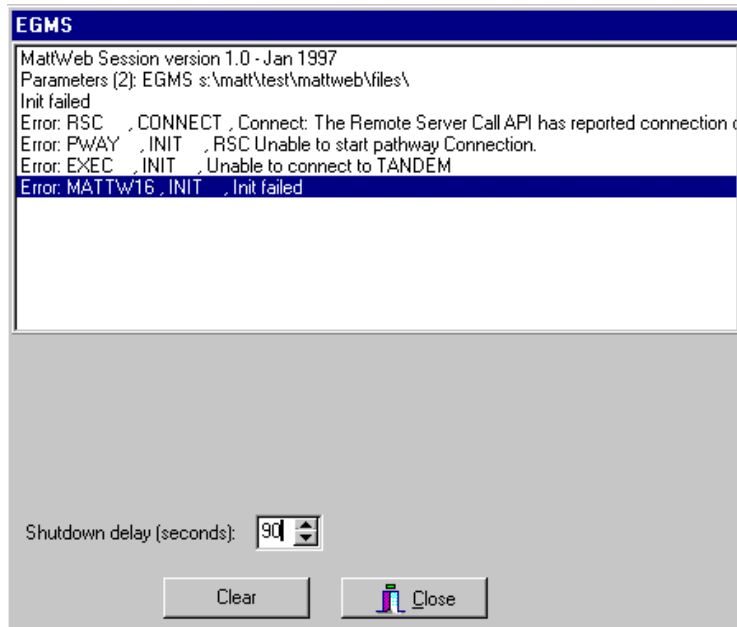
## Session Logging

During runtime, the file `Matts32.exe` is active. The file is used by the MattWeb Manager to communicate with the Tandem. `Matts32.exe` opens the window depicted in Figure 6.4, which shows various communication information when a user logs on to the web server.

The window corresponds to the Messages window, displayed when launching an ordinary Matterhorn session in a client/server environment. The window title is a logical session identifier, which is not to be mistaken for a session name. Use the `Matts32` window to track down problems if remote clients cannot log on to the web server. Also, you may view the IP addresses of the remote users. A log file will be

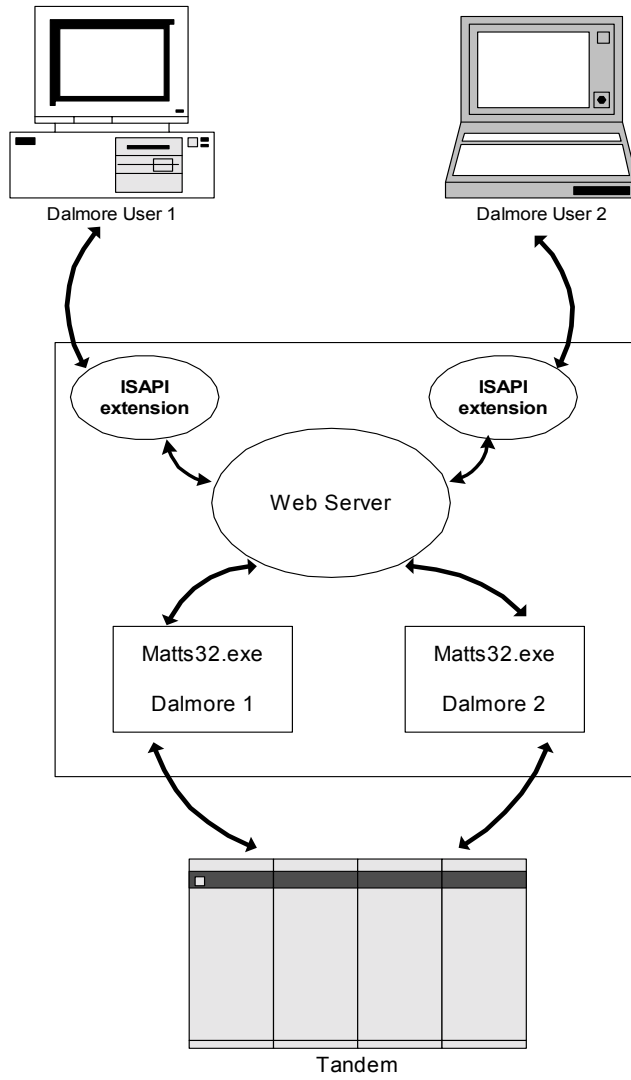
generated on a per-day-basis and stored in the Mattweb\Log folder.

