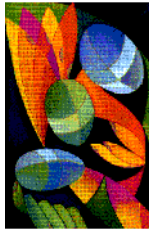# SCREEN DESIGNER 5.07

Setup and
Reference Guide

2004

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Table of Contents

Preface

As the whole world seems to be moving to client/server and Windows, many Tandem customers have come to realize the advantages of an intuitive and productive graphic mouse-driven interface with all its in-built benefits. Matterhorn for Windows took your Tandem system most of the way, but with Screen Designer you possess a tool which will make your current system attractive, well-organized, flexible, and easy to use.

With Matterhorn Screen Designer at your fingertips, a world of unprecedented opportunities unfolds. Screen Designer enables you to optimize and fashion your current Tandem requester system in a series areas important to your work.

About This Manual

The *Screen Designer Setup and Reference Guide* describes the features and applications of the GUI development environment, Screen Designer. The manual will serve as your guide and tutor as you learn the fundamentals of Screen Designer.

Details on installing and using the many features of Screen Designer are to be found on these pages. The manual is organized as follows*:*

Chapter 1, Features of Screen Designer**,** presents the many powerful features of Matterhorn Screen Designer.

Chapter 2, Installing Screen Designer**,** takes you through the installation procedure of Matterhorn Screen Designer.

Chapter 3, How Does Screen Designer Work**,** explains how Screen Designer works and how it interacts with Matterhorn 5.0 for Windows and your Tandem system at runtime.

Chapter 4, Elements of Screen Designer**,** presents the main elements of Screen Designer. You will learn about the structure of the Screen Designer application window and the many functions available from the pull-down menu and the tool bar.

Chapter 5, Screen Designer Objects**,** explains the term *Screen Designer object* and describes how to work with objects in Screen Designer. The Object Inspector will be introduced.

Chapter 6, Using Screen Designer, explains in detail how to use Screen Designer. All features will be thoroughly discussed and exemplified.

Chapter 7, Matterhorn Macro Language, discusses the macro programming language, which is part of the Matterhorn Suite. The Matterhorn macro language enables you to to speed up and simplify administrative tasks or exchange data with other applications that support DDE or DLL. Note that the macro statements which are used for for DDE and DLL require a MattOpen license.

Chapter 8, Data Explorer, presents the applications, layout, and functions available from the productivity tool, Data Explorer.

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

Note that all screen shots in this manual have been shot under Windows 95.

Who Should Read This Book

The **Screen Designer Reference Guide** is primarily designed for users in your company that are involved in setting up requester screens. In order to maximize the application of Screen Designer, we strongly advise that the users of Screen Designer consult the representatives of the various groups of users in your company prior to designing new requester screens. A system administrator who is an expert on computers may not be the right person to determine which screens and fields are relevant to which groups of users. *Coordination* and *cooperation* are both keywords when using Matterhorn Screen Designer.

Introducing Screen Designer

W elcome to Matterhorn Screen Designer 5.0, the unique GUI development environment. This manual will tell you what Screen Designer is all about and how it works. You will learn how to install and use its many features.
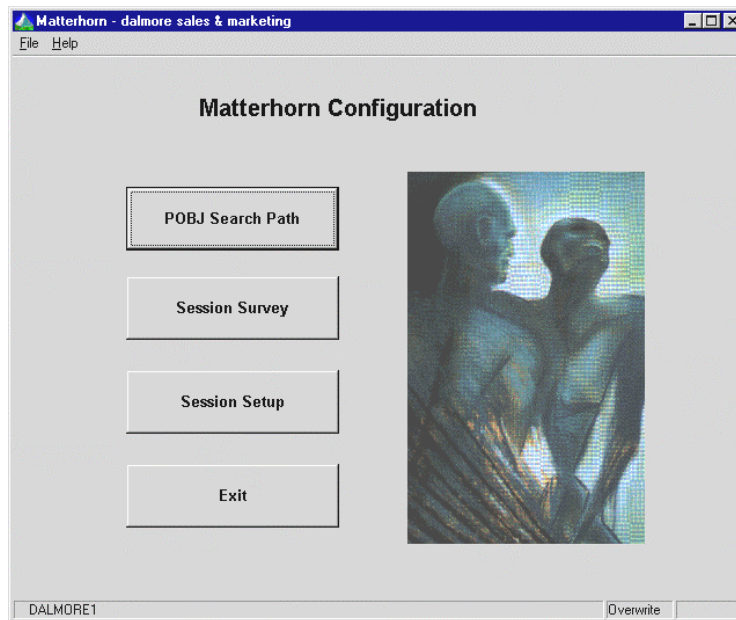
Figure I.1: *Design your requester screens with Screen Designer.*

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Introducing Screen Designer

Below is an outline of the many features of Screen Designer. Using Screen Designer you may:

- Rearrange screen objects.

- Remove screen objects from the screen.

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

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

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

- Create tabbed notebooks to organize your screens better.

- Insert backgrounds such as wallpaper and gradients.

- Associate push buttons with function keys and macros.

- Insert frames around selected fields.

- Map function keys.

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

- Design requester screens for specific groups of users.

Screen Designer Provides Flexibility

Matterhorn Screen Designer not only opens up your current Tandem system to the client/server-technology. It also provides your company with the opportunity to evaluate and discuss the design of your current Tandem system. Does it offer the required flexibility? Are things perhaps too complex for the users? Is there a way to improve the system's current design? Quite often, the answers to these questions are: *no, yes*, and *yes*. And that's when Screen Designer comes into its own.

The Matterhorn Suite

Before we go on to explore Screen Designer in detail, 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*.

Matterhorn for Windows

Matterhorn for Windows forms the core of the Matterhorn Suite. Matterhorn enables you to access your legacy Pathway applications from the PC and run them as client/server-based applications.

Matterhorn is easy to install and configure; both on Tandem and on PC and it operates equally well on both Windows 3.*xx*, Windows 95, and Windows NT platforms. Your Pathway applications will be running graphic interfaces in no time.

With Matterhorn for Windows, the maintainability of your current Tandem system is intact. No cost and time-consuming application conversions are required. Programmers do not

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have to rewrite one single line of code when deploying Matterhorn for Windows.

As you may be aware, Screen Designer is designed to complement and extend Matterhorn for Windows. You cannot use Screen Designer without having implemented Matterhorn for Windows on your system. Matterhorn for Windows comes both as a 16- and a 32-bit application.

If you are already using Matterhorn for Windows it is very simple to get started with Screen Designer. For more information about using Matterhorn for Windows, please study the Matterhorn Setup and Reference 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 we have committed ourselves to provide the Tandem world with the best Internet/intranet 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 has 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.

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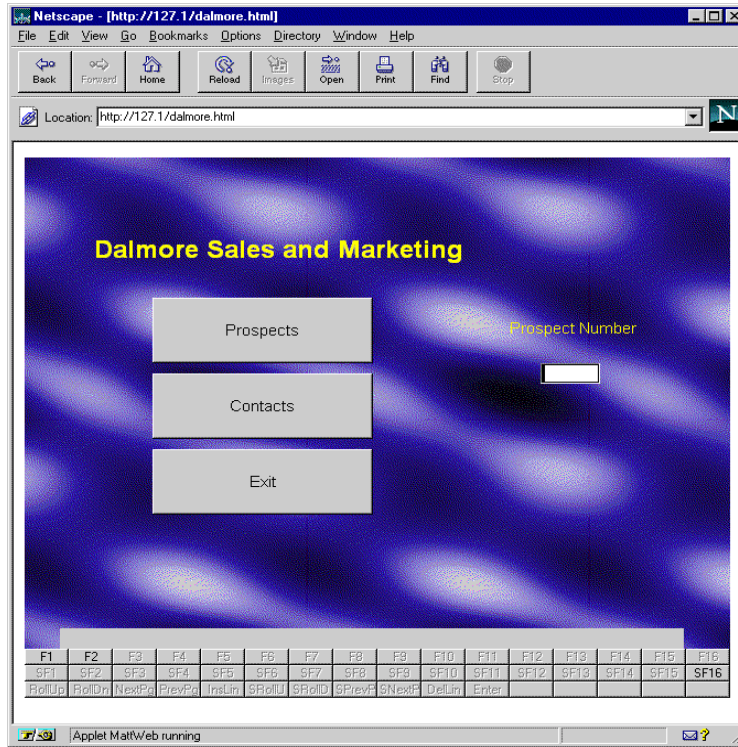
Figure 1.2: *A Tandem application running on the Word Wide Web. The browser is Netscape Navigator.*

For further information on using Screen Designer with MattWeb, turn to the MattWeb Setup and Reference Guide.

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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. For further information on using MattOpen, turn to the [MattOpen Developer´s Guide.](#)

Chapter 1:
Features of Screen Designer

This chapter presents the many powerful features of Matterhorn Screen Designer. Each feature will be further detailed in chapters 4 through 6.

The chapter is organized as follows:

➢ Features of Screen Designer

➢ Fonts and Colors

➢ Buttons, Frames and Graphics

➢ Backgrounds and Gradients

➢ Multimedia and Tabbed Notebooks

➢ Keyboard Mapping

➢ Selection Lists and Entry Histories

➢ Double-Click Actions and Hints

➢ Matterhorn Macro Language

➢ Data Explorer
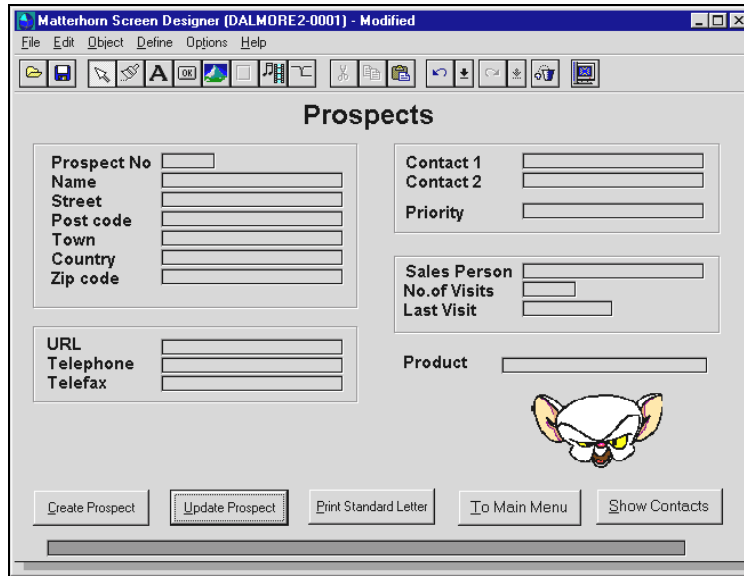
Figure 1.1: *Design your requester screens with Screen Designer.*

Features of 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 objects. Also, you may

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configure the requester to launch a macro as the user performs an accept of the screen, for instance when exiting or updating the requester or moving on to another requester.

Using Screen Designer you may create and associate selection lists and entry histories with edit fields. In addition, you may map function keys.

A new powerful feature in Screen Designer 5.0 is the ability to create *tabbed notebooks*. Tabbed notebooks enable you to organize the objects of a requester on separate tabs, just like most users know them from their Windows applications.

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.

All the changes you may make to your legacy Pathway applications using Screen Designer will make functionality more discoverable and make common tasks simpler and more efficient. Consequently, Screen Designer increases end-user productivity.

Fonts and Colors

Using Screen Designer you may adjust the color and font settings for text, fields and push buttons. Also, you may change the sizes of fonts, fields, and graphics. Changing fonts, colors, and sizes are discussed in Chapter 4, Elements of Screen Designer and Chapter 6, Using Screen Designer.

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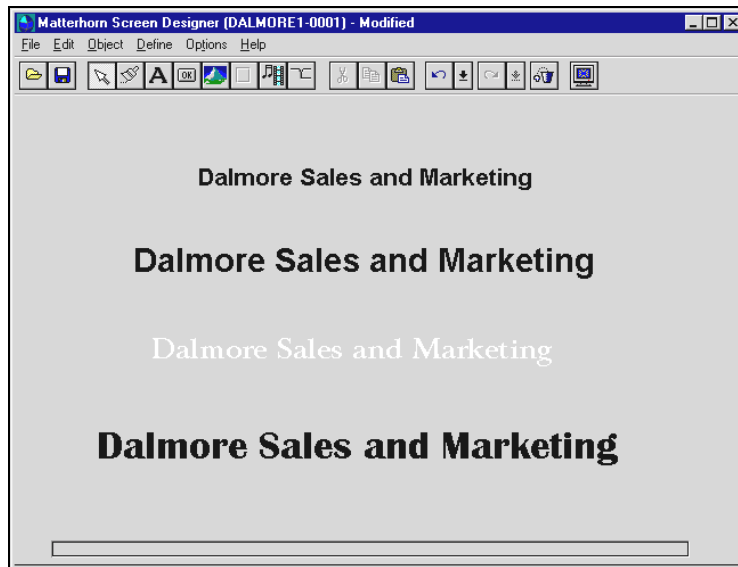
Figure 1.2: *Screen Designer enables you to change the font type, font, and color.*

Push Buttons

Using Screen Designer you may create and associate push buttons with function keys to make the screens easier to navigate.

Replacing function keys with buttons makes the screens mouse-driven as well as "keyboard-driven". This means that users no longer have to remember every keyboard routine, but simply click the button indicating the desired action. If, however, the user prefers to use the old function keys, these keys continue to work. In addition, Screen Designer allows you to define keyboard shortcuts, for instance Alt+C, that will perform particular actions.

