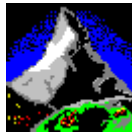# MATTERHORN 5.05

for Windows

**Setup and
Reference Guide**

2004

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ntroducing
Matterhorn for Windows

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Introduction

Welcome to Matterhorn for 4.0 Windows. This manual will tell you what Matterhorn is all about, and explain why we think of it as such a unique solution. You will learn how Matterhorn operates on your Tandem and on your PC's, and how to install and get started with Matterhorn.

The introduction is organized as follows:

➢ The Matterhorn Suite

➢ Matterhorn for Windows

➢ About This Manual

The Matterhorn Suite

Before we go on to explore Matterhorn for Windows, here is a brief introduction to the Matterhorn Suite of software products. The Suite is comprised of the following four software products: *Matterhorn for Windows*, *Screen Designer*, *MattWeb*, and *MattOpen*.

On the Road to Open Systems

The Matterhorn Suite makes your Tandem system an active partner in local and global computer networks. No barriers separate it from other computer platforms or environments. Different applications on different platforms may be linked and integrated to form new and powerful applications.

Using the Matterhorn Suite, legacy Pathway applications have access to the latest technological developments in the client/server area and on the Internet. The Matterhorn Suite works with what you have. Existing software and hardware investments are protected.

Matterhorn for Windows

Matterhorn for Windows is the core of the Matterhorn Suite. It enables you to access your legacy Pathway applications from the PC and run them as client/server-based applications. Matterhorn is plug-and-play. Absolutely no source conversion is required. Matterhorn for Windows is the subject of this manual.

CSL for Matterhorn

The Client/Server Link (CSL) allows workstations to access Pathway servers and other Guardian 90 processes on Tandem.

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CSL is Comforte's own tailored solution which the Matterhorn Client may use as a transport layer when data are shifted back and forth between the Tandem and the PC.

CSL provides faster, more reliable connections than other similar products.

Screen Designer

Using Screen Designer you may customize requesters on many levels. With Screen Designer you may make cosmetic changes to the interface such as removing superfluous fields, grouping selected fields, and adding new text to make the screen more intuitive to the user. You may insert backgrounds such as wallpapers and gradients and set up multimedia objects to be played when the user runs the requesters. You may create and associate hints with each object. A hint is a guiding text that explains the purpose of that particular screen object.

On a more functional level you may create and associate push buttons with function keys, macros, pictures, or multimedia clips. You may create macros and associate them with buttons, edit fields, pictures, and multimedia. You may create and associate selection lists and entry histories with edit fields. In addition, you may map Tandem keys to PC keys.

A new powerful feature in Screen Designer 4.0 is the ability to create *tabbed notebooks*. Tabbed notebooks enables you to organize the objects of a requester on separate tabs, just like most users know them from their Windows applications.

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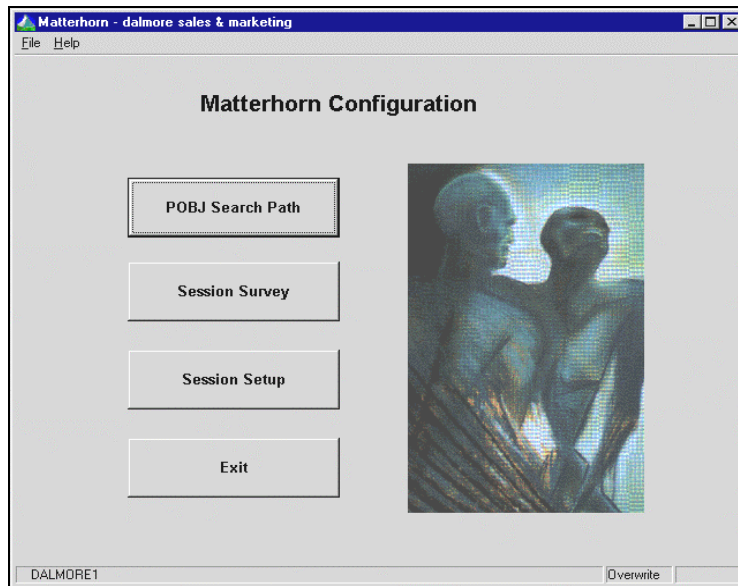
Figure I.1: *Matterhorn Screen Designer allows you to customize and optimize your current Tandem system.*

Screen Designer allows you to customize legacy application screens for different groups of users or individual users. Using the same screen as a basis, you may create one screen for your bookkeeping department, another screen for the finance department and so on. Each requester screen will reflect how the current department operates.

Using Screen Designer, all the changes you may make to your legacy Pathway applications will make functionality more discoverable and common tasks simpler and more efficient. Thus, Screen Designer increases end-user productivity. Screen Designer is detailed in Screen Designer Setup and Reference Guide.

Part of Screen Designer is the Data Explorer productivity tool which provides a fast and easy way of monitoring and

maintaining your Screen Designer databases on a large scale. Using Data Explorer you may create multiple requester layouts on the fly, preview your screens, and drag and drop selected objects from one requester to another and from one database to another. In addition you may drag and drop entire requesters from one database to another. Data Explorer enables you to move from test to production in a matter of seconds.

MattOpen

MattOpen 2.0 is composed of three independent development tools; *MattOpen Dynamic Interface*, *Requester Replacer*, and the DDE- and DLL statements of the *Matterhorn Macro Language*. When used optimally, these tools, together with the rest of the Matterhorn Suite - will make your Tandem system as open to new technologies as it will ever get. Using the tools of MattOpen 2.0 you may:

➢ Access and control legacy Pathway applications on the Tandem from newer client applications on the PC.

➢ Redirect requester calls from legacy Pathway applications to procedures in a Windows DLL. In effect, you *replace* the entire requester with a DLL. The feature enables you to create and tailor new powerful applications without risking past investments.

➢ Place calls in legacy Pathway applications to procedures in a Windows DLL. The DLL is called during the execution of a macro and the feature extends the functionality of the current requester enabling you for instance to retrieve values from a remote database or validate contents of fields.

➢ Create and run macros in order to set up DDE conversations between your legacy Pathway applications and any DDE-compatible application.

In short, the tools of MattOpen 2.0 provide gateways to and from legacy Pathway applications. Using MattOpen, Tandem customers may continue to create and add faster and more powerful client applications in programming languages like Borland Delphi, Microsoft Visual C++, Microsoft Visual Basic, Borland C++ or Pascal, or SmallTalk and integrate them with their existing Pathway applications. Your legacy Pathway system may be integrated with new PC-based applications with a minimum of investment and risk. MattOpen is detailed in the MattOpen Developer´s Guide.

MattWeb

These days many Tandem customers are considering going on the Internet. The Internet is hot. And *intranets* may become even hotter. At Skybeam Management Ltd. we have committed ourselves to provide the Tandem world with the best Internet/intrane solution.

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.

MattWeb fully supports requesters which have been designed with Screen Designer. At runtime, each screen element will be presented on the remote user's monitor by Java applets.

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.

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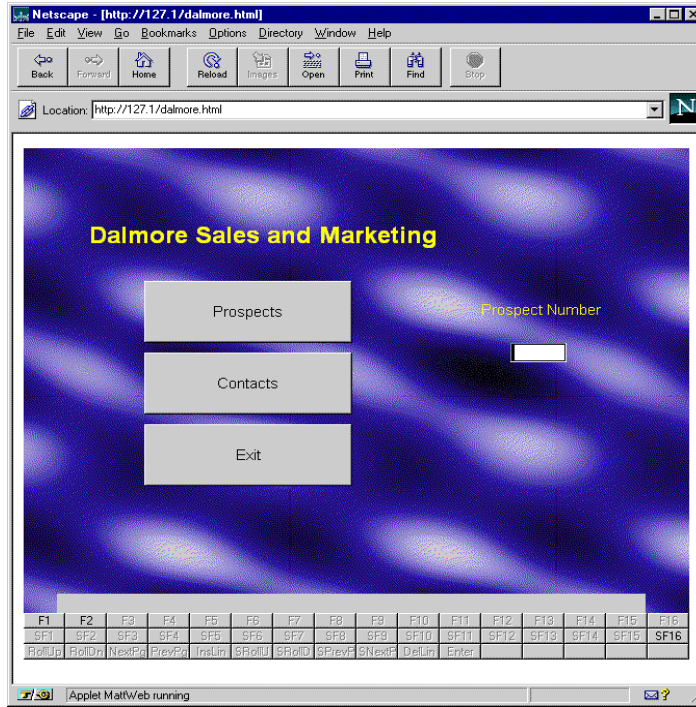
Figure I.2: *A Tandem application running on the Word Wide Web. The browser is Netscape Navigator.*

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. MattWeb is detailed in MattWeb Setup and Reference Guide.

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Matterhorn for Windows

Many Tandem customers have already invested in PC-based networks, but - for many reasons - they are not maximizing their performances. In itself, a fast PC-network will not solve problems with long response times on the Tandem. Neither will it release Tandem resources. And while Tandem's server handling is second to none as is its transaction monitoring system, it does not provide the flexibility and productivity offered by the PC.

The key to maximizing the performances of both the Tandem and the PC is called *Matterhorn for Windows.* Matterhorn utilizes the perfect Tandem application architecture to the full, allowing Tandem customers to enter the client/server technology within minutes.
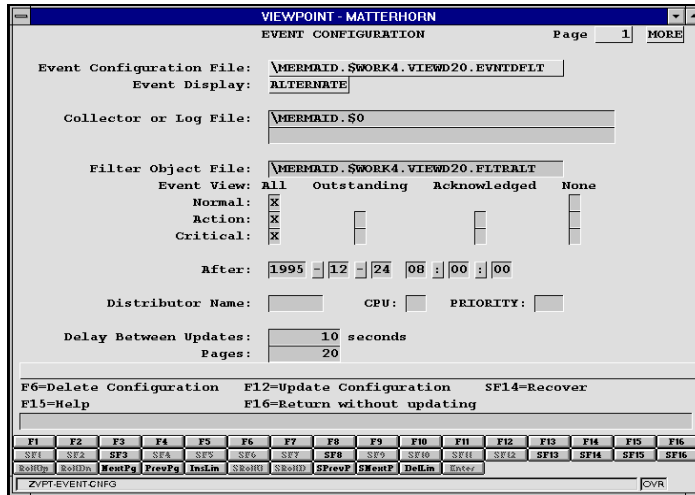
Figure I.3: *Viewpoint running under Matterhorn*

Breaking Down Barriers

Matterhorn has broken down the barrier between Tandem and the rest of the world. Matterhorn opens up your current system and extends it to exploit the vast opportunities of the client/server technology.

Matterhorn will integrate the Tandem and the PC. 6530 and 3270 applications will be converted into the user-friendly graphical interfaces of Windows. In addition, Matterhorn introduces many new features to the user, all of which will be presented in this book.

Maintainability

Matterhorn is completely different from any other software product making Pathway applications accessible to the client/server technology. With Matterhorn, the *maintainability* of your current Tandem system is intact. This makes Matterhorn unique compared to similar products on the market. No changes to the existing SCOBOL source code is required. Other solutions require that the SCOBOL source code is converted into *non-maintainable* code of a programming language prior to execution.

With Matterhorn, cost- and time-consuming source conversions are unnecessary. Matterhorn takes a shortcut and interprets the executable requester code, generated by the Screen Cobol compiler, directly on the PC.

A Reliable Choice

Matterhorn is a reliable choice. Today, more than 60,000 requesters from different Tandem installations ranging from versions B41 to D40 have been tested - all with positive results. Matterhorn supports all types of SEND, CALL, field types, field actions etc. Matterhorn uses Windows color mapping and

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supports window and font resizing. In addition, Matterhorn will present function keys as graphical onscreen buttons.

About this Manual

Before you start installing and using Matterhorn 4.0 for Windows, please take your time to study this manual. Details on installing, configuring, and using the many features of Matterhorn are all to be found on these pages.

The manual is not merely a reference guide. In order to give you an idea of how Matterhorn 4.0 for Windows works, we have tried to explain, in simple terms, why Matterhorn is such a reliable solution.

In the manual we have also tried to provide you with the most adequate solutions to typical problems that you may (or may not) encounter during the installation and configuration process.

The manual is organized into the following parts and chapters:

Part 1: The Essentials of Matterhorn

provides essential information about the features and applications of Matterhorn.

Chapter 1, Features of Matterhorn, introduces you to the many features of Matterhorn, including the GUI interface, screen input and enhanced transaction and error message presentation.

Chapter 2, The Matterhorn Package, describes your Matterhorn package in detail. All components of Matterhorn for Windows, including the Matterhorn

Pathway system and the Matterhorn Client, will be described.

Chapter 3, How Does Matterhorn Work, explains how Matterhorn operates on your system. What happens when you click a Matterhorn session icon in Windows - and why. The chapter illustrates and details the interaction between the Matterhorn Pathway system and the Matterhorn Client.

Part 2: Getting Started on Tandem

takes you through the stages of setting up the Matterhorn Pathway system on a Tandem computer and configuring Pathway applications to be executed under Matterhorn. This part is primarily aimed at the system administrator.

Chapter 4, Installing the Matterhorn Pathway System describes how to transfer and install the Matterhorn Pathway system on your Tandem.

Chapter 5, Matterhorn Configuration forms a detailed description of Matterhorn Configuration. Matterhorn Configuration is the obligatory tool used to prepare your company's Pathway applications to be executed by the Matterhorn Client.

Chapter 6, Matterhorn 5.0 Upgrade describes how to upgrade your Matterhorn 4.0 for Windows to Matterhorn 5.0 for Windows.

Chapter 7, CSL for Matterhorn presents Comforte's own transport layer solution, CSL (Client Server Link) for Matterhorn. CSL allows workstations to access Pathway servers and other Guardian 90 processes on Tandem.

Chapter 8, Configuring RSC for Matterhorn deals with the configuration of the RSC transport layer which handles the communication between the Tandem and the PC.

Part 3 Getting Started on PC

describes how to install the Matterhorn Client on a PC or a PC-network server. Like Part 2, the chapters of Part 3 are primarily aimed at the system administrator.

Chapter 9, Installing the Matterhorn Client describes how to install the Matterhorn Client.

Chapter 10, Creating a Matterhorn Session Icon teaches you to create and insert Matterhorn session icons in Windows.

Chapter 11, The Matterhorn Profile describes the layout and application of the Matterhorn profile, i.e. initialization file.

Part 4: Exploring Matterhorn

presents the Matterhorn graphical user interface and teaches you how to use the various features available when running Matterhorn sessions. Part 4 also contains a complete reference guide to applicable keyboard functions and mouse techniques in both native mode and Windows mode. Part 4 is aimed at all types of users.

Chapter 12, Navigating Matterhorn, forms a complete reference guide to mouse functions and shortcut keys applicable when running a requester under Matterhorn. The chapter also presents such features as printing the screen, and resizing the window.

Chapter 13, The Preferences Menu, presents the for-matting features available from the **Preferences** dialog box, including fonts, colors, and various display effects.

Chapter 14, The Messages Menu, introduces the **Messages** menu, which may be used by the system administrator to control and monitor the system.

Part 5 The Matterhorn Quick Starter

forms a step-by-step guide to installing and setting up Matterhorn. These chapters summarize the chapters of Part 2 and 3.

Chapter 15, Installing the Matterhorn Pathway System describes how to install the Matterhorn Pathway system on your Tandem and to set up terminals for a Tandem-PC-connection via Matterhorn.

Chapter 16, Installing the Matterhorn Client describes how to install the Matterhorn Client on a PC or a PC network server and to create a Matterhorn session icon.

Chapter 17, Running Viewpoint under Matterhorn details how to set up Viewpoint to be executed under Matterhorn.

Appendix

Describes the MATTCOM interface which may be used to monitor and configure your Matterhorn sessions on various levels.

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Glossary

is an alphabetical list of explanations of terms and abbreviations appearing in this manual.

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Part 1

The Essentials of Matterhorn

Part 1 introduces you to Matterhorn 4.0 for Windows, its features and components. The user interface is described in detail. Part 1 closes with a thorough description of the operation and interaction of the Matterhorn Client and the Matterhorn Pathway system.

Chapter 1:
Features of Matterhorn

A s the whole world seems to be moving to Windows, many Tandem customers have come to realize the advantages of an intuitive and productive graphical mouse-driven interface. Matterhorn recognizes this realization and opens up your Tandem requester system to the world of windows. In this chapter you will be introduced to the features of Matterhorn 4.0 for Windows.

The chapter is organized as follows:

➢ Graphical User Interface - GUI

➢ Matterhorn Screen Designer

➢ Screen Input with Keyboard Buffer

➢ Transaction Presentation

➢ Error Message Presentation

➢ Matterhorn 4.0 - What's New

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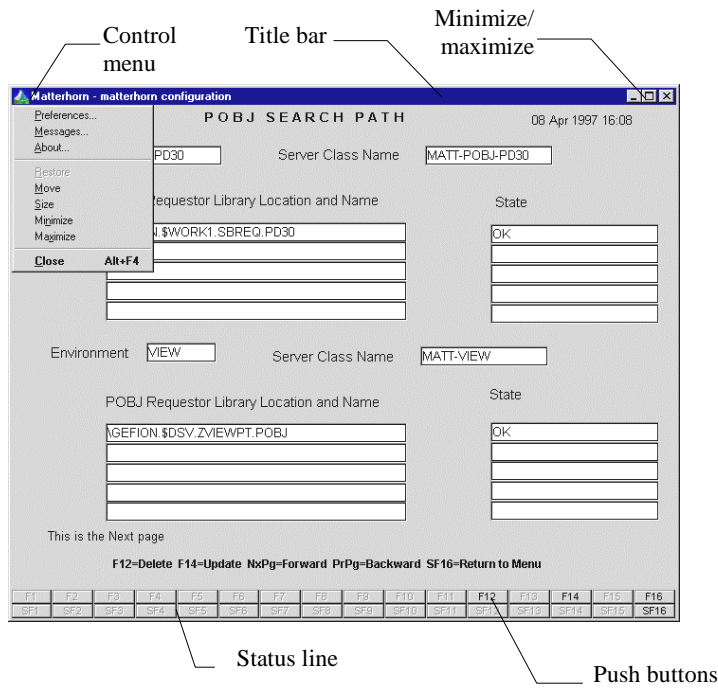
Figure 1.1: *The Matterhorn session screen.*

Graphical User Interface - GUI

Matterhorn for Windows will convert your Pathway applications to user-friendly Windows-based applications and present the user with various configuration options:

Push buttons

When a user is working in a traditional SCOBOL session he or she will use the function keys to navigate the screen. With Matterhorn in charge, all function keys will be displayed as graphical push buttons across the bottom of the screen. The keys that do not apply to the current session will be dimmed,

whereas the relevant keys will be highlighted. This means that the user does not have to remember which function keys apply to the current requester.

Dropdown List Boxes

When requesters are executed as Matterhorn sessions, fields with MUST BE clauses will be presented as dropdown list boxes. The user simply points the mouse to the desired value in the list box and click. The example below is taken from the **Translation** section in Matterhorn Configuration. The list box displays all valid values for the field **Language**.
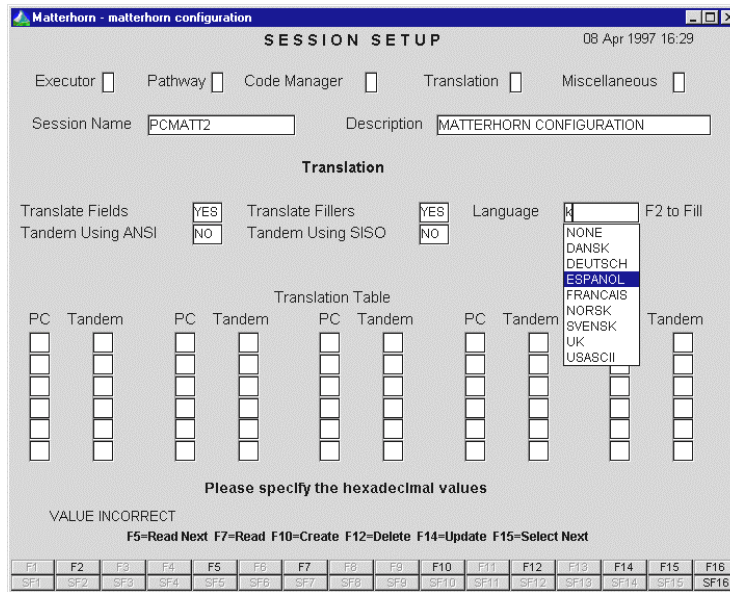
Figure 1.2: *MUST BE clauses will appear in dropdown list boxes.*

Colors and Fonts

The user may define his or her own color settings for the requester screens. Also, the user may choose between different fonts, font sizes, and font attributes for screen text and screen elements. When a user resizes a window, the font size will change accordingly. The changes may be saved by the user, but will pertain to that user's work screen only.

For a full discussion of customizing screen layout, turn to
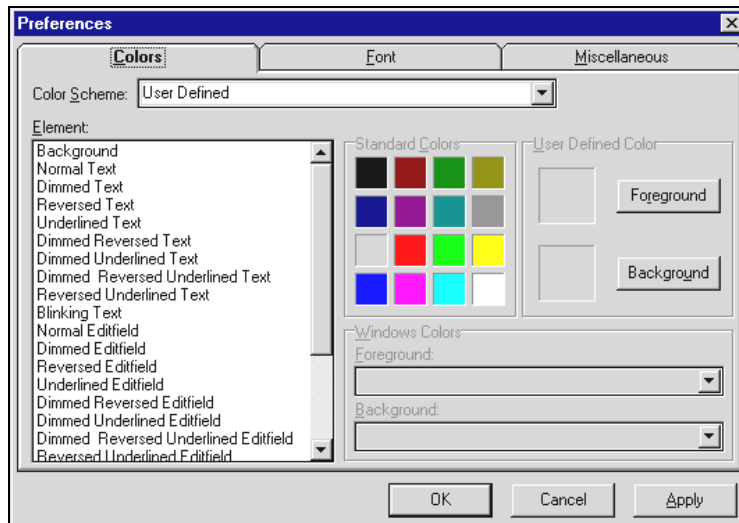
Figure 1.3: *The* **Preferences** *dialog box.*

Matterhorn Screen Designer

The powerful development environment, Matterhorn Screen Designer, is designed to complement and extend Matterhorn for Windows. Screen Designer will take the functionality of your Tandem legacy applications two steps beyond what has

previously been possible. Note that Screen Designer is an integral part of Matterhorn 4.0 for Windows. You cannot use Screen Designer without having implemented Matterhorn for Windows on your system. Screen Designer is part of your Matterhorn for Windows package. With Screen Designer you may:

- Design requester screens for specific groups of users. You may insert frames around selected fields and associate buttons with function keys and macros.

- Insert graphics and change the color and size of any screen object.

- Insert backgrounds such as wallpaper and gradients.

- Map Tandem keys to PC keys.

- Insert and run multimedia objects, including video and sound clips to further fashion your Tandem requesters.

- Create and run DDE macros in order to set up DDE conversations with any DDE-compatible application.

- Create and associate selection lists and entry histories with edit fields and assign click actions to edit fields and graphics.

- Create tabbed notebooks to organize your screens better.

If you are already using Matterhorn it is very simple to get started with Screen Designer. For more information about using Screen Designer, please study the Screen Designer Setup and Reference Guide.
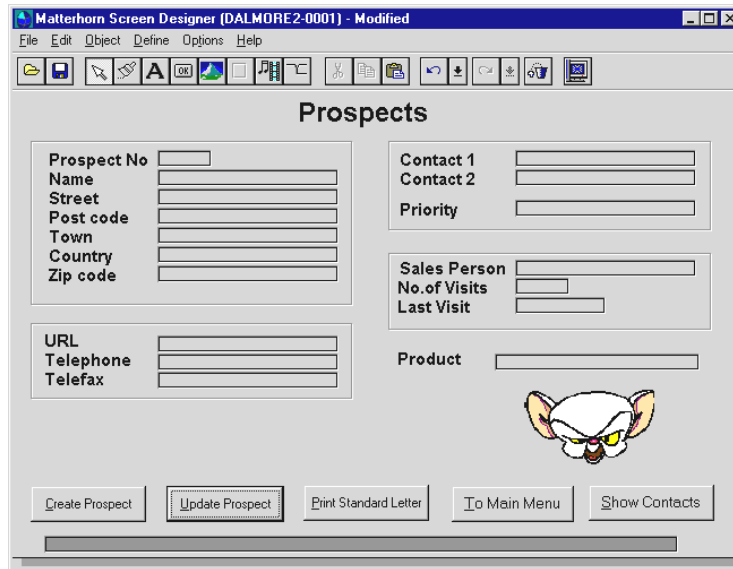
Figure 1.4: *A Tandem requester designed with Matterhorn Screen Designer.*

Screen Input with Keyboard Buffer

With conventional 6530 and 3270 screens the keyboard is locked while waiting for response. With Matterhorn in charge, users with fast keystrokes may continue entering information during screen updates.

Transaction Presentation

During a Matterhorn session the user has an advanced transaction presentation at his or her disposal:

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Name of Requester Called

The user may survey the different requesters being called and see the name of the current working requester.

Name of Server Called

The name of the server currently being called will appear on the screen. This is helpful if the user experiences problems or unexpectedly long response times.

Timeout Counter

The user may follow an on-screen countdown figure denoting the timeout of the current screen. This may prevent situations where the user is in the middle of entering data in a screen that suddenly times out. In addition, you can configure Matterhorn to repeat a beep 5 seconds before timeout.

Error Message Presentation

Matterhorn provides an extensive error message presentation. Since Matterhorn is in charge of every SCOBOL instruction, there are absolutely no limits to the amount of information a SCOBOL runtime error message may contain. This will be helpful to the programmers when solving runtime errors.

Error message presentation may for instance display the name of a frozen server, invalid numeric items, names and types of program variables, and, if a reply code is invalid, display the exact reply code. In addition, the system administrator may obtain a log of the last physical user response time.
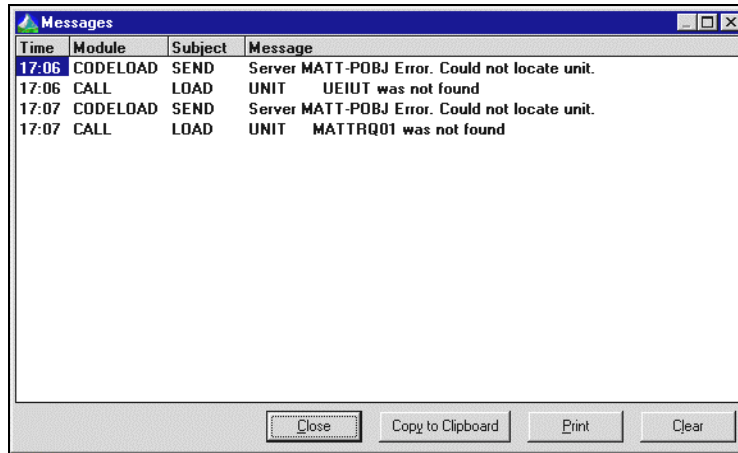
Figure 1.5: *Error messages will be displayed in a separate window.*

Matterhorn 4.0 - What's New

Most changes made to Matterhorn for Windows in the period from version 4.0 to version 5.0 is invisible to both the system administrator and the common user. For instance, the amount of Windows system resources used by the Matterhorn Client executable file, Mattwin.exe, has been reduced.

The Matterhorn Client now exists both as a 16- and a 32-bit application.

On the PC side, the term previously known as a Matterhorn initialization file, now has a slightly different meaning. The file has been split up into two different entities: a Matterhorn profile, which functions on a global level and a workstation initialization file containing configuration information applying to the individual workstation.

Also, on the PC side, the user has a new interface for configuring the screens during a Matterhorn session. This

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interface will be detailed in the chapters of Part 4, Exploring Matterhorn.

On the Tandem side, Matterhorn Configuration has been improved. Already in the beginning stages of configuring the Matterhorn session, Matterhorn Configuration will determine whether or not the POBJ is located on Tandem and prompt the user if this is not the case. Matterhorn Configuration is detailed in Chapter 5, Matterhorn Configuration.

Using Screen Designer you may now create tabbed notebooks and work with the productivity tool, Data Explorer. For further information on these features, turn to the Screen Designer Setup and Reference Guide.

Chapter 2:
The Matterhorn Package

This chapter presents the components of both the Matterhorn Pathway system and the Matterhorn Client. The chapter also provides a short description of the Matterhorn package and lists the requirements of the Matterhorn Pathway system and the Matterhorn Client.

The chapter is organized as follows:

➢ The Matterhorn Package

➢ Tandem Requirements

➢ PC Requirements

The Matterhorn Package

Your Matterhorn package includes the Matterhorn Suite CD-ROM. The CD-ROM contains the files neccesary for installing the Matterhorn Suite. Note that you must own a valid licence for using the tools of the Matterhorn Suite.

The CD-ROM also contains online user guides in PDF-format which you may load into Acrobat Reader or Acrobat Exchange, and subssquenly print on paper.

The Matterhorn Pathway System

Once installed, the Matterhorn Pathway system will be located on your Tandem system. The Matterhorn Pathway system actually comprises four servers, MATT-POBJ, MATT-UMP, MATT-MON and MATT-CONF. Together they form an independent Pathway system, called $SKYB. Feel free to rename the Pathway system.

> ➢ Server 1 - **MATT-POBJ**. This server will transfer the requester object to the PC.

> ➢ 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 about Matterhorn session monitoring, turn to the Appendix of this manual.