The **Shutdown Delay** option indicates the time span from the point when the user terminates the session (either by closing the session or due to error) to the point when the session is terminated. Default is 2. Never enter 0 in this field, since the session needs 1-2 seconds to close down properly.



**Figure 6.4:** *The Matts32.exe window displays various communication information.*

Figure 6.5 next page illustrates how the Matts32 functions as mediator between the Tandem and the web server, logging all communication information for as long as the session is still active.



## The Java Log

If you experience an unknown error that was triggered by the Java applet, you can study the Java log to see if the log provides a solution to the problem. Also, error messages generated by MattS32 may appear from the Java log.

Depending on your browser, you gain access to the Java log by different means. If you are using Netscape, you access the Java log by activating the **Show Java Console** command in the **Options** menu. If you are using Internet Explorer in a Windows 95 environment, the Java log will be stored in the textfile Java.txt in the operating system folder. If you are using Internet Explorer in a Windows NT environment, the Java log will be stored in Java.txt in the Java folder.

## The ISAPI Log

If you experience problems with MattWeb caused by incorrect IIS settings or some other reasons you may examine ISAPI Extension log (if you do not know how to turn on logging please refer to the Chapter 3). Log displays all information that is received from applets and replies that are sent by Matt Manager. Besides all operations executed by extensions are logged.

**Note:** if many users are working with server simultaneously or the amount of circulating data is large then logging may significantly slow down the whole system's speed.

## CSL/RCS error logging

If you experience problems with CSL or RSC transport or get any SCOBOL POBJs execution errors, please refer to the NT EventLog where all errors are reported.



## Chapter 7: MattOpen for MattWeb

This chapter explains how to use the MattOpen API for MattWeb. The MattOpen API is an add-on product to be used together with the MattWeb server and a servlet container. This chapter is organized as follows: The first section describes the common usage procedure, and various system and user requirements. The second section describes how to setup and use the MattOpen API. The third section is a tutorial covering the MattServletTest example code included with the product, and furthermore discusses various servlet related issues. The fourth section covers troubleshooting. Lastly, the fifth section has an easy reference quick-setup guide for experienced developers.

- ⇒ Overview
- ⇒ How to use the MattOpen API for MattWeb
- ⇒ Tutorial Servlet Example
- ⇒ Troubleshooting
- ⇒ Quick Setup

## Overview

To use the MattOpen API for MattWeb You must have MattWeb vs. 3.0 installed and the MattWeb Server running. On the web server where you want the MattOpen API to reside, You must have a Servlet Container. The MattOpen API for MattWeb has been tested on a “Catalina” – JakartaTomcat-4.0.1 servlet container<sup>1</sup>. Note that there is no problem in having the MattWeb Server and the Servlet Container running on the same web server, although that might not be the question. In the remaining part of this document, it is assumed that these run on two different web servers. All files presented in this Chapter can be found in the directory of Your MattWeb installation, in the directory \servlets (i.e. typically c:\MattWeb\servlets).

Simply copy the two MattOpen java class files to a directory where the servlets of Your Servlet Container can access the class. The files to copy are

*MattOpen.class*

*MattOpenException.class*

To use the included MattServletTest You must copy the java class file

*MattServletTest.class*

to the place where Your servlets reside. The complete code for this example is also included in this distribution for demonstration purposes. The example is presented later in this document.