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Associating push buttons with function keys is discussed in Chapter 4, Elements of Screen Designer and in Chapter 6, Using Screen Designer.
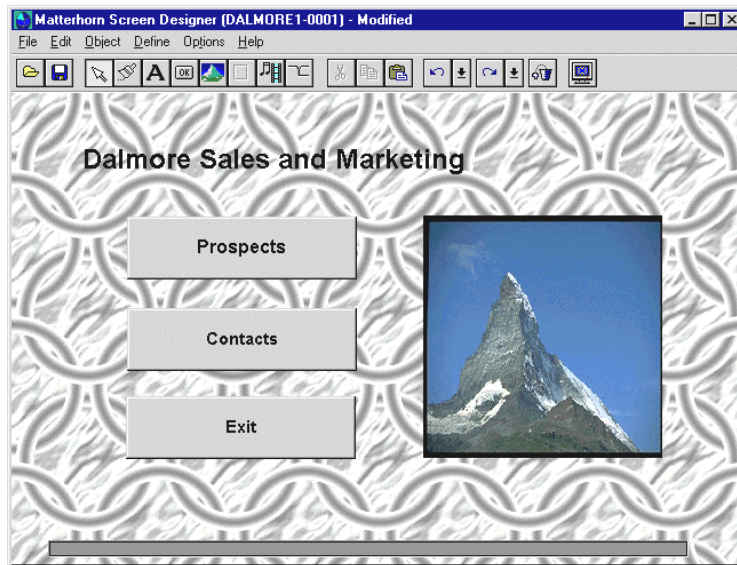
Figure 1.3: *With Screen Designer you may replace function keys with push buttons.*

Frames

In order to make a requester screen more organized you may group and frame fields or buttons that have similar meanings or purposes. In addition, you may assign various display effects to your frames. Working with frames is discussed in Chapter 4, Elements of Screen Designer and Chapter 6, Using Screen Designer.
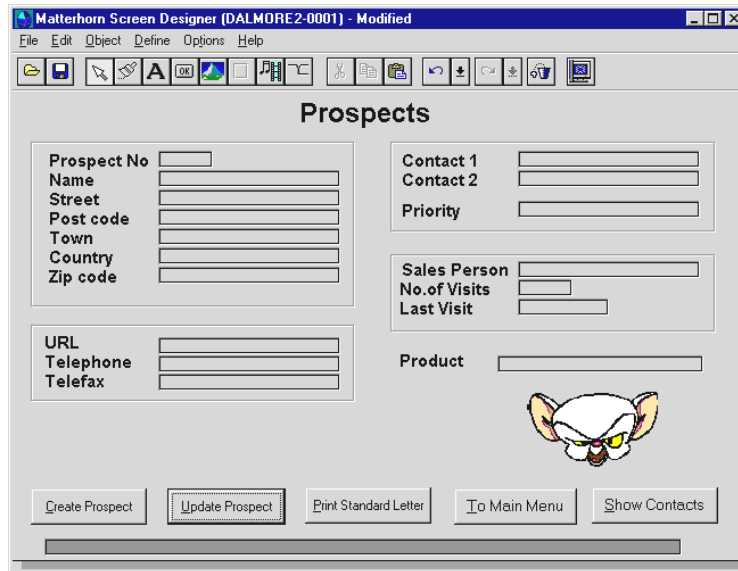
Figure 1.4: *Use Screen Designer to frame fields or buttons that are related or have similar meanings.*

Graphics

Screen Designer allows you to insert graphic objects into your requester screens. For instance, you may insert your own images such as company logos or products to support the general perception of the screen. Working with graphic objects is discussed in Chapter 4, Elements of Screen Designer, and in Chapter 6, Using Screen Designer.

Backgrounds and Gradients

Using Screen Designer, you may customize the background of the requester and insert wallpaper and define gradient fills.

Wallpapers and gradients fills do not exclude each other. Thus, you may have a gradient fill display behind a wallpaper image. Note that if the wallpaper covers the entire screen, the gradient will not display. This feature is discussed in Chapter 4, Elements of Screen Designer and in Chapter 6, Using Screen Designer.
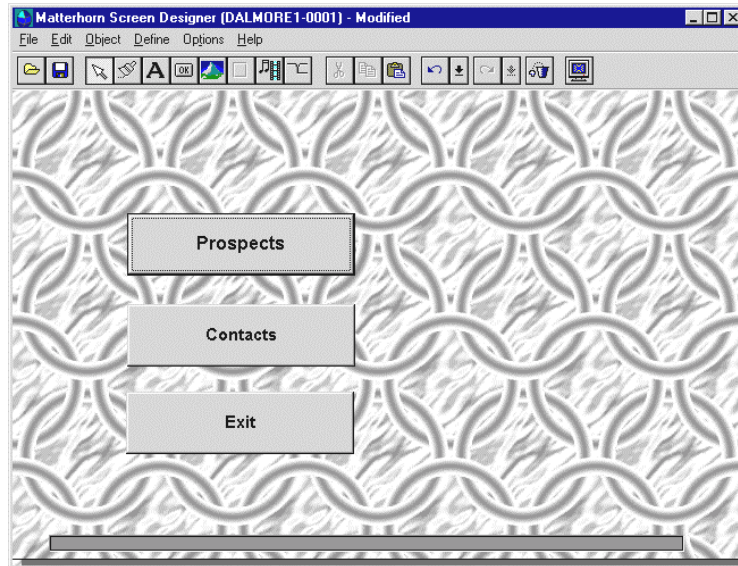
Figure 1.5: *With Screen Designer you may insert backgrounds to fashion your screens.*

Multimedia

Use Screen Designer to insert multimedia clips in your Tandem requesters. A multimedia clip may for instance be played automatically as the user launches or exits the requester. Alternatively, the multimedia clip may be associated with a picture or a button and then played during the Matterhorn session as the user clicks the button or bitmap.

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Screen Designer supports all MCI (Media Control Interface) extensions that your Windows version is able to handle.

A video clip may either be executed within the Matterhorn session window or in a separate window. Working with multimedia clips is thoroughly discussed in Chapter 6, Using Screen Designer.
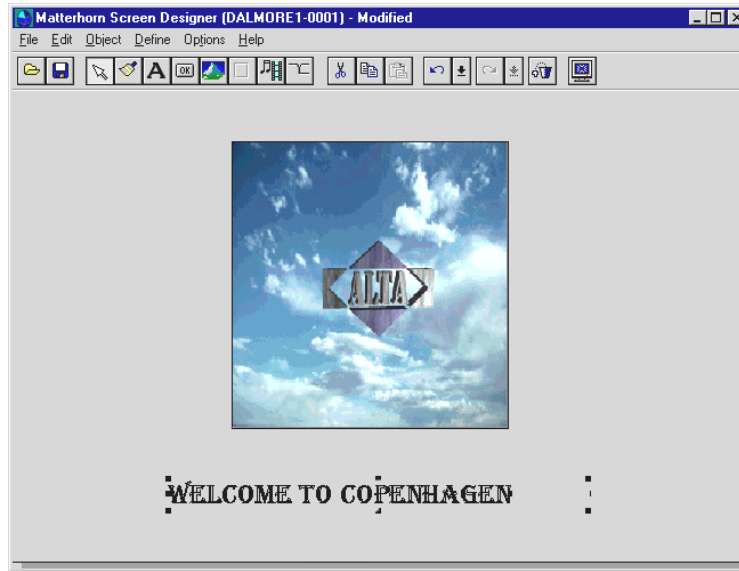
Figure 1.6: *With Screen Designer you may play multimedia clips from your Tandem requesters.*

Tabbed Notebooks

A new powerful feature in Screen Designer 5.0 is the ability to create *tabbed notebooks*. Tabbed notebooks enable you to organize the objects of a requester on separate tabs, just like most users know them from their Windows applications. Not only do tabbed notebooks help you organize the objects of your requesters better. They do also provide more space on

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the screen. By grouping the fields of a requester on separate tabs with meaningful titles, screens will appear less confusing to users. And the administrator who is in charge of designing screens will find it easy and fulfilling to work with tabbed notebooks. Tabbed notebooks are discussed in Chapter 4, Elements of Screen Designer and in Chapter 6, Using Screen Designer.
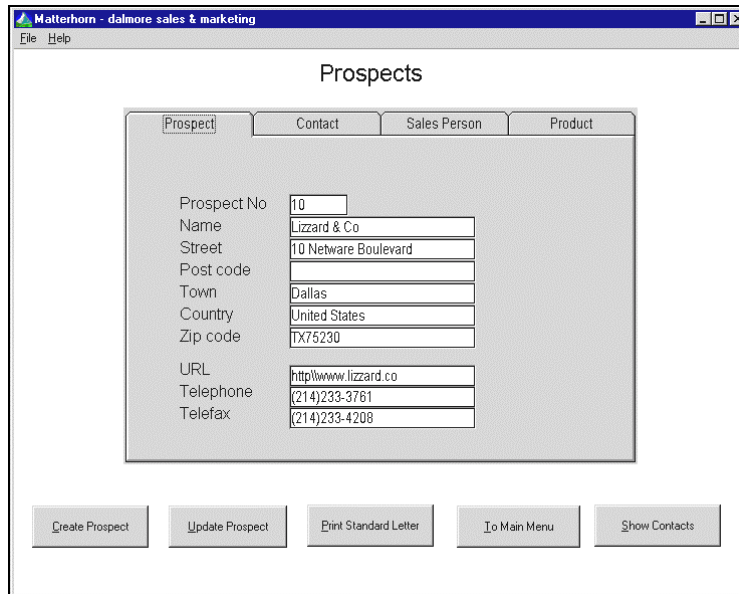
Figure 1.7: *With Screen Designer you may create tabbed notebooks to organize the objects of the requester better.*

Keyboard Mapping

Screen Designer allows you to map your Tandem terminal keys. This feature enables you to use new client/server keyboard layouts without having to change the requester code in terms of what function keys activate which functions in

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your legacy applications. For instance, you may map the SF16 Tandem key (exit screen) to Esc on a Windows 95 keyboard. For many users, the Esc key has become the natural way of exiting a screen.

Selection Lists

With Screen Designer you may associate selection lists with your edit fields.

A *selection list* is a fixed number of valid entries which can be used for a specific field. For instance, you may associate all valid zipcodes with a **Zipcode** field or all valid currency codes with a **Currency Code** field. When users right-click these fields, the valid values will be displayed in a dropdown list box. Associating a selection list with an edit field will ensure that users always select between valid values, preventing misspellings and other types of user input errors. Selection lists are discussed in Chapter 4, Elements of Screen Designer and in Chapter 6, Using Screen Designer.
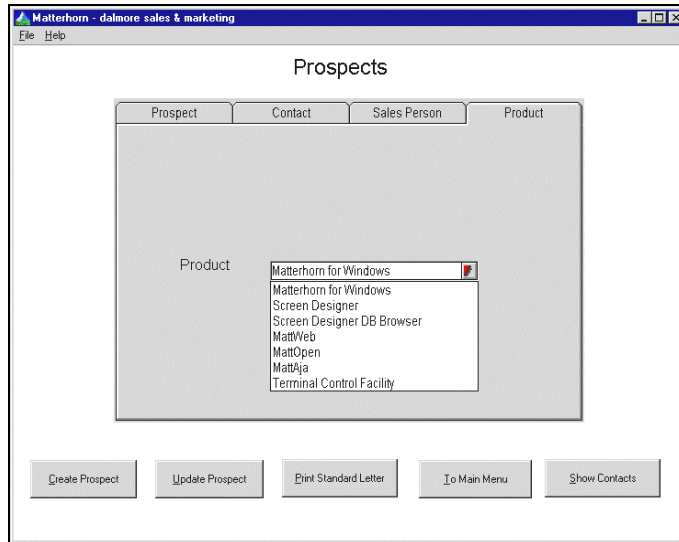
Figure 1.8: *Use Screen Designer to associate selection lists with edit fields.*

Entry Histories

An *entry history* is a list of the entries, or inputs, most recently made for a particular edit field. When you activate the option for a field in Screen Designer, the entry history will be displayed when the user clicks the field during execution. This will save time if the user often makes the same entries in specific fields.
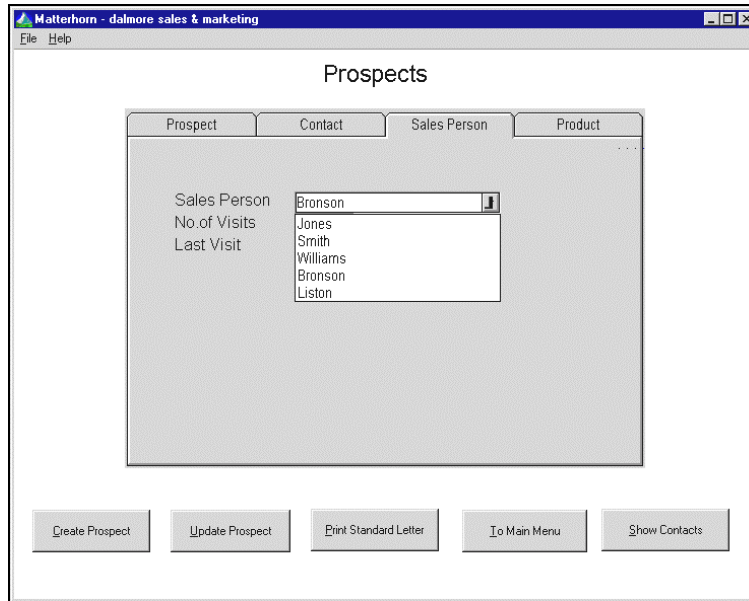
Figure 1.9: *Use Screen Designer to associate entry histories with edit fields. When the user clicks the fields, the most recently used user inputs will be displayed in a dropdown list box.*

Using entry histories is a quite flexible way of streamlining user inputs. An entry history is saved on a per-user basis in the user's personal Matterhorn initialization file. If, for instance, the same edit field appears in two different screens used by two different users (A and B) in two different departments (AA and BB), then two different entry histories will be generated. The entry history of user A will reflect his daily work, the entry history of user B will reflect her daily work. Entry histories are discussed in Chapter 4, Elements of Screen Designer and in Chapter 6, Using Screen Designer.