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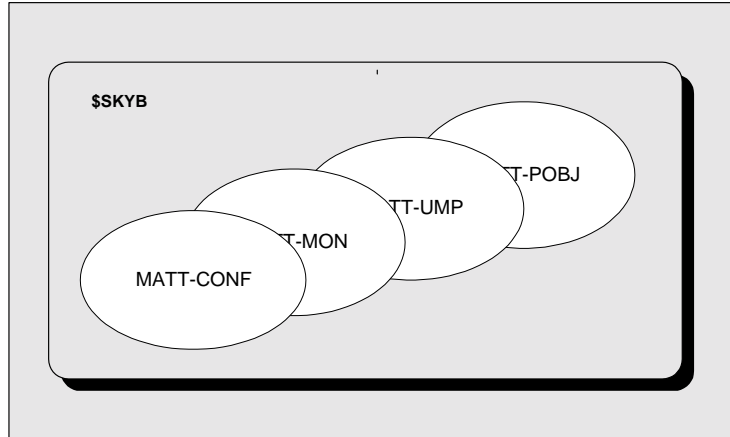
Figure 2.1: *The Matterhorn Pathway system on the Tandem forms the server part of Matterhorn.*

The operation and interaction of the Matterhorn Pathway system and the Matterhorn Client is thoroughly discussed in Chapter 3, How Does Matterhorn Work.

Part 2, Getting Started on Tandem takes you through the installation procedure of the Matterhorn Pathway system, i.e. the creation of the Matterhorn Pathway system.

The Matterhorn Client

The Matterhorn Client is the program interpreting the executable requester once it has been copied to the PC. The Matterhorn Client will build the screen, accept user input, and transmit data via CSL or RSC to and from the Tandem server.

The Matterhorn Client executable file is called Mattwin.exe. You can either install the Matterhorn Client on a PC server or locally on the work stations.

In Part 3, Getting Started on PC, we will explain how to install the Matterhorn Client on a PC, teach you how to configure the

Matterhorn profile and create the icons in Windows that represent each Matterhorn session.
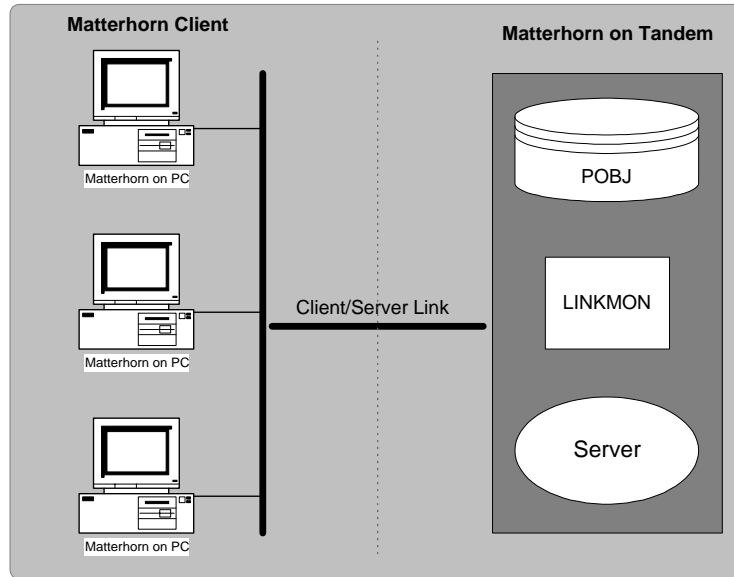
Figure 2.2: *The Matterhorn Client and Matterhorn Pathway system communicates via CSL or RSC.*

The operation and interaction of the Matterhorn Pathway system and the Matterhorn Client are thoroughly discussed in Chapter 3, How Does Matterhorn Work.

Tandem Requirements

As mentioned, the Matterhorn Pathway system, $SKYB, must be installed on the Tandem. $SKYB will maintain the link to those Pathway applications that have been set up as Matterhorn sessions.

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 1.0
RSC	C30 or later
Scobol PATHTCP2	C21 or later
MAXLINKMONS	> 0
POBJ	Readaccess to POBJ

PC 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	Installed	Installed
RSC	Installed	Installed
Resolution	640x480	800x600

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Chapter 3:
How Does Matterhorn Work

T his chapter is intended to explain the operation of Matterhorn, both on the Tandem and the PC. The chapter will illustrate the interaction of the Matterhorn Client and the Matterhorn Pathway system. The chapter is organized as follows:

➢ Life Without Matterhorn

➢ Life With Matterhorn

➢ The Matterhorn Story

➢ How Does Matterhorn Work

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Life Without Matterhorn

Before we go on to explain how Matterhorn for Windows works and why it performs the way it does, let us stop for a moment to look at how things were before anyone got the idea for Matterhorn.

A Proprietary System

In many areas, Tandem offers a computer system which is unrivaled in the world today. Its server handling is second to none, as is its transaction monitoring system. If your data is crucial for your business, we know why you chose Tandem. However, Tandem has its limitations. Tandem is a proprietary system. This means that Pathway applications are normally excluded from communicating with other platforms. Also, its presentation interface lacks the performance level and flexibility known from the PC.

The TCP and Response Times

A stand-alone Tandem system often experiences problems with long response times. Your Pathway requesters are located in the POBJ requester library. During the execution of requesters, the Tandem TCP (Terminal Control Process) is in charge (see Figure 3.1). For each requester launched by a user, the TCP will:

- build simple character mode screens.

- control the simultaneous execution at several terminals.

- control data for each terminal and perform validity checks.

- perform the physical I/O-operations.

- send messages to server classes and display server messages.

All these processes may cause long response times and result in an unnecessary waste of valuable Tandem CPU power. Often the second-most expensive process on Tandem is the TCP. (The most expensive is the disk process).
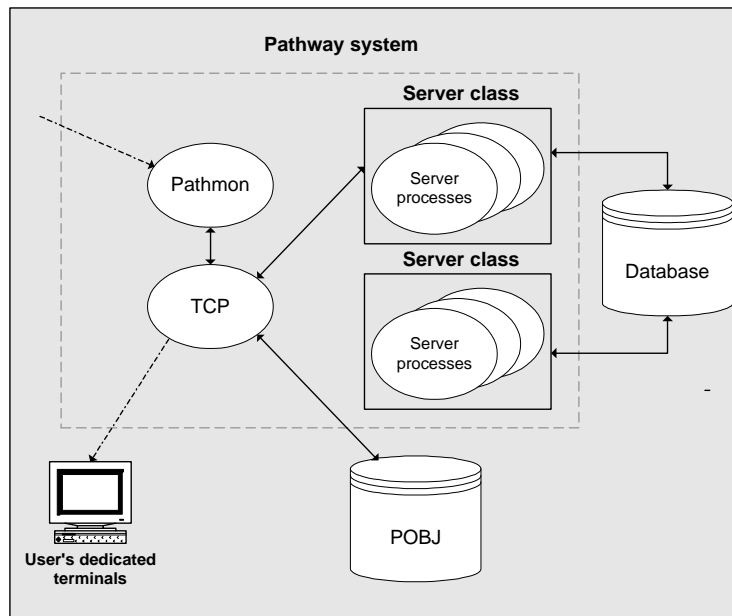
Figure 3.1: *Often, the TCP is the second-most expensive process on the Tandem.*

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Life With Matterhorn

With Matterhorn your Tandem system is enabled to access the powerful client/server technology within minutes.

Matterhorn is a plug-and-play solution. Its operation is divided into two parts; the Matterhorn Client and the Matterhorn Pathway system. The Matterhorn Pathway system will perform the database I/O on Tandem and the Matterhorn Client, executed on a PC, will handle the user interface and make your Tandem data available to other platforms. No changes have to be made to any server on your current Tandem system.

The philosophy behind Matterhorn is fairly simple: the more computing tasks that can be moved from the Tandem to the PC, the more resources will be freed up on the Tandem for other heavy computing tasks.

Matterhorn achieves this by copying the executable requester code generated by the Screen Cobol compiler to the PC and interpret and execute it from here.

Since Matterhorn will move large amounts of CPU cycles from the Tandem to the PC, CPU power on the Tandem is freed up, which means that performance will be increased and response times will be reduced. Using Matterhorn will reduce the strain on the Tandem CPU by up to 25 per cent and release up to 100 KB Tandem memory for each Pathway Terminal.

The Best of Both Worlds

With Matterhorn the best of both worlds are combined into one powerful and flexible system. Your data on Tandem is still processed and monitored by the Tandem servers while Matterhorn relieves the Tandem TCP of all its tasks and at the same time makes Tandem data available to all the benefits of

the desktop technology; productive and intuitive user interfaces, dynamic link libraries and information-sharing.

The Matterhorn Story

For the last year Skybeam Management Ltd. has invested many years of research in the client/server area.

The SCOBOL compiler will compile the source code located in the POBJ requester library. During the execution of requesters, the Tandem TCP (Terminal Control Process) is in charge (see Figure 3.2).

On Tandem, the Scobol source code of each Pathway requester will be compiled and stored in the POBJ (Program requester library). The TCP will then load the requesters and execute them.
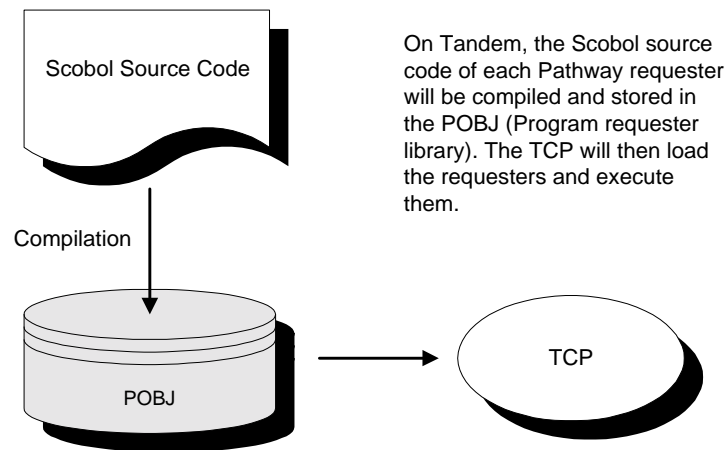
Figure 3.2: *On a stand-alone Tandem system, the TCP will execute Tandem requesters located in the POBJ.*

One way to make Pathway requesters accessible to the client/server technology is to convert the existing SCOBOL source code into source code of a programming language that may be compiled on the PC, for instance C or C++ (see Figure 3.3). Like many of our Tandem alliance competitors we set out to design an automated client generator. The generator's job

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was to produce C/C++ source code, using the existing SCOBOL source code.
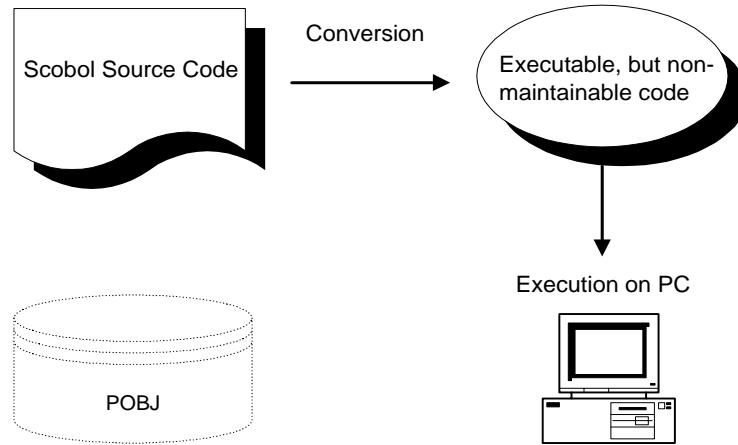
Figure 3.3: *Source conversion produces executable, but non-maintainable code.*

However, at Skybeam we found that this approach was not ideal. Due to the structure in the SCOBOL source code, the C/C++ source code produced was often unreadable and impossible to maintain.

Instead, a research group was set up at Skybeam with one simple goal: to scrutinize every byte in the POBJ. Today we are proud to say that not only do we understand every byte, but every *bit* of the entire requester library, right from the screen structure to the working storage section and the procedure division.

Matterhorn is completely different from any other software product making Pathway applications accessible to the client/server technology. With Matterhorn, the *maintainability* of your current Tandem system is intact. This makes Matterhorn unique compared to similar products on the

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market. No changes to the existing SCOBOL source code is required.

Scobol Source Code

Matterhorn will transfer the compiled requester code to the PC and interpret it here. The TCP is ignored. The object code may still be maintained on the Tandem.
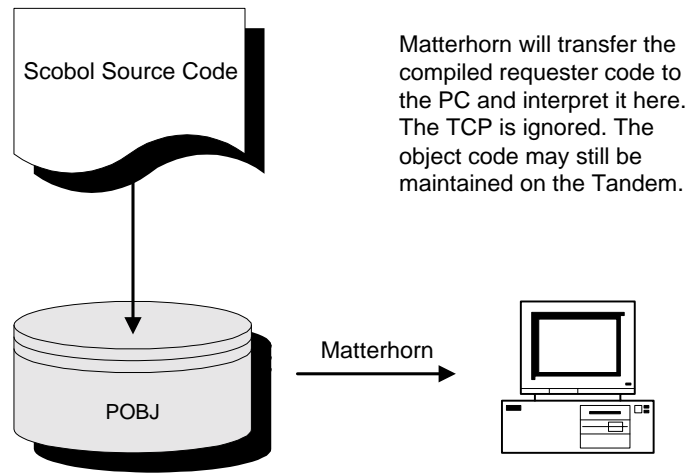
POBJ

Matterhorn

Figure 3.4: *Matterhorn interprets the executable source code located in the POBJ.*

How Does Matterhorn Work

This section explains the operation and interaction of the Matterhorn Client and Matterhorn Pathway system. The most appropriate way to do this is to illustrate what happens from the point when the user clicks a Matterhorn session icon in Windows, to the time a few seconds later, when the Tandem requester is displayed on his or her screen as a multi-functional Matterhorn session.

Note that the steps described on these pages and the accompanying illustrations anticipate events and that they may refer to elements or specific Matterhorn terms that you may not yet be familiar with. Not to worry. All elements and terms will be explained later in this manual.

Clicking the Icon

Each Matterhorn session is identified by an icon in your Matterhorn program group (or folder). See Figure 3.5 .
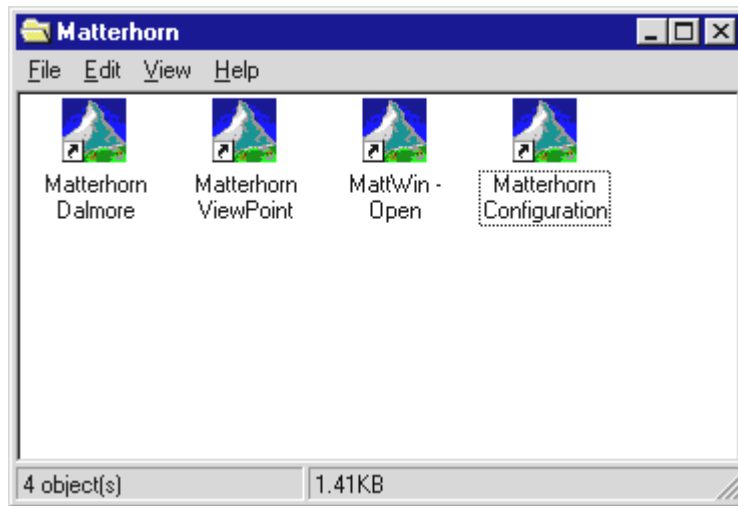
Figure 3.5: *Matterhorn session icons in a Matterhorn program folder.*

When you double-click a Matterhorn session icon, the following will take place:

1. Windows will execute the command line associated with the icon. For instance:

   C:\Matt\Mattwin.exe C:\Matt\Mattwin.ini.

   The line tells Windows to launch the Matterhorn Client program file Mattwin.exe, which is located in the folder C:\Matt. The command line contains a reference to the obligatory Matterhorn profile.

2. The Matterhorn profile is crucial to the Matterhorn Client. The Matterhorn profile provides Mattwin.exe

with five important pieces of information: 1) a *pointer* to the communication subsystem (CSL or RSC) which establishes and maintains the communication between the PC and the Tandem system); 2) the *name* of the Tandem system on which Matterhorn is located; 3) the *name* of the Matterhorn Pathway system to address; 4) the Matterhorn Pathway system holding the configuration settings for the current session to be activated, MATT-CONF; and finally 5) the Session Name, a unique reference to the current session on the Tandem.

```
[CONFIG]
RscFile=C:\RSC\RSC.INI
RscFile32=C:\RSC32\RSC.INI
RscSection=RSC
System=\TANDEM
Pathmon=$SKYB
Server=MATT-CONF
SessionName=DALMORE
TransportLayer=CSL
```

Figure 3.6: *The Matterhorn profile informs the Matterhorn Client about how to address the Tandem system. A sample profile is included in your Matterhorn package.*

3. With the information from the profile at hand, the Matterhorn Client first establishes the connection to the Tandem via the chosen transport layer, CSL or RSC.

4. Next, the Matterhorn Client addresses the Tandem system and requests the MATT-CONF-server for the information related to the session indicated by Session Name (see Figure 3.7) This information is stored in a
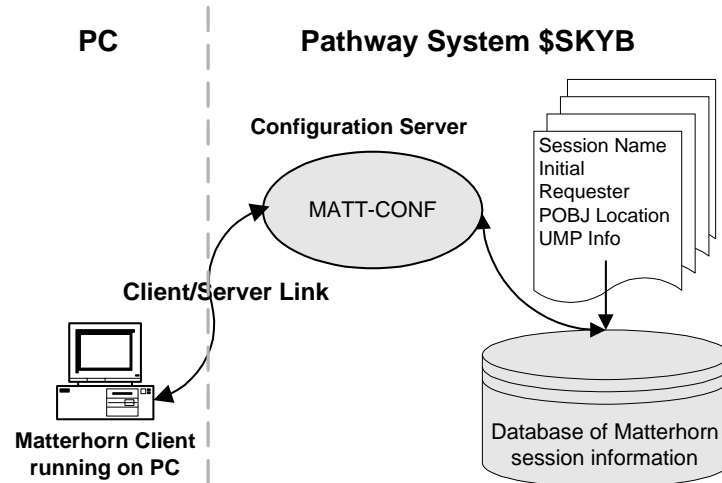
Figure 3.7: *The Matterhorn Client consults the MATT-CONF server for information about which session to execute and how.*

record, which has previously been created by the system administrator with the Matterhorn Configuration program. This record informs the Matterhorn Client with information necessary to address the session on the Tandem; in which Pathway system servers are located, the search path of the POBJ requester environment and the name of the initial requester. Also, information about UMP handling and how the requester should be displayed when running under Windows will be made available to Matterhorn at this point.

5. Next, if the Session Name record indicates that UMP should be activated for this session, a request will be made to the MATT-UMP server (see Figure 3.8).

6. The Matterhorn Client then consults the MATT-POBJ server for the requester environment (the location of

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the POBJ(s)) and the initial requester. The requester source code will be identified and transferred to the PC (see Figure 3.9 next page).

PC　　　　　　**Pathway System $SKYB**

UMP Server

MATT-UMP

Client/Server Link

Use UMP
Yes/No

**Matterhorn Client
running on PC**
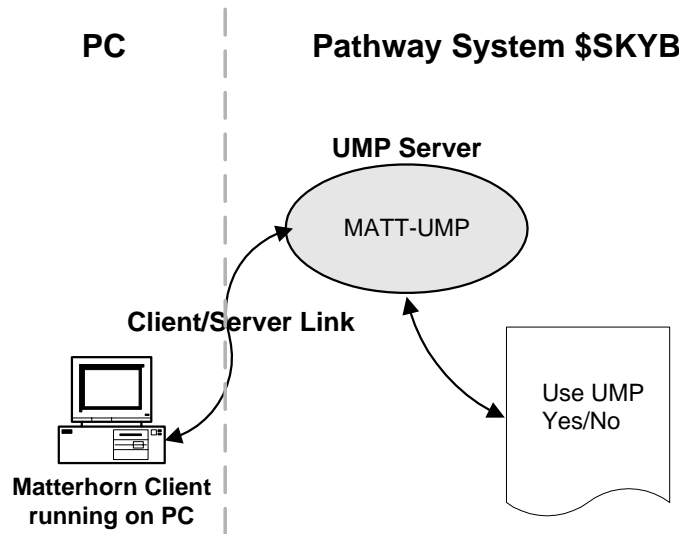
Figure 3.8: *The Matterhorn Server MATT-UMP controls Unsolicited Message Processing (UMP).*

7. Finally, the Matterhorn Client will interpret and execute the requester on the user's PC. At this point, the Matterhorn Client has taken over the role of the TCP, which means that it will build the screen, accept user input, and transmit data to the Tandem. The Tandem Pathway servers will perform the requested database I/O and return the information to Matterhorn.

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PC

Pathway System $SKYB

POBJ Server

MATT-POBJ

Client/Server Link

POBJ

**Matterhorn Client
running on PC**
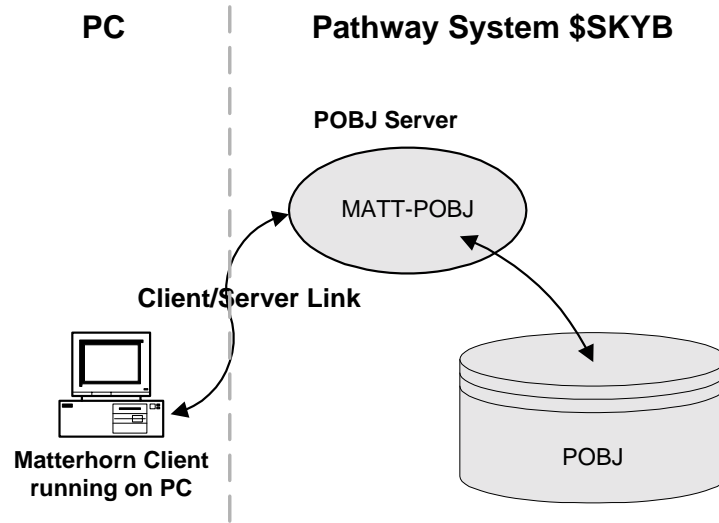
Figure 3.9: *The Matterhorn Server MATT-POBJ will locate and
submit the requester object code to the Matterhorn Client.*

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Part 2

G etting Started on Tandem

This part takes you through the installation procedure of the Matterhorn Pathway system, $SKYB. You will also learn how to prepare your Pathway applications to be executed as Matterhorn sessions. Part 2 closes with two useful chapters describing how to upgrade Matterhorn 4.0 to Matterhorn 5.0 and how to configure CSL and RSC for Matterhorn.

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Chapter 4:
Installing the Matterhorn
Pathway System

T he Matterhorn installation process comprises two different stages; installing the Matterhorn Pathway system on the Tandem and installing the Matterhorn Client on a PC or a network server.

In this chapter we will explain how to install and set up the Matterhorn Pathway system on a Tandem computer. Likewise, this procedure comprises two stages; 1) transferring the Matterhorn files from the \Tandem subfolder of the Matterhorn Suite CD-ROM to the Tandem and 2) installing the Matterhorn Pathway system, $SKYB.

The chapter is organized as follows:

- ➢ Setting the MAXLINKMONS

- ➢ Transferring Matterhorn Files to the Tandem

- ➢ Creating the Matterhorn Pathway System

- ➢ Files of the Matterhorn Pathway System

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 Pathway system on a Tandem computer is to make a *binary transfer* of the three files, SETUPCOD, LICENSE, and UNPACK from the \Tandem subfolder of the Matterhorn Suite CD-ROM to the Tandem.

- SETUPCOD contains a total of 17 files, including the four 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).

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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 (see Figure 4.1). Please follow the instructions carefully:

a. When you are prompted: **Enter PATHMON processname**, enter the name of the Matterhorn Pathway system. The default name is $SKYB, but you may rename it at this point.

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.

e. When you are prompted: **Enter path to Designer database**, enter a path to a Screen Designer database. Default is C:\Matthorn\.