---

<sup>1</sup> See <http://jakarta.apache.org/tomcat/>

The user requirements are: a thorough knowledge of the Matterhorn Suite including MattWeb and Screen Designer. Skills in developing Java Servlets, and lastly some knowledge in Screen Cobol are required to read this document.

## How to use the MattOpen API for MattWeb.

When the MattOpen class can be found by the Servlet Container, You can start to use the MattOpen API with Your own servlets. This part of the manual only describes the main issues and steps necessary to start using the API. Specific programming details on the use can be explored in the included JavaDoc documentation, and in the small tutorial, see below.

Assume that You already have designed a Java servlet named “dalmore.java”, compiled and installed it on Your Servlet Container. Let’s assume that this servlet’s `doGet ()` method can be called by the URL <http://www.myCompany.com/dalmore>.

### *Servlet addressing in Screen Designer.*

The next step involves making a new requester replacer in Screen Designer assuming Your legacy system is sending some data from the linkage or working storage section of Your Screen Cobol code.

Start Screen Designer and open the requester to be replaced. Let’s assume You have a MattWeb profile called Dalmore with various associated files, including this requester. Go to the *Define* drop-down menu and from there choose *Requester Replace*. A small

dialog window appears. In the *Requester Name* field type a name for the new requester. Then Create the requester replacer by pressing the Create Button. A new dialog window appears, asking You to type in some necessary information. Skip the *Base Requester Replace on* field and place the cursor in the *Library Filename* field. Type the URL of the Servlet that replaces the requester, and it's optional parameters. An example,

(Library Filename)

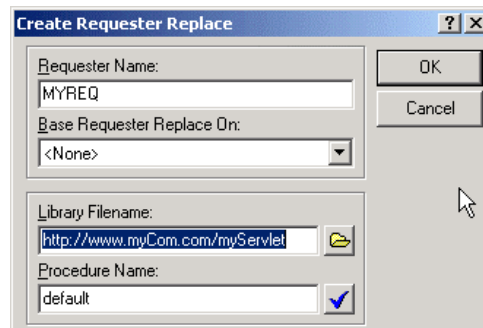
<http://www.myCompany.com/dalmore?operator=changeCustomer&ID=1>

You see the URL of the servlet as previously mentioned along with to additional parameters included for pedagogical reasons: an “operator” with the value “changeCustomer” and an ID valued 1. If You have no additional parameters to the replaced requesters request, just type the URL of the servlet, namely,

(Library Filename)

<http://www.myCompany.com/dalmore>

which always will suffice. In the procedure name field just type “default” since the procedure to be called already is defined.



Finally press the OK button to return to the previous dialog where Your new requester replacer now appears in the list. Press OK to close the requester replacer dialog window. Save the requester, and exit Screen Designer.

### *Jumping from MattWeb applet to servlet.*

Ensure that the MattWeb Server, and the Servlet Container is up and running. Let's for tutorial purposes assume that the URL of the HTML associated with the MattWeb profile called Dalmore (showing the requester that we've recently edited, see explanation on Screen Designer above) has the address

<http://www.myCompOtherWebsite.com/MattWeb/Dalmore.html>

Now, in a field You've designed in Your Screen Cobol code for requester replacement, type the name of the invented requester (see above) and press the associated function key for requester replacement, also designed in Your Screen Cobol code. This step should now take Your web browser to the servlet dalmore, thereby transferring the connection to the legacy system from the applet to the servlet. A Screen Cobol example is included in the file "rqe9.cob". The above-mentioned fields and procedures might look like this,

```
working storage section.
```

```
    01 Program-name      pic x(20) .  
    01 my-intvar        pic S9(4) comp value 1.
```

```
[...]
```

```
screen section.
```

```
01 MATTSC01 SIZE 24, 80 .  
    05 Filler           at 1, 2 Value "Version 0.1" .  
    05 Filler           at 1, 25 Value "M A T T O P E N " .
```

```
05 Filler          at 10, 10 Value "Input Program Name: ".  
05 Program-name at 10, 36
```

procedure division.

```
Call Program-name using my-intvar
```

Upon entering the appropriate requester replacer in the Program-name field on the screen, the applet will redirect the browser to the servlet sending my-intvar to MattOpen.