Hints

Hints are guiding texts, which may be associated with edit fields. The text will be displayed when the user points the mouse cursor to the field. Use hints, for instance, to instruct users about the purpose of a field. Hints are discussed in [Chapter 4, Elements of Screen Designer](#) and in [Chapter 6, Using Screen Designer.](#)
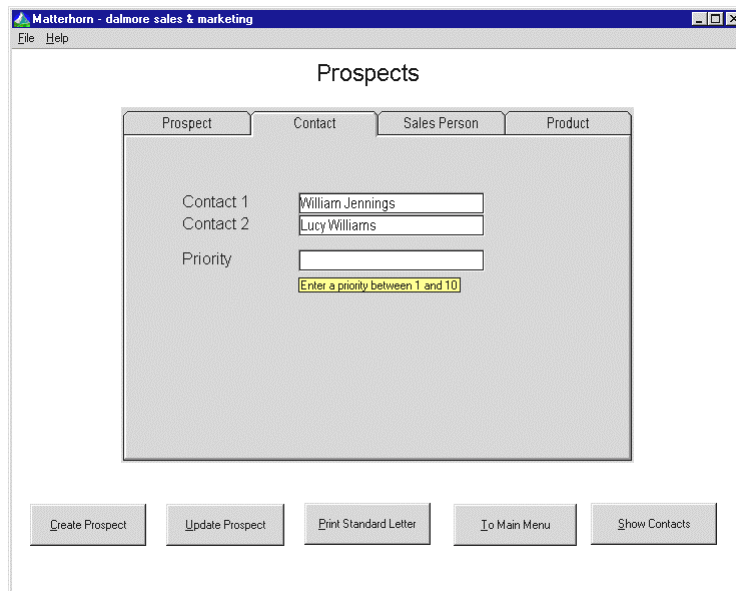
**Figure 1.10:** *Use Screen Designer to associate hints with your edit field. The hint will be displayed when the user points the cursor to the field.*

Double-Click Actions

Using Screen Designer, you may assign double-click actions to edit fields and multimedia objects. For instance, you may

associate an edit field with a function key or a macro and then assign a double-click to that edit field. When the user double-clicks the field the function key (or macro) will be executed. When the user double-clicks a multimedia object, the multimedia clip will be executed. Double-click actions are discussed in Chapter 6, Using Screen Designer.

Matterhorn Macro Language

Using the Matterhorn macro language, you may create your own macros and run them in order to set up dynamic-data exchange (DDE) conversations with other applications that support DDE; either Matterhorn sessions and/or any number of DDE-compatible applications, including Word and Excel. Note that the macro statements which are used for for DDE and DLL require a MattOpen license.

The Matterhorn macro language is an integral part of Screen Designer, which means that Screen Designer is the develop-ment tool you use when creating macros. It is also from Screen Designer that you associate the macros with the objects of a requester.

In this context, "associating" the macro with an object, refers to the process of relating the macro to either a button, an edit field, a multimedia object, a picture or the requester object. The user then activates the macro from the requester by clicking a button, entering certain data in an edit field, clicking a picture or a multimedia object, etc.

Matterhorn macro language is the subject of Chapter 7, Matterhorn Macro Language but you will also find a thorough description in chapters 9 through 13 in the MattOpen Developer's Guide.

Data Explorer

The Data Explorer productivity tool provides a fast and easy way of monitoring and maintaining your Screen Designer databases on a large scale. 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 requester and from one database to another database. 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. Data Explorer is part of your Screen Designer package. Read more in Chapter 8, Data Explorer.
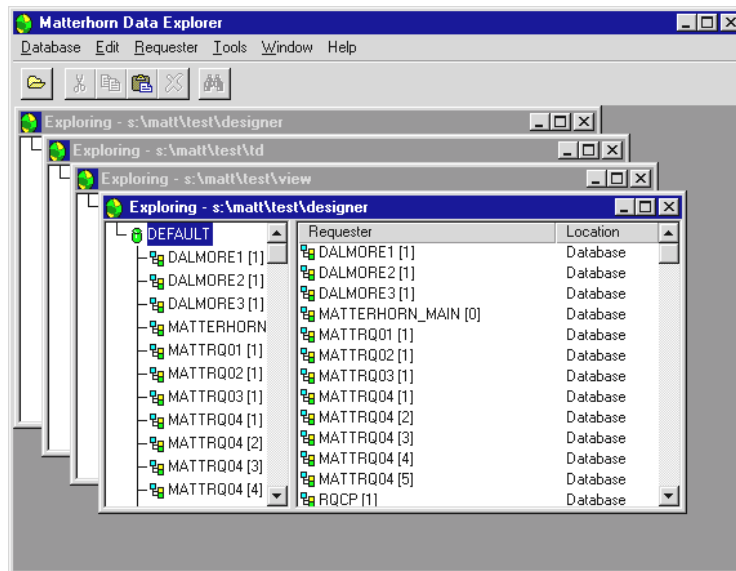
Figure 1.11: *Data Explorer allows you to work with several open databases at a time.*

Chapter 2:
Installing Screen Designer

T his chapter takes you through the installation procedure of Screen Designer. Since this process is part of installing the Matterhorn Client, the chapter briefly repeats this procedure before it goes on to explain the creation of Screen Designer and Data Explorer icons and how to run the designed Pathway applications, i.e. requesters, as a Matterhorn session.

The chapter is organized as follows:

➢ The Screen Designer Package

➢ System Requirements

➢ Installing Screen Designer

➢ Screen Designer and Matterhorn Profiles

➢ Creating Profiles and Icons

➢ Preparing a Screen Designer Session on Tandem

➢ Summing Up

➢ Running a Redesigned Requester

The Screen Designer Package

Screen Designer is part of Matterhorn for Windows. It will automatically be instored, along with Data Explorer, when you select to install Matterhorn for Windows on the Matterhorn Suite CD-ROM.

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.

System Requirements

To install and use Matterhorn Screen Designer you need to install a licensed version of Matterhorn for Windows (the Matterhorn Pathway system and the Matterhorn Client). On PC, the following minimum requirements should be matched:

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

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

The installation of the Matterhorn Pathway system is thoroughly described in the Matterhorn for Windows Setup and Reference Guide.

Note that Screen Designer and Matterhorn for Windows exist as both 16- and 32-bit applications. The 16-bit versions do not run at optimum performance on a Windows NT 4.0 platform.

Installing Screen Designer

Screen Designer is installed as part of installing the Matterhorn Client on PC. The Data Explorer productivity tool will also be installed on this occasion.

Note that the installation process will not create Screen Designer or Data Explorer icons, but a Matterhorn Profile Utility icon. You must run the Matterhorn Profile utility to fully install Screen Designer. Turn to the section Creating Profiles and Icons later in this chapter.

Running the InstallShield Wizard

To install Screen Designer and Data Explorer:

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 to work with Screen Designer and Data Explorer.

Screen Designer and Matterhorn Profiles

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

A Matterhorn profile is the initialization file which Screen Designer and the Matterhorn Client use at runtime. The profile informs the Matterhorn Client and Screen Designer with information necessary for addressing the Tandem system and executing the current session on PC.

Screen Designer and the Matterhorn Client use identical versions of the same Matterhorn profile, but for two different purposes:

- Basically, the Matterhorn profile tells *Screen Designer* which requesters may be loaded into Screen designer for redesigning.

- When used by the *Matterhorn Client*, the profile informs the client which session to execute. Matterhorn will use the information in the Screen Designer database to display the redesigned versions of the requesters.

Thus, in order to prepare Screen Designer for the connection with the Matterhorn Pathway system on Tandem and to inform the Matterhorn Client of which session to execute, the Matterhorn profile must be created and attached to the Screen Designer and Matterhorn executable files. This process is described in the following sections Creating Profiles and Icons and Working with Matterhorn Profiles.

For more information about Matterhorn profiles, turn to Chapter 10, The Matterhorn Profile in the *Matterhorn for Windows Setup and Reference Guide.*

Creating Profiles and Icons

When you are creating the icon needed for launching Screen Designer, 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. You can read more about Matterhorn profiles in a previous section.

There are two similar approaches to creating profiles. 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. In this manual we will only describe the Profile Wizard. The advanced profile setup is discussed in the Matterhorn for Windows Setup and Reference Guide.

Note that Matterhorn and Data Explorer icons may also be created when you run the Matterhorn Profile Utility.

Using the Profile Wizard

The most simple way to create a new Matterhorn profile and attach it to Screen Designer 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 six windows, which prompts you for various types of information related to the Matterhorn profile and creating the icons.

3. The first window is labeled **Profile Name**. Use this window to enter the name of the Matterhorn profile. If

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you wish to edit an existing profile, click the **Browse** button and locate the file. Click **Next** to continue.
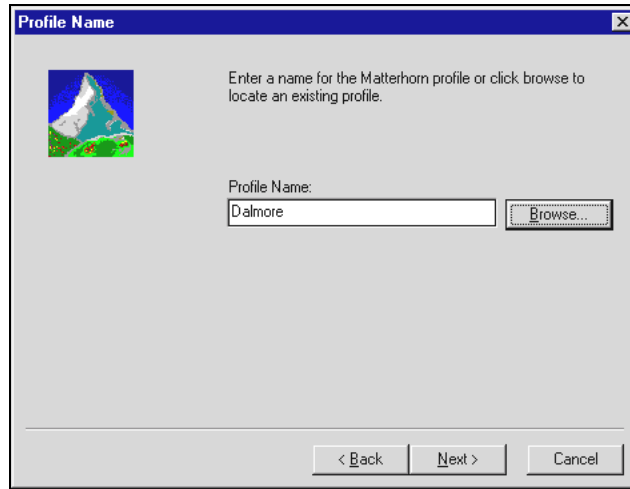
Figure 2.1: *The **Profile Name** window.*

4. In the **RSC Connection Information** window, enter the filename of the relevant RSC initialization file (16- or 32-bit version) and the RSC section name. RSC forms the transport layer between the Tandem and the PC. Click **Next** to continue.
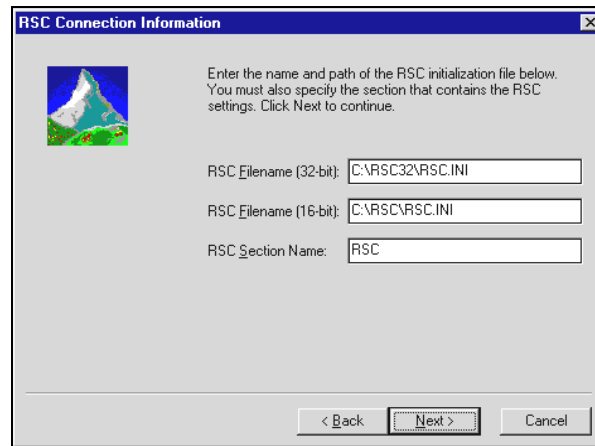
Figure 2.2: *The **RSC Connection Information** window.*

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. The window contains the following fields:

Session Name The unique name of the Screen Designer session (or Matterhorn session). This name is identical to the session name specified in Matterhorn Configuration, see the section Preparing a Screen Designer Session on Tandem later in this chapter.

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.

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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.
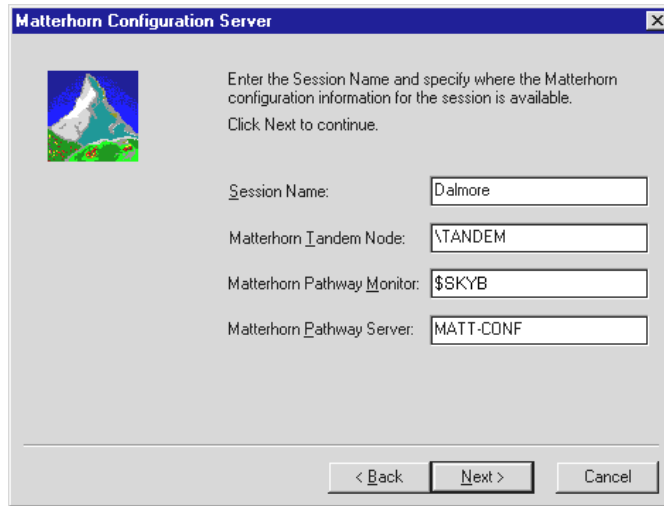
Figure 2.3*: The **Matterhorn Configuration Server** window.*
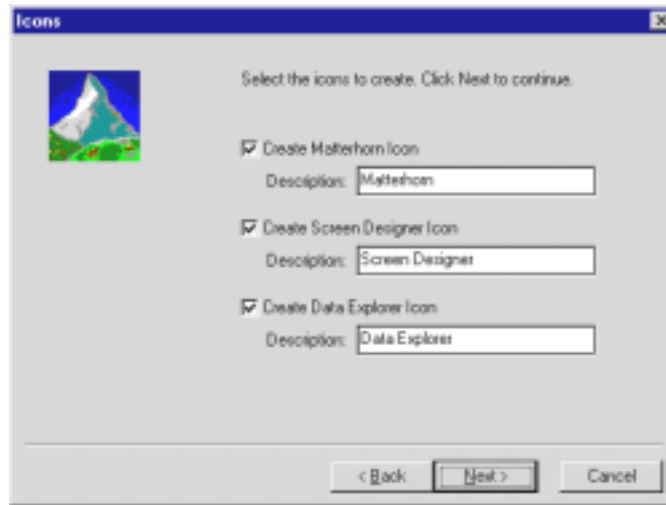
Figure 2.4: *In the **Icons** window, select the icons to create.*

6. In the **Icons** window, select the icons to create. Matterhorn Profile Utility will 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.

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

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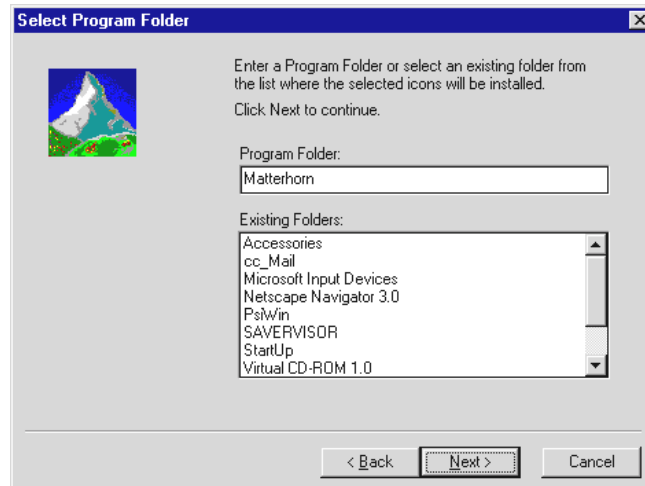
Figure 2.5: *The **Select Program Folder** window.*

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

Preparing a Screen Designer Session on Tandem

In many ways, a Screen Designer session resembles a Matterhorn session. They both use the same Matterhorn profile and consequently use the same Session Name key to locate the relevant record in the MATT-CONF server on the Tandem.