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

```
MATTERHORN setup. Copyright 2005 Skybeam Management Ltd.
Current Tandem Node is \MERMAID 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 4.1: *Screen conversation during the creation of the Matterhorn Pathway system.*

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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. This program is thoroughly discussed in Chapter 5, Matterhorn Configuration.

As described in Chapter 2, 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 PC.

> ➢ 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. Read more about Matterhorn session monitoring in the appendix of this manual.
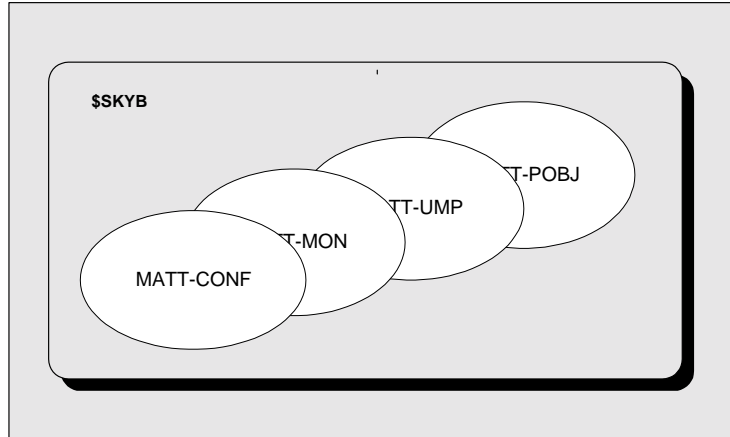
Figure 4.2: *The Matterhorn Pathway system on the Tandem forms the server part of Matterhorn.*

Files of the Matterhorn Pathway System

In this section you will find a presentation of the files of the Matterhorn Pathway system:

DATAHDR **DATATRC** **DATATRM** **DATAPBJ** **DATASTT**	Database files storing various configuration information about your Matterhorn sessions as they have been defined in Matterhorn Configuration. The file DDLSRC contains a full description of these files.
DDLSRC	This file contains a description of the Matterhorn database files.
MATTCONF	The Matterhorn configuration server, MATT-CONF. As mentioned this server will handle and store the configuration information related to each Matterhorn session.

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MATTENF   A demo batch job that you may use for obtaining statistics of response times on your system.

MATTPBJ   The Matterhorn POBJ Server, MATT-POBJ. This server will handle and store the configuration information related to each Matterhorn session.

MATTUMP   The Matterhorn UMP server, MATT-UMP. This server handles UMP.

MATTMON   The Matterhorn Monitor server. This server will monitor all active Matterhorn sessions.

PATHCTL   Configuration file of $SKYB, the Matterhorn Pathway system.

POBJCOD   The POBJCOD file of Matterhorn's own POBJ.

POBJDIR   The POBJDIR file of Matterhorn's own POBJ.

PWYCOLD   Performs a cold start of the Matterhorn Pathway system.

PWYCONF   File of the SETUP TACL macro which sets up the Matterhorn Pathway system.

PWYCOOL   Performs a warm start of the Matterhorn Pathway system.

PWYINFO   Contains the information necessary for cold starting the Matterhorn Pathway system.

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PWYSTRT   File of the SETUP TACL macro which sets up the Matterhorn Pathway system.

SETUP   The setup file of the SETUP TACL macro.

UPGRADE   Upgrade macro which enables you to upgrade safely from Matterhorn 4.0 to Matterhorn 5.0. For more information, turn to Chapter 6, Matterhorn 5.0 Upgrade.

LICSHOW   Macro that shows how many of your Matterhorn licenses that have been taken into use.

XHANG   This macro will tell you if your system has got hanging processes on the system which might weaken the performance of Matterhorn or result in longer response time.

Chapter 5:
Matterhorn Configuration

T his chapter discusses Matterhorn Configuration, the setup tool which is used when you prepare your company's Pathway applications to be executed by the Matterhorn Client.

The chapter is organized as follows:

- ➢ About Matterhorn Configuration

- ➢ The Main Menu

- ➢ The POBJ Search Path Window

- ➢ Working with Environments and Search Paths

- ➢ The Session Survey

- ➢ The Session Setup Window

- ➢ Locating Tandem Information

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About Matterhorn Configuration

Matterhorn Configuration is the obligatory tool you must use when preparing your company's Pathway requesters to be executed by Matterhorn:

Matterhorn Configuration has two related functions:

- As a stand-alone program Matterhorn Configuration is used to create and maintain Matterhorn sessions, i.e. the records of information related to the requesters that you wish to execute as Matterhorn sessions.

- During the start of a Matterhorn session, the Matterhorn client gains access to the necessary information by requesting it from the MATT-CONF server. In this sense, Matterhorn Configuration serves as an interface to the information stored on the MATT-CONF server.

In Matterhorn Configuration, each session is identified by a Session Name. A Session Name is unique, which means that it may only be used once. To the Session Name you link other important information which is necessary to the execution of the session as a Matterhorn session. This information includes the name of the initial requester, POBJ search paths, server classes, requester environments and other types of information, all of which will be discussed in this chapter.

In Figure 5.1 you see the main menu of Matterhorn Configuration.

NOTE: For information on running Matterhorn Configuration as a Matterhorn session, turn to Chapter 10, Creating a Matterhorn Session Icon.
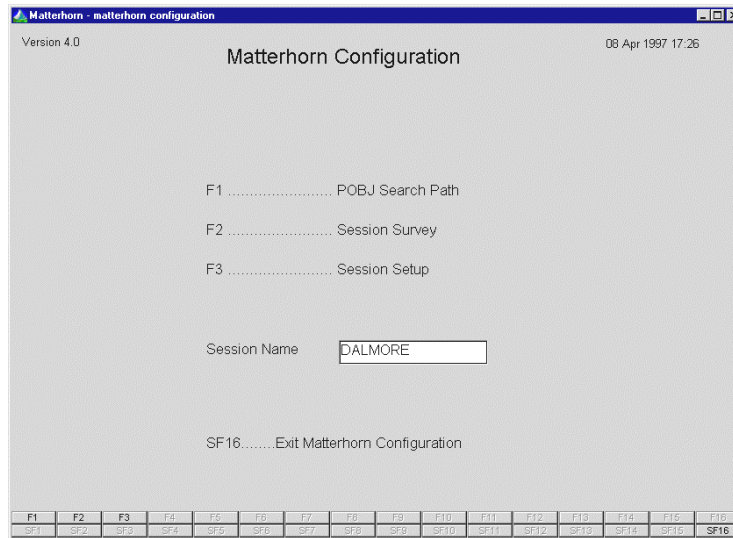
Figure 5.1: *The Matterhorn Configuration main menu.*

The Main Menu

From the Matterhorn Configuration main menu you may access the following options:

F1   Press **F1** to access the **POBJ Search Path** window. In this window you set up the search paths that determine where Matterhorn will look for the POBJ requester libraries prior to launching the initial requester. You may also define new Matterhorn *requester environments* and *server classes* from this window.

F2   Press F2 to access the **Session Survey**. This survey lists all currently available Matterhorn sessions. From the survey you may select one or several sessions for configuration.

F3   Press F3 to access the **Session Setup** window.

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This window is the starting point when creating new Matterhorn sessions. From here you gain access to a range of subsections in which you may configure the Matterhorn sessions.

Session Name   If you remember the name of the session you wish to reconfigure you may enter the name in the field **Session Name** and press **F3**. Matterhorn Configuration will then take you directly to the **Session Setup** window and load all information attached to the session.

SF16   Press **Shift+F16** to exit the Matterhorn Configuration.

The POBJ Search Path Window

In the **POBJ Search Path** window you may set up search paths for the POBJ requester library locations, and create or define new requester environments and server classes. More precisely, the settings in this window determine the sequence in which Matterhorn will search for the POBJ requester library. To gain access to the **POBJ Search Path** window, press **F1** in the Matterhorn Configuration main menu.

First we will introduce you to the elements of the **POBJ Search Path** window. Later in this section you will learn to create new requester environments and server classes, and to enter a POBJ search path.
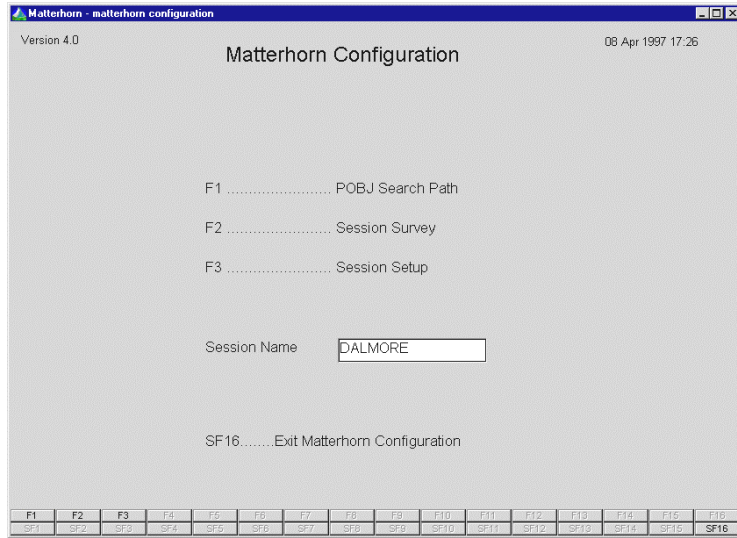
Figure 5.2: *To access the* **POBJ Search Path** *window, press F1.*
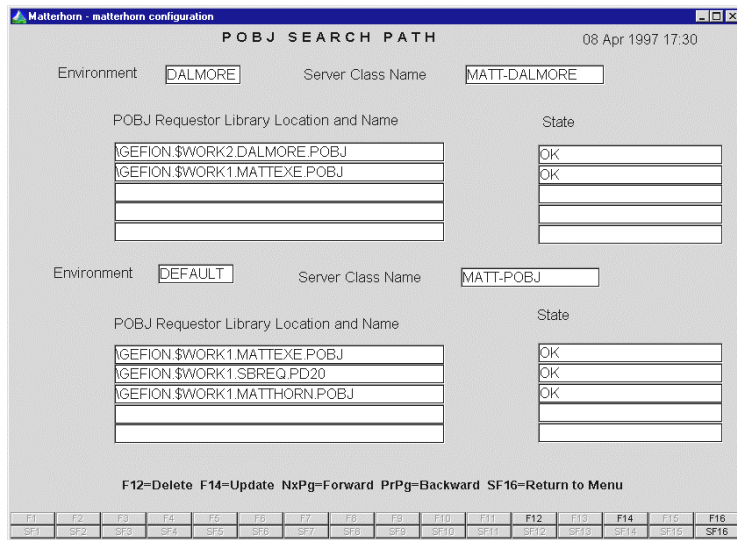
Figure 5.3: *The* **POBJ Search Path** *window. The server class name is the*

same, which must be specified in the **Pathway Server Name** *field of the* **Code Manager** *section.*

Elements of the POBJ Search Path Window

In the **POBJ Search Path** window you find the following fields:

Environment   In this field, you may enter the name of a requester environment. A *requester environment* is a name that designates a logical *working area.* The environment option enables you to group together those POBJs that apply to the same working or application area within your company. You may for instance create an environment called TEST, which points at five test POBJs, and another environment called PROD pointing at three production POBJs.

You may use up to **8** characters for an environment name. You may enter search paths for up to five POBJs per environment. The POBJs of each environment are handled by the same server.

You may create as many requester environments as you like. To scroll through the screen, use the arrow keys or the **PageUp** or **PageDown** keys.

Server Class Name   Use this field to enter the relevant server class name. The name indicates which server handles the POBJs specified in the search paths. The name has to match the

server specified in the **Pathway Server Name** field of the **Code Manager** section (see Figure 5.4).

POBJ Requester Library Location and Name

In this field, enter the search paths of up to five POBJs per Environment. Each path must include the system name of your Pathway monitor, the subvolume and the filename of the POBJ. **Important**: You are not allowed to enter the suffixes DIR, COD, or SYM.

State

This field will indicate whether or not Matterhorn Configuration was able to locate the initial requester indicated in the **Executor** section. As Matterhorn tries to open the POBJ, a Guardian file system error is returned by the Tandem. The most common messages in this field are:

OK

PARTITION FAILED

ALTERNATE KEY FAILED

FILE ALREADY EXISTS

FILE NOT FOUND

FILE IN USE

DEVICE NOT FOUND

ILLEGAL SYSTEM NAME

TIMEOUT ON FILE

SECURITY VIOLATION

ACCESS VIOLATION

NO CURRENT TMF ID

TRANSACTION ENDING

INVALID TRANSACTION

RECORD NOT LOCKED

SYSTEM NOT AVAILABLE

If the error is none of the above, Matterhorn will simply enter the number of the error. Please refer to your Guardian/Tandem manual.

Note that the first time you open the **POBJ Search Path** window, Matterhorn Configuration has inserted a requester environment called DEFAULT. This environment points at Matterhorn's own POBJ files, which are controlled by the MATT-POBJ server. This will enable you to execute Matterhorn Configuration as a Matterhorn session under Windows.
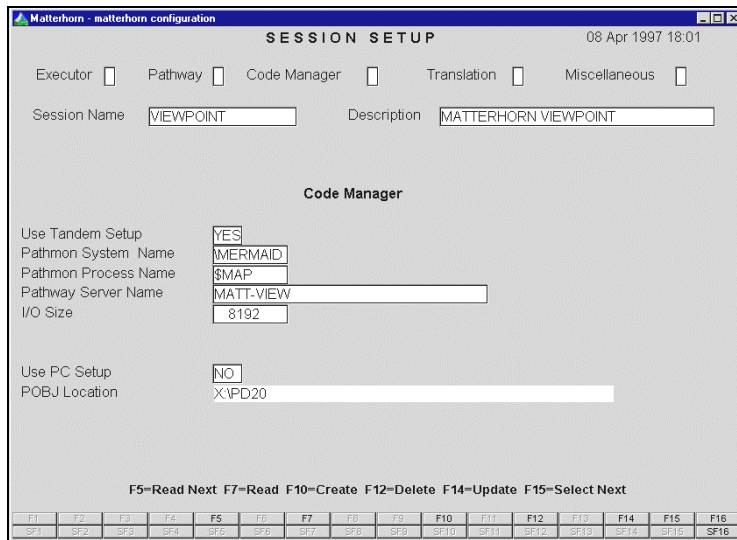

Figure 5.4: *Use the **Code Manager** section to enter information about the location of the POBJ object code. The field **Pathway Server Name** refers to*

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*the field **Server Class Name** in the **POBJ Search Path** window.*

Working with Environments and Search Paths

As mentioned in the previous section a requester environment is a name that designates a specific logical work area. In other words, a requester environment groups together two or several POBJs into relevant working or application areas.
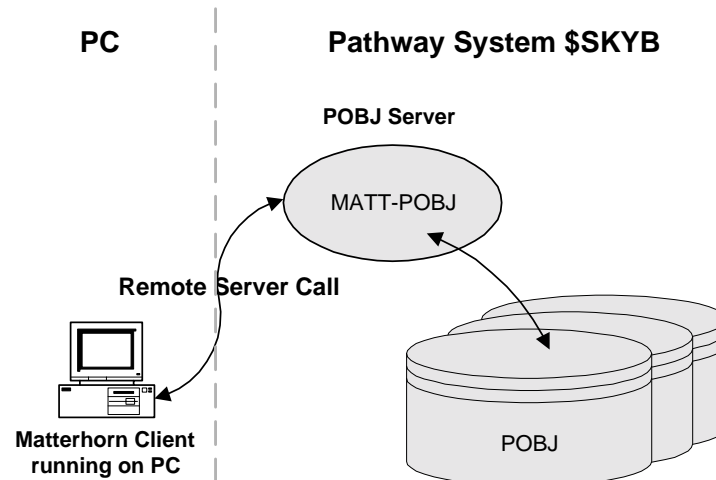
**Figure 5.5:** *The logical grouping together of up to five different POBJs, is referred to as a requester environment.*

To create a new requester environment and enter search paths, follow these steps:

1. Open the **POBJ Search Path** window. In the **Environment** field, enter the name of the requester environment. Make sure to choose a name that reflects the application of the POBJ(s).

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2. In the field **Server Class Name**, enter the name of the server class that you wish to create. This server class will handle the POBJ(s) that you enter in the field **POBJ Library Location and Name.**

3. In the **POBJ Library Location and Name** field you may enter search paths for up to five different POBJs per requester environment. Each path must include the system name of your Pathway monitor, the subvolume, and the filename. Remember that you are not allowed to enter the file extensions .DIR, .COD, or .SYM. To obtain the correct information about POBJ location and names, turn to the section, [Locating Tandem Information](#).
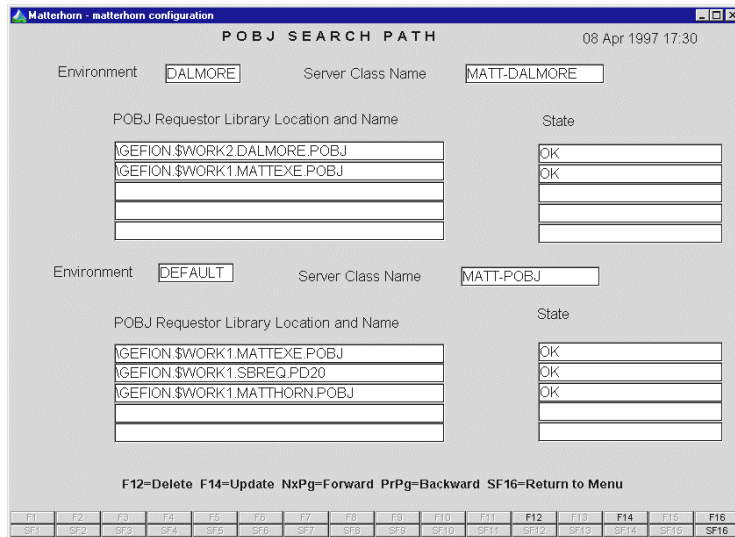

Figure 5.6: *Use the* **POBJ Search Path** *window to create requester environments, server classes and enter POBJ search paths.*

To update your entries, press **F14.** At this point, Matterhorn Configuration will generate the server class on your system and store the POBJ search path(s).

When a Matterhorn session is later on launched by a user, Matterhorn will perform a top-down search for the relevant POBJ requester library. If the initial requester is not located in the first library, Matterhorn will try the path below, etc. The search will stop when the requester has been found. Subsequently, the requester object code will be loaded on PC.

The Session Survey

To gain access to the Session Survey, press **F2** in the Matterhorn Configuration menu. This survey lists all currently available Matterhorn sessions. From the survey you may select one or several sessions for configuration.
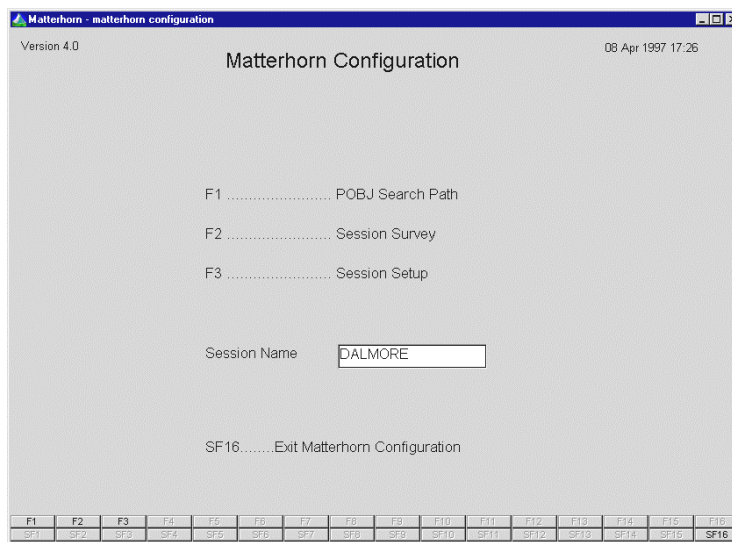
Figure 5.7: *To access the Session Survey, press **F2** in the Matterhorn Configuration main menu.*

Note that if you are configuring Matterhorn for the first time ever, the Session Survey will be empty.
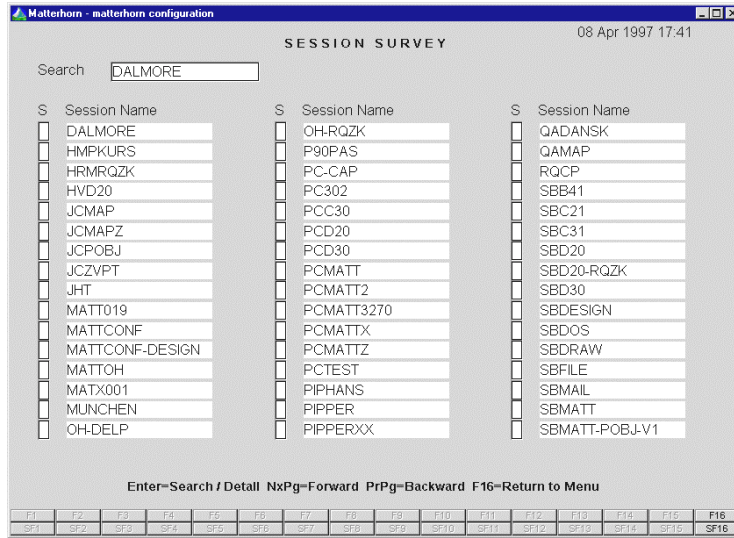
Figure 5.8: *The Session Survey.*

Across the bottom of the Session Survey, the available keys and function keys appear. They are:

Enter The **Enter** key has two different functions in the Session Survey: **Search** and **Detail**.

If the cursor is placed in the **Search** field at the top of the screen, you may enter a search string in the field and press **Enter** to launch the search. This is of course profitable if you are working with a large number of sessions and the list of session names exceeds the screen. If, on the other hand, you are navigating in the survey of sessions, pressing the **Enter** key will select the current session and take you to the **Session Setup** window.

NxPg   If the list of sessions exceeds one page you may use the **NxPg** key to get to the following page.

PrPg   If the list of sessions exceeds one page you may use the **PrPg** key to get to the previous page.

Shift+F16   To return to the Matterhorn Configuration main menu, press **Shift+F16.**

In the survey of sessions you may select several sessions for configuration at one time. As you move around in the S columns (**S**: Select) you may use any key to select a Session Name (*blank* means 'not selected'). If you choose to work with multiple sessions you may delimit the Matterhorn configuration process to apply only to these sessions. This feature will be described later in this section.

The Session Setup Window

To enter the **Session Setup** window, press **F3** in the Matterhorn Configuration main menu. This window is the starting point when creating new Matterhorn sessions. From here you gain access to a range of subsections in which you may configure the Matterhorn sessions.

However, before you begin creating new sessions, take a couple of minutes to study the section, Locating Tandem Information later in this chapter. From this section you will learn that the process may not be that complicated after all.

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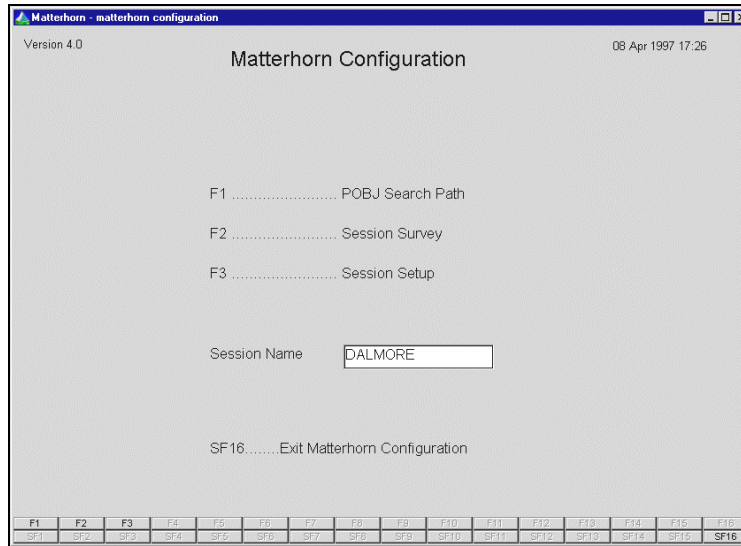
Figure 5.9: *To access the **Session Setup** window, press F3.*

Sections in the Session Setup Window

The **Session Setup** window has five different submenus, referred to as *sections*, appearing across the top of the screen.

Executor	In this section, state the name of the initial requester that will be associated with the current session name.
Pathway	In this section, specify the name of your Pathway monitor and enter other relevant Pathway information.
Code Manager	In this section, tell Matterhorn where the object code of the requester is located.

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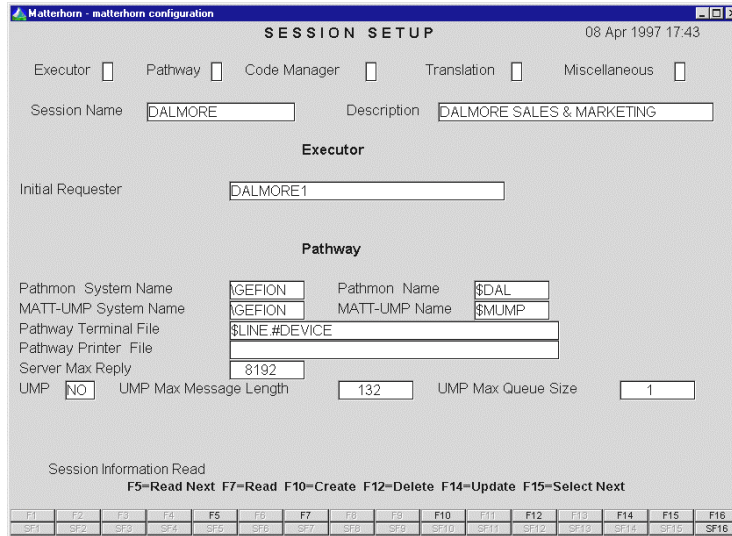
Figure 5.10: *The Setup sections run across the top of the* ***Session Setup*** *window.*

Translation   In this section you may activate the Translation feature, which will solve the recurrent problem of national character conversion.

Miscellaneous   In this section, various parameters related to the appearance of session screens when executed under Matterhorn are set up.

You may select any of the sections by placing the cursor on the associated check box and pressing **Enter**. Normally, the configuration process will be carried out from left to right, starting with the **Executor** section and ending with the **Miscellaneous** section. Alternatively, if you wish to edit or reconfigure an existing session, you may select the session from the Session Survey and then choose any of the sections.

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Fixed Elements in the Session Setup Window

When you work with the Matterhorn configuration sections, some elements are available at all times. They include the **Session Name** field, the **Description** field and a set of fixed function keys.

Session Name   Just below the line with the names of the Session Setup sections you will see the field **Session Name**. As mentioned earlier, this field is the key to the entire session. If you are creating a new Matterhorn session, you must state a name in this field. If you are working with an existing session, its name will be inserted automatically when you select the session name, either from the Session Survey or by entering its name in the corresponding **Session Name** field in the Matterhorn Configuration main menu.

Description   In the **Description** field you may enter a textual description to accompany the session name. The text will reappear as the title of the session application window in Windows. If you do not enter a title in this field, the string "Matterhorn" will appear in the title bar of the application window.

Function Keys in the Session Setup Window

When you work with the different Session Setup sections, a set of fixed function keys are available. No matter which section you are currently working with, the function of the individual

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key remains the same. The function keys are displayed across the bottom of the screen:

F5: Read Next   If you are working with one Matterhorn session and wish to work with the next session listed in the Session Survey, press **F5**.

F7: Read   If you do not select one of the sessions listed in the Session Survey but choose to enter the name of an existing session in the **Session Name** field in the **Session Setup** window, **F7** will read the information related to this session and insert it in the relevant fields.

F10: Create   When you are setting up a session for the first time, pressing **F10** will save the current settings. Do not use the **F14** Update option when you are setting up a Matterhorn session for the first time.

F12: Delete   To delete the current Matterhorn session settings, press **F12.** All settings, including the Session Name will be deleted.

F14: Update   If you are modifying the settings of an existing Matterhorn session, **F14** will update the session with the new information. Do not use the **F10** Create option, when you are updating existing sessions.

F15: Select Next   If you have marked several sessions in the Session Survey, **F15** will read information related to the next session in the list.

The Executor Section

In the **Executor** section, state the filename of the initial requester of the session, i.e. the *screen cobol unit*. To activate the **Executor** section, place the cursor in the associated **Executor** check box and press **Enter**. The cursor will automatically jump to the **Initial Requester** field; see Figure 5.11.

Figure 5.11: *To activate the **Executor** section, place the cursor in the **Executor** check box and press Enter.*

In the **Initial Requester** field you enter the name of the initial requester. If you do not remember the name, launch the **INFO PROGRAM** or **INFO TCP** command to obtain this information. (See also the section, Locating Tandem Information later in this chapter).

The Pathway Section

In the **Pathway** section, specify the name and path of the Pathway system that you are using. Also, if your legacy applications are written to use UMP, you may tell Matterhorn about it at this point.

Figure 5.12: *Use the **Pathway** section to enter information about your Pathway system and UMP-handling.*

Note that the Pathway information in this section relates to the Pathway system of the session you are configuring and setting up for Matterhorn. Unless you are setting up Matterhorn Configuration to be executed as a Matterhorn session, this information has got nothing to do with the Matterhorn Pathway system, $SKYB.

To activate the **Pathway** section, place the cursor bar in the associated **Pathway** check box and press Enter. The cursor will automatically jump to the **Pathmon System Name** field.

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Alternatively, you may go directly from the **Executor** section to the **Pathway** section using the arrow keys.

Fields in the **Pathway** section include:

Pathmon System Name	In this field, enter the system name of the Pathway system of the current Matterhorn session.
Pathmon Name	In this field, state the name of the Pathway monitor of the current Matterhorn session.
MATT-UMP System Name	In this field, state the MATT-UMP system name of the current Matterhorn session.
MATT-UMP Name	In this field, state the MATT-UMP process name of the Matterhorn session. Default is $MUMP.
Pathway Terminal File	If terminal output is sent to a file, state the name of the file in this field.
Pathway Printer File	In this field, state the path of the printer that the session is currently using.
Server Max Reply	This figure designates the total number of bytes which may be sent at the same time from the terminal to the server.
UMP	Options for this field are *Yes* and *No*. UMP means *Unsolicited Message Processing*. When you are using UMP, it implies that a program will trigger the TCP to prompt the user when new information is

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available. In other words, screens will be updated on an ongoing basis. When you are using Matterhorn, UMP will be controlled by the MATT-UMP server.

Note that if you are using UMP, only one session with the same Session Name may be active at the same time. If you try to dodge this rule, you will get an error message like "Unable to Sign On to UMP Server," depending on your Tandem configuration.

UMP Max Message Length   In this field, enter the maximum message length (in bytes) for each UMP message.

UMP Max Queue Size   This field denotes the number of un-answered UMPs which are allowed to queue up. The entry must be an integer.

The Code Manager Section

In the **Code Manager** section you specify the location of the POBJ object code. You may use your Tandem setup and enter the path of the POBJ on the Tandem. Alternatively, you may copy the POBJ object code to the PC and run it from here. Note that a POBJ on the PC will not be automatically updated if you make changes to the original POBJ on the Tandem.

To activate the **Code Manager** section, place the cursor bar in the associated **Code Manager** check box and press **Enter**. The cursor will automatically jump to the **Use Tandem Setup** field.

In the **Code Manager** section you find the following fields:
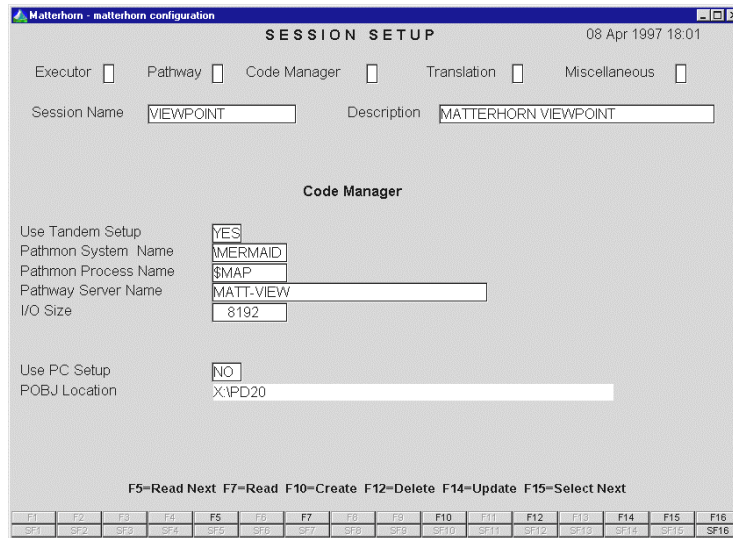
Figure 5.13: *Use the **Code Manager** section to enter information about the location of the POBJ object code.*

|	
Use Tandem Setup	Options for this field are *Yes* or *No*. If you select *Yes* you must enter the path of the MATT-POBJ server on Tandem. If you enter *No* in this field, specify the location and name of the POBJ on the PC.
Pathmon System Name	The system name of your Matterhorn Pathway system.
Pathmon Process Name	Name of the associated Pathway monitor. By default this is $SKYB.
Pathway Server Name	Name of Matterhorn Server. By default this field will be set to MATT-POBJ - the server that will manage the POBJ requester library. For more information see the section, The POBJ Search Path Window.

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I/O Size In this field, enter the size of each data package. You may adjust this value to accommodate the demands of your network environment.

Use PC Setup Options for this field are *Yes* or *No*. If you select *Yes* you must specify the location and name of the POBJ on the PC.

POBJ Location In this field, enter the path and file name of the POBJ requester library if it is located on a PC.

The Translation Section

The Matterhorn Translation module has been developed to assist you with the possible problems of national character conversion that may occur when you combine the Tandem environment with the Windows environment. For instance, the ASCII value denoting the Danish character 'Æ' is not the same on the Tandem as on the PC.

The concept is very simple. You specify the language used in your company and enter a translation table containing the hexadecimal values of those characters that normally cause trouble. By means of this translation table, which is in effect a small dictionary, Matterhorn will monitor all input characters and convert them if they are listed in the translation table.

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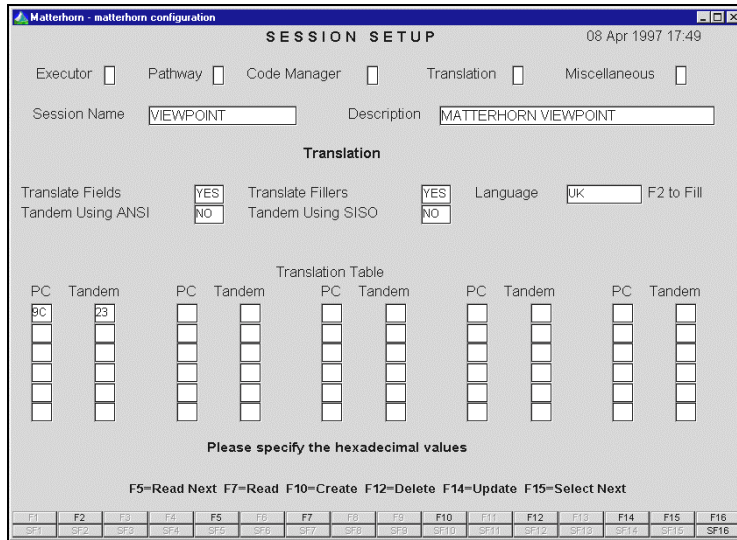
Figure 5.14: *Use the* **Translation** *section to prevent problems with character conversion.*

Translation will be implemented both ways. Output from the Tandem will be converted, as will input from the PC. Thus, on the screen shown on the previous page, the input character 9D from the PC (denoting the Danish character 'ø') will be converted to 5C. Similarly, 9D output from the Tandem will be converted to 5C when the data flow is reversed.

To activate the **Translation** section, place the cursor bar on the associated **Translation** check box and press **Enter**. The cursor will automatically jump to the **Translate Fields** field.

Translate Fields	In this field, specify whether Matterhorn should translate the contents of fields. Options are *Yes* and *No*.
Translate Fillers	In this field, specify whether Matterhorn should translate fillers, i.e. any fixed on-screen fields. Options are *Yes* and *No*.

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Language

In this field, enter the relevant language. Options are *Danish, Norwegian, Swedish, German, French, Spanish, British, USASCII,* and *NONE.* A predefined translation table is available for each language except for USASCII and NONE. If required, you may of course extend an existing table.

F2 to Fill

When you have selected a language in the field **Language**, press **F2** to insert the associated translation table and **F14** to confirm your choice.

Tandem Using ANSI

Normally, a Tandem computer will use an OEM character set. When Matterhorn executes a requester as a Windows-based application, OEM characters must be converted to ANSI characters. Options for this field are *Yes* and *No.* To convert from OEM to ANSI, select *Yes* in this field. If your Tandem is using ANSI, select NONE for the field **Language**.

Tandem Using SISO

Corresponds to the field described above. This field, however, pertains to Tandem systems using a 7 bit SISO character set. Options are *Yes* and *No.* To convert from SISO to ANSI, select *Yes* in this field.

At the lower part of the **Translation** section you may survey and, if required, detail the chosen PC/Tandem translation table. If you wish to build your own translation table, note that the characters must be specified as hexadecimal values. The Matterhorn translation module allows you to enter up to 30 different ASCII characters.

The Miscellaneous Section

In the **Miscellaneous** section you may set various parameters that determine the appearance of the Matterhorn session in Windows. It is also from the **Miscellaneous** section that you tell Matterhorn to use the Screen Designer version of the requester (if it exists). For more information about Matterhorn Screen Designer, turn to the [Screen Designer Setup and Reference Guide](). To activate the **Miscellaneous** section, place the cursor bar on the associated **Miscellaneous** check box and press **Enter**. The cursor will automatically jump to the **Hidden Character** field.

Hidden Character
If you want the contents of hidden fields to be hidden by a special character, you may specify the character here. Note that the appearance of these fields depends on whether your requester runs in native mode (6530) or in Windows mode. In native mode these fields will display the selected character. For instance, if you enter the character '*' (star) in the **Hidden Character** field, a hidden field will contain a line of '*s' before the user has even touched the keyboard. As the user keys in, the line of '*s' will prevent the user (and other users for that matter) from seeing what is typed. In Windows mode hidden fields will be empty prior to logon. As the user types, the field will display the selected character. If you select ' ' (blank) the user will not see any characters at all.

Show Normal Keys As Buttons
Options for this field are *Yes* and *No*. If you set the field to *Yes*, the function keys **F1** to **F16** will appear as buttons across the bottom of the screen.

Show Shifted Keys As Buttons

Options for this field are *Yes* and *No*. If you set the field to *Yes*, the function keys **Shift+F1** to **Shift+F16** will appear as buttons across the bottom of the screen.

Show Special Keys As Buttons

Options for this field are *Yes* and *No*. If you set the field to *Yes*, the special tandem function key combinations will appear as buttons across the bottom of the screen. They include: *RollUp, RollDown, NextPage, PreviousPage, Insert-Line, ShiftRollUp, ShiftRollDown, ShiftNext-Page, ShiftPreviousPage, DeleteLine* and *Enter*.

Show Status Line

The status line is the line that runs across the bottom of the screen. This line will display the name of the current requester and server. Enter *Yes* in this field to show the status line, enter *No* to hide the status line.

Enable User Setup

During a Matterhorn session a user may use the **Preferences** dialog box to customize the application window on various levels. The features available from the **Preferences** dialog box are discussed in . If you set the field to *Yes*, you will allow the user to change and save his or her modifications. If you set the field to *No,* the user is not even allowed to enter the **Preferences** dialog box.
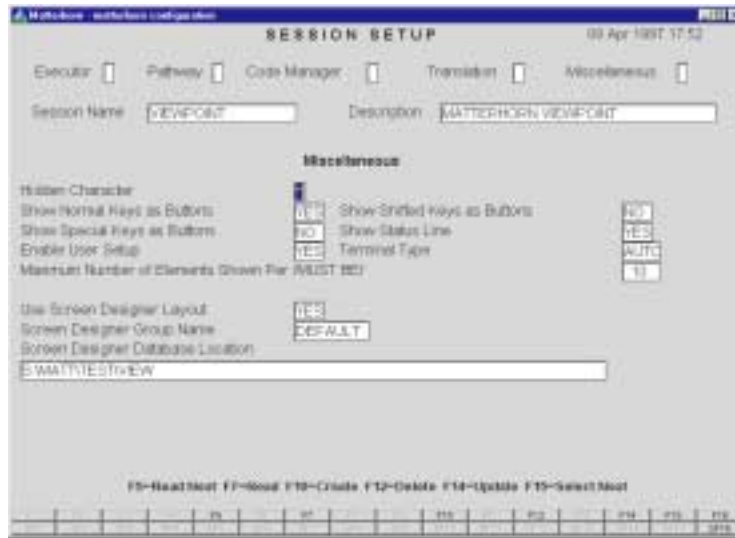
Figure 5.15: *Use the **Miscellaneous** section to set more advanced parameters controlling the execution of Matterhorn sessions.*

Terminal Type This field indicates the terminal type of the current requester. The dropdown list associated with the field lists the following options: *6530*, *3270*, and *Auto*. If you select the *Auto* option, Matterhorn will try to determine which requester type you are running. If there is a screen associated with the initial requester, the field will be set to *Auto*.

Max Number of Elements per /MUST BE/ MUST BEs are used for field validity checks. A MUST BE clause displays the valid values for a specific field. If, for instance, the object code for a given requester contains a MUST BE clause stating that the values *1 through 10* are valid for a specific field, enter 10 in the

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Max Number....field, to expand the full list *(1,2,3,4,5....10)* in a dropdown list box. If you had entered 9 (or any other number below the total number of valid values) in the **Max Number...** field, the list box would have displayed the valid values on one line in the following way: *(1-10).* Consequently, the latter option is an advantage when you have a large number of elements in a MUST BE clause.

Use Screen Designer Layout   Your choice for this field determines whether or not the users will work with a designed version of the requesters. Options for the field are *Yes* and *No.* For more information about Screen Designer, turn to the Screen Designer Setup and Reference Guide.

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. This database will store information about the screen layout that you have created with Screen Designer. For more information about Screen Designer, turn to the Screen Designer Setup and Reference Guide.

Locating Tandem Information

When you create a new Matterhorn session, Matterhorn Configuration will insert most entries that apply to your system in the various configuration windows. Thus, the only information you have to enter when you create a new Matterhorn session is:

- In the main menu, a Session Name.

- In the **POBJ Search Path** window, a requester environment, a server class name, and a POBJ search path leading to this requester.

- In the **Executor** section, the name of the initial requester of the session.

- In the **Pathway** section, the Pathmon Name of the session.

- In the **Code Manager** section, the Pathway Server name. This name is the same as the server you entered in the **POBJ Search Path** window.

All other values entered by Matterhorn Configuration are default values that apply to your system. Do not change these values unless you are sure that your changes are valid. If, however, you wish to experiment and change some of the values, make sure that you obtain the right information. One way to obtain the correct information is to use the **INFO Program** and **INFO TCP** commands:

1. Enter the Tandem conversational mode and launch the command:

   PATHCOM (*pathmon processname*)

   to access the relevant Pathway system.

2. Then launch the command

INFO PROGRAM (*program name*)

With the command you may locate information about
the initial requester. This information will appear from
the TYPE-statement. In addition, if the TCLPROG-
statement is available, the POBJ search path will appear
from this statement. If not, turn to stage 3 below. If you
are using UMP, information about the UMP Max
Queue Size appears from the MAXINPUTMSGS-
statement which is part of the TYPE-statement.