### *Jumping back to the applet from the servlet.*

To restart the applet, You must use the method callApplet(PrintWriter out) provided in the MattOpen class. To do so, place a call to this method at exactly the place in Your servlet where you want the applet to reappear. The method writes the HTML code needed to restart the applet from the web server where the applet code is located.

## Tutorial Servlet Example.

In this section You will find a brief descriptive example on how to use the MattOpen API. The code for the example servlet can be found in the file MattServletTest.java. Additional information specific for developers can be found in the JavaDoc, which covers both the MattOpen and the MattServletTest classes.

### *Basic methods and fields of the servlet.*

The servlet implements the methods doGet and doPost. The get method to respond to a requester replacer from a MattWeb applet,

and the post method to save changed data to the legacy system and redraw the applet. The servlet assumes that it gets two parameters from the working storage fields of the Screen Cobol program. In this example the types for these two parameters are a string and an integer. To effectively use the example in an optimal way, You must send the MattServletTest servlet two data fields from Your Screen Cobol program, one being a string, and the other an integer. Of course the servlet will run with other values, other parameter types, and a different number of parameters. Thus the main purpose of demonstration can easily be overcome. The original Screen Cobol code is included in the file "rqe9.cob"; note however that it has been used for various other tests of the MattOpen API as well. The two before mentioned parameters are declared in the working storage section of the Screen Cobol program,

```
01 stringvar  pic x(38) value "Himalaya Snowboards Inc".  
01 intvar     pic S9(4) comp value 1.
```

In the procedure division a statement calls the requester replacer typed in a defined field called "Program name" using the two parameters:

```
Call Program-name using stringvar, intvar
```

In the pictorial example below, a requester replacer called `rqa` can be called with the function key F2, effectively sending our string and integer variables (here customer name and number) to the servlet along with the parameters defined in the `rqa` requester replacer.

```

Version 0.1          M A T T O P E N   E X A M P L E
  
```

Input Program Name:

Call Status:

Termination Status:

Termination Sub Status:

Customer name:

Customer number:

F1 = Generic Test. F2 = Jump to Servlet  
 SF16 = Exit MATTERHORN TEST

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16
SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
RollUp	RollDn	NextPg	PrevPg	InsLin	SRollU	SRollD	SPrevP	SNextP	DelLin	Enter					Float

The actual redirection of the applet to a servlet is covered in the previous section of this chapter.

### *The servlet doGet method*

In the doGet method are two fields of major importance to the sphere of operation. First of all a MattOpen object called Matterhorn, which must be given the HttpServletRequest coming from the applet. This request holds vital information that enables the MattOpen object to establish the connection to the legacy system. Parsing the MattOpen object the request does not hinder You in also using the request: You might want to include various arguments in the request, for use in the servlet (see previous section). Just note that many additional arguments are added by the applet on the



redirection call. An enumeration of arguments in the request thus might be larger than suspected. In this example any arguments in the request provided by You, will be selected and shown in the resulting HTML response. It is important that the `MattOpen` object is a local field in Your servlet methods if You want to enable multiple connections to the servlet. This subject will be further elaborated in the following descriptions.