Unlike Matterhorn sessions, though, Screen Designer sessions do not display the screen indicated in the field **Initial Requester** of the Session Name in question. Instead, Screen Designer displays an empty application window. Once Screen Designer is running, you may open any requester that it may

locate using the POBJ search paths indicated in the **POBJ Search Path** window.
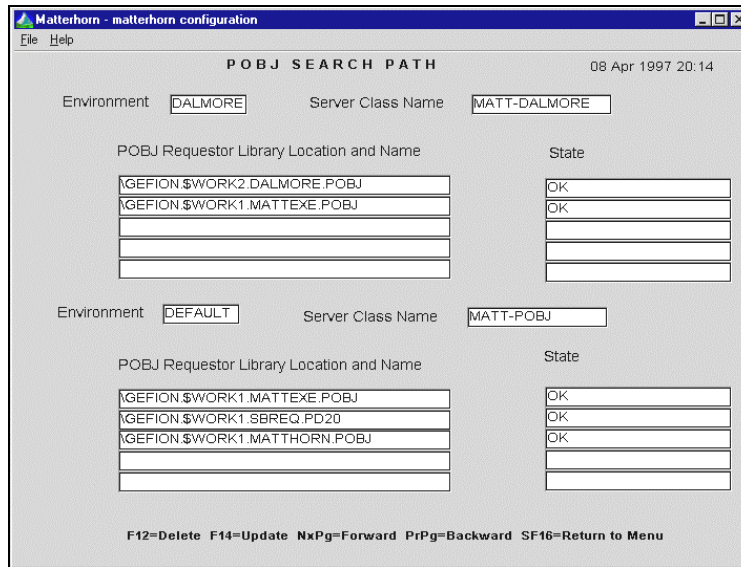
Figure 2.6: *The search paths indicated in the **POBJ Search Path** window determine which requesters may be loaded into Screen Designer.*

Other fields in Matterhorn Configuration, which are relevant to Screen Designer, is located in the **Miscellaneous** section (see also Figure 2.7):

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

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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.
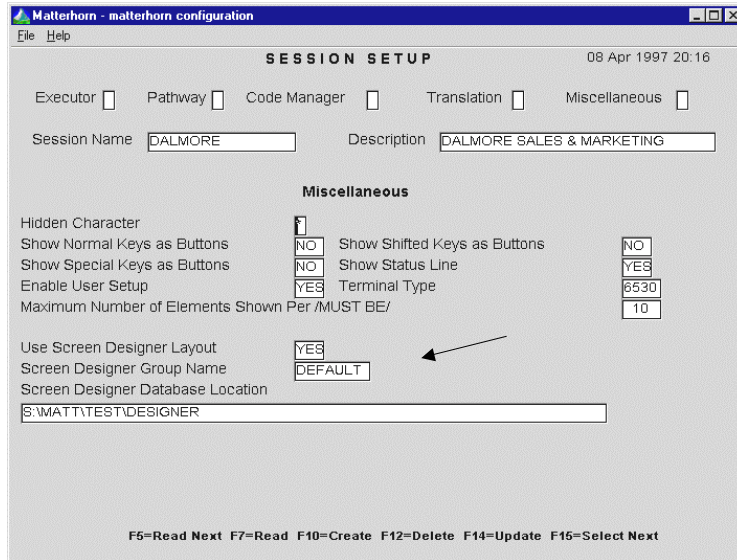
Figure 2.7: *Use the **Miscellaneous** section to enter information necessary to run Screen Designer.*

Screen Designer Database Location

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

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You must enter a path to a database in this field before you can design requesters with Screen Designer. Screen Designer will create the database the first time you run Screen Designer.

Summing Up

This section sums up the stages involved when creating a Screen Designer session.

On PC

- Use the Matterhorn Profile utility to create and attach a Matterhorn profile to the relevant Matterhorn and Screen Designer icons. The Session Name indicated in the profile must also exist as a session in Matterhorn Configuration.

On Tandem

- In Matterhorn Configuration, the Session Name in question must contain valid POBJ search paths leading to the requesters you wish to open and redesign. Check the **POBJ Search Path** window to verify or change these settings.

- In Matterhorn Configuration, the Session Name in question must contain valid entries in the fields **Use Screen Designer Layout**, **Screen Designer User Group**, and **Screen Designer Database Location**.

Running a Redesigned Requester

To run the Windows version of the Tandem requesters, click the related Matterhorn session icon. The Matterhorn Client will visualize the session in accordance with the changes you have made to the requesters with Screen Designer.
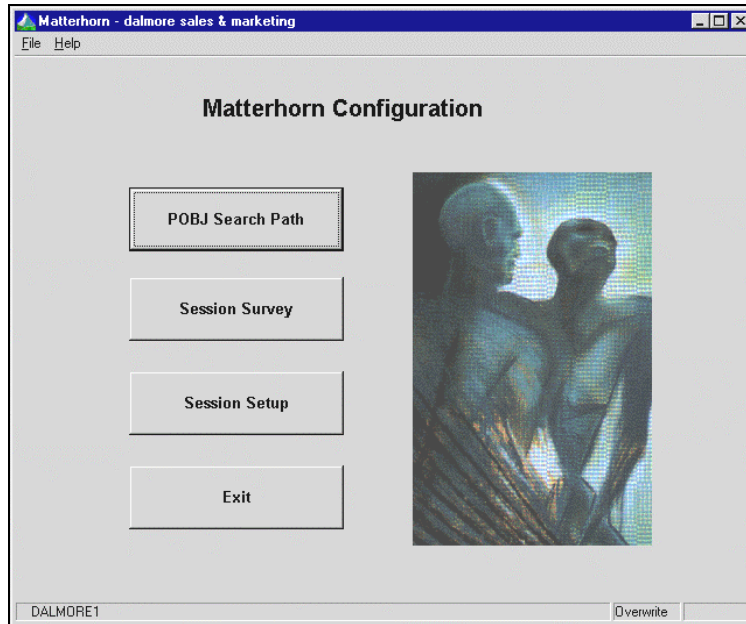
Figure 2.8: *Preview your applications before use.*

Chapter 3:
How Does Screen Designer Work

T his chapter is intended to explain the operation of Screen Designer. The chapter will illustrate the interaction of Screen Designer and Matterhorn Client.

The chapter is organized as follows:

➢ Matterhorn and Screen Designer

➢ Screen Designer Objects

➢ The Screen Designer Database

➢ Operation Flow

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Matterhorn and Screen Designer

Screen Designer is designed to extend Matterhorn for Windows. You cannot use Screen Designer without having implemented Matterhorn on your system.

As you have already learned, Matterhorn for Windows makes your Tandem system completely open to the client/server technology. The Matterhorn Client transfers the object code of the requester from the Tandem POBJ to the PC and executes it from here. This means that the PC is entirely in control of the user interfaces and that computing technologies like DDE-conversation, DLLs, and multimedia will be available to your Pathway applications.
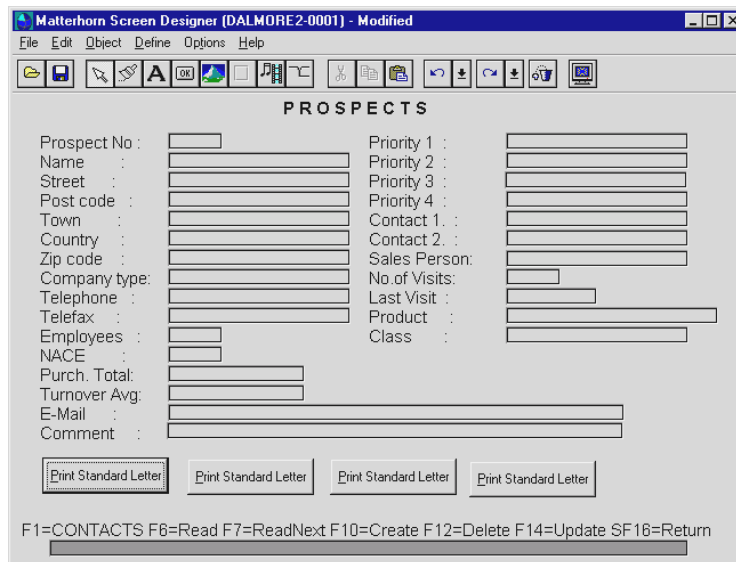
Figure 3.1: *In Screen Designer, requester screens will be displayed in the main area. Each screen element is considered an object.*

When you are working with Screen Designer, the program copies the screen section of the requester's object code to the PC and displays it in a template application window. In this window, as you will see in later chapters of this manual, you may manipulate each screen object on various levels.

Screen Designer Objects

When you open a Pathway requester in Screen Designer, the requester will be displayed in a template application window exactly as were it being executed as a Matterhorn session. If you have never run the requester as part of a Matterhorn session this will give you an idea of how it will be executed under Matterhorn.

As you will learn, the term o*bject* is a core term in Screen Designer. The basic objects are *edit fields* (known as *fields* on the Tandem) and *text fields* (known as *fillers* on the Tandem). In addition, you may use Screen Designer to add new objects to your screens, including frames, panels, push buttons, graphics, multimedia objects, and tabbed notebooks.

Another important object in Screen Designer is the *requester object.* The requester object is the background on which all other objects are placed. Each requester has got but one requester object. You cannot delete the requester object or create new requester objects with Screen Designer.

The Screen Designer Database

When using Screen Designer you create and relate a database of information to the object code of your Tandem requesters. The database will store information about advanced screen layout, available selection lists, macros etc. Subsequently, Matterhorn will use the information in the database when displaying the screen during a Matterhorn session.

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Note that you must indicate a path to the Screen Designer database before you can redesign your requesters. This path is specified in the **Miscellaneous** section of the Matterhorn Configuration program; more precisely in the field **Screen Designer Database Location**. Screen Designer databases may be located either on the Tandem or on the PC.

Data Explorer

The Data Explorer productivity tool provides a fast and easy way of monitoring and maintaining your Screen Designer databases on a large scale. 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 requester, from one database to another database. Data Explorer enables you to move from test to production in a matter of seconds. Data Explorer is part of your Screen Designer package. Read more in Chapter 8, Data Explorer.

Operation Flow During a Matterhorn Session

This section is intended to explain the operation and interaction of the Matterhorn Client, the Matterhorn Pathway system, and the Screen Designer database at runtime. 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.

Each Matterhorn session is identified by an icon in your Matterhorn program group. When you double-click a Matterhorn session icon, the following actions 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 directory C:\Matt.