```
=info program zviewpoint
 PROGRAM ZVIEWPOINT
  ERROR ABORT ON
  OWNER \MERMAID.255,255
  PRINTER \MERMAID.$S.#PRINT
  SECURITY "N"
  TCP ZVPT TCP
  TMF ON
  TYPE T16 6520 (INITIAL ZVPT-MAIN,MAXINPUTMSGS 1)
  TYPE T16 6530 (INITIAL ZVPT-MAIN,MAXINPUTMSGS 1)


                          ↑                 ↑
```

Figure 5.16: *Tandem information located with the INFO
Program command.*
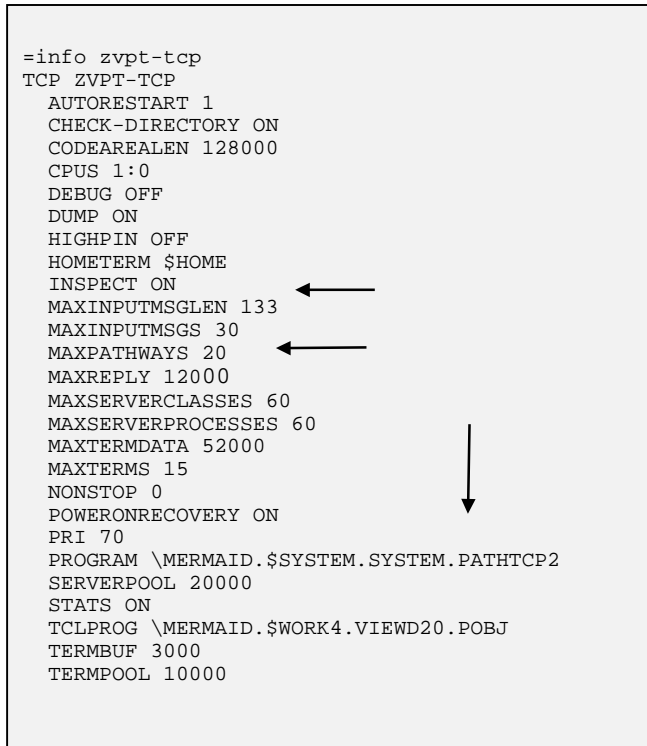
3. Enter and launch the command:

INFO TCP (*TCP name*)

With this command you may deduce the following
information:

Server Max Reply. The information appears from the

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MAXREPLY-statement. If you are using UMP, information about the maximum message length will appear from the MAXINPUTMSGLEN-statement. The location of the POBJ search path of the desired requester will appear from the TCLPROG-statement.

```
=info zvpt-tcp
TCP ZVPT-TCP
  AUTORESTART 1
  CHECK-DIRECTORY ON
  CODEAREALEN 128000
  CPUS 1:0
  DEBUG OFF
  DUMP ON
  HIGHPIN OFF
  HOMETERM $HOME
  INSPECT ON                  ←
  MAXINPUTMSGLEN 133
  MAXINPUTMSGS 30
  MAXPATHWAYS 20              ←
  MAXREPLY 12000
  MAXSERVERCLASSES 60
  MAXSERVERPROCESSES 60
  MAXTERMDATA 52000
  MAXTERMS 15
  NONSTOP 0
  POWERONRECOVERY ON                    │
  PRI 70                                │
  PROGRAM \MERMAID.$SYSTEM.SYSTEM.PATHTCP2  ↓
  SERVERPOOL 20000
  STATS ON
  TCLPROG \MERMAID.$WORK4.VIEWD20.POBJ
  TERMBUF 3000
  TERMPOOL 10000
```

Figure   5.17: *Tandem information located with the INFO TCP command.*

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Chapter 6:
Matterhorn 5.0 Upgrade

T his chapter takes you through the process of upgrading your Matterhorn 4.0 for Windows to Matterhorn 5.0. The chapter is relevant if you are already running Matterhorn 4.0 and wish to retain the configuration information of your Matterhorn sessions.

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Matterhorn 4.0 Upgrade

If you are already using Matterhorn 4.0 for Windows and wish to upgrade to Matterhorn 5.0 for Windows without risk, simply follow these steps. The upgrade comprises the following stages:

1. Transfer the files of the Matterhorn 5.0 Pathway system to a temporary subvolume.

2. Unpack the Matterhorn 5.0 for Windows files.

3. Shut down your current Matterhorn Pathway system.

4. Run the UPGRADE macro, which is part of your new Matterhorn 5.0 Pathway system. This macro will duplicate the necessary files from the temporary subvolume to your current Matterhorn 4.0 subvolume upgrading it to Matterhorn 5.0.

5. Run the SETUP macro of the Matterhorn 5.0 Pathway system.

6. Remove the temporary subvolume.

Note that the following procedures assume that your existing Matterhorn Pathway system is called $SKYB.

Transferring the Matterhorn Files

Create a temporary subvolume and transfer the Matterhorn files UNPACK.100, LICENSE.000, and SETUPCOD.000 from the \Tandem subfolder of the Matterhorn Suite CD-ROM to the Tandem, for instance using the IXF Send a File command or Multilan Guardian Access. If you use the IXF command, add the following parameters to the command:

BINARY NOEXT, EXT (50,50)

Note that the transfer must be *binary*.

Running UNPACK

Proceed to enter the command:

FUP ALTER UNPACK, CODE 100

(Note that the UNPACK file is an object file).

Then launch the command:

RUN UNPACK

Shutting Down Your Matterhorn 4.0 Pathway System

Before proceeding it is important that your current Matterhorn Pathway system has been shut down properly. To shut down your Matterhorn 4.0 Pathway system:

1. Locate the subvolume of the Matterhorn 4.0 Pathway system.

2. Enter the command

    PATHCOM $SKYB; SHUTDOWN2, MODE IMMEDIATE

Running UPGRADE

The UPGRADE macro is located in the temporary subvolume of the Matterhorn 5.0 Pathway system. To run the UPGRADE macro:

1. Locate the temporary subvolume of the Matterhorn 5.0 Pathway system.

2. Enter the command

   RUN UPGRADE

3. The UPGRADE macro will prompt you to specify where your current Matterhorn 4.0 Pathway system is located.

4. Then it will transfer all relevant files from the temporary subvolume to the subvolume of the current Matterhorn Pathway system. During this process, the upgrade is implemented.

Running SETUP

Your next step is to run the SETUP macro, which will create the Matterhorn 5.0 Pathway system.

1. Locate the subvolume of your current Matterhorn Pathway system. This subvolume now contains the files necessary for creating the Matterhorn 5.0 Pathway system.

2. Enter the command

   RUN SETUP

3. This command will run the TACL macro SETUP, which will ultimately create the Matterhorn Pathway System. At one point, the macro will prompt you to make entries for the five selections listed below (a to e) The macro will insert the entries that was used by your old Matterhorn 4.0 Pathway server, but if you wish to change them at this point you are welcome.

a. When you are prompted: **Enter PATHMON processname**, enter the name of the Matterhorn Pathway system. Unless you have renamed the

> Matterhorn Pathway system, the default name 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.

e. When you are prompted: **Enter path to Designer database**, enter a path to a Screen Designer database. Default is C:\Matthorn\.

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. This program is thoroughly discussed in Chapter 5, Matterhorn Configuration.

Remove the Temporary Subvolume

To avoid confusion, remove the temporary subvolume in which you originally installed the Matterhorn 5.0 Pathway system.

1. Locate the temporary subvolume

2. Enter the command

FUP PURGE *

Chapter 7:
Client/Server Link (CSL)

This chapter presents the installation and configuration issues related to the transport layer, Client/Server Link CSL. You will learn to install the CSL-process on Tandem and set up Matterhorn to use CSL.
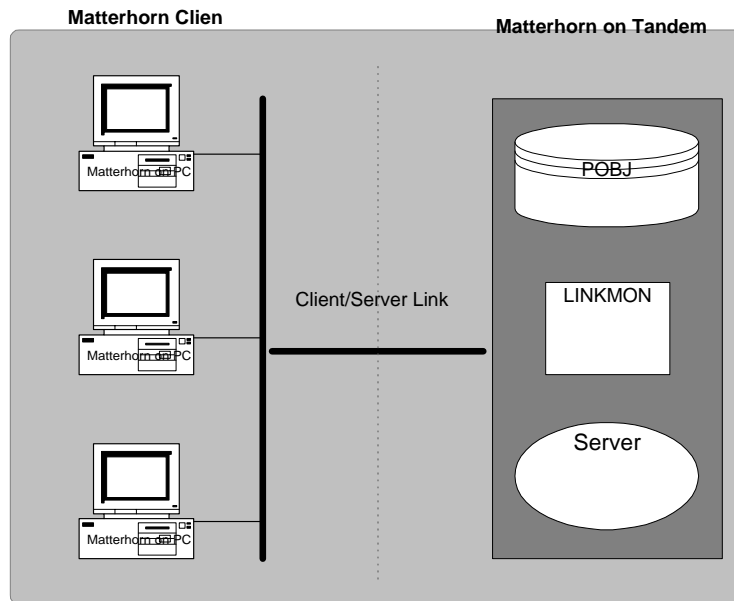
The chapter is organized as follows:

➢ Introducing CSL

➢ Preparing Your System for CSL

➢ Preparing Matterhorn for CSL

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Introducing CSL

The Client/Server Link (CSL) allows workstations to access Pathway servers and other Guardian 90 processes on Tandem. CSL is Comforte's own tailored solution which the Matterhorn Client may use as a transport layer when data are shifted back and forth between the Tandem and the PC.

CSL provides faster, more reliable connections than other similar products.

Matterhorn Clien

Matterhorn on Tandem

Matterhorn on PC

Matterhorn on PC

Matterhorn on PC

Client/Server Link

POBJ

LINKMON

Server

Figure 7.1: *The Matterhorn Client and Matterhorn Pathway system communicates via CSL.*

Using CSL is optional. We recommend it because it's easy to install and configure and because it increases overall system

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performance. Matterhorn also supports RSC (Remote Server Call). For more information on RSC and Matterhorn, turn to Chapter 8, Configuring RSC for Matterhorn.

Technically, CSL consists of a PC part and a Tandem part. On the PC, a dynamic link library handles the communication between the Tandem and the PCs. On the Tandem, a CSL-process maintains the connection to a port on the PC.

The DLL is automatically installed when you install your Matterhorn and Screen Designer. Use the Profile Utility to set up Matterhorn to use CSL. CSL exists as both 32- and 16-bit versions. The programming API is identical to that of RSC.

Preparing Your System for CSL

Setting up Matterhorn to use CSL comprises the following two stages:

1. Install the CSL-process on the Tandem.

2. Use the Profile Utility to indicate an IP address and a port number.

Installing the CSL-process on Tandem

The CSL-process on the Tandem maintains the connection to a port on the PC. The process of installing the server is very similar to installing the Matterhorn Pathway system on the Tandem (see Chapter 4 in the Matterhorn for Windows Setup and Reference Guide).

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The first step when installing and setting up the CSL-process on a Tandem computer is to make a *binary transfer* of the two files, SETUPCOD and UNPACK from the \Tandem subfolder of the Matterhorn Suite CD-ROM.

To transfer the two 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).

When the two files have been transferred to the Tandem, 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 CSL process.

4. In most cases, the SETUP macro locates all the information required for setting up the process. In rare cases, you may have to change some of the settings suggested by the macro.

5. First, the macro will locate all available TCP/IP processes and their IP addresses on your Tandem. All processes will be listed on the screen along with their IP addresses. The macro automatically selects the first available process and address. If no processes are found, no default will be selected and you will be prompted to start a TCP/IP process and run the macro again.

6. The macro then selects the first available port number after 6000 (6001, 6002, 6003, etc.).

7. Next, the macro suggests a process name. The default name is $CSL, but you may rename it at this point.

8. The SETUP macro then suggests a home terminal name. Use the default name or your local VHS system.

9. Next, the macro informs you that the ObeyFile Name is "start". You may rename it at this point. When you perform a cold start of the Tandem system, you must obey this file in order to start the CSL process.

10. You will then be prompted: "Start CSL process Y/N". Type Yes to start the process, and press the **Enter** key.

11. Finally, the CSL workstation parameters are depicted on the screen: the TCP/IP address and the port number. Use these parameters when you are configuring CSL on the PC. (See Figure 7.2 next page).

Installing CSL on PC

As mentioned above, the PC part of CSL - a dynamic link library - (CSL16.dll or CSL32.dll depending on your Matterhorn version) is installed as part of your Matterhorn Suite. The DLLs are located in the Matthorn\Matt16 and Matthorn\Matt32 folders, respectively.

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```
Your Tandem system has the following TCP/IP processes:
  $ZTC0 Program $system.system.tcpip
        IP address 192.1.1.100

  $ZTC1 Program $system.system.tcpip
        IP address 192.1.2.100

TCP/IP Process default $ZTC0             :        $ZTC0
TCP/IP Port no 6000                      :        6000
CSL Process Name default $CSL            :        $CSL
CSL Hometerm default $trmo.#OSP          :        $HOME
ObeyFile Name default "Start"            :        Start
Start CSL Process Yes/No                 :        Yes

CSL Workstation parameters should be:
        TCP/IP Address 192.1.1.100
        Port No        6000
```

Figure 7.2: *Screen conversation during the creation of the CSL-process.*

Preparing Matterhorn for CSL

You instruct Matterhorn to use CSL as part of the process involved when creating Matterhorn profiles and Matterhorn icons. As you may know, the Matterhorn profiles and icons are created and maintained using the Profile Utility. If all your Matterhorn sessions already use RSC, you can use the Profile Utility to switch to CSL. Alternatively, you may prepare some of your sessions to use CSL and others to use RSC.

There are two similar approaches to creating profiles and attaching them to the Matterhorn icon. You can either use the Profile Wizard or the advanced profile setup. Both approaches are more or less identical and both are available with the Matterhorn Profile Utility. Note that you can also create Screen

Designer and Data Explorer icons using the Matterhorn Profile Utility.

Using the Profile Wizard

This section presents the Profile Wizard. Using the Profile Wizard you may create and edit Matterhorn profiles and create the icons associated with the profiles:

1. Click the Matterhorn Profile Utility icon in your Matterhorn folder to open the **Matterhorn Profile Utility** window.
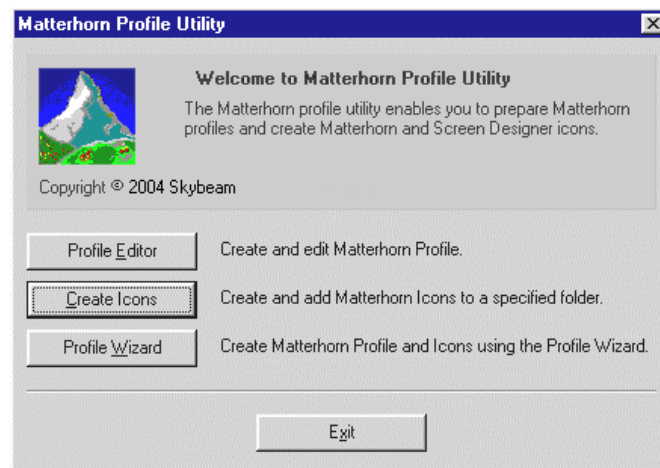

Figure 7.3: *Click **Profile Wizard** to start the Profile Wizard.*

2. In the **Matterhorn Profile Utility** window, then click **Profile Wizard**. The Profile Wizard starts.

3. In the **Profile Name** window, indicate a name for the profile. Click **Browse** if you wish to work with an existing profile.
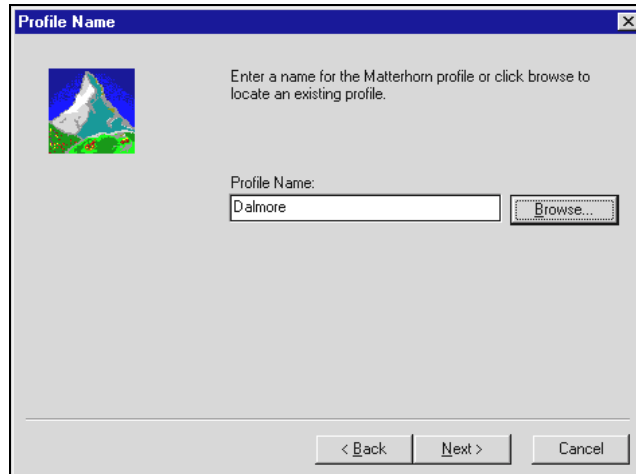
Figure 7.4: *The **Profile Name** window.*

4. Proceed to the **Connection Information** window (see Figure 7.5). Click the **Use Client/Server Link (CSL)** radio button, and click **Next**.
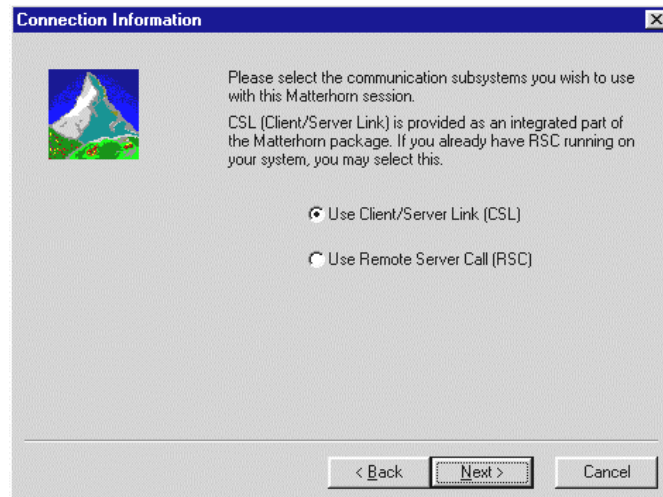
Figure 7.5: *Check the **Use Client/Server Link (CSL)** radio*

button.

5. In the **CSL Connection Information** window, enter and IP address and a port to be used for the connection (see Figure 7.6). The CSL-process on the Tandem require this information. Click **Next**.
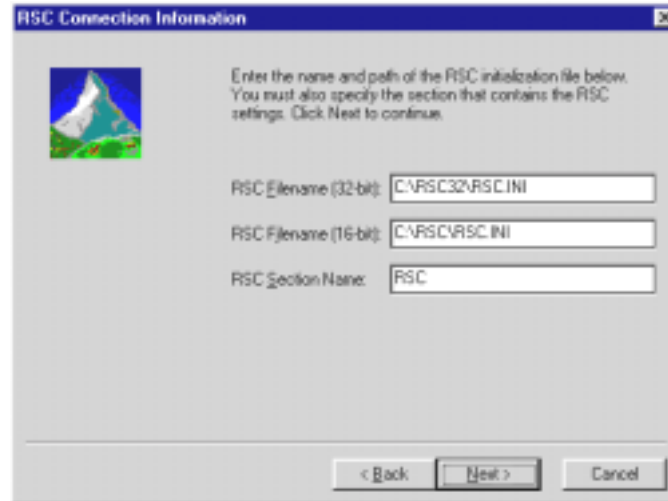
Figure 7.6: *In the **CSL Connection Information** window, enter the IP address and port of the CSL-connection.*

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. The window contains the following fields:

Session Name   The unique name of the Matterhorn session. This name is identical to the session name specified in Matterhorn Configuration. See

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Matterhorn Configuration.

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 Configuration server, use the default MATT-CONF.