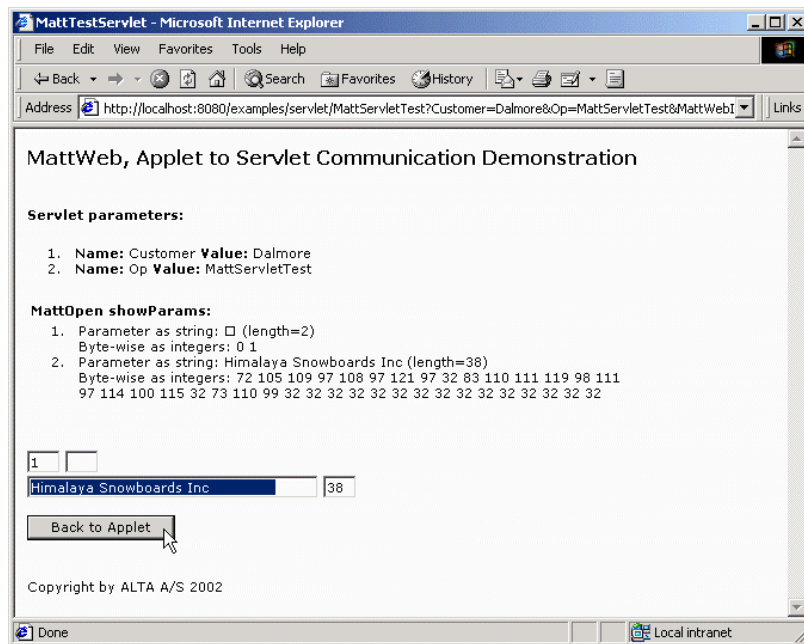
The other important field is the `HttpSession`, here named *customer*. You need an `HttpSession` to store the `MattOpen` object and link it to a unique user request. The first time a user enters the servlets `doGet` method, the `MattOpen` connection is established and saved on the `HttpSession`. Later on, the same user can continue using the same connection over different servlets by fetching the `MattOpen` object from the `HttpSession`. To take fully advantage of the `MattWeb` server as a distributed system with multiple connections to the legacy system, You must store a `MattOpen` object on each new

`HttpSession`. The `MattOpen` object implements the Java interface `Serializable` to enable this procedure, but upon retrieval of the object, it must be type cast. The methods for saving and retrieving the `MattOpen` object (here called `Matterhorn`) on our session looks like this:

```
customer.setAttribute("aMattOpenObject",Matterhorn);  
MattOpen Matterhorn =  
(MattOpen)customer.getAttribute("aMattOpenObject");
```

The `doGet` method presents our data from the working storage, and prints a HTML form containing these elements for formatting. Thus when finished loading, the example presents the user with a form where all data elements can be modified. When finished editing the fields of the form, a submit button calls the servlets `doPost` method with the changed content of the form as arguments in the request. The `MattTestServlet` displays arguments from the URL request before any parameters from the pathway system. Note that there is

no string representation of the integer parameter coming from a byte array.



The next step is to modify the integer and the string. The blank fields are used to count the size of the parameters. When modified, the total size requirements are shown in these fields provided You have enabled JavaScript. From the test section where the original parameters are displayed, You can see that the size of the string variable must fit our original storage capacity of 38 bytes,

```
01 stringvar pic x(38) value "Himalaya Snowboards Inc".
```

In Your own applications these size limitations should be carefully kept. Violations of this demand, throws a `MattOpenException`, see below.

### *The servlet doPost method*

The doPost method has the role of saving changed values via the MattOpen object, and in our example this method also redraws the applet that then again takes over the connection to the legacy system. As before the method has a MattOpen field Matterhorn and an HttpSession customer. The last mentioned must be an existing HttpSession with a stored MattOpen object. Since it's already known that the types of our data elements are string and an integer, we can use the MattOpen objects helper methods putString() and putInt() to save the changed parameters. Otherwise it is left to the developer to keep track of types and lengths of parameters. The MattOpen object handle these as byte arrays to enable maximum flexibility, and the programmer should secure that any changed or modified parameters have the same size before saving via the MattOpen objects various put methods<sup>2</sup>. If any of the changed parameters doesn't match the expected size, a MattOpen Java Exception is thrown.