2. The Matterhorn profile is crucial to the Matterhorn Client. It provides Mattwin.exe with five important pieces of information: 1) a pointer to RSC. (RSC 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 server holding the configuration settings for the current session; 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
   ```

   Figure 3.2: *The Matterhorn profile provides the Matterhorn Client with information necessary for addressing the Tandem system.*

3. With the information from the profile at hand, the Matterhorn Client first establishes the connection to the Tandem via 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 the Session Name (see Figure 3.3). This information is stored in a unique record. This record provides the Matterhorn Client with the information necessary to address the session on Tandem, including the search path of the POBJ requester environment and 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. If the record also informs that Screen Designer layout should be used for this requester and the path for the associated Screen Designer database, the Matterhorn Client will register this information.

PC   **Pathway System $SKYB**
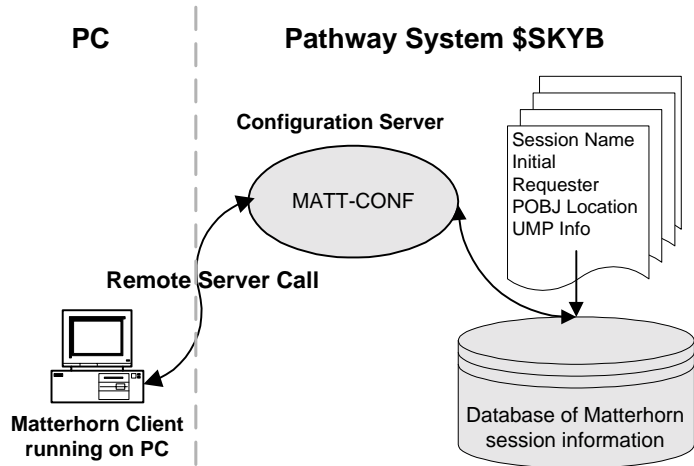
Figure 3.3: *The Matterhorn Client consults the MATT-CONF server for information about which session to execute and how.*

5. The Matterhorn Client then consults the MATT-POBJ server for the location of the POBJ and the name of the initial requester. The requester source code will be identified and transferred to the PC.

6. Finally, the Matterhorn Client will interpret and execute the requester on the user's PC. If Matterhorn has been instructed to use a Screen Designer layout, it will consult the Screen Designer database at this point and search for the name of the current requester. If a match is found, Matterhorn will display the screen according to the contents of the database.
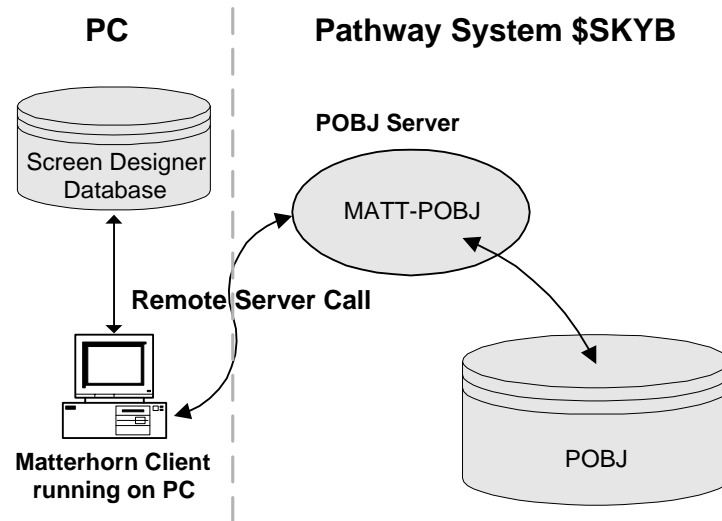
Figure 3.4: *The Matterhorn Server MATT-POBJ will locate and submit the requester's object code to the Matterhorn Client. After having consulted the Screen Designer database, the Matterhorn Client will visualize the screen.*

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Chapter 4:
Elements of Screen Designer

T his chapter will familiarize you with the components of the Screen Designer application window. The user interface is described in detail and you will learn about using both the mouse and the keyboard.

The chapter is organized as follows:

- ➤ The Screen Designer Application Window

- ➤ The Menus

- ➤ The Tool Bar

- ➤ The Object Inspector

- ➤ Format Painter

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The Screen Designer Application Window

Figure 4.1 depicts the Screen Designer application window. This window is the work place when designing requester screens. Note that all screen shots in this manual have been shot under Windows 95.

The Screen Designer application window consists of the main work area, the menu bar, the tool bar, and the canvas. The various menu options are described in detail in the section The Menus. The tool bar is discussed in the section The Tool Bar.

You may resize the application window to fit your demands. To change the size, drag the window border. Note that the size of the requester will always be fixed. As you enlarge the window, a canvas will be displayed.

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Figure 4.1*: The Screen Designer application window.*

Please note that the general operation of the Windows user interface is described in your Windows documentation and will not be repeated here. Your Windows documentation describes the general conventions of the Windows Graphical User Interface (GUI) such as operation of the pull-down menus, selection of file names, and operation of dialog boxes.

The Main Work Area

The main work area is the large blank area you use to design your requester screens.

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Figure 4.2: *Requester screens will be displayed in the main area.*

The Title Bar

The title bar displays *Matterhorn Screen Designer* along with the name and screen number of the requester currently loaded. To move the Screen Designer application window, point the mouse cursor to the title bar and drag.

The Menu Bar

The menu bar runs just below the title bar. The menu bar holds all of Screen Designer's pull-down menus that will help you to open, fashion, optimize and save your requester screens. The section The Menus in this chapter describes the operation of each menu and menu option. In Chapter 6, Using Screen Designer, you will find an in-depth discussion of the application of each menu option.

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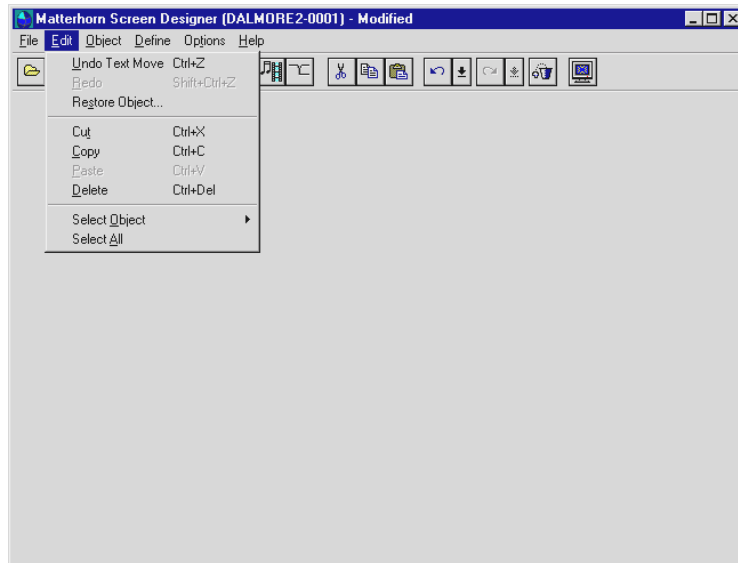
Figure 4.3: *The Screen Designer menu bar.*

The Tool Bar

The tool bar runs just below the menu bar. The tool bar consists of icons each representing a tool or option which you can use when screen designing. The section The Tool Bar in this chapter describes the operation of each icon in the tool bar. In Chapter 6, Using Screen Designer, you will find a thorough discussion of the application of each icon in the tool bar.
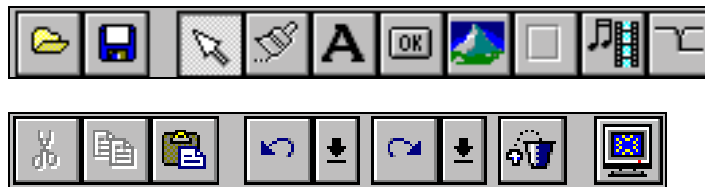
Figure 4.4: *The Screen Designer tool bar.*

The Canvas

As mentioned, you may resize the Screen Designer application window. Enlarging the window will display the canvas area (see Figure 4.5).
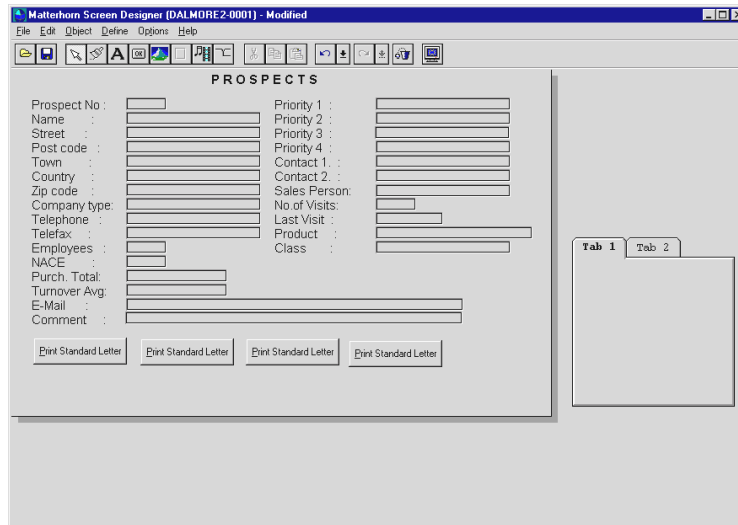
Figure 4.5: *Use the canvas as a temporary working area when designing tabbed notebooks.*

Use the canvas as a working area when creating and formatting tabbed notebooks or other large objects. Gridlines will continue to show on the canvas.

Note that the canvas works as a *temporary* working area. You cannot save a requester if its objects are still located on the canvas. To move an object to the canvas, select the object and drag it with the mouse.

The Menus

This section takes you through the menus and menu options of the Screen Designer menu bar.

The File Menu

The **File** menu controls the flow of information into and out of Screen Designer. The **File** menu provides five different options:

➢ Open Requester

➢ Save Requester

➢ Save Requester in Group

➢ Select Group

➢ Show Messages

➢ Launch Data Explorer

➢ Exit

➢ Recent File List
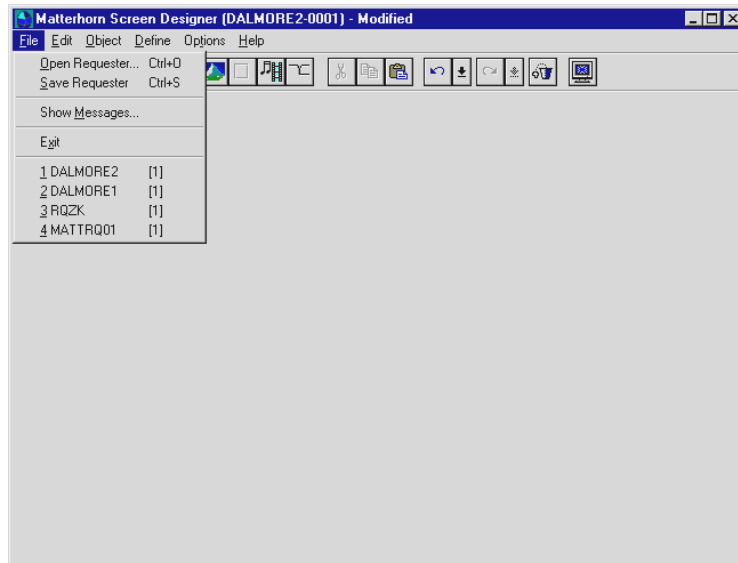
Figure 4.6: *The **File** menu.*

Open Requester

To open a requester, select **Open Requester** from the **File** menu. In the **Open Requester** dialog box, enter the name of the requester in the **Requester Name** field and, if relevant, the appropriate screen number in the **Screen Number** field. If you do not enter a screen number, Screen Designer will select screen number 1. Click the **OK** button to load the requester. The requester name and screen number will appear from the title bar while the requester is loaded.

Please note that you may only work with one requester at a time.
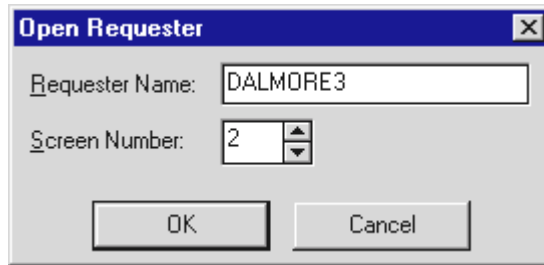
Figure 4.7: *The **Open Requester** dialog box.*

Save Requester

To save the requester, select **Save Requester** from the **File** menu. The requester will be saved under the name shown in the title bar.

Information about your modifications to the screen layout will be saved in a separate database. The next time you run the requester, the Matterhorn Client will use this information to display the screen.

Save Requester in Group

Use this command to save the current requester in a different user group. In the **Save Requester in Group** dialog box, select the group in which you wish to store the requester. Note that you can also create new groups from this dialog box, and that two or more user groups cannot have identical names.

Select Group

To select or create a new group, pick **Select Group** from the **File** menu. In the **Database Groups** dialog, type the name of the group or select the name of an existing group. Note that two or more user groups cannot have identical names.

Show Messages

This option will display error messages from the Tandem. The window corresponds to the **Messages** window that will sometimes be displayed during a Matterhorn session.

Launch Data Explorer

To launch Data Explorer from Screen Designer, select **Launch Data Explorer** from the **File** menu. Data Explorer is further detailed in [Chapter 8, Data Explorer](#).

Exit

To exit Screen Designer, select **Exit** from the **File** menu.

Recent File List

At the bottom of the **File** menu you will see the names of the four most recently loaded requesters. Select the name with the mouse to open the requester.

The Edit Menu

Using the commands in the **Edit** menu you may undo and redo lasts actions, cut, copy, paste and delete object, and select objects by their type. The **Edit** menu provides these options:

➢ Undo

➢ Redo

➢ Restore Object

➢ Cut

➢ Copy

- ➢ Paste
- ➢ Delete
- ➢ Select Object
- ➢ Select All

Undo

Select this command to undo your last action. Alternatively, press Ctrl+Z or click the **Undo** button.

Redo

Select this command to redo your last undo action. Alternatively, press Shift+Ctrl+Z or Shift+Alt+Backspace or press the **Redo** button.

Restore Objects

To restore deleted objects, select **Edit**, **Restore Object**. This will open the **Restore Objects** window. Highlight the object(s) you wish to restore and click **OK**.