7. Click **Next** to continue to the **Icons** window.
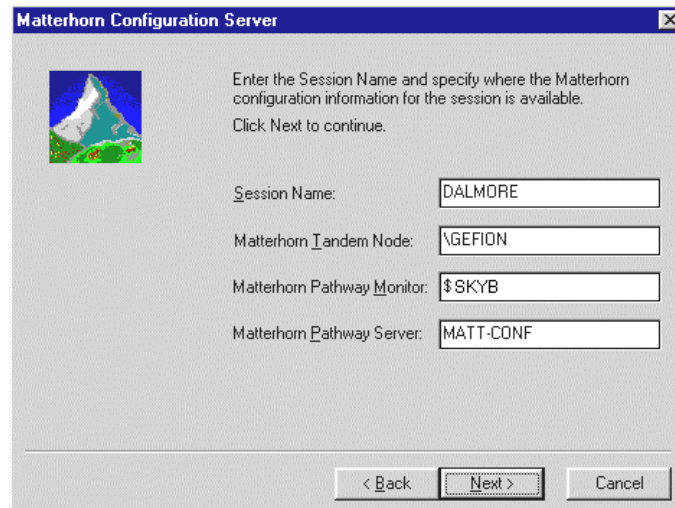
Figure 7.7*: The **Matterhorn Configuration Server** window.*

8. In the **Icons** window, select the icons to create. Options are: *Matterhorn*, *Screen Designer,* and *Data Explorer*. Also, type a relevant description for the icons. Click **Next** to continue.
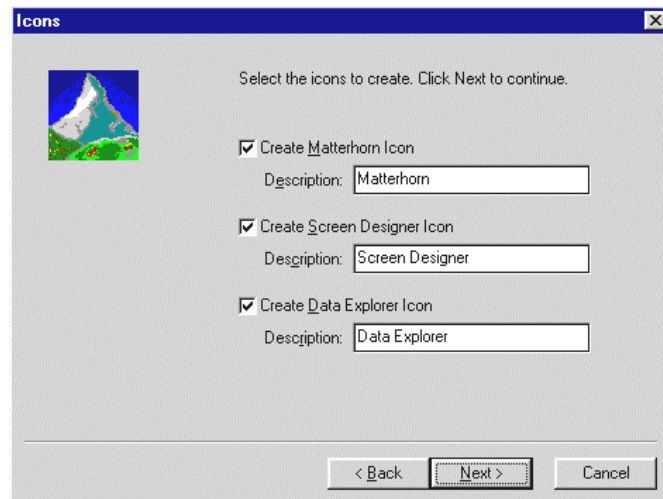
Figure 7.8*: The **Icons** window.*

9. In the **Select Program Folder** window, indicate the folder in which to place the icons.

10. The Profile Wizard will now create the icons. Click **Finish** to close the wizard.

11. The icons are inserted in the specified program folder. To launch the Matterhorn session, click the Matterhorn icon. The session will use CSL.
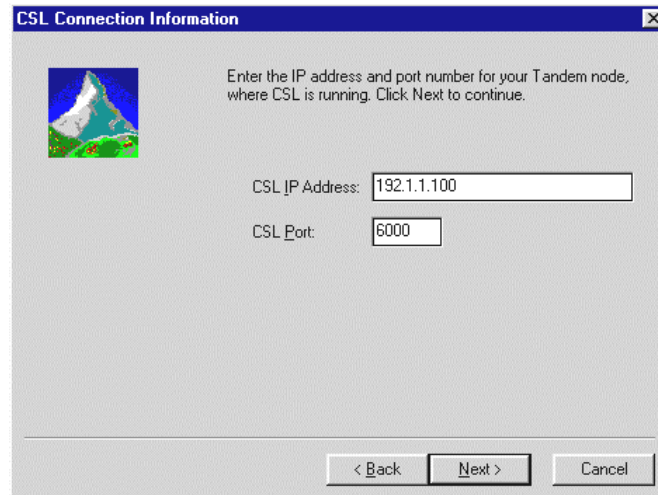
Figure 7.9: *The **Select Program Folder** window.*

Using the Profile Editor

You may also use the Profile Editor to create and maintain the Matterhorn Profiles. Note that if you use this approach to create new Matterhorn sessions you must create the associated icons in a separate procedure. This procedure is presented in the section *Creating Icons*.

The following procedure assumes that you are working with an existing Matterhorn session and wish to switch from RSC to CSL.

1. Click the **Matterhorn Profile Utility** icon in your Matterhorn folder.

2. In the **Matterhorn Profile Utility** window, click **Profile Editor**.
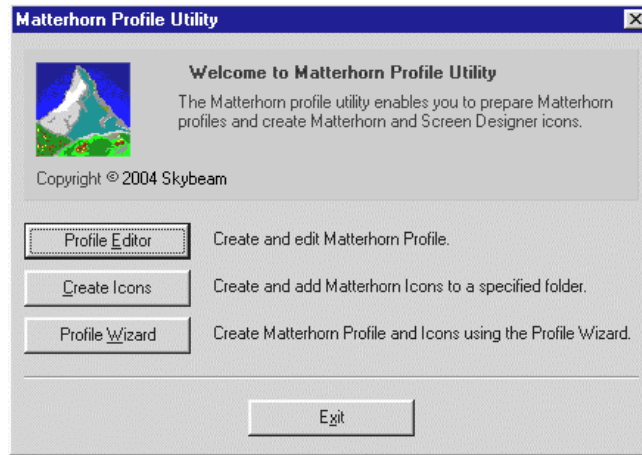
Figure 7.10: *Click **Profile Editor** to start the Profile Editor.*
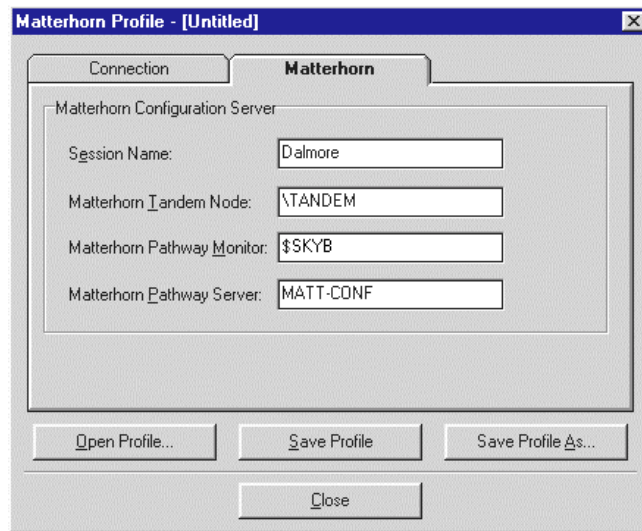
Figure 7.11: *The Matterhorn tab.*

3. In the **Matterhorn** tab, make entries in the relevant fields. If you open an existing profile these fields will

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already contain values. The fields are identical to the fields of similar names in the Profile Wizard. Proceed to the **Connection** tab.

4. In the **Connection** tab, check the **Use CSL** button and enter an IP address and a port (see Figure 7.12). Click **Close** to close the Profile Editor.

5. Click **Exit** to terminate the Profile Utility and return to your Matterhorn folder. The next time you click the Matterhorn icon which is associated with this profile, CSL will be used a transport layer.
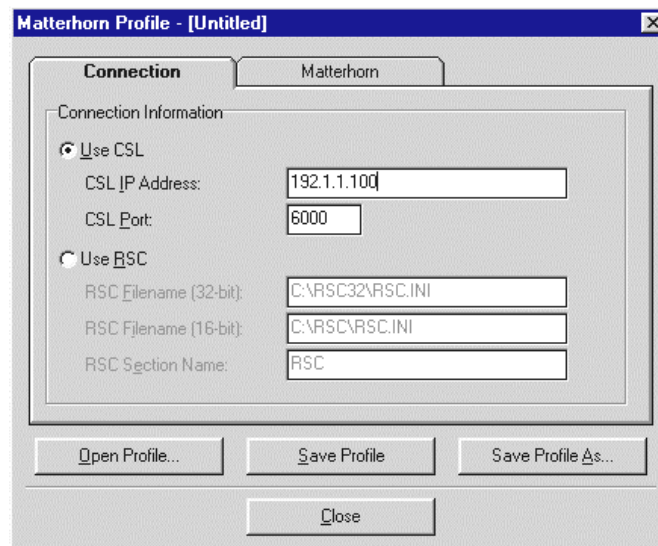
Figure 7.12: *In the **Connection** tab, indicate the correct CSL connection information.*

Creating Icons

If you are using the Profile Editor to create new Matterhorn profiles you must go through a separate procedure when creating the icons.

1. In the **Matterhorn Profile Utility** window, click the **Create Icons** button to open the **Create Icons** window.
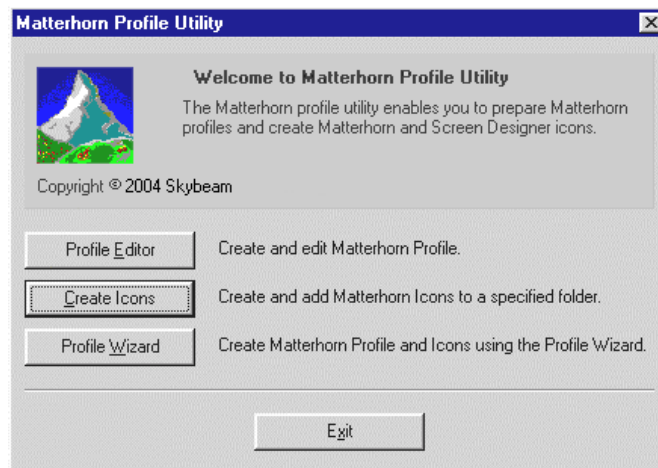
Figure 7.13: *Click **Create Icons**.*

2. In the **Create Icons** window, first select the Matterhorn profile. Click Browse to browse for the file.

3. Then select the icons to create: Matterhorn, Screen Designer and/or Data Explorer. Enter a relevant description for each icon.

4. Then indicate the program folder in which the icons should appear. You may enter the name of a new folder, in which case the Profile Utility will create it for you. You may also select a folder from the **Existing Folders** list.

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5. Finally, click the **Create Icons** button.
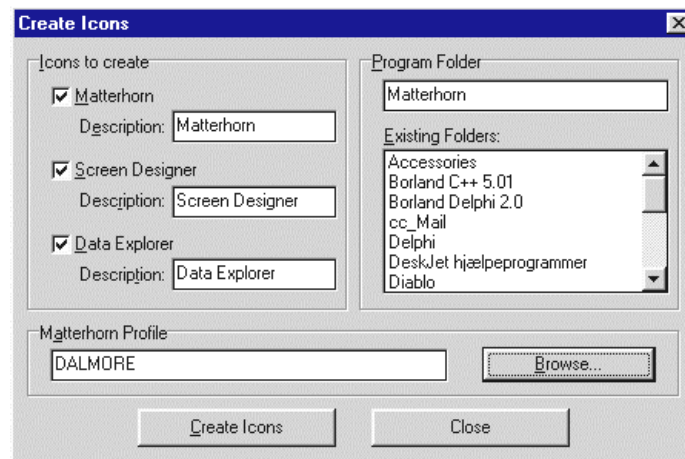
Figure 7.14: *In the* **Create Icons** *window, indicate which icons to create.*

Chapter 8:
Configuring RSC for Matterhorn

This chapter deals with the RSC configuration issues which are relevant to Matterhorn 4.0 for Windows. Both NetBios and TCP/IP connections are included. The chapter assumes that you have already installed RSC on your system.

The chapter is organized as follows:

- ➢ A Note on RSC

- ➢ The RSC Initialization File

- ➢ Basic Requirements

- ➢ Configuring RSC for NetBios

- ➢ Configuring RSC for TCP/IP

- ➢ Troubleshooting

- ➢ Checking the RSC connection

A Note on RSC

The Remote Server Call (RSC) allows workstations to access Pathway servers and other Guardian 90 processes on the Tandem. RSC enables you to implement powerful client-server applications. In other words, RSC forms the transport layer which the Matterhorn Client uses when communicating with the Matterhorn Pathway system.

Note that 32-bit RSC does not run under Windows 95. Consequently, 32-bit Matterhorn for Windows does not run under Windows 95.

As mentioned, this manual assumes that you have already installed RSC on your system. Also note that the chapter exclusively describes issues which are relevant to the implementation of Matterhorn for Windows on your system. For further information about installing, using and programming RSC, turn to your RSC manual.

The RSC Initialization File

The process of configuring RSC for Matterhorn mainly consists in modifying the Rsc.ini-file, or at least making sure that the .INI-file contains entries which are valid for the connection. Use this chapter to verify that your RSC initialization file has the correct appearance.

Basic Requirements

In this section we assume that the following basic requirements are matched:

- On PC, RSC is located at **C:\Rsc**.

- On Tandem, RSC is located at **$System.zrsc**.

Configuring RSC for NetBios

If RSC is using a NetBios protocol, the following options are required in the RSC section of the Rsc.ini file:

Error_file=   C:\Rsc\Rsc.err

subsystem_name=   RSCNET

local_netname=   TERM01

host_netname=   RSC

Note that the values in the example do not apply to your system. Please set them to appropriate values. The *Error_file* entry points to the location of the RSC error file. The *subsystem_name* entry identifies NetBios as the RSC transport layer. The *local_netname* identifies the workstation.

CONFIG.SYS Requirements for NetBios

If RSC is using a NetBios protocol, the following statements must be added to the CONFIG.SYS:

DEVICEHIGH=C:\Rsc\Rscmgr.sys buffsize=9000 buffcount=2

DEVICEHIGH=C:\Rsc\Rscnet.sys

Locating Tandem Information for NetBios

To locate information about the RSC Tandem host_netname, enter the conversational mode and launch the following command:

```
rsccom $zrsc ;status netname *
```

In this example the command has located the following information:

```
Netname     Status      Sessions    Last Event

-------------------------------------------------

RSC            Started         1            NETNAME
started[1502]
```

The RSC error file is always located in the C:\RSC library. The *subsystem_name* entry must be RSCNET and the *local_netname* entry must identify the user on the net. Thus, in the example, the Rsc.ini file should look as follows:

Error_file=   C:\Rsc\Rsc.err

subsystem_name=   RSCNET

local_netname=   USERNAMERSC

host_netname=   RSC

Configuring RSC for TCP/IP

If RSC is using a TCP/IP protocol, the following options are required in the RSC section of the Rsc.ini file:

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> **Error_file**= C:\Rsc\Rsc.err
>
> **subsystem_name**= RSCTCP
>
> **local_inet_address**= 1
>
> **host_inet_address** = 1.1.1.1.1

Note that the values in the example do not apply to your system. Please set them to appropriate values. The *Error_file* entry points to the location of the RSC error file. The *subsystem_name* entry identifies TCP/IP as the RSC transport layer and *local_inet_address* identifies the IP-address and the port number of the IP-address.

CONFIG.SYS Requirements for TCP/IP

Modifying the CONFIG.SYS-file is only relevant if you are using a RSC DOS-product, not if you are using a RSC Winsocket.

If RSC is using a TCP/IP DOS-product, the following statements must be added to the CONFIG.SYS file:

DEVICEHIGH=C:\Rsc\Rscmgr.sys buffsize=9000 buffcount=2

DEVICEHIGH=C:\Rsc\Rscnet.sys

Locating Tandem Information for TCP/IP

To locate the IP-address required for the RSC TCP/IP connection, enter Tandem conversational mode and launch the following command:

scf info subnet $ztc0.*

In our example the command will locate the following information:

```
Name    Devicename    *IPADDRESS      TYPE      *SUBNETMASK

-----------------------------------------------------------

#LOOP0  \NOSYS.$NOIOP  127.0.0.1      LOOP-BACK  HFF000000

#ETH01  \MERMAID.$ML01 192.85.106.100 ETHERNET  %HFFFFFFC0
```

To locate the port number required for the IP-address in TCP/IP connections, enter Tandem conversational mode and launch the following command:

rsccom $zrsc;status tcpipport *

In this example the command will locate the following information:

```
Service(Port) Status  Sessions  Last Event

------------------------------------------------------
-

RSCTCPIP(1025) Started  0        TCPIPPORT
started[6502]
```

The RSC error file is always located in the C:\RSC library. The *subsystem_name* entry must be RSCTCP. The *local_inet_address* must always be set to **1**. The *host_inet_address* has been identified as 192.85.106.100.1025. Thus, in the example, the RSC .INI-file should look as follows:

Error_file=   C:\Rsc\Rsc.err

subsystem_name=   RSCTCP

local_inet_address= 1

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host_inet_address= 192.85.106.100.1025

Troubleshooting

Below you see a common but rather confusing error message.

> **There is insufficient available memory (for DOS below 1 megabyte) to complete the request.**

The error message actually instructs you to make more high memory available for RSC. Please convert some of your DEVICEHIGH-statements to DEVICE-statements and launch the requester once again.

Checking the RSC Connection

To verify that the RSC connection is fully functional, run the RSC Diagnostic Test Utility, which is part of your RSC package. The program is accessible from your RSC group window (or RSC folder).
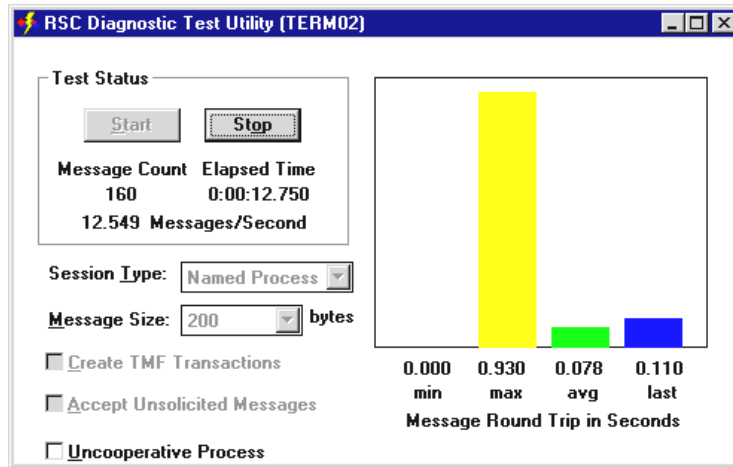
Figure 8.1: *The RSC Diagnostic Test Utility will test the current RSC connection.*

Note that Rsc.ini must be located in the same folder as the executable file of the test diagnostics program, Rsctestw.exe. If not, the diagnostics program will not run.

Part 3

Getting Started on PC

Part 3 describes how to install the Matterhorn Client on a PC and teaches you to create the Matterhorn session icons that represent the individual requester sessions on your Tandem system. The Matterhorn profile is described in detail.

Chapter 9:
Installing the Matterhorn Client

As mentioned, the full Matterhorn installation process comprises two different stages; installing the Matterhorn Pathway system on the Tandem, and installing the Matterhorn Client on a PC or a network server. In this chapter we will explain how to install the Matterhorn Client on a PC.

The chapter is organized as follows:

- ➢ Installing the Matterhorn Client

- ➢ Files of the Matterhorn Client

- ➢ A Note on User Conversion

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Installing the Matterhorn Client

In this section you find a step-by-step guide to install the Matterhorn Client. Also, Screen Designer, Data Explorer and the CSL-dynamic link libraries will be installed.

Running the InstallShield Wizard

To install Matterhorn for Windows:

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 Matterhorn for Windows. Matterhorn Installation will prepare the InstallShield Wizard, which will guide you safely through the installation process.

3. 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

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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).

Files of the Matterhorn Client

If you check the contents of the Matthorn folder, you will discover that it contains the following Matterhorn files:

Mattwin.ini   The Matterhorn profile, contains font descriptions, screen locations, session names and more advanced setup information. The system requires one profile per session. You may use Mattwin.ini file as a basis of creating new profiles. Please study Chapter 11, The Matterhorn Profile.

Mattconf.ini   A profile pointing to Matterhorn Configuration on the Tandem. To run Matterhorn Configuration as a Matterhorn session, turn to Chapter 10, Creating a Matterhorn Session Icon.

Mattdsgn.ini   A profile pointing to a designed version of Matterhorn Configuration on the Tandem. To run Matterhorn Configuration as a Matterhorn session, turn to Chapter 10, Creating a Matterhorn Session Icon.

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Mattwin.exe   The executable file of the Matterhorn Client.

Profutil.exe   The Matterhorn Profile Utility. This program is used 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.

Userconv.dll   The *user conversion* file with the extension .DLL (dynamic link library), 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 the section A Note on User Conversion).

Profutil.inf   A configuration file containing information used by the Matterhorn Profile utility.

Csl16.dll
Csl32.dll   CSL dynamic link libraries. CSL is described in Chapter 7, Client Server Link (CSL). The DLLs are located in the Matthorn\Matt16 and Matthorn\Matt32 folders, respectively.

Note: The files of Matterhorn Screen Designer and Data Explorer are detailed in the Screen Designer Setup and Reference Guide*.*

A Note on User Conversion

Normally, user conversions are controlled by special TAL programs which are located on the Tandem computer. When a user conversation is required, the POBJ will point to the TAL program on the Tandem which will then make the conversion and return the output to the screen.

To use user conversion when executing requesters while running Matterhorn 4.0, the relevant TAL programs must be rewritten in a PC programming language that supports DLL and copied to the PC network server.

If your company uses user conversion, implementation must be made by your system administrator. Note, however, that Skybeam offers to provide you with the relevant user conversion solution. A fixed solution for your company may be implemented within one or two days. Also note that Tandem has developed the conversion program, Rosetta, which enables you to convert TAL-programs to C.

On the Matterhorn Suite CD-ROM you find the Userconv subfolder, which contains a range of sample files related to user conversion.

Note that the user conversion sample files will not be installed together with the Matterhorn Client. The files must be copied from the CD-ROM onto your hard disk using Windows Explorer or the DOS-command *Copy*.

Userconv.cpp   A sample Borland C++ file containing simple user conversions.

Userconv.def   A definition file setting DLL as the target.

Userconv.prj   A project file used for combining Userconv.cpp and Userconv.def.

Userlib.pas   A sample Borland Pascal 7.0 file containing simple user conversions.

Userconv.pas   A header file used for building a DLL.

Chapter 10:
Creating a Matterhorn Session Icon

C hapter 9 explains how to prepare the Matterhorn Client for the connection with the Matterhorn Pathway system. You will learn to edit and create the *profiles,* which are necessary to establish the connection, and how to create Matterhorn session icons which identify the Pathway applications on the Tandem.

The chapter is organized as follows:

➢ Matterhorn Profiles

➢ Creating Profiles and Icons

Matterhorn Profiles

Before we go on to explain how to create Matterhorn icons and use Matterhorn for Windows, you need to get familiar with the term *Matterhorn profile*.

A Matterhorn profile is the initialization file the Matterhorn Client (and Screen Designer) uses at runtime. The profile informs the Matterhorn Client with information necessary for addressing the Tandem system and executing the current session on PC. Thus, before you can run a Matterhorn session, a Matterhorn profile must be configured and attached to the Matterhorn session icon.

For a thorough description of the Matterhorn profile, turn to

Note that Matterhorn for Windows includes the two profiles Mattconf.ini and Mattdsgn.ini. The first profile is used when running Matterhorn Configuration as a "naked" Matterhorn session, whereas the latter profile will run a designed version of Matterhorn Configuration. All you have to do in this connection is to make sure that the correct Matterhorn Tandem Node is entered and that the RSC-settings are valid.

Creating Profiles and Icons

When you are creating the icon needed for launching Matterhorn, part of the procedure involves the attachment of a Matterhorn profile to this icon. Both these tasks are managed in one go by using the Matterhorn Profile Utility.

There are two similar approaches to creating profiles and attaching them to the Matterhorn icon. You can either use the Profile Wizard or the Profile Editor. Both approaches are more or less identical and both are available with the Matterhorn

Profile Utility. Note that you can also create Screen Designer and Data Explorer icons using the Matterhorn Profile Utility.

Using the Profile Wizard

The most simple way to create a new Matterhorn profile and attach it to an icon, is by using the Profile Wizard. You may also *edit* existing profiles with the wizard. The wizard will also create Matterhorn-, Screen Designer-, and Data Explorer icons.

To create or edit profiles with the Profile Wizard:

1. Click the Matterhorn Profile Utility icon in your Matterhorn folder.

2. Click the **Profile Wizard** button. The Profile Wizard starts. The wizard contains five windows, which prompts you for various types of information related to the Matterhorn profile and creating the icons.
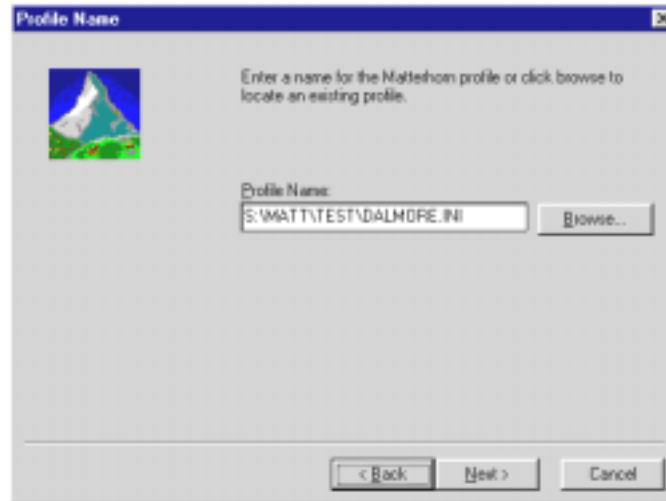
Figure 10.1: *Enter a profile in the* **Profile Name** *window.*

3. The first window is labeled **Profile Name**. Use this window to enter the name of the Matterhorn profile. If you wish to edit an existing profile, click the **Browse** button and locate the file. Click **Next** to continue to the **Connection Information** window.

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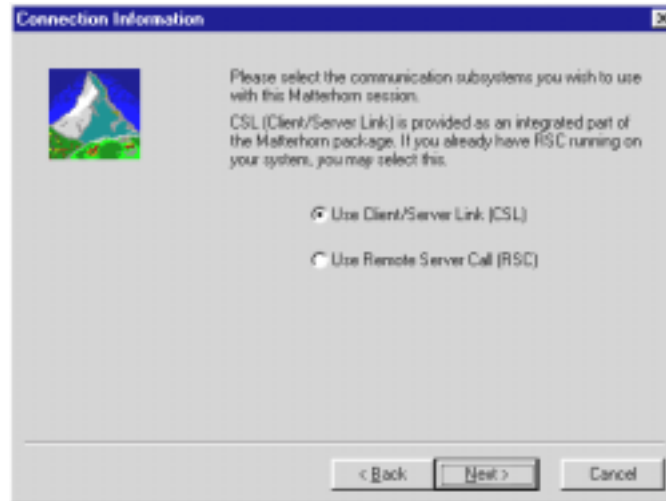
Figure 10.2: *In the Connection Information window, select the transport layer to use, CSL or RSC.*

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

5. 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). Click **Next** to proceed to stage 7.
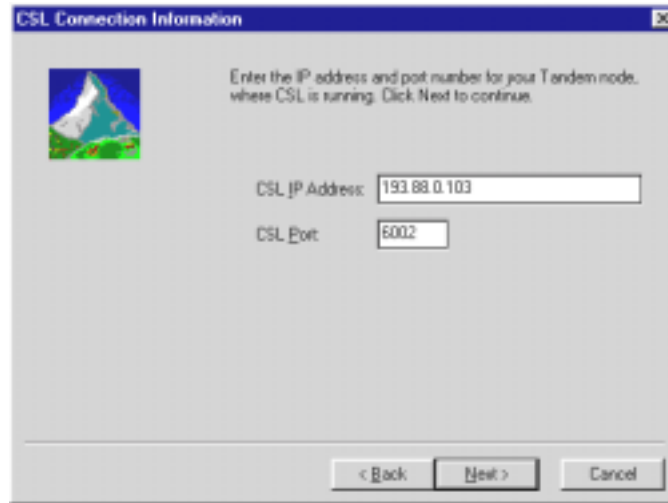
Figure 10.3: *In the **CSL Connection Information** window enter an IP address and a CSL port to use for the connection.*

6. 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 7.

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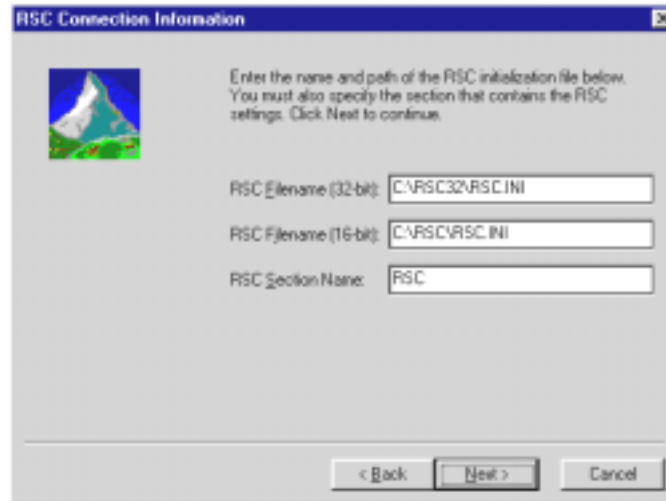
Figure 10.4: *The **RSC Connection Information** window.*

7. 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. The window contains the following fields:

Session Name	The unique name of the Matterhorn session. This name is identical to the session name specified in Matterhorn Configuration, see Chapter 5, Matterhorn Configuration.
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.