When the servlet (and perhaps other servlets as well), have finished their work it's a good idea to free used resources and cleanup by removing the MattOpen object from the HttpSession,

```
customer.removeAttribute("aMattOpenObject");
```

or if necessary to invalidate the session which can be done by the call

```
customer.invalidate();
```

---

<sup>2</sup> Please consult the JavaDoc for a larger elaboration on this subject.

before or immediate after returning to the applet with the `callApplet()` method.

### *Notes on Servlets and HttpSession.*

In the example given above, and in the previous sections, only one servlet has been using the `MattOpen` object. Actually saving the `MattOpen` object on the `HttpSession` enables *any* servlet to access the object as long as the Session is valid. To secure multiple users You must however declare any `MattOpen` object within the servlets methods. Declaring a `MattOpen` object global to the Servlet effectively disables multiple accesses to the pathway system. If multiple servlets access the same `HttpSession`'s `MattOpen` object, please secure that every servlet saves the object before the final call that returns to the applet is used. To keep consistency across multiple servlets all using the same `HttpSession`

`MattOpen` object, it might also in rare occasions be necessary to implement the `SingleThreadModel`<sup>3</sup>.

## Troubleshooting

**Problem:** *My servlet output HTML doesn't update on a new request?*

**Solution:** Try adjusting the cache settings of Your browser, or alternatively include HTML code in the servlet to handle the cache settings. Browser support for manipulating cache settings varies greatly. A simple workaround working on most browsers is to include the following HTML tags in the header,

---

<sup>3</sup> <http://java.sun.com/products/servlet/2.3/javadoc/javax/servlet/SingleThreadModel.html>

```
<META http-equiv="Pragma" content="no-cache">  
<META HTTP-EQUIV="Expires" CONTENT="-1">
```

**Problem:** *The applet never successfully returns from the servlet?*

**Solution:** You might experience problems using MattOpen with MattWeb on machines with only localhost web servers (i.e. You might be testing, or trying on an intranet or similar). The MattWeb applet stores the web server's name, and sends this information to the servlet. Thus if You use two different machines, both with a localhost web server configuration, the servlet might try to restart the applet from a web server named localhost, meaning itself instead of the other local web server also named localhost. This situation can be avoided by adding one applet parameter to the HTML file of the applet. Say, if the localhost web server running the MattWeb server has IP address 190.90.0.190 and the MattWeb server answers request to the directory "MattWeb", simply add the line,

```
<Param Name="appletAdr" value="http://190.90.0.190/MattWeb">
```

to the applet tag. This will prevent the applets return address send to the servlet to be dynamic configured.

**Problem:** *The MattWeb server frequently returns, "Host could not initialize session"*

**Solution:** Remember that each MattWeb applet started and redirected to a servlet should at some point return with the `callApplet()` method. Furthermore, always remember to close the MattWeb applet nicely. A possible quick temporary solution is to restart the MattWeb server.

## Quick setup guide

The following quick setup guide has been designed for experienced Matterhorn users. Assuming You already has a MattWeb server and a Jakarta-Tomcat servlet container installed and running.

1. Copy the files `MattOpen.class`, `MattOpenException.class` and `MattTestServlet.class` to the Jakarta-Tomcat directory `\webapps\examples\WEB-INF\classes\` which is where the Catalina servlet container normally dynamic loads servlets.
2. If You've designed Your own servlets, copy them to the same directory if they're not already installed and running on Catalina.
3. The included test can be used with your own Screen Cobol programs. To try with the included Screen Cobol, copy the file "rqe9.cob" to the pathway system, compile and install it. Create a MattWeb profile for the new requester.
4. Start Matterhorn Screen Designer and open the requester in question (either the one You've just created, see above, or Your own).
5. Add a new requester replacer. Instead of a *Library Filename* type the complete URL of the servlet (and optional servlet request parameters).
6. As *Procedure Name* simply type 'default'. Remember to save your changes.

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