Cut

Use this command to cut the selected object(s) from Screen Designer and place them on the Clipboard. Alternatively, press Ctrl+X or Shift+Delete. Objects which have been cut, may be inserted into another requester.

Copy

Use this command to copy the selected object(s) to the Clipboard. Alternatively, press Ctrl+C or Ctrl+Insert. **Copy**

may be used, for instance, to copy objects from one requester to another.

Paste

Use this command to paste the contents of the Clipboard into the Screen Designer main area. Alternatively, press Ctrl+V or Shift+Insert. You cannot paste edit fields.

Delete

Use this command to delete the selected object(s). Alternatively, press Ctrl+Delete or simply Delete. As a rule, the deletion will not be permanent until you save the requester. Until then, the objects may still be accessed and restored from the **Restore Objects** window. Note that this rule does not apply to text objects and edit fields. These objects may still be restored after you have saved the requester.

Select Object

Use this options to select all objects of the same type. For instance, to select all text objects, select **Edit**, **Select Object**, **Text**. For further information on selecting objects in Screen Designer, turn to the section <u>Selecting an Object</u> in Chapter 5, *Screen Designer Objects.*

Select All

Use this command to select all objects on the screen. The option is useful, for instance if you wish to move all objects on screen at the same time. For further information on selecting objects in Screen Designer, turn to the section <u>Selecting an Object</u> in Chapter 5, *Screen Designer Objects.*

The Object Menu

Each screen element in the main work area is referred to as an *object*. Thus, an object may be either a text object, an edit field, a button, a picture, a frame, a multimedia clip or a tabbed notebook.

Another important object in Screen Designer is the *requester object*. The requester object is the background on which all other objects are placed. Each requester has got but one requester object. You cannot delete the requester object or create new requester objects with Screen Designer, but you may customize it on various levels.

Apart from edit fields and the requester object, all other objects may be created using the **Object** menu. Once in the main area, each type of object may be subject to different forms of formatting.

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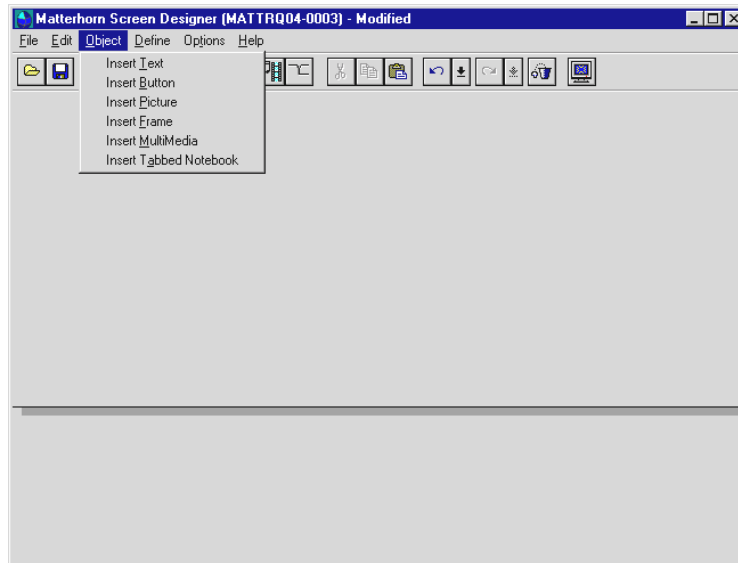
Figure 4.8: *The **Object** menu.*

The **Object** menu provides the following options:

➢ Insert Text

➢ Insert Button

➢ Insert Picture

➢ Insert Frame

➢ Insert Multimedia

➢ Insert Tabbed Notebook

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Insert Text

To insert a new text object, select **Insert Text** from the **Object** menu. The text object will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the object. You may now use the Object Inspector to format the text object on various levels. Finally, use the mouse to drag the object to the desired location. For more information about working with text objects, turn to Chapter 6, Using Screen Designer.
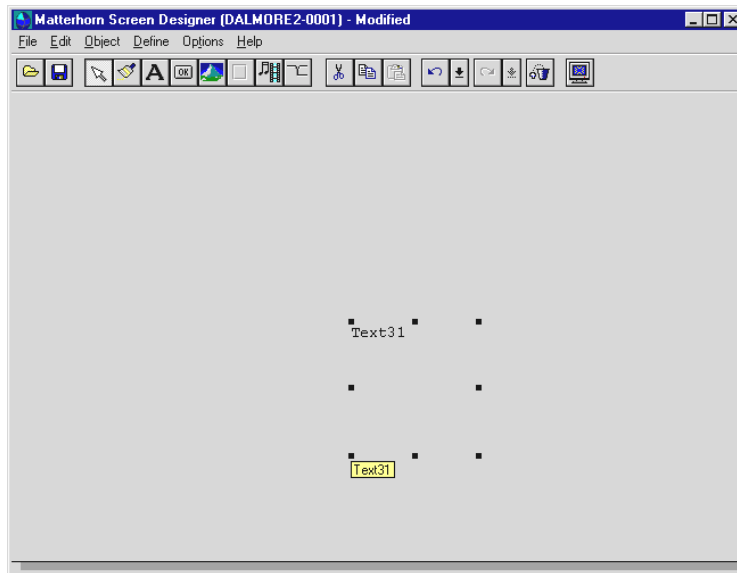
Figure 4.9: *A text object has been inserted in the centre of the main area.*

Figure 4.10: *Use the Object Inspector to format the text object.*

Insert Button

To insert a new button and associate it with a function key, a macro, a multimedia clip or - if you are using MattWeb - an URL, select **Insert Button** from the **Object** menu. The button will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the button. You may now use the Object Inspector to format the button on various levels. Finally, use the mouse to drag the button to another location. For more information about working with buttons, turn to Chapter 6, Using Screen Designer.
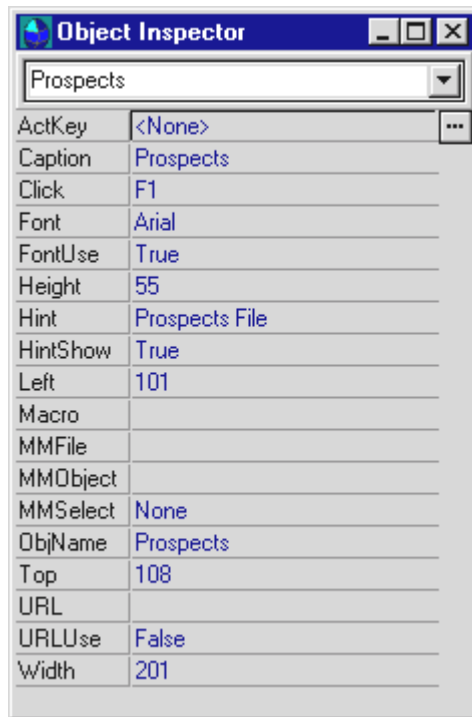
Figure 4.11: *Use the Object Inspector to format the button.*

Insert Picture

To import a graphic image, select **Insert Picture** from the **Object** menu. A blank picture object will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the picture. In the Object Inspector, click the **Filename** property to open the **Open Picture** dialog box. In the **Open Picture** dialog box, locate the desired image. Screen Designer supports the following graphic formats; GIF, JPG, PCX, BMP, TIF and PNG. Click the **OK**

button to associate the image with the picture object. Back in the Object Inspector, format the picture on various levels. Finally, use the mouse to drag the picture object to another location. For more information about working with graphic images, turn to Chapter 6, Using Screen Designer.


Figure 4.12: *The **Open Picture** dialog box.*

Insert Frame

To insert a frame, select **Insert Frame** from the **Object** menu. A blank frame object will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the frame. Use the Object Inspector to format the frame on various levels. Finally, use the mouse to drag the button to another location. For more information about working with frames, turn to Chapter 6, Using Screen Designer.

Insert Multimedia
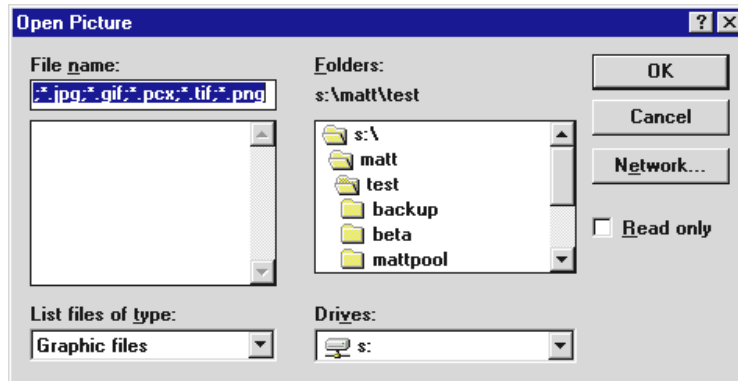
To insert a multimedia object, select **Insert Multimedia** from the **Object** menu. A blank multimedia object will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the multimedia object. Use the Object Inspector to assign a multimedia file to the object and to set other properties related to the appearance of the multimedia clip when played. For more information about working with multimedia, turn to Chapter 6, Using Screen Designer.

Insert Tabbed Notebook

To insert a tabbed notebook, select **Insert Tabbed Notebook** from the **Object** menu. A blank tabbed notebook object will be inserted in the centre of the main work area. The Object Inspector to the right of the Screen Designer application window will display a set of default properties related to the object. Use the Object Inspector to determine the number of tabs on this notebook, give them meaningful titles and customize them on various levels. For more information about working with tabbed notebooks, turn to Chapter 6, Using Screen Designer.

The Define Menu

The **Define** menu enables you to define entry histories, selection lists and create simple macros. It is also from the **Define** menu that you map function keys and work with the powerful feature Requester Replace. Entry histories and selections list are thoroughly discussed in Chapter 6, Using Screen Designer**.** The Matterhorn macro language is discussed in Chapter 7, Matterhorn Macro Language and in the MattOpen Developer's Guide.
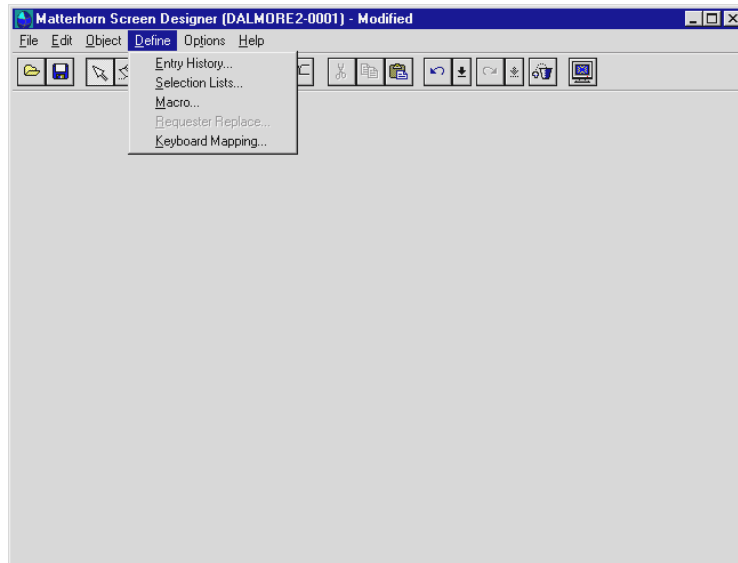
Figure 4.13: *The **Define** menu.*

The **Define** menu provides the following options:

➢ Entry Histories

➢ Selection Lists

➢ Macro

➢ Requester Replace

➢ Keyboard Mapping

Entry History

An *entry history* is a list of the entries, or inputs, most recently made for a particular edit field. When the user right-clicks the

field during a Matterhorn session, the entry history will be displayed. This will save time if the user often makes the same entries in specific fields.

Using entry histories is a quite flexible way of streamlining user inputs. An entry history is saved on a per-user basis in the user's personal Matterhorn initialization file. If, for instance, the same edit field appears in two different screens, used by two different users (A and B) in two different departments (AA and BB), then two different entry histories will be generated. The entry history of user A will reflect his daily work, the entry history of user B will reflect her daily work.
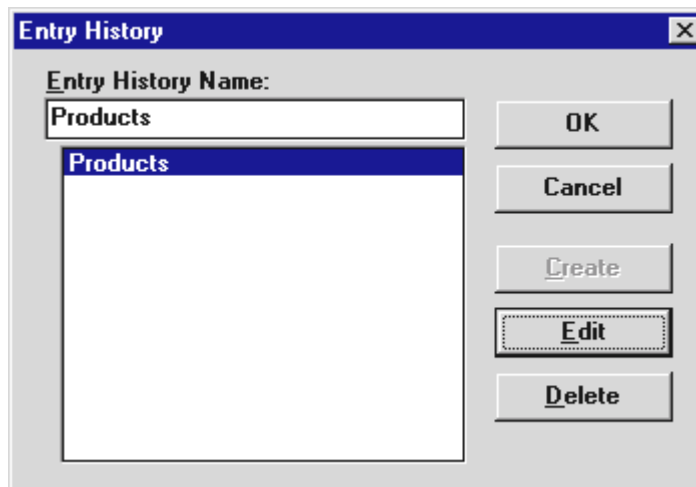

Figure 4.14: *Use the **Entry History** dialog box to create entry histories.*

To define an entry history, select **Define, Entry History**. This will open the **Define Entry History** dialog box. In this dialog box, you may enter a relevant name that reflects the name and purpose of the field to which the entry history is intended to be associated with.

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For further information about associating entry histories with edit fields, turn to <u>Chapter 6, Using Screen Designer</u>**.**

Selection Lists

A *selection list* is a fixed number of valid entries which can be used for a specific field. For instance, you may associate all valid zipcodes with a **Zipcode** field or all valid currency codes with a **Currency Code** field. When users right-click these fields, the valid values will be displayed in a dropdown list box.
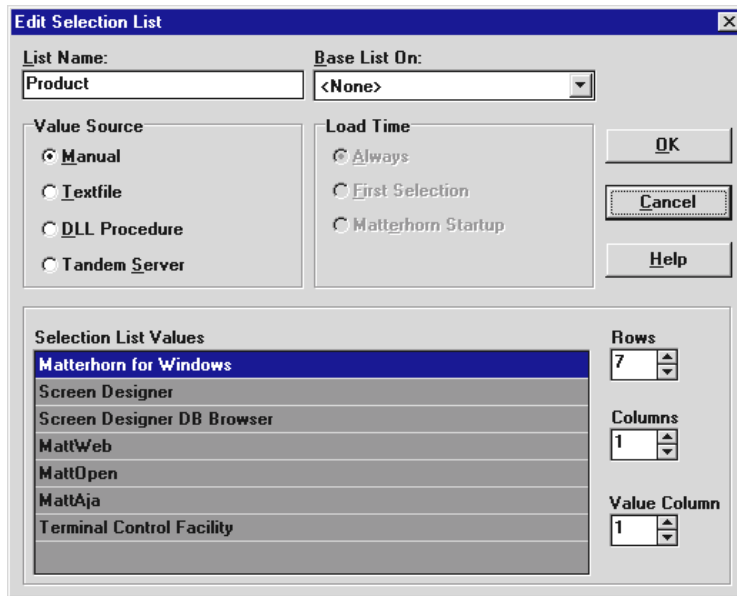

Figure 4.15: *The **Edit Selection List** dialog box.*

To create a selection list, choose **Selection Lists** from the **Define** menu. In the **Selection Lists** dialog box you may either create a new selection list by entering a new name in the field **List Name** and pressing the **Create** button, or edit an existing

selection list by choosing it from the list and pressing **Edit**. In the **Edit/Create Selection List** dialog box, the field **Value Source** allows you either to create the selection list manually or - to save time - to import it from a text file, to request it from your Tandem Pathway server or to load the list by specifying a path to a DLL. In the field **Base List On** you may select the name of an existing selection list on which to base the new selection list.