<table>
<tr><td>Matterhorn
Pathway
Server</td><td>Name of the Matterhorn configuration server. Unless you have changed the name of the Matterhorn Configuration server, use the default MATT-CONF.</td></tr>
</table>

Figure 10.5*: The **Matterhorn Configuration Server** window.*

8. In the **Icons** window, select the icons to create. You can have Matterhorn Profile Utility create icons for Matterhorn, Screen Designer and Data Explorer. Also, type a relevant description for the icons. Click **Next** to continue.
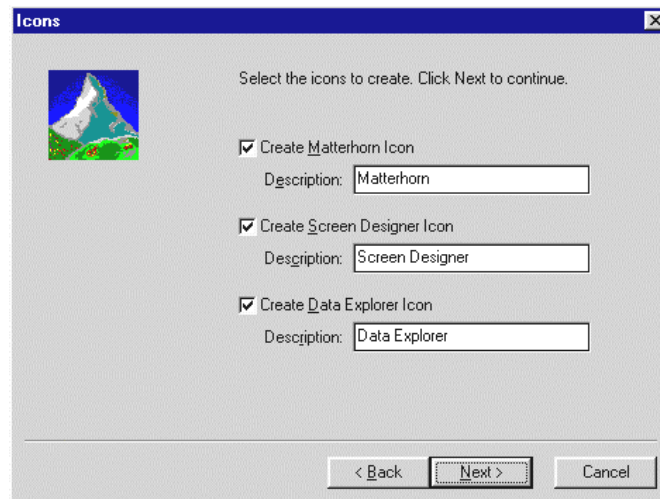
Figure 10.6*: The **Icons** window.*

9. In the **Select Program Folder** window, indicate the folder in which to place the icons.

10. The Profile Wizard will now create the icons. Click **Finish** to close the wizard.

11. The icons are inserted in the specified program folder. To launch the Matterhorn session, click the Matterhorn icon.
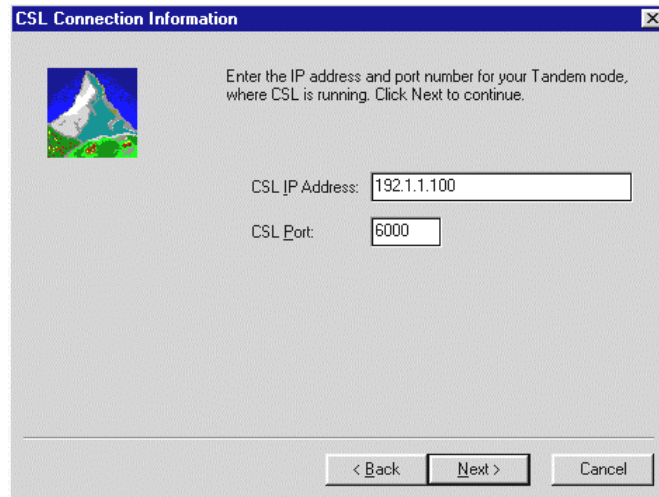
Figure 10.7: *The **Select Program Folder** window.*

12. If you wish to create additional icons, simply repeat the above procedure.
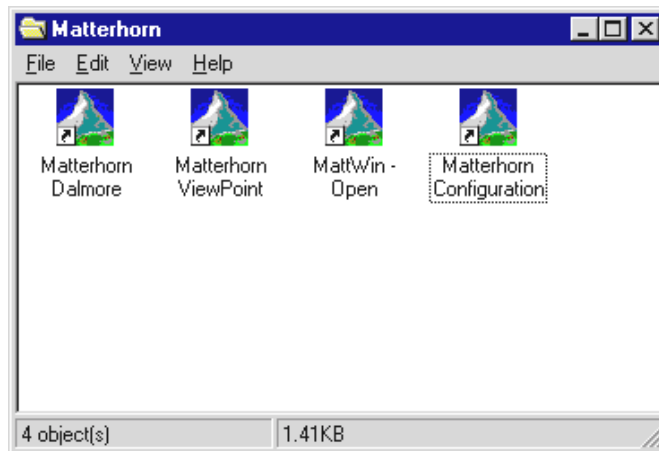
Figure 10.8: *Matterhorn session icons in a Matterhorn program*

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folder.

Using the Profile Editor

You may also use the Profile Editor to create and maintain the Matterhorn Profiles. Note that if you use this approach to create new Matterhorn sessions you must create the associated icons in a separate procedure. This procedure is presented in the section Creating Icons.

The following procedure assumes that you are working with an existing Matterhorn session and wish to switch from RSC to CSL.

1. Click the **Matterhorn Profile Utility** icon in your Matterhorn folder.

2. In the **Matterhorn Profile Utility** window, click **Profile Editor**.

Figure 10.9: *Click **Profile Editor** to start the Profile Editor.*
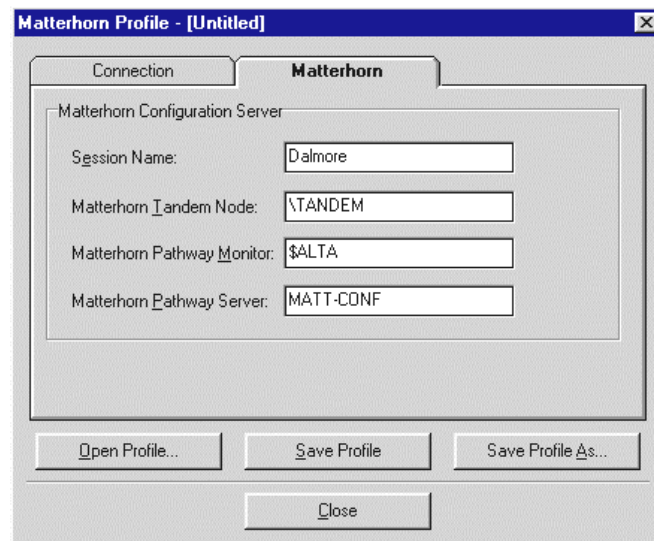
Figure 10.10: *The Matterhorn tab.*

3. In the **Matterhorn** tab, make entries in the relevant fields. If you open an existing profile these fields will already contain values. The fields are identical to the fields of similar names in the Profile Wizard. Proceed to the **Connection** tab.

4. In the **Connection** tab, select the transport layer you wish to use, CSL or RSC, and enter the required information. (see Figure 7.12). Click **Close** to close the Profile Editor.

5. Click **Exit** to terminate the Profile Utility and return to your Matterhorn folder.

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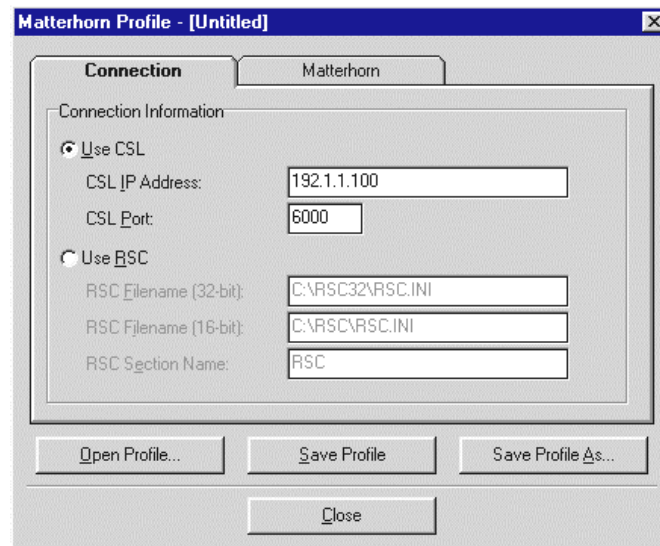
Figure 10.12: *In the **Connection** tab, indicate the correct CSL connection information.*

Creating Icons

If you are using the Profile Editor to create new Matterhorn profiles you must go through a separate procedure when creating the icons.

1. In the **Matterhorn Profile Utility** window, click the **Create Icons** button to open the **Create Icons** window.

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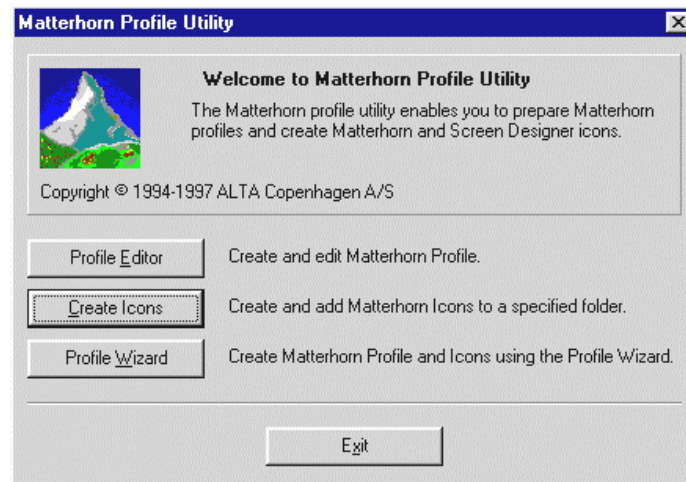
Figure 10.13: *Click **Create Icons**.*

2. In the **Create Icons** window, first select the Matterhorn profile. Click Browse to browse for the file.

3. Then select the icons to create: Matterhorn, Screen Designer and/or Data Explorer. Enter a relevant description for each icon.

4. Then indicate the program folder in which the icons should appear. You may enter the name of a new folder, in which case the Profile Utility will create it for you. You may also select a folder from the **Existing Folders** list.

5. Finally, click the **Create Icons** button.

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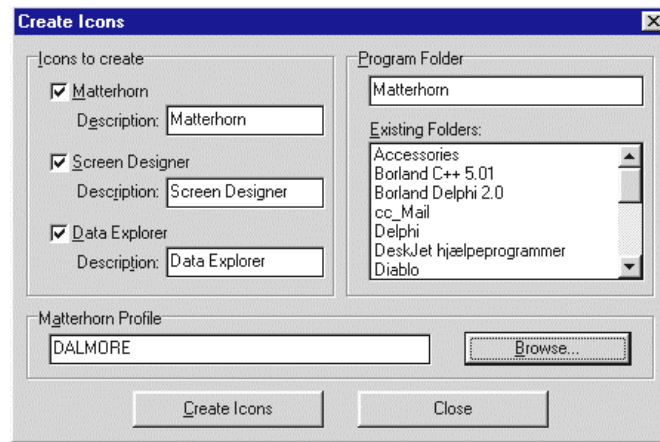
Figure 10.14: *In the* **Create Icons** *window, indicate which icons to create.*

Chapter 11:
The Matterhorn Profile

T his chapter details the layout and application of the Matterhorn profile. The Matterhorn profile provides the Matterhorn Client with information necessary for addressing the Tandem system and executing the current Pathway application on PC.

This chapter is organized as follows:

➢ The Matterhorn Profile

➢ Elements of the Matterhorn Profile

➢ Syntax of the Matterhorn Profile

➢ Working with Matterhorn Profiles

The Matterhorn Profile

The Matterhorn profile provides the Matterhorn Client with information necessary for addressing the Tandem system and executing the current Pathway application on PC. More specifically, the Matterhorn profile provides Mattwin.exe with five important pieces of information: the RSC configuration to be used for the communication between the Tandem and the PC; the name of the Tandem system where the Matterhorn Pathway system is located; the name of the Matterhorn Pathway system, ($SKYB); the name of the Matterhorn Configuration server, (MATT-CONF); and finally a key to the current session, the Session Name.

Elements of the Matterhorn Profile

Figure 11.1 depicts the profile, Mattwin.ini, which is part of the Matterhorn package. You may use this file as a basis of creating new profiles.

The most important entries in the profile are located in the [CONFIG]-section. They are: *RscFile, RscFile32, RscSection*, *Server*, *System*, *Pathmon* and *SessionName*.

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.

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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.

```
[CONFIG]
RscFile=C:\RSC\RSC.INI
RscFile32=C:\RSC32\RSC.INI
RscSection=RSC
System=\TANDEM
Pathmon=$SKYB
Server=MATT-CONF
SessionName=DALMORE
TransportLayer=CSL
```

Figure 11.1: *The top half of a Matterhorn profile.*

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.

SessionName

The SessionName entry is the key to the current session on the Tandem system. The Session Name uniquely identifies the configuration information related to this session, including the initial requester, the name of the Tandem system and the Pathway system, the location of the POBJs and various translation and display settings. For more information about creating and working with Matterhorn sessions, turn to Chapter 5, Matterhorn Configuration.

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.

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Command Line of Mattwin.exe

The Matterhorn profile is the first and only parameter taken by the Matterhorn Client executable file, Mattwin.exe.

```
C:\Matt\Mattwin.exe C:\Matt\Mattwin.ini
```

Working with Matterhorn Profiles

You may create and edit Matterhorn profiles in one of two ways; using the Matterhorn Profile Utility or a text editor like Windows Notepad or a DOS Editor. The Profile utility is described in Chapter 10, Creating a Matterhorn Session Icon.

Editing Matterhorn Profiles Manually

You may choose to edit the profile manually using a basic text editor. In this case, the profile will appear as in Figure 11.2. Simply enter the appropriate values for each entry and save the profile before you exit.
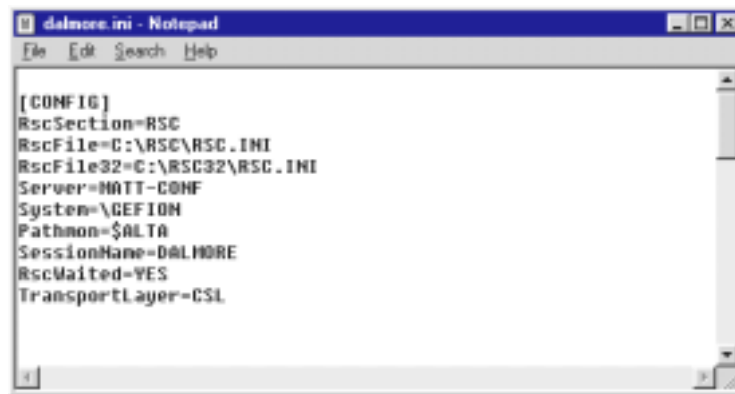
Figure 11.2: *The Matterhorn profile may be edited in Windows Notepad.*

Part 4

Exploring Matterhorn

Part 4 presents the Matterhorn for Windows graphical user interface and teaches you how to use the various features available from the **Preferences** and **Messages** menus during a Matterhorn session. Part 4 also contains a complete reference guide to applicable keyboard functions and mouse techniques in both native mode and Windows mode.

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Chapter 12:
Navigating Matterhorn

T his chapter forms a complete reference guide to mouse functions and shortcut keys applicable during Matterhorn sessions. The chapter also presents such features as printing the screen and resizing the window.

The chapter is organized as follows:

> ➤ Matterhorn GUI

> ➤ Moving and Resizing the Screen

> ➤ Dropdown List Boxes (MUST BEs)

> ➤ Printing the Screen

> ➤ Getting Help

> ➤ Navigating the Screen

Matterhorn GUI

When a Pathway application is executed as a Matterhorn session you leave the conventional Tandem block mode and enter a more pleasant world of windows.

Execution will take place in a Windows-based application window in which you may use the minimize and maximize buttons to control the size of the window. You may also use standard Windows features like **Resize** and **Move** to adjust the size of the application window and move it to another location on-screen.
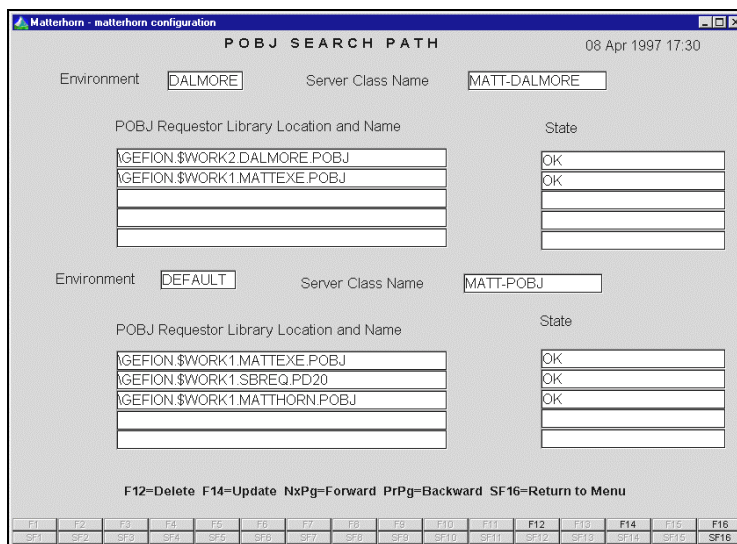
Figure 12.1: *Matterhorn Configuration running under Matterhorn*

All function keys will be displayed as push buttons across the bottom of the screen. The function keys that do not apply to the current requester will be dimmed. MUST BE clauses will

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appear in dropdown list boxes. Simply right-click the field to display the valid values.

From the **Control** menu in the upper left-hand corner of the application window, you have access to the **Preferences** menu and the **Messages** menu. The **Preferences** menu allows you to customize requester screens on different levels and with the **Messages** menu you may survey the messages generated by the system. For more information, turn to Chapter 13, The Preferences Menu and Chapter 14, The Messages Menu.
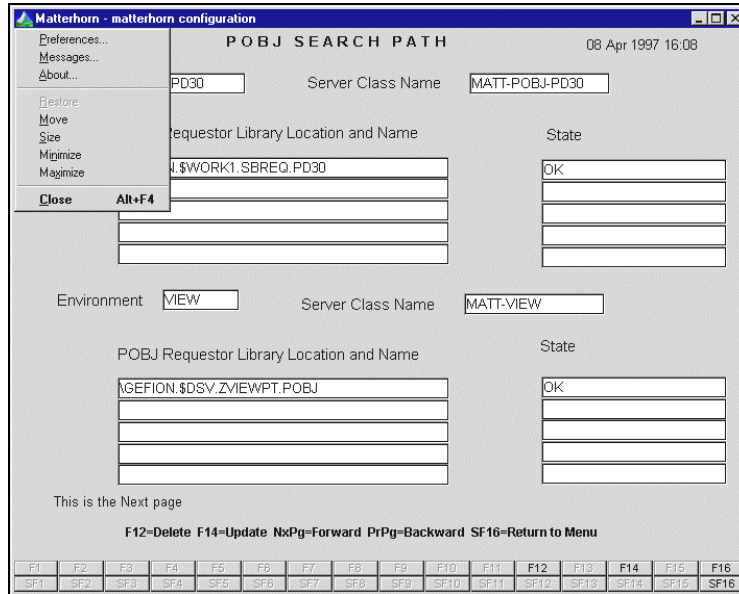
Figure 12.2: *The Control menu provides access to various configuration features.*

Finally, we should mention a feature which is invisible to the user, namely the enhanced keyboard buffer which enables you to enter input during screen updates.

Moving and Resizing Windows

During a Matterhorn session, you may resize and move the application window according to individual demands. Moving and resizing windows is preferable if, for instance, you want to work with several sessions at the same time.
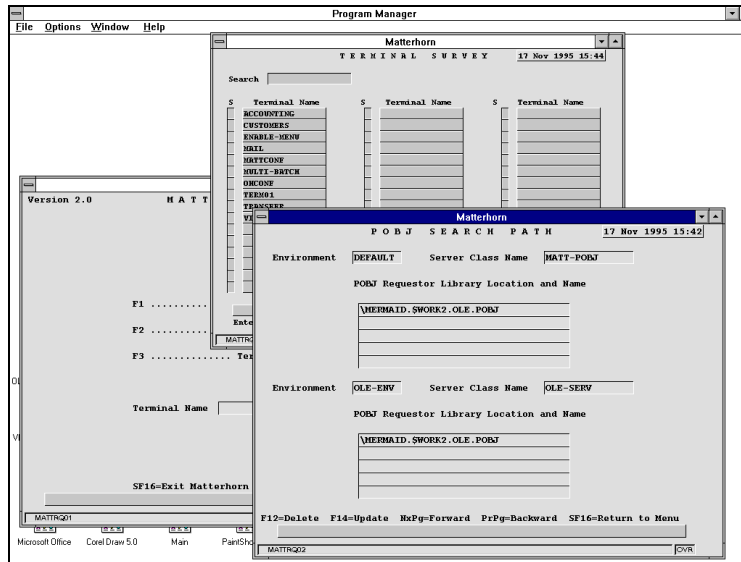
Figure 12.3: *Use Move and Resize to organize your Matterhorn sessions.*

To resize the window, place the cursor on the window frame on any corner of the application window, press down the left mouse button and drag the mouse until the window has the desired size. Release the mouse button to confirm the size.

Note that the user may also use the minimize and maximize buttons in the upper right-hand corner to minimize and maximize the application window. If an application window has been maximized it is not possible to resize it with the mouse.

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To move the application window, place the mouse cursor on the caption bar of the window, hold down the left mouse button and drag the window to the desired location, then release the mouse button.

Dropdown List Boxes (MUST BEs)

During a Matterhorn session, valid values for option fields will appear in dropdown list boxes. Simply right-click the field to display the valid values. To select from a dropdown list box, place the cursor in the relevant option field, then click the left mouse button. The figure on the next page is taken from the **Translation** section in Matterhorn Configuration. Options for the field **Language** appear in a dropdown list box.

If you enter an invalid value in an option field, the dropdown list box will prompt you to select one of the valid options (MUST BEs).

Printing the Screen

During Matterhorn sessions you may use the Print Screen key to print the current screen. Output will be sent to your default Windows printer. If you wish to print the screen, locate the relevant one and press Print Screen (often labeled Prt Sc).
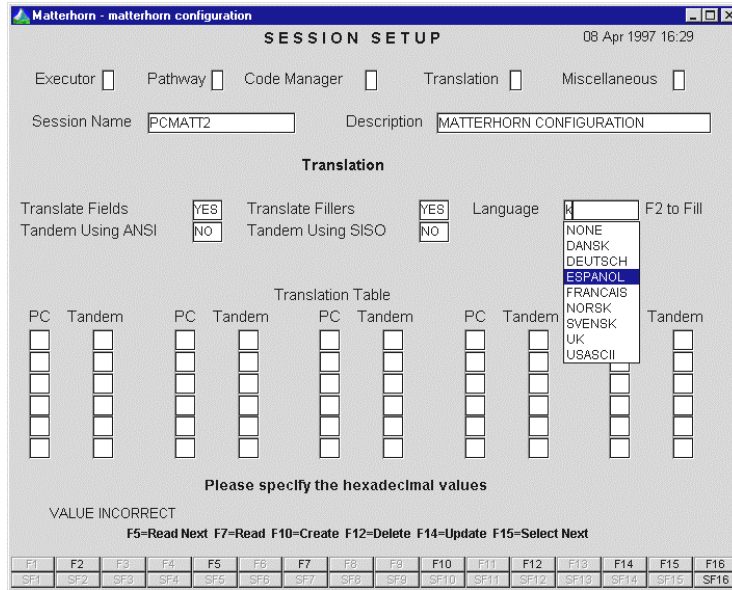
Figure 12.4: *Options for the field* **Language** *appear in a drop down list.*

Getting Help

Matterhorn's built-in online help is a fast and convenient way to search for information about specific features or tasks. The Help system is a traditional and standardized Windows help system. For more information about using Help, turn to your Microsoft Windows User's Guide.

To use Help, select it from the **Control** menu. If the option is not available from the **Control** menu, select **Help** from the **File** menu.

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Navigating the Screen

This section forms a complete reference guide to mouse functions and shortcut keys applicable when running a requester under Matterhorn. A requester may be run in either *Native Terminal Navigation (6530) Mode* or in *Windows Navigation Mode.* Keyboard shortcuts will vary accordingly, whereas mouse functions remain the same.

The current navigation mode is controlled from the **Miscellaneous** tab of the **Preferences** dialog box.

Using the Mouse in Windows and Native Mode

Mouse techniques will be the same in both native terminal navigation (6530) mode or in Windows navigation mode*:*

To:	Do this:
Select one word	Double-click in a field.
Copy text	Push down left mouse button + press Ctrl+Insert.

Using the Keyboard in Native Mode

If the **Use Tandem Navigation** check box in the **Preferences** dialog box has been checked, your requester is running in native mode. In native mode, the following keyboard shortcuts apply:

Press:	To:
Delete	Delete a character. If an area of the screen has been selected, the selected field characters will be deleted.
Alt+Insert	Switch to and from insert mode.
Insert	Switch to and from insert mode.
Ctrl+Enter	Move the cursor to the last character in a field.
Ctrl+ →	Move the cursor to the end of a field or to the first non-blank character in a field.
Ctrl+ ←	Move the cursor to the beginning of a field or to the first non-blank character in a field.
Shift+Ctrl+→	Select/deselect fields.
Home	Move the cursor to the field in the upper-left corner of the screen.
End	Go to the last field on the screen.
Tab	Move the cursor to the next field.
Shift+Tab	Move the cursor to the previous field.
→	Move the cursor one character to the right.

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←	Move the cursor one character to the left.
↓	Move the cursor to the field below the current field or - if no field is positioned here - to the first field of the next line.
↑	Move the cursor to the field above the current field or - if no field is positioned here - to the first field of the previous line.
Shift+ →	Select/deselect the character to the right of the cursor position.
Shift+ ←	Select/deselect the character to the left of the cursor position.
Ctrl+Insert	Copy the selected characters to the Clipboard.
Shift+Insert	Paste characters from the Clipboard into a field.
Shift+Delete	Cut characters to Clipboard.

Using the Keyboard in Windows Mode

If the **Use Windows Navigation** check box in the **Preferences** dialog box has not been checked, your requester is running in Windows mode. In Windows mode, the following keyboard shortcuts apply:

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Press:	To:
Delete	Delete one character. If a large area of the screen has been selected, then the selected field characters will be deleted.
Insert	No action, insert mode always active.
Alt+Insert	No action.
Ctrl+Enter	No action.
Ctrl+ →	Move the cursor to the end of a field or to the first non-blank character in a field.
Ctrl+ ←	Move the cursor to the beginning of a field or to the first non-blank character in a field.
Shift+Ctrl+ →	Select fields.
Home	Move the cursor to the first character in a field.
End	Move the cursor to the last character in a field.
Tab	Move the cursor to the next field.
Shift+Tab	Move the cursor to the previous field.
→	Move the cursor to the next character in a field.

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←	Move the cursor to the previous character in a field.
↓	Move the cursor to the next character in a field.
↑	Move the cursor to the previous character in a field.
Shift+ →	Select the character to the right of current cursor position.
Shift+ ←	Select the character to the left of current cursor position.
Ctrl+Insert	Copy selected characters to the Clipboard.
Shift+Insert	Paste characters from the Clipboard into a field.
Shift+Delete	Cut characters to Clipboard.

Chapter 13:
The Preferences Menu

T his chapter presents the **Preferences** menu which may be used to customize the application window on various levels during Matterhorn sessions.

The chapter is organized as follows:

- ➢ The Preferences Menu

- ➢ The Colors Tab

- ➢ The Font Tab

- ➢ The Miscellaneous Tab

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The Preferences Menu

During a Matterhorn session, the users may customize the application window on various levels. Customization is handled through the **Preferences** menu, which is available from the **Control** menu in the upper left-hand corner of the application window.
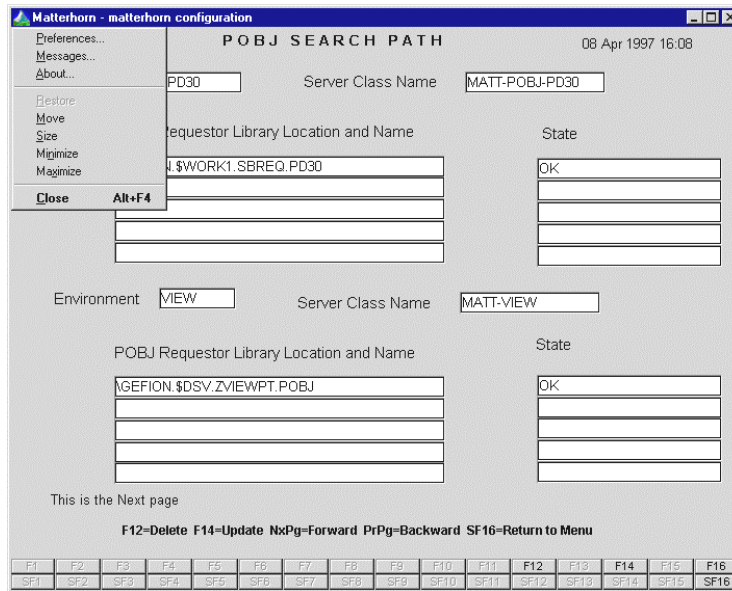
Figure 13.1: *To access the **Preferences** dialog box, select **Preferences** from the **Control** menu*

Note that you may configure the way users access the **Preferences** menu. One of the options in the **Preferences** dialog box is called **Show Menu**. If you select this option, a **File** menu and a **Help** menu will be inserted along the top line of the Matterhorn application window. In this case, the

Preferences menu is no longer available from the **Control** menu, but from the **File** menu.

Also note that the **Preferences** menu is only accessible if the **Enable User Setup** field in Matterhorn Configuration has been set to *Yes* (see Chapter 5, Matterhorn Configuration). If the users do not have access to the **Preferences** menu, it will be dimmed.

Users may save the changes they make using the **Preferences** dialog box in a *workstation initialization file*. As the term suggests, this file is saved for each workstation. This means that two users on different workstations may work with the same session and have different color and font settings.

The **Preferences** dialog box is depicted in the figure below.
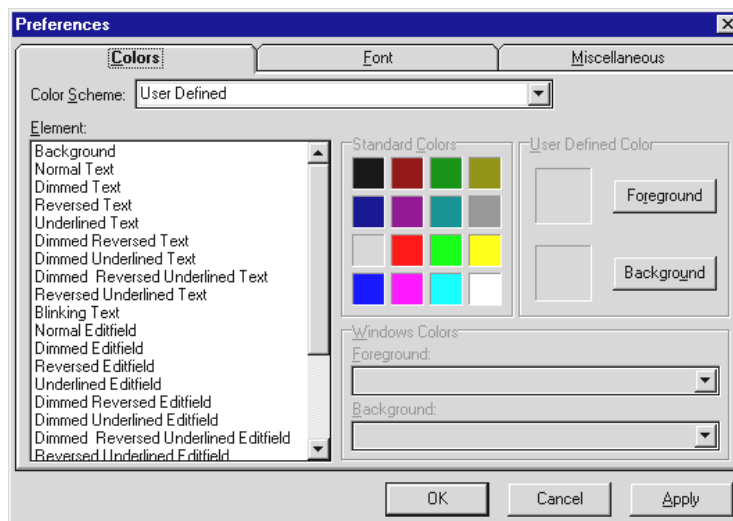
Figure 13.2: *The **Preferences** dialog box*

Fixed Elements in the Preferences Dialog Box

In the **Preferences** dialog box, the following buttons will always be available:

OK   Click this button to confirm your changes.

Cancel   Click this button to cancel your changes.

Apply   Click this button to preview your changes.

The Colors Tab

If the requester has been designed with Screen Designer, it is the settings in Screen Designer that determine whether or not the changes to the color settings will be implemented. The colors indicated in Screen Designer will always prevail.