For more information about working with selection lists, turn to Chapter 6, Using Screen Designer.

Macro

To create a macro, select **Macro** from the **Define** menu. This will open the **Macro** dialog box. In the **Macro** dialog box you may either create a new macro by entering a new name in the field **Macro Name** and pressing the **Create** button or edit an existing macro by choosing it from the list and press **Edit**. In the **Create Macro** dialog box (see Figure 4.16), enter the contents of the macro in the field **Macro Description**. You will learn more about macros in Chapter 7, Matterhorn Macro Language.

The macro may subsequently be associated with an object of the requester.

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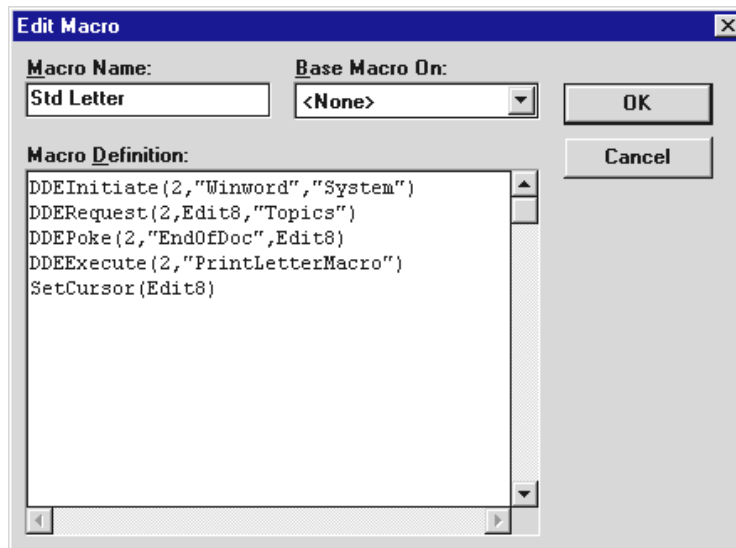
Figure 4.16: *The **Edit/Create Macro** dialog box*

Requester Replace

Using Screen Designer together with MattOpen you may redirect requester calls from the current requester to a procedure in a Windows-DLL. This feature, called Requester Replace, opens up your Tandem system to the powerful and flexible DLL-technology. Note that the Requester Replace option will only operate if you have also implemented MattOpen on your system.

The menu option will be dimmed if you have not implemented MattOpen on your system. For more information, turn to the MattOpen Developer's Guide.

Keyboard Mapping

Screen Designer enables you to map your Tandem terminal keys to PC-keys. If, for instance, it makes more sense to use

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Esc to exit an application than SF16, you may use this feature to map the function key SF16 to the Esc-key.
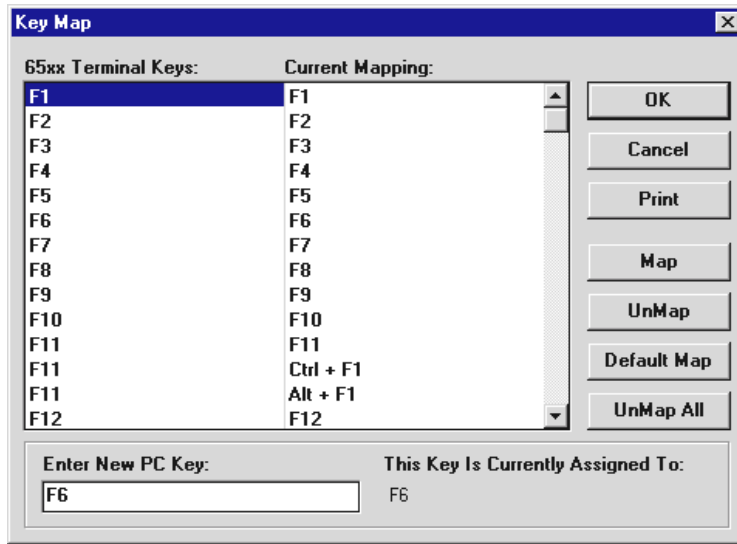
Figure 4.17: *Use the **Key Map** dialog box to map terminal keys.*

To change the current terminal keyboard mapping, select **Keyboard Mapping** from the **Define** menu. This will produce the **Key Map** dialog box (see Figure 4.17). If you are using 65xx terminals, the column in the left side of the dialog box will be entitled *65xx Terminal Keys;* if you are using 3270 terminals it will be entitled *3270 Terminal Keys.*

To assign a PC-key to a terminal key, locate and select the terminal key in the left column. Then press the key or keyboard combination on your keyboard. Finally, click the **Map** button.

In the **Key Map** dialog box the following buttons are available:

Map   To map the selected terminal key, click the **Map** button

Unmap   To unmap the selected terminal key, click the **Unmap** button.

Default Map   To restore all mappings to the default mapping, click the **Default Map** button.

Unmap All   To unmap all terminal keys, click the **Unmap All** button.

Print   To print the current key mapping, click the **Print** button.

The Options Menu

In the **Options** menu you will find a series of tools which will help you format your objects and create more accurate screens.

The Options menu provides the following options:
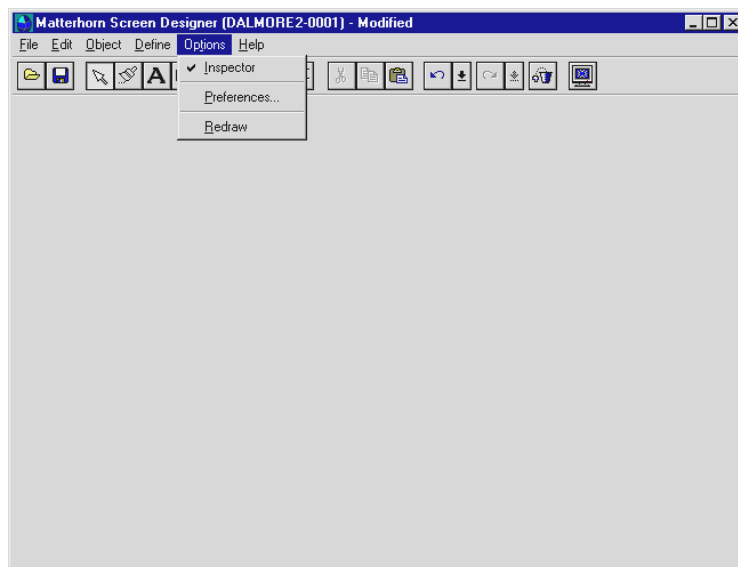
> ➤ Inspector

> ➤ Preferences

> ➤ Redraw

Figure 4.18: *The **Options** menu.*

Inspector

Screen Designer objects are formatted by means of the Object Inspector. The Object Inspector displays all properties of the currently selected object(s) like fonts, size, on-screen position, etc. in a separate window. It is also from the Object Inspector that you customize the functionality of the various objects such as associating function keys, macros and multimedia clips with push buttons or picture objects.
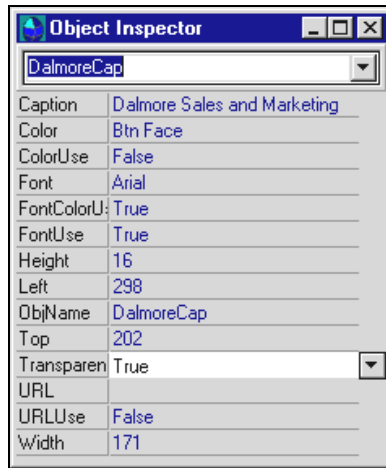
Figure 4.19: *The Object Inspector showing text object properties.*

The contents of the Object Inspector vary with the object type. In Figure 4.18, the Object Inspector is displaying text object properties. Use the Object Inspector to format your objects. If, for instance, you wish to change the font of a text object, highlight the **Font** property in the Object Inspector and click the button to the right of the **Font** property to open the **Font** dialog box. Select the new font and click **OK**. The Object Inspector is further detailed in Chapter 6, Using Screen Designer.

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To deactivate or activate the Object Inspector, select **Options**, **Inspector** or press **F11**.

Preferences

The **Preferences** dialog box provides access to various options related to the way Screen Designer performs as you are redesigning requesters. From the **Preferences** dialog box you may, for instance, indicate the selection mode of Screen Designer, set the grid options, and select a default font to be used for new objects.

Note that the changes you make in the **Preferences** dialog box will be saved as part of Screen Designer's own configuration.

To open the **Preferences** dialog box, select **Options, Preferences**. The dialog box contains a **Layout** tab and a **Default Font** tab:
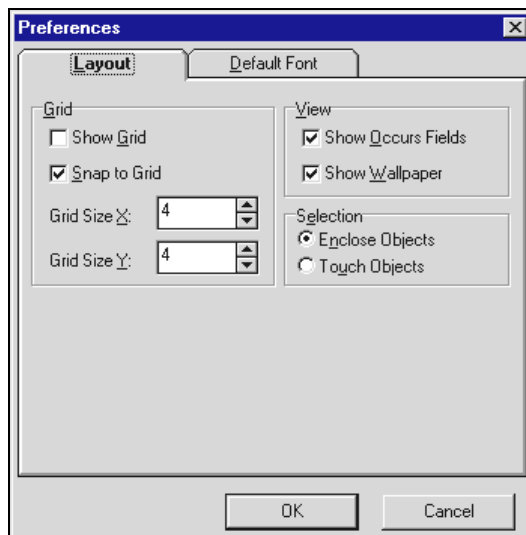
Figure 4.20: *The **Layout** tab of the **Preferences** dialog box.*

The **Layout** tab provides the following options:

Show Grid	Select this option to display the gridlines when designing your screens.
Snap to Grid	With this option checked, objects will be snapped to the nearest gridline or intersection of gridlines. The gridlines will not be displayed if you have not checked the **Show Grid** option.
Grid Size X	Use this field to indicate the width of the grid. The unit of measurement is pixels. Default is 8 pixels.
Grid Size Y	Use this field to indicate the height of the grid. The unit of measurement is pixels. Default is 8 pixels.
Show Occurs Fields	Use this option if your requesters contain one or several *occurs fields,* i.e. fields that are replicated on the screen. **Show Occurs** will display all occurrences of the fields to avoid you from inserting objects in the wrong places by mistake or from moving the occurs field(s) to places where they won't fit.

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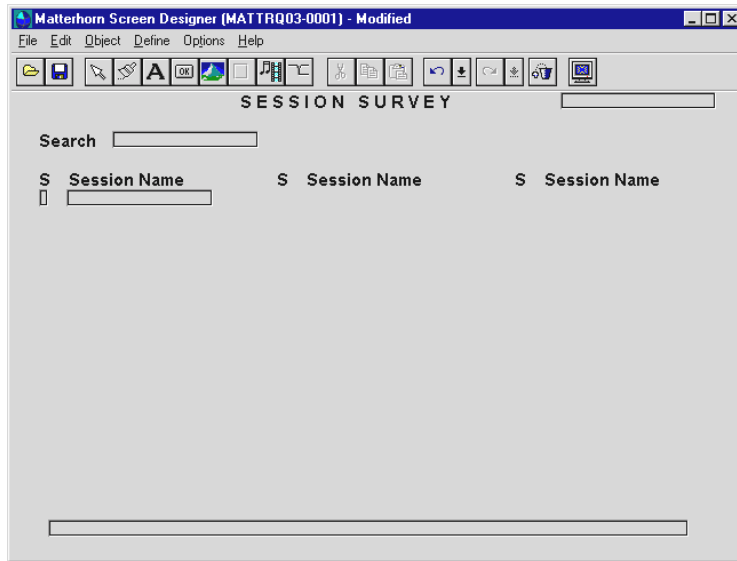
Figure 4.21: *The field* **Session Name** *is an occurs field. To display all occurrences of the field, check the* **Show Occurs Fields** *check box.*
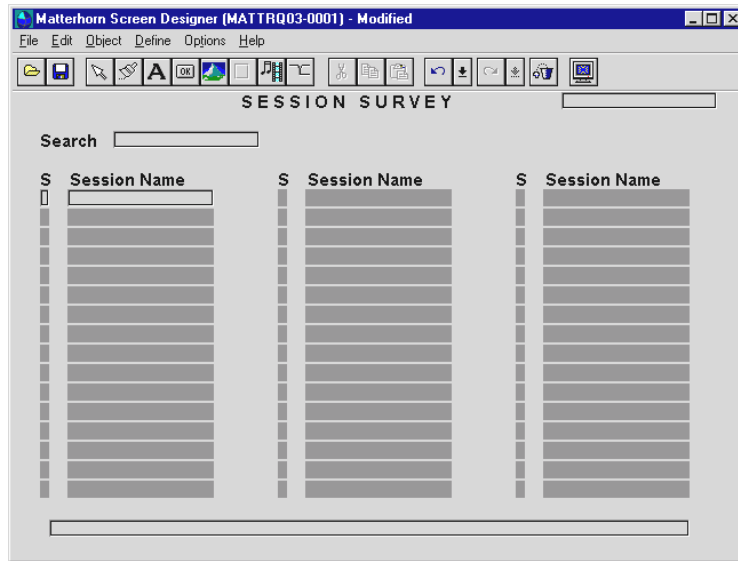
Figure 4.22: *The **Show Occurs Fields** option makes Screen Designer display all occurrences of an occurs field.*

Show Wallpaper   If you have selected a wallpaper for the requester object, it may be a tiresome affair to wait for the screen to update as you are redesigning the requester. Consequently, it makes sense to deactivate the wallpaper while you are adding the finishing touches to the screen. Clear the check mark in this check box to deactivate the wallpaper.

Enclose Objects   Screen Designer has two different selection modes for selecting multiple objects: *enclose mode* and *touch mode.*

If the **Enclose Objects** check box is checked, the selection line indicating the selected area must be clear of the objects you wish to select.

Touch Objects   If the **Touch Objects** check box is checked, the selection line merely has to touch the objects you wish to select.

Figure 4.23: *The **Default Font** tab of the **Preferences** dialog box.*

In the **Default Font** tab you may select a default font face and set various font attributes, which will be used when creating new objects. The tab contains the following options:

Font Name   Select a font face from the list. This font will be used for all new objects.
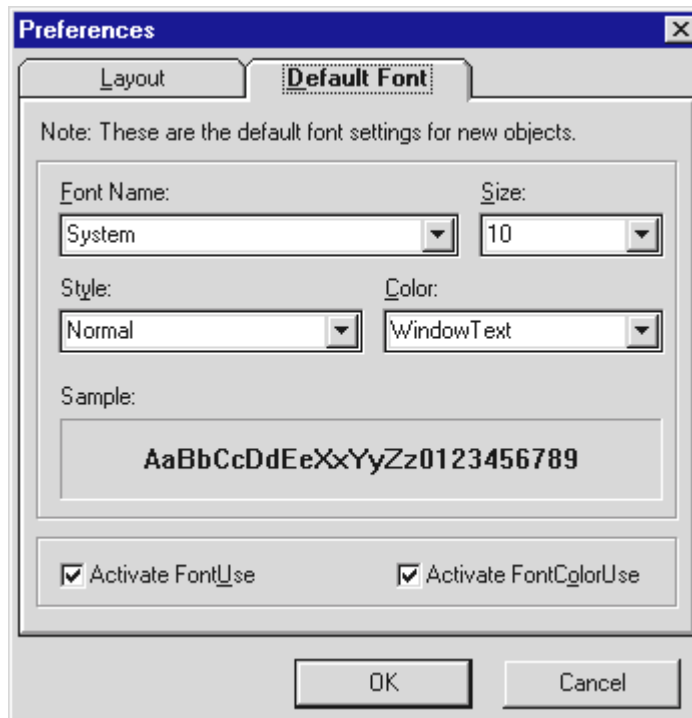
Size   Select a size from the list. This font size will be used for all new objects.

Style   Select a font style from the list. This font style will be used for all new objects. Options are *Normal*, *Bold*, *Italic*, and *Bold Italic.*

Color   Select a font color from the list. This color will be used for all new objects. The available colors depends on your Windows version.

Sample   In the **Sample** field you can see how the selected font will appear in Screen Designer and later when the requester is executed by the Matterhorn Client.

Activate FontUse This option lets you configure in what manner the default font is used during the design phase.

        Check this option to use *and* display the selected default font for new objects. In the Object Inspector, the **FontUse** property will be set to *True.*

        Remove the marking if you wish to use the default font on new objects but *not* actually display it. In the Object Inspector, the **FontUse**

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property will be set to *False*. When you set the property to *True*, the default font will be displayed.

Activate FontColorUse This option lets you configure in what manner the default font color is used during the design phase.

Check this option to use *and* display the selected default font color for new objects. In the Object Inspector, the **FontColorUse** property will be set to *True*.

Remove the marking if you wish to use the default font color on new objects but *not* actually display it. In the Object Inspector, the **FontColorUse** property will be set to *False*. When you set the property to *True*, the default font will be displayed.

Redraw

As you design requester screens with the **Show Grid** option activated, the gridlines occasionally disappear. Use **Options**, **Redraw** to update the grid.