To work with color settings, click the **Colors** tab in the **Preferences** dialog box. In the **Colors** tab, users have the following options:

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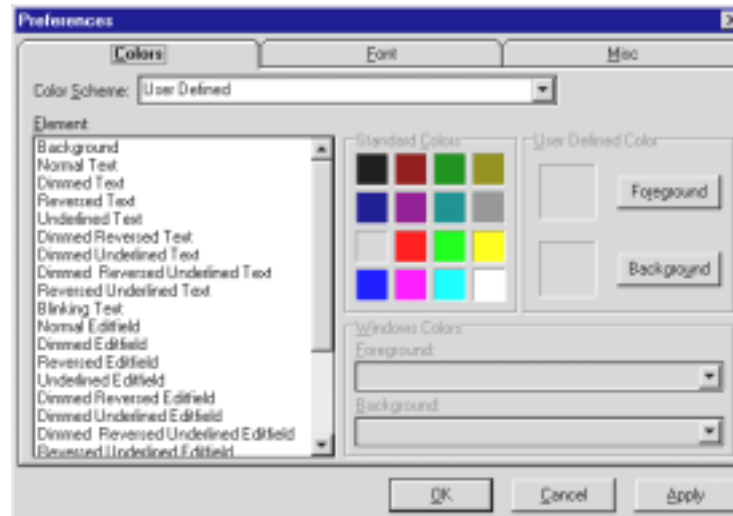
Figure 13.3: *The **Colors** tab.*

Color Scheme   This dropdown list box stores a set of default color schemes; *User Defined, Classic, Windows, Metallic* and *Ocean*. Use these schemes as a starting point for creating a new color scheme. The changes will always be saved in the User Defined color scheme. This means that you cannot change the appearance of the other default schemes. It also means that you can only apply one user defined color scheme.

Element   This list box displays all the Tandem screen elements which may have its color modified. To change the background or foreground of an element, select it with the mouse and click a standard color.

Note that you can only change the colors

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for Tandem objects such as text objects, edit fields and the requester object (the screen background).

Standard Colors
This area contains 16 standard colors which may be used as foreground or background colors.

To select a foreground color, click the desired color with the mouse pointer. The letters FG will appear on the selected color.

To select a background color, *right-click* the desired color with the mouse pointer. The letters BG will appear on the selected color.

If you select the same color for both background and foreground, the letters FB will appear on the selected color.

Foreground
If you are not satisfied with the colors available from the color palette, click the **Foreground** button to gain access to the **Color** dialog box. From here you may define your own foreground colors. (See the section Fashioning Your Own Colors later in this chapter).

Background
If you are not satisfied with the colors available from the color palette, click the **Background** button to gain access to the **Color** dialog box. From here you may define your own background colors. (See the section Fashioning Your Own Colors later in this chapter).

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Windows Colors	In the **Windows Colors** section you may create you own foreground-background combinations based on the default screen elements in Windows. These screen elements, which are used globally in Windows, are set up using the Display icon in Windows Control Panel. If, for instance, you select *Button Face* for the **Foreground** entry and *Menu Text* for the **Background** entry, then this color combination will be used for the selected Tandem object.
Apply	Click **Apply** to preview the results of your color selections without leaving the **Colors** tab.
OK	To confirm the color settings, click **OK**.

Changing the Color Settings

To change the color settings, follow this procedure:

1. Open the **Preferences** dialog box and click the **Colors** tab.

2. Select the color scheme on which to base the new color scheme.

3. Select an element in the **Element** list box.

4. To change the foreground color, click a color in the **Standard Colors** palette. Alternatively, click the **Foreground** button to open the **Colors** dialog box.

5. To change the background color, click a color in the **Standard Colors** palette. Alternatively, click the **Background** button to open the **Colors** dialog box.

6. If you wish to use a foreground-background combination which is based on the default screen elements in Windows, click the **Foreground** entry in the **Windows Colors** section and locate the element on the list. Then click the **Background** entry and locate the other element.

7. To preview the color settings before applying, click **Apply**. Your selection will appear on the requester.

8. Click **OK** to confirm or, if you regret your selections, **Cancel**.

Fashioning Your Own Colors

If you are not satisfied with the colors available from the **Standard Colors** palette, you may create your own colors and use them as foreground and background colors.

1. Click **Foreground** or **Background**.

2. The **Colors** dialog box opens. From this dialog box you may select new colors from the **Basic Palette**.

3. If you wish to create your own colors, click the **Define Custom Colors** button. The **Color** dialog box expands to contain the following elements.

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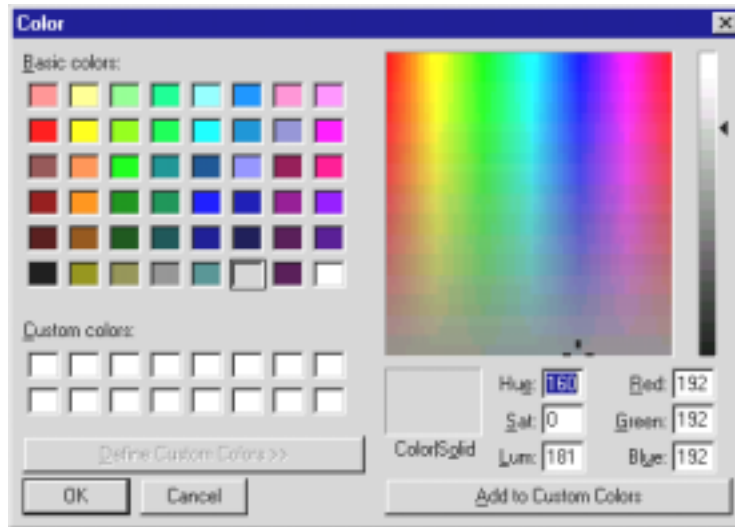
Figure 13.4: *The **Colors** dialog box.*

Basic Colors	The basic palette in the upper left corner displays the available colors.
Custom Colors	The user's customized palette.
Color Refiner	In the right side of the **Colors** dialog box you see the **Color Refiner** box. By means of this box you may create your own colors, which may subsequently be added to the **Custom Colors** palette.
Color|Solid	The **Color|Solid** field indicates the current colors available. All colors except black and white may be adjusted.
Add to Custom Colors	To add a color from the **Color|Solid** field to the palette, click the **Add to Custom Colors**

button.

Hue/Sat/Lum These fields show the respective values of hue, saturation, and luminosity of the selected color.

Red/Green/Blue Distribution of the three primary colors. If you enter the appropriate figures in these three fields, the desired color will be stored in the **Color Refiner** box.

4. In the **Color Refiner** box, use the mouse to drag the color refiner cursor to the area that shows the color you want.

5. Drag the arrow next to the vertical luminosity bar up and down to adjust the luminosity.

 Alternatively, type values in the **Red**, **Green**, and **Blue** or the **Hue**, **Sat,** and **Lum** boxes. You can either type values in the boxes or click the arrows to the right of the appropriate box to increase or decrease the value.

6. As you change a color, the new color will appear in the **Color|Solid** field. The right side of the box displays the solid color that most resembles your choice. If you want to select the solid color, double-click the right side of the box.

7. When you are satisfied with the color, select a box in the **Custom Color** palette for the new color. Then click the **Add to Custom Colors** button.

The Font Tab

If the requester has been designed with Screen Designer, it is the settings in Screen Designer that determine whether or not

the changes to the font settings will be implemented. The font face indicated in Screen Designer will always prevail.
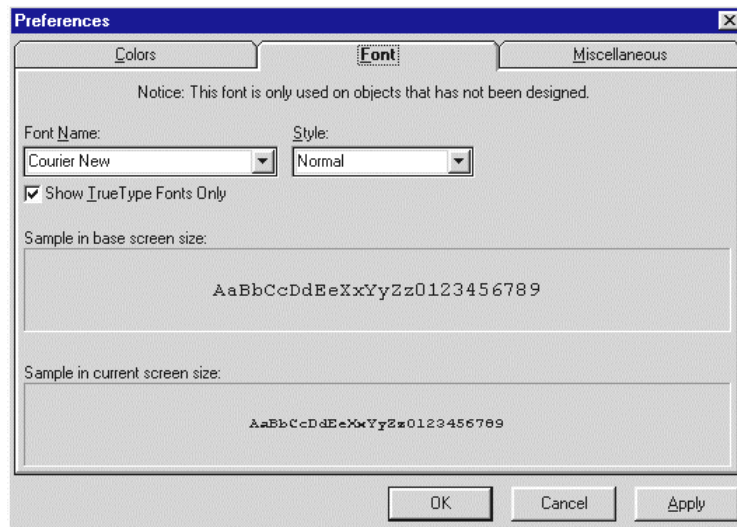
Figure 13.5: *The **Font** Tab.*

To change the current font settings, select the **Font** tab in the **Preferences** dialog box. In the **Font** tab, users have the following options:

Font Name	The default is Courier New. To select a new font, click the name of the font in the list box.
Style	Select between normal, bold, italic and bold-italic.
Size	To set the size, click the number in the list box.

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Show True Type Fonts Only   If you only use true type fonts while working with the programs on your computer, you can choose to display only these fonts, checking the **Show True Type Fonts Only** box.

Sample in base screen size   In the **Sample in base screen size** field you may view the result of your choice of font, style, and size if the window has not been resized.

Sample in current screen size   In the **Sample in current screen size** field you may view the result of your choice of font, style and size.

The Miscellaneous Tab

The **Miscellaneous** tab contains a series of options used for controlling screen elements and navigating the screen. You have the following options:

Beep on Timeout   If the current requester has a built-in timeout counter, it will be displayed in the lower right-hand part of the application window. You may configure Matterhorn to beep five seconds before timeout, once a second. Note that the timeout counter will change color 10 seconds before timeout.
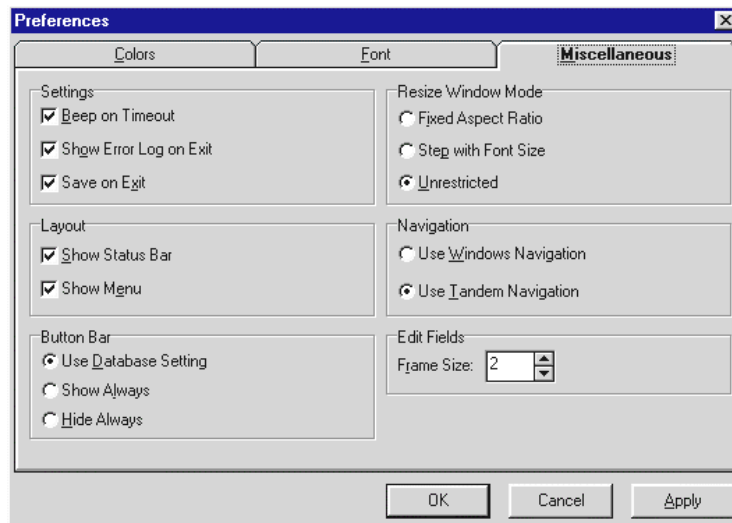
Figure 13.6: *The **Miscellaneous** tab.*

Show Error Log on Exit	If this option is checked, the error log will be displayed in the **Messages** window when the user exits the Matterhorn session. If Matterhorn has not registered any errors the window will not display.
Save on Exit	Use the **Save on Exit** option to save the changes made from the **Preferences** dialog box in a workstation initialization file. As mentioned, the workstation initialization file only applies to this workstation. If the session is run from another workstation, the changes will not appear.
Show Status Bar	This option controls whether or not the status bar that runs along the bottom of the Matterhorn application window will be displayed.

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Show Menu　Use this option to control whether the access to the **Preferences** dialog box and the **Messages** window should be made via the **Control** menu or a special Matterhorn **File** menu.

Use Database Setting　Check this option to have Matterhorn display the button panel in accordance with the settings in the Screen Designer database..

Show Always　If you check this option Matterhorn will display the button panel at all times. Settings in the Screen Designer database are ignored

Hide Always　If you check this option Matterhorn hides the button panel. Settings in the Screen Designer database are ignored.

Fixed Aspect Ratio　Three modes are available when you wish to resize the Matterhorn window. If you select **Fixed Aspect Ratio**, the aspect ratio between the height and width of the window will remain the same as you resize the Matterhorn window

Step with Font Size　Three modes are available when you wish to resize the Matterhorn window. If you select the **Step with Font Size** option, Matterhorn will calculate a fixed set of sizes to make sure that the font will always appear proportionally correct when you resize the window. As you drag the window to a different size Matterhorn will jump between these sizes.

Unrestricted   Three modes are available when you wish to resize the Matterhorn window. If you select the **Unrestricted** option, you may resize the window to any size or rectangular shape.

Use Tandem Navigation   Native mode implies that you use the original 6530 navigation; for instance, you may use the arrow keys to move between fields. In Tandem navigation, the Tab key will move from edit field to edit field.

Use Windows Navigation   Windows Mode implies that you use the standard Windows navigation mode; for instance, you may use the Tab key to move from screen object to screen object.

Frame Size   If the chosen font seems too large to fit in the fields, it may help to 1) reduce the font size or 2) reduce the frame size of the edit field. If you reduce the frame size, more space will be left for the chosen font.

The size of the frame surrounding an edit field reduces the space available for user input, which means that the text will get more difficult to read - especially if you are running a 640 x 480 resolution. Matterhorn enables you to reduce the size of the frame, which will leave more space for the input text. This is done with the **Frame Size** option.

A frame is composed of an inner black and an outer colored rectangle. By default, the frame size is set to 2 pixels, leaving 1 pixel for each rectangle. If you set the frame size to 1 pixel, the inner black rectangle of the

frames will be removed. If you set the size to 0 pixel, both rectangles will be removed, which leaves more space for the selected font.

Chapter 14:
The Messages Menu

T his chapter introduces the **Messages** menu, which may be used by the system administrator to control and monitor the system.

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The Messages Menu

When your requesters generate error messages like "Server frozen" or "Invalid numeric item", these messages may be displayed in a separate window from which they may be printed. To activate the **Messages** window, click the **Control** menu in the upper left-hand corner of the application window and select **Messages**.

Note that you may configure the way users access the **Preferences** menu. One of the options in the **Preferences** dialog box is called **Show Menu**. If you select this option, a **File** menu and a **Help** menu will be inserted along the top line of the Matterhorn application window. In this case, the **Message** menu is no longer available from the **Control** menu, but from the **File** menu.

The **Messages** window has four buttons:

Close	To accept the message and leave it unchanged, click the **Done** button.
Copy to Clipboard	To copy the contents of the **Messages** window to the Clipboard, click this button.
Clear	To clear the window and delete the message, click the **Clear** button.
Print	To print the message for later use, click the **Print** button. Matterhorn will send the output to your default Windows printer.
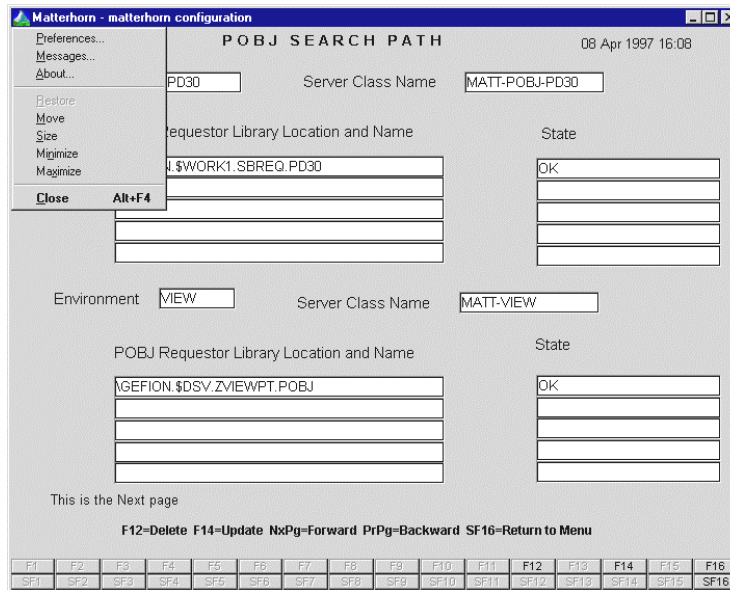
Figure 14.1: *To access the* **Messages** *window, select* **Messages** *from the* **Control** *menu or the* **File** *menu.*
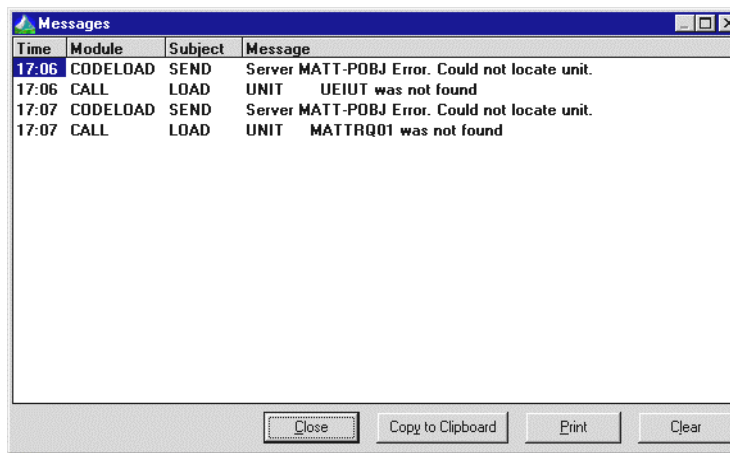
Figure 14.2: *The* **Messages** *window.*

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Part 5

The Matterhorn Quick Starter

The Matterhorn Quick Starter is a reference guide to installing and setting up the Matterhorn Client on PC and the Matterhorn Pathway system on Tandem. Chapter 15 takes you through the installation process of the Matterhorn Pathway system; Chapter 16 deals with the Matterhorn Client. Chapter 17 explains how to set up Viewpoint to be run under Matterhorn. Use this chapter as inspiration when setting up Matterhorn sessions. Quick Starter is aimed at the system administrator who wants to skip all the small talk and get started with Matterhorn right away.

Chapter 15:
Installing the Matterhorn
Pathway System

T his chapter describes the stages involved when setting up the Matterhorn Pathway system on a Tandem. The chapter also presents Matterhorn Configuration used when you create and configure the session names.

If you wish to perform a Matterhorn 4.0 upgrade, please turn to Chapter 6, Matterhorn 4.0 Upgrade for further information.

The chapter is organized as follows:

- ➢ Transferring the Matterhorn Files

- ➢ Running UNPACK

- ➢ Creating the Matterhorn Pathway System

- ➢ Using Matterhorn Configuration

- ➢ Defining the Location of the POBJ

- ➢ Creating a Session Name

Transferring the Matterhorn Files

Transfer the files UNPACK.100, LICENSE.000 and SETUPCOD.000 from the \Tandem subfolder on the CD-ROM to the Tandem, for instance using the IXF Send a File command or Multilan Guardian Access.

If you use the IXF command, add the following parameters to the command: BINARY NOEXT, EXT (50,50)

Note that the transfer must be *binary*.

Running UNPACK

Proceed to enter the command:

FUP ALTER UNPACK, CODE 100

(Note that the UNPACK file is an object file).

Then launch the command:

RUN UNPACK

The UNPACK program will now unpack the SETUPCOD file.

Creating the Matterhorn Pathway System

When you have run the UNPACK file, proceed to enter the command:

RUN SETUP

This command will run the TACL macro SETUP, which will ultimately create the Matterhorn Pathway System. The macro will prompt you to make the following entries:

a. When you are prompted: **Enter PATHMON processname**, enter the name of the Matterhorn Pathway system. Unless you have renamed the Matterhorn Pathway system, the default name 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.

e. When you are prompted: **Enter path to Designer database**, enter a path to a Screen Designer database. Default is C:\Matthorn.

The Matterhorn setup macro's last action is to launch Matterhorn Configuration.

Using Matterhorn Configuration

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. A Session Name is unique, which means that it may only be used once. To the Session Name you link other important information which is necessary to execute the

session as a Matterhorn session. This information includes the name of the initial requester, POBJ search paths, server classes, requester environments and other types of information.
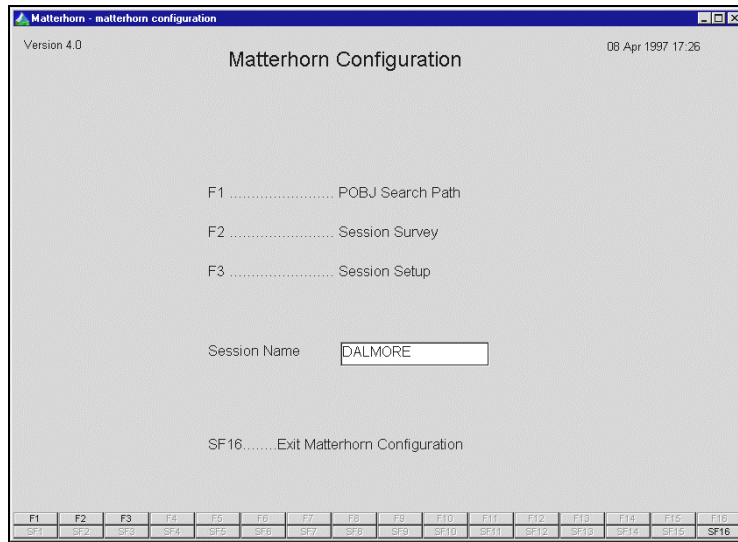
Figure 15.1: *The Matterhorn Configuration main menu.*

Defining the Location of the POBJ

Your first step is to define the POBJ file location of the initial requester and set up requester environments.

1. In the Matterhorn Configuration main menu, press **F1**. This will open the **POBJ Search Path** window.

2. Confirm that the search path points at your POBJ requester library.

3. Proceed to enter other relevant POBJ paths, for instance: $SYSTEM.VPTDATA.POBJ for the Viewpoint POBJ.

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4. Press **F14** to update the settings.
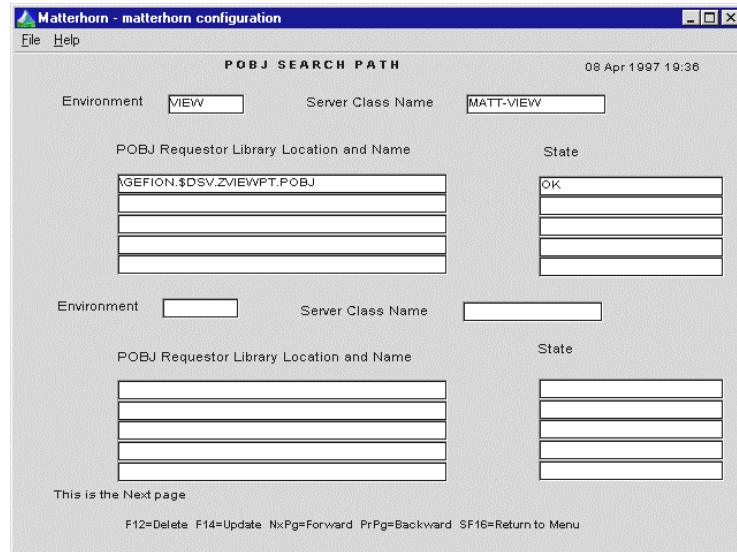
Figure 15.2: *The* **POBJ Search Pat***h window.*

5. If required, you may use the **POBJ Search Path** window to define new requester environments and server classes.

Creating a Session Name

In the Matterhorn Configuration main menu, press **F3** to proceed to the Session Setup screens. Session Setup consists of five different *sections;* **Executor**, **Pathway**, **Code Manager**, **Translation** and **Miscellaneous**. These sections will show many default values. Do not change these values unless you know what you are doing. The only information you have to enter to create a Matterhorn session is:

• In the main menu, a Session Name

- In the **POBJ Search Path** window, a requester environment, a server class name, and a POBJ search path leading to this requester (see Figure 15.3).

- In the **Executor** section, the name of the initial requester of the session (see Figure 15.4).

- In the **Pathway** section, the Pathmon Name of the session (see Figure 15.4).

- In the **Code Manager** section, the Pathway Server name (see Figure 15.5). This name is the same as the server you entered in the **POBJ Search Path** window.

All other values entered by Matterhorn Configuration are default values that apply to your system.

Remember that the Session Name must match the session name stated in the Matterhorn profile, which is linked to the Matterhorn Client.

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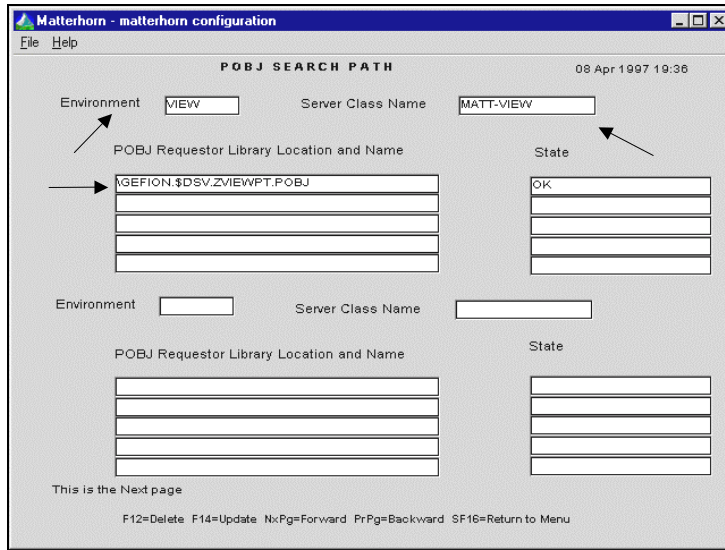
Figure 15.3: *The **POBJ Search Path** window with a requester environment, a POBJ search path, and a server class name.*
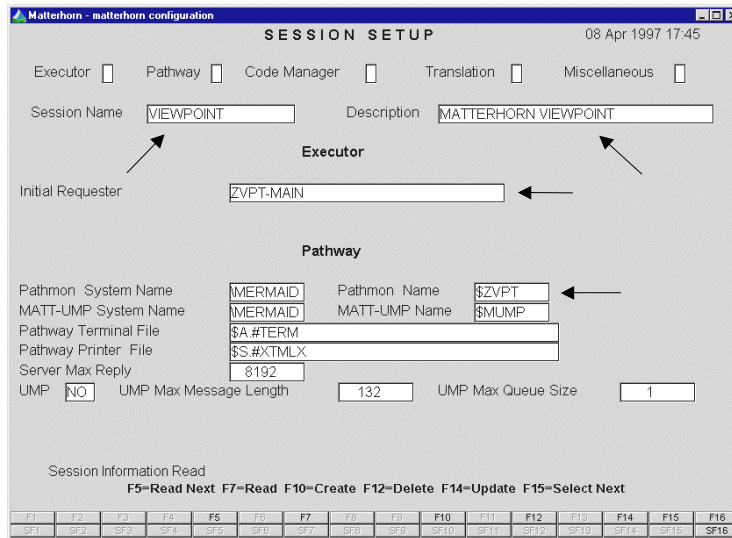
Figure 15.4*: The **Pathway** section.*

Figure 15.5: *The **Code Manager** section.*

Chapter 16:
Installing the Matterhorn Client

T his chapter describes the stages involved when installing the Matterhorn Client on a PC or a PC network server. The chapter also describes how to work with Matterhorn profiles and create the Matterhorn session icons that identify each Pathway application on the Tandem.

The chapter is organized as follows:

➢ Running the InstallShield Wizard

➢ Creating a Matterhorn Session Icon

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Running the InstallShield Wizard

To install the Matterhorn Client:

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 Matterhorn for Windows. Matterhorn Installation will prepare the InstallShield Wizard, which will guide you safely through the installation process.

3. 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.

When installation is complete, the installation program has created:

-   The folder Matthorn containing a number of Matterhorn files.

-   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).

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Creating a Matterhorn Session Icon

The most simple way to create a new Matterhorn profile and attach it to an icon, is by using the Profile Wizard. You may also *edit* existing profiles with the wizard.

To create or edit profiles with the Profile Wizard:

1. Click the Matterhorn Profile Utility icon in your Matterhorn folder.

2. Click the **Profile Wizard** button. The Profile Wizard starts. The wizard contains five windows, which prompts you for various types of information related to the Matterhorn profile and creating the icons.
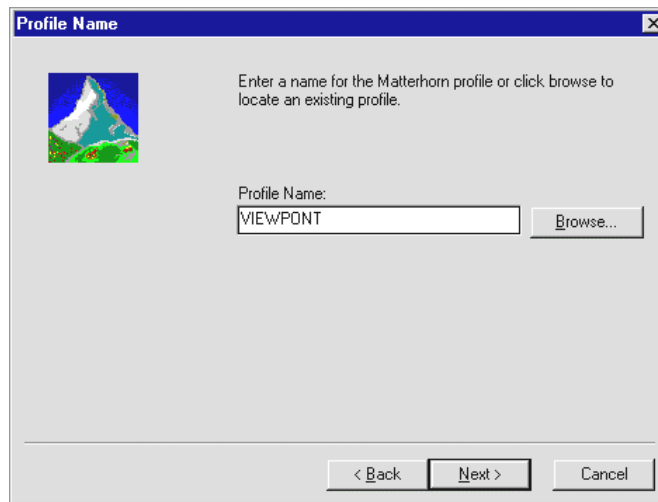
Figure 16.1: *The **Profile Name** window.*

3. The first window is labeled **Profile Name**. Use this window to enter the name of the Matterhorn profile. If you wish to edit an existing profile, click the **Browse** button and locate the file. Click **Next** to continue.

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   Matterhorn   for   Windows

4. In the **Connection Information** window, select the communication subsystem to use, CSL or RSC, and cilck next to continue to the **CSL Connection Information**- or **RSC Connection Information** window. Enter the relevant CSL or RSC information. Click **Next** to continue.
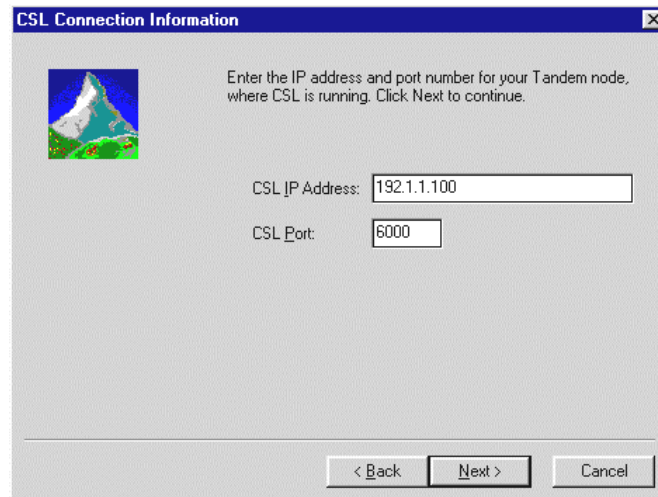
Figure 16.2: *The **CSL Connection Information** window.*

5. 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:

Session Name	The unique name of the Matterhorn session. This name is identical to the session name specified in Matterhorn Configuration, see Chapter 5, Matterhorn Configuration.

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 Configuration server, use the default MATT-CONF.

When you have made your entries, click **Next** to continue.
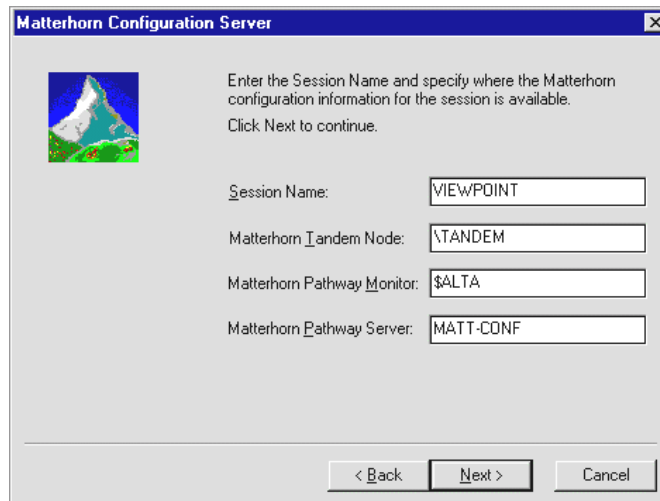
Figure 16.3: *The **Matterhorn Configuration Server** window.*

6. In the **Icons** window, select the icons to create. You can have Matterhorn Profile Utility create icons for Matterhorn, Screen Designer and Data Explorer. Also,

type a relevant description for the icons. Click **Next** to continue.

7. In the **Select Program Folder** window, indicate the folder in which to place the icons.

8. The Profile Wizard will now create the icons. Click **Finish** to close the wizard.
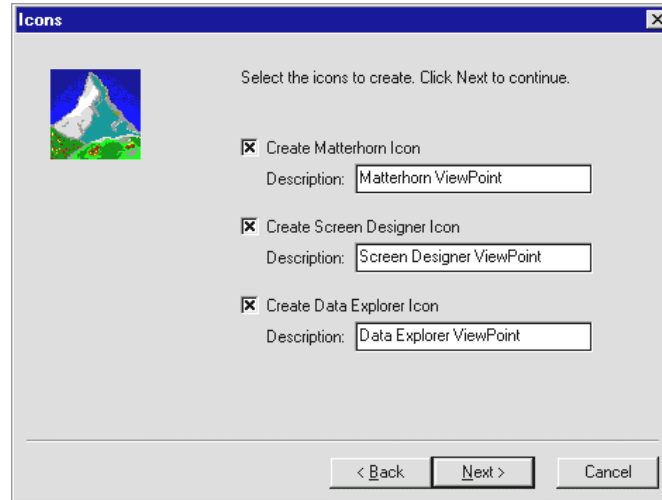
Figure 16.4: *The **Icons** window.*
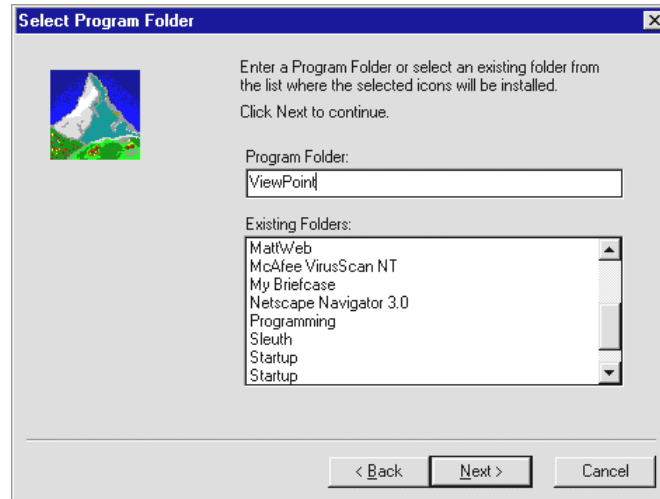
Figure 16.5: *The **Select Program Folder** window.*

9. The icons are inserted in the specified program folder. To launch the Matterhorn session, click the Matterhorn icon.

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

Chapter 17:
Running Viewpoint under Matterhorn

T his chapter describes the stages involved when setting up Viewpoint for execution under Matterhorn. Use the chapter as inspiration when setting up Matterhorn sessions. The chapter assumes that you have already installed both the Matterhorn Client and the Matterhorn Pathway system.

The chapter is organized as follows:

- ➢ Getting Started on Tandem

- ➢ Getting Started on PC

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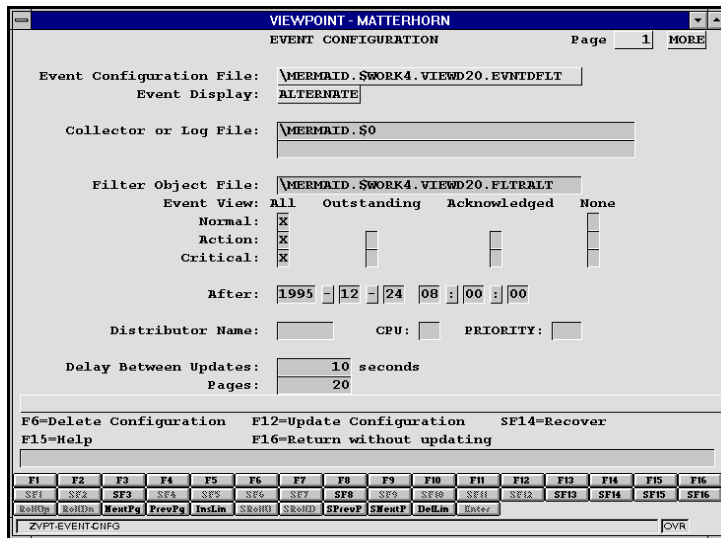
Figure 17.1: *Viewpoint running under Matterhorn.*

Getting Started on Tandem

Always start on Tandem, when setting up requesters to run under Matterhorn.

Your first step is to locate the initial requester of Viewpoint and the POBJ search path leading to this requester. To locate the name of the initial requester, launch the Info Program command. The initial requester will appear from the TYPE statement. To locate the POBJ Search path, launch the Info TCP-command. The information you need will appear from the TCLPROG statement. In our case, we got the following result:

Initial requester:

```
ZVPT-MAIN
```

POBJ search path:

```
\MERMAID.$WORK4.VIEWD20.POBJ
```

Then run Matterhorn Configuration. The main menu appears (See Figure 17.2). Your task is to create a new Matterhorn session name by the name VIEWPOINT.
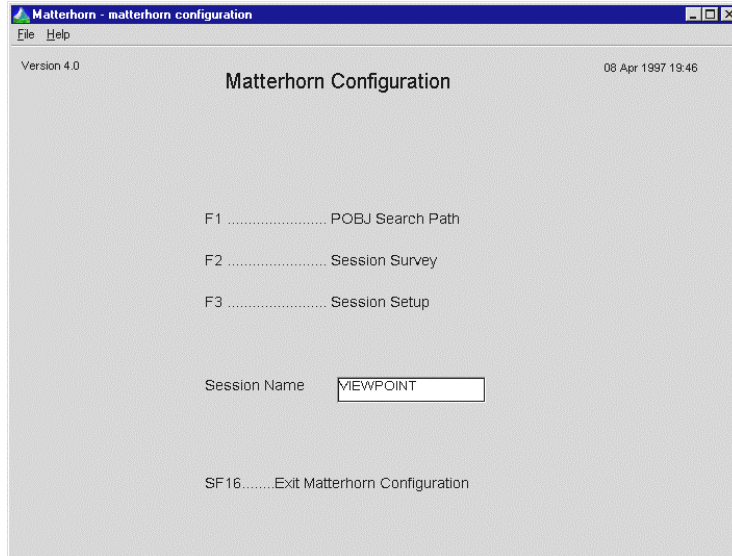
Figure 17.2: *The Matterhorn Configuration main menu.*

First, however, you must create a requester environment and a server class and a POBJ search path.

Press F1 to open the **POBJ Search Path** window. In the **Environment** field, enter VIEW and in the **Server Class field** enter MATT-VIEW. In the field **POBJ Requester Library**

Location and Name enter the search path you located with the Info TCP program (see Figure 17.3).

Press F14 to update the screen with the information. Press F16 to return to the Matterhorn Configuration main menu.
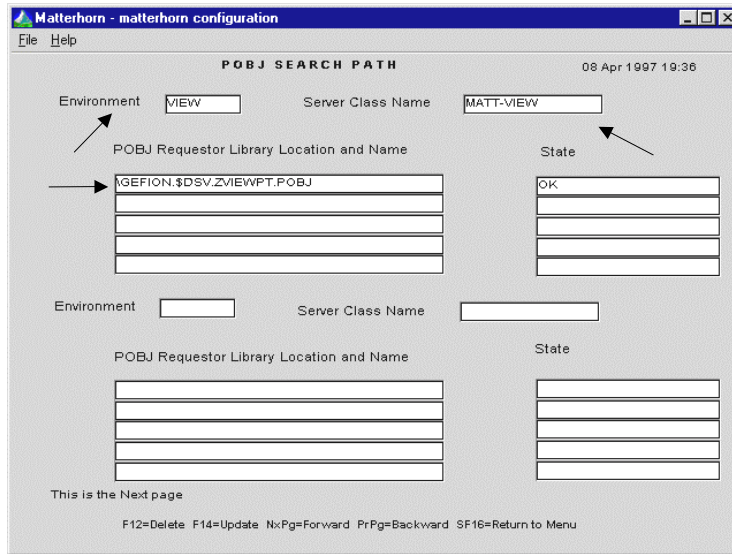
Figure 17.3: *The **POBJ Search Path** window.*

In the Matterhorn main menu, press F3 to proceed to the Session Setup sections. Enter the Session Name VIEWPOINT and a relevant description.

In the **Executor** section, enter the name of the initial requester, ZVPT-Main in the field **Initial Requester**. In the field **Pathmon Name**, enter the name of your Viewpoint pathway system. Unless you have renamed this pathway system, it would be $ZVPT. Press F14 to update the screen with the information.

Figure 17.4*: Enter the name of the initial requester in the* **Initial Requester** *field and the name of the Viewpoint pathway system in the* **Pathmon Name** *field.*

Proceed to the **Code Manager** section. In the field **Pathway Server Name**, enter the name of the server class you have just created. This server name is the same as the server you entered in the **POBJ Search Path** window, MATT-VIEW. Press F14 to update the screen with the information.

This is all the information Matterhorn needs to run Viewpoint as a Matterhorn session. Now exit Matterhorn Configuration.
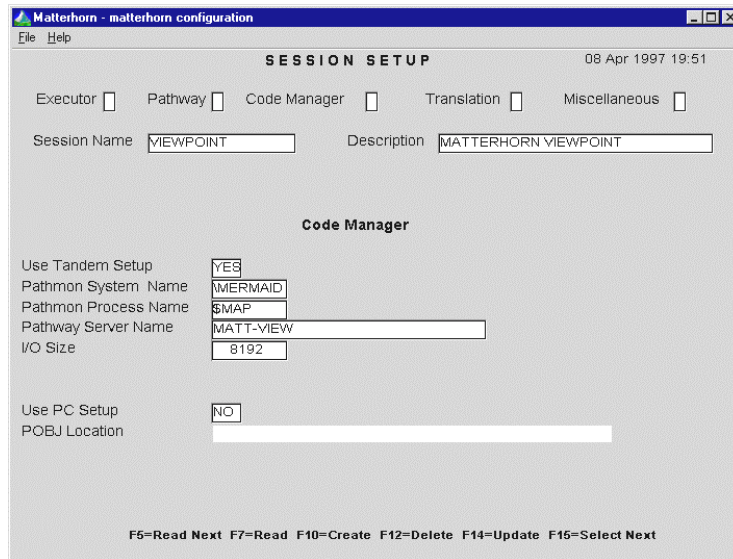
Figure 17.5: *The **Code Manager** section.*

Getting Started on PC

You have now created a Session Name on the Tandem and turned to the stages involved when preparing the Matterhorn session on PC. The procedure comprises two stages: Creating a Matterhorn profile pointing at the Viewpoint session name on the Tandem, and a Matterhorn session icon for Viewpoint.

Creating a Matterhorn Profile

1.   In the Matterhorn group window (or folder), double-click the Matterhorn Profile Utility icon.

2.   Click **Profile Wizard**. The Profile Wizard starts.
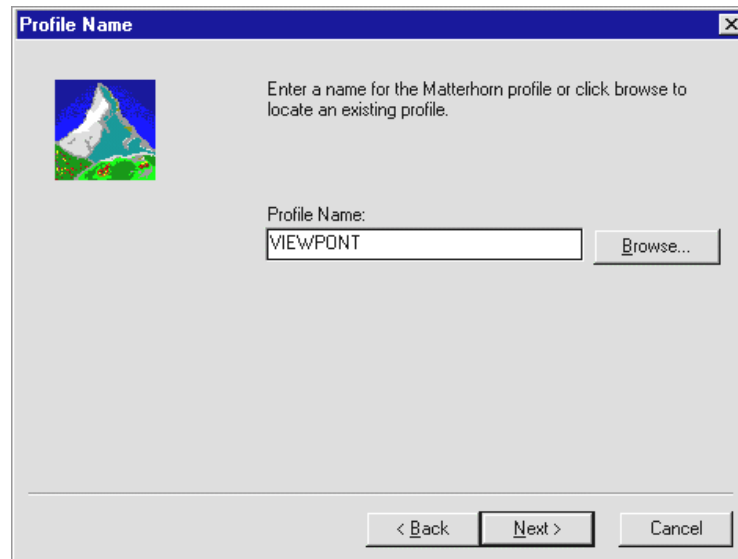
Figure 17.6: *The **Profile Name** window.*

3. Use the **Profile Name** window to enter the name of the Matterhorn profile. Enter VIEWPONT. Click **Next** to continue.

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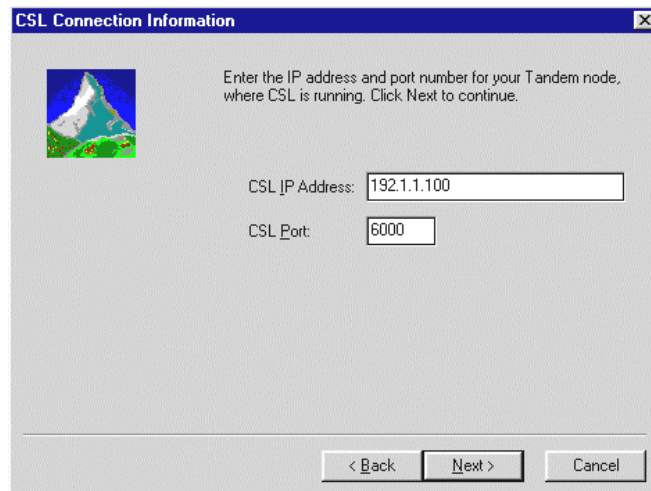
Figure 17.7: *The **CSL Connection Information** window.*

3. In the **Connection Information** window, select the communication subsystem you wish to use (CSL or RSC) and click **Next** to continue.

4. In the **RSC/CSL Connection Information** window, enter the relevant RSC or CSL information. Click **Next** to continue.

5. 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. The Session Name is of course VIEWPOINT:
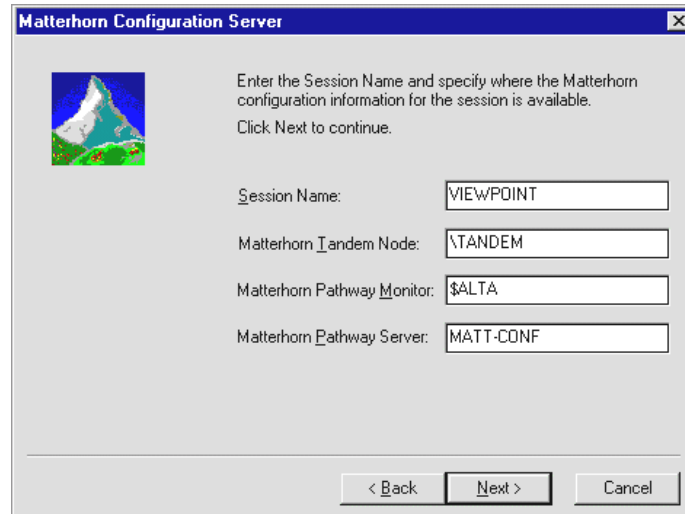
Figure 17.8*: The **Matterhorn Configuration Server** window.*

Session Name	The unique name of the Matterhorn session. VIEWPOINT.
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 Configuration server, use the default MATT-CONF.

Click **Next** to continue.

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6. In the **Icons** window, select the icons to create. You can have Matterhorn Profile Utility create icons for Matterhorn, Screen Designer and Data Explorer. Also, type a relevant description for the icons. Click **Next** to continue.
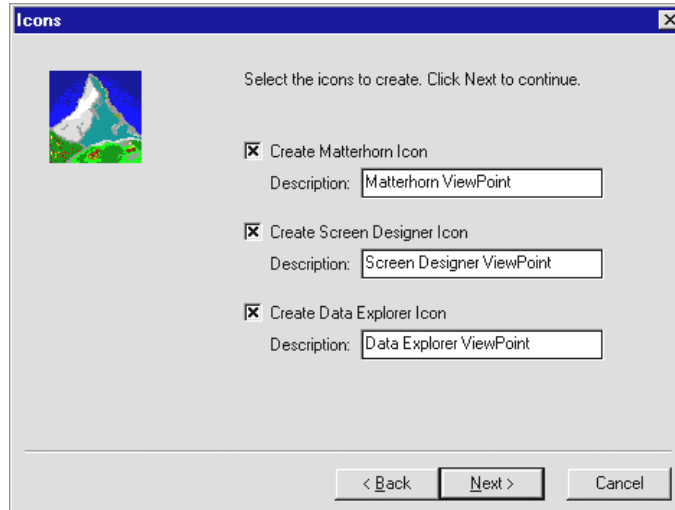
Figure 17.9: *The **Icons** window.*

7. In the **Select Program Folder** window, indicate the folder in which to place the icons.

8. The Profile Wizard will now create the icons. Click **Finish** to close the wizard.

9. The icons are inserted in the specified program folder. To launch the Viewpoint Matterhorn session, click the associated icon.
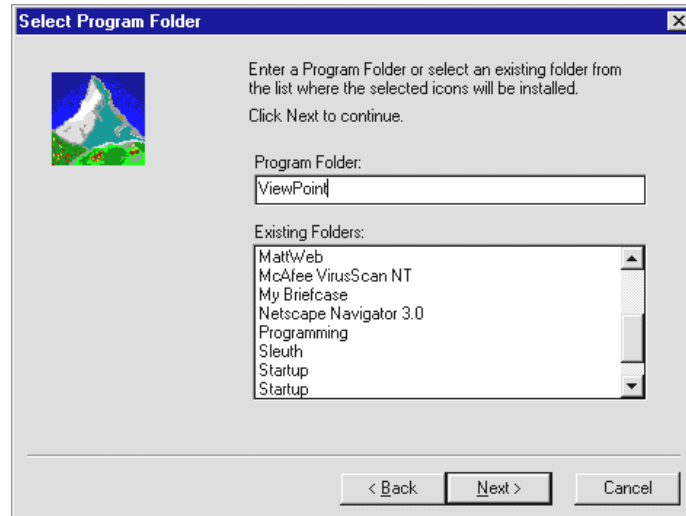
Figure 17.10: *The **Select Program Folder** window.*

Appendix: MATTCOM

T his appendix describes MATTCOM - the command line interface, which may be used to control, monitor and survey your Matterhorn sessions on various levels.

The appendix is organized as follows:

➢ About MATTCOM Interface

➢ MATTCOM Commands

About MATTCOM

The MATTCOM interface is a management tool which enables you to configure and monitor your Matterhorn sessions. MATTCOM operates as the interface to both the MATT-MON and MATT-CONF server.

Use MATTCOM to gain access to Matterhorn Configuration and to obtain status information about which Matterhorn sessions are currently active. Subsequently, you may abort selected Matterhorn sessions and/or perform refresh-codes.

Running MATTCOM

You may run MATTCOM in one of two ways. *With* a command line parameter or *without*.

➢ Enter conversational mode and type:

RUN MATTCOM

The MATTCOM-prompt will appear on the screen. You may now launch any of the MATTCOM commands. Simply enter the command name and press Enter. Turn to the next section for a full description of MATTCOM commands.

➢ Enter conversational mode and type:

RUN MATTCOM *command*

This command line will start the MATTCOM command indicated by the *command* parameter. Turn to the next section for a full description of MATTCOM commands.

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MATTCOM Commands

MATTCOM comes with the following commands

> ➤ ABORT
>
> ➤ ASSUME
>
> ➤ CONFIG
>
> ➤ EXIT
>
> ➤ REFRESH-CODE
>
> ➤ STATUS

ABORT

Use this command to stop all Matterhorn sessions. The command:

>   ABORT *

will abort all Matterhorn sessions. A message will inform the user that the session is about to be aborted.

ASSUME

Use this command to assume all or a group of sessions. Use the * character as a wildcard. The command line:

>   ASSUME PROD*

will identify all Matterhorn sessions whose session names begin with the string 'PROD'. Subsequently, you may abort the sessions or perform refresh-codes on them.

CONFIG

This command will launch Matterhorn Configuration. This program is thoroughly detailed in Chapter 5, Matterhorn Configuration.

EXIT

This command will finish the current MATTCOM session and return you to the TACL.

REFRESH-CODE

This command will perform a refresh-code for all active Matterhorn sessions. Use this option when you have just updated a requester while several users are still running the older version of the requester. After the refresh code has been performed, the updated requester will be used. Use the * character as a wildcard. The command line:

REFRESH-CODE FINANCE*

will perform a refresh code for all Matterhorn sessions whose session names begin with the string 'FINANCE'.

STATUS

The STATUS command will obtain the status of all currently active Matterhorn sessions. MATTCOM will inform you about: Session Name, user ID on the network, workstation ID on the network, time of logon and a unique session ID. Use the * character as a wildcard. The command line:

STATUS TEST*

will provide as status of all Matterhorn sessions whose session names begin with the string 'TEST'.

```
MATTCOM.* 23> status

STATUS
Time 14:18:06

Session     User      Work station    Signon at      ID

-------------------------------------------------------

SBTEST      SB1       WSSBX           13:55:47        2

SBTEST      SB1       WSSBX           14:02:06        3
```

Figure A.1: *The STATUS-command provides information about sessions which are currently active.*

Glossary

$SKYB   The Matterhorn Pathway system comprising the three servers, MATT-CONF, MATT-UMP and MATT-POBJ. The Matterhorn Pathway system is crucial to the Matterhorn client since it handles all requests from the client. If you like, you may rename the Matterhorn Pathway system.

ANSI character set   The American National Standards Institute 8-bit character set containing 256 characters. ANSI is the extended character set that Windows and Windows programs use for most purposes. Windows has different fonts for displaying the ANSI and OEM character set.

Block mode   A terminal operating mode in which data is read from the terminal and displayed on the terminal a screen at a time.

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Control Menu   A menu that contains commands you can use to manipulate the window. Matterhorn will insert the two menu options **Preferences** and **Messages** in the **Control** menu when Pathway requesters are executed as Matterhorn sessions.

Conversational mode   A terminal operating mode in which data is read from the terminal and displayed on the terminal one line at a time.

DATAPBJ   The database file in Matterhorn Configuration storing information about POBJ locations and POBJ search paths.

DDE   Dynamic Data Exchange (DDE). A tool for sharing information between programs under Windows. Two Windows programs carry on a DDE conversation by posting messages to each other. These two programs are knows as the 'server' and the 'client'. A DDE server is the program that has access to data that may be useful to other Windows programs. A DDE client is the program that requests and obtains this data from the server.

Drop-down list box   Drop-down list boxes display a list of options or items from which you may choose. In Matterhorn, all Pathway requester MUST BE clauses will be displayed as drop-down list boxes.

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INFO Program	A command for obtaining information about your Pathway system. Use the Info program tool to locate the initial requester of a session.
INFO TCP	A command for obtaining Tandem TCP information including Server Max Reply and POBJ locations.
Initial requester	The initial requester is the first requester to be called in a session.
IXF	The IXF Send a File command is a tool for transferring files from a PC disk drive to the Tandem system.
LICENSE	The license file of Matterhorn describing your Matterhorn license.
MATT-CONF	The Matterhorn Configuration server. This server will handle and store the configuration information related to each Pathway application that is to be executed as a Matterhorn session.
MATT-MON	The Matterhorn Monitor server. The server will monitor your active Matterhorn sessions.
MATT-POBJ	The Matterhorn POBJ server. This server will transfer the requester object to the PC. The Matterhorn client will then execute the code on the PC.

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MATT-**UMP**	The Matterhorn UMP server. This server controls UMP.
Matterhorn Configuration	The Matterhorn Configuration program is the obligatory tool you must use when preparing your company's Pathway requesters to be executed as Matterhorn sessions.
MATTWIN.EXE	The executable file of the Matterhorn client.
MATTWIN.INI	The filename of the Matterhorn profile which is part of your Matterhorn package.
MAXINPUTMSGLEN	If your are using UMP, information about the maximum message length will appear from the MAXINPUTMSGLEN-statement, Use the Info TCP command to obtain this information.
MAXINPUTMSGS	If your are using UMP, information about the UMP Max Queue size will appear from the MAXINPUTMSGS-statement. Use the Info Program command to obtain this information.
MAXREPLY	The Max Reply statement will designate the total number of bytes which may be sent at a time from the terminal to the server. This information may be obtained with the Info TCP command.
Messages menu	Matterhorn menu option which will be inserted in the Control menu

when your Pathway applications are executed under Windows. The Messages option may be used by the system administrator to control and monitor the system. Error messages will be displayed in a separate window from which you may print them.

MUST BE clauses   MUST BE clauses are used for field validity checks. A MUST BE clause displays the valid values for a field. When Pathway requesters are executed as Matterhorn sessions, MUST BE values will be displayed in a dropdown list box.

OEM character set   The OEM character set was developed by IBM to extend the ASCII character set. Many non-Windows text mode programs require this extended character set because they use the block-drawing and line-drawing characters in their screen output. Windows has different fonts for displaying the ANSI and OEM character set.

PATHMON   The central controlling process in a Pathway system.

Pathway   A transaction processing system that supplies the programs, procedures, and structures necessary to support user-written applications.

Pathway system	The TCPs, servers, terminals, requesters and any subsystems associated with Pathway that run together under the control of Pathmon. Matterhorn has its own Pathway system, $SKYB.
POBJ	The Screen Cobol program libraries containing the object codes of your requesters.
POBJ Search Path window	Window in Matterhorn Configuration used to enter POBJ Search Paths and create requester environments and server classes.
Matterhorn profile	The Matterhorn profile provides the Matterhorn client executable file, Mattwin.exe with information necessary to address the Tandem system and the Matterhorn Pathway system. Profiles are created and maintained with the Matterhorn Profile utility.
Requester Environment	A requester environment is a logical grouping of POBJs into a relevant working or application area.
RSC	The Remote Server Call (RSC) allows workstations to access Pathway servers and other Guardian 90 processes on the Tandem. RSC enables you to implement powerful client-server applications.

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Screen Cobol   A procedural language that is used to define and control terminal displays.

Server class   A grouping of duplicate copies of a single server program, all of which execute the same object program.

Server process   A process that implements data-base requests for an application and return replies to the requester.

Preferences menu   Matterhorn menu option which will be inserted in the **Control** menu when your Pathway applications are executed under Windows. Use the **Preferences** dialog box to fashion and configure your screens on a variety of levels.

Setup TACL Macro   The setup macro which will create the Matterhorn Pathway system.

TCP   Terminal Control Process. A Tandem-supplied program that interprets and executes the screen programs, and control terminal I/O devices and the applications. Matterhorn replaces the function of the TCP.

Session Setup   Window in Matterhorn Configuration in which you may create your Matterhorn sessions.

Session Survey   Survey window in Matterhorn Configuration which will list all available Matterhorn sessions.

TMF	Transaction Monitoring Facility (TMF) is a data management product that maintains the consistency of a database and provides the tools for database recovery.
Unsolicited Message	A message sent to a Screen Cobol task that includes application dependent information to be processed by a Screen Cobol task. The processing of unsolicited messages is referred to as Unsolicited message processing (UMP)
UMP	See Unsolicited Message.
UNPACK	The file that will unpack the files of the Matterhorn Pathway system, including the Setup macro and the Matterhorn servers.

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