The Help Menu

Screen Designer'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.

The Tool Bar

The tool bar runs just below the menu bar. For your convenience, you may use these tools instead of the menu options. The following pages merely provide brief descriptions of the tool buttons. For a more in-depth discussion of the application of each button and how to use it, turn to Chapter 6, Using Screen Designer.
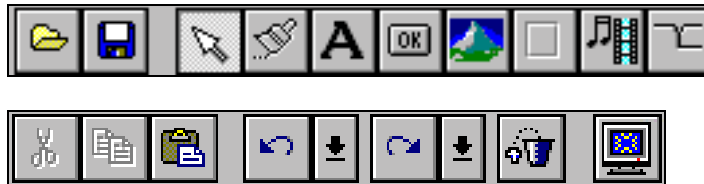
Figure 4.24: *The Screen Designer tool bar.*

These are the tool buttons in Screen Designer:

- ➢ Open Requester
- ➢ Save Requester
- ➢ Select Object
- ➢ Format Painter
- ➢ Insert Text
- ➢ Insert Button
- ➢ Insert Picture
- ➢ Insert Frame
- ➢ Insert Multimedia
- ➢ Insert Tabbed Notebook

- ➢ Cut

- ➢ Copy

- ➢ Paste

- ➢ Undo

- ➢ Redo

- ➢ Restore Objects

- ➢ Redraw

Open Requester   To load a new requester, click **Open Requester**. This will activate the **Open Requester** dialog box. Enter the name of the requester and the relevant screen number and click the **OK** button. If you click **Open Requester** while you are still working with another requester, you will be prompted to save the current requester before loading the new one.

Save Requester   To save the current requester, click the **Save Requester** button.

Select Object   Clicking this button puts you into *selection mode.* In selection mode, the mouse pointer changes to an arrow so you can select objects on the screen. You can use the selection pointer to click objects or to drag a selection rectangle around multiple objects to select them. When several objects are selected you may use the Object Inspector to format all selected objects.

Note that Screen Designer has two different

selection modes for selecting multiple objects, *enclose mode* and *touch mode.* These modes are controlled from the **Layout** tab in the **Preferences** dialog box. See the section Selecting Multiple Objects in Chapter 5, *Screen Designer Objects.*

If the **Enclose Objects** check box in the **Layout** tab is checked, the selection line indicating the selected area must be clear of the objects you wish to select.

If the **Touch Objects** check box in the **Layout** tab is checked, the selection line merely has to touch the object you wish to select.

Format Painter   When the Format Painter tool is active you may copy formats from selected objects to objects you wish to format the same way. If, for instance, your requester contains a text object with a certain font and background color, you may use Format Painter to copy the format of this object to other objects.

Note that not all properties may be copied. The object properties which *can* be copied will appear with a green text color in the Object Inspector. For more information on the Format Painter tool, turn to the section *Format Painter* in this chapter.

Insert Text   To insert a text object, click the **Insert Text** button. For more information about creating and formatting text objects, turn to Chapter 6, Using Screen Designer.

Insert Button	To insert a new button and associate it with a function key, macro or multimedia clip, click **Insert Button**. For more information about creating and formatting buttons, turn to Chapter 6, Using Screen Designer.
Insert Picture	To insert a graphic image and associate it with a function key or multimedia clip, click the **Insert Picture** button. For more information about creating and formatting pictures, turn to Chapter 6, Using Screen Designer.
Insert Frame	To insert a frame, click the **Insert Frame** button. For more information about creating and formatting frames, turn to Chapter 6, Using Screen Designer.
Insert Multimedia	To insert a multimedia clip, click the **Insert Multimedia** button. For more information about creating and formatting multimedia objects, turn to Chapter 6, Using Screen Designer.
Insert Tabbed Notebook	To insert a tabbed notebook, click the **Insert Tabbed Notebook** button on the tool bar. A blank tabbed notebook object will be inserted in the centre of the main work area. For more information about working with tabbed notebooks, turn to Chapter 6, Using Screen Designer.
Undo	To undo the last action, click the **Undo** button. If you wish to undo several actions, click the small arrow next to the **Undo** button. Screen Designer will then display a window containing the last actions performed (up to 100). Use the mouse to

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select the actions you wish to undo.

Redo   To reverse the action of the **Undo** button, click the **Redo** button.

Restore Objects   To restore objects that you have previously deleted from the main work area, click the **Restore Objects** button. For more information about restoring objects, turn to [Chapter 6, Using Screen Designer](#).

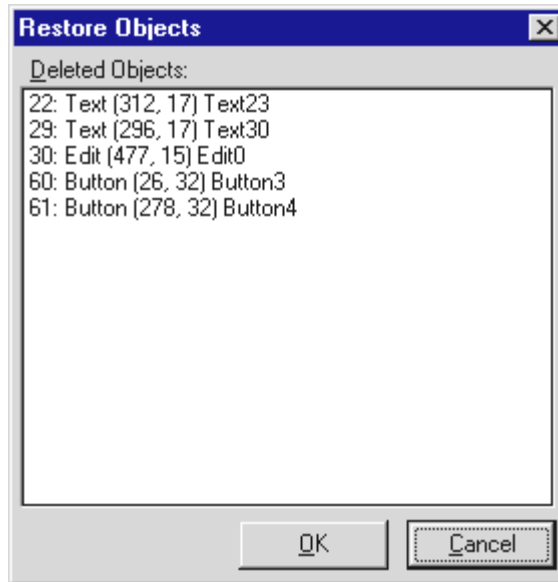*Redraw*   To redraw the screen, click the **Redraw** button.

Figure 4.25: *The **Restore Objects** window.*

The Object Inspector

Use the Object Inspector to format your objects in Screen Designer. The Object Inspector is a separate window that will display all properties of the currently selected object.

The Object Inspector also enables you to format multiple objects at a time. Even objects of different types. Simply select the objects with the mouse, and the Object Inspector will display those properties which may be set for the selected objects; font, color and size, for instance.
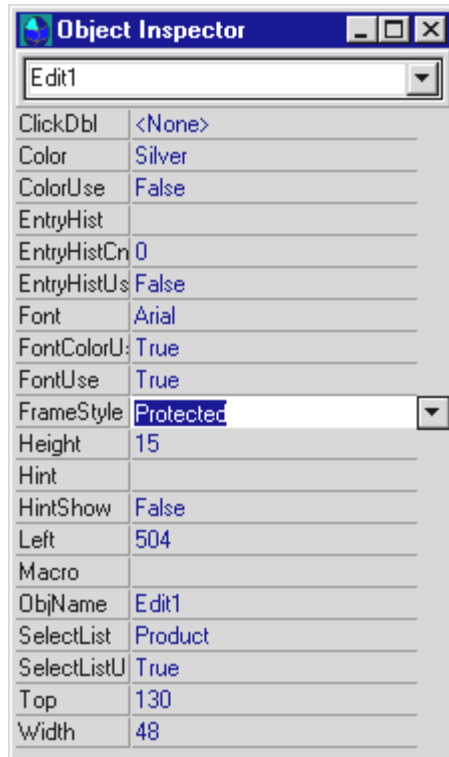
Figure 4.26 *The Object Inspector showing edit field properties.*

Navigating the Object Inspector

In the Object Inspector, each object property is listed on a separate line. To change a property value, click (or double-click) the desired property name and enter the new value. Double-clicking some properties, such as **Font** and **Color** and **MMFile** (Multimedia File), will produce dialog boxes in which you must make selections or locate a filename; other properties, such as **Macro** and **SelectList**, produce a

dropdown list of available macros and selection lists from which you may choose. (See Figure 4.27).

All objects of the current requester will appear from the dropdown list box, which is located just below the title bar. Scroll this list to select any object you wish to work with.

Note that you may change the format of the Object Inspector by pointing the mouse to the separator line and dragging the mouse to either side.
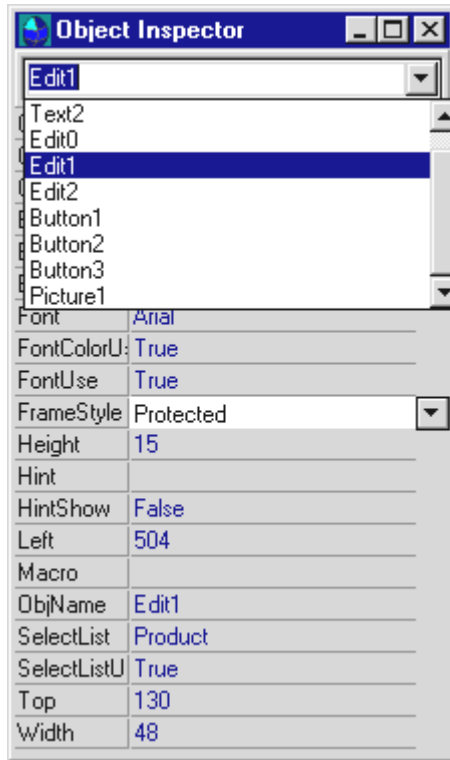

Figure 4.27: *Use the Object Inspector to switch from one object to another.*

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The dropdown list box in the top of the Object Inspector contains all objects in the requester. Each object is represented by its object name as it appears in the **ObjName** property. If you wish to switch from one object to another, simply click the small arrow and select the object from the list.

If the Object Inspector does not display, select **Options**, **Inspector** or press F11. If you wish the Object Inspector always to stay on top, click the right mouse button somewhere in the Object Inspector and select **Stay on Top** from the dropdown menu. If you wish to hide the Object Inspector, select **Hide** from the dropdown menu.

Format Painter

Format Painter is a useful formatting tool which enables you to copy the format of one object to another object, simply by clicking the objects with the mouse:

Note that not all properties may be copied using the Format Painter. The object properties which *can* be copied will appear with a green text color in the Object Inspector.

To use Format Painter:

1. Click **Select Object** to enter selection mode.

2. Click the object you wish to use as a basis of the format copy.

3. If you wish to format the selected object at this point, use the Object Inspector.

4. Click the **Format Painter** button. The mouse pointer transforms into a small brush, and the properties which may be copied turn green in the Object Inspector

5. Proceed to click the objects you wish to copy the format to. Each time you click an object, the format of the first object will be copied to the object that you click.

6. To deactivate the Format Painter, click the **Select Object** tool.

Figure 4.28: *Formatting objects with the Format Painter.*

Chapter 5:
Screen Designer Objects

T he term o*bject* is a core term in Screen Designer. A requester screen consists of various types of objects that may all be manipulated in various ways by using Screen Designer. This chapter will introduce all objects in Screen Designer and explain in which ways they may be manipulated.

The chapter is organized as follows:

> ➢ Screen Designer Objects

> ➢ Inserting an Object

> ➢ Selecting an Object

> ➢ Cutting, Copying and Pasting an Object

> ➢ Formatting an Object

> ➢ Deleting an Object

> ➢ Restoring an Object

> ➢ Moving an Object

> ➢ Resizing an Object
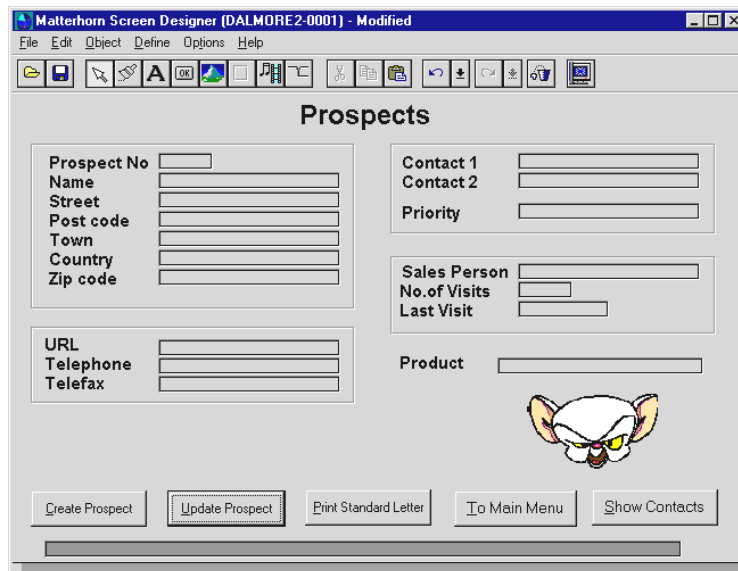
Screen Designer Objects

Figure 5.1: *A requester screen with five buttons, a picture object, and several frames, text objects, and edit fields.*

As already mentioned, the term *object* is a core term in Screen Designer. Objects are divided into three types:

- **Tandem objects:**   These objects are part of the original Scobol object code. Consequently, they are already on the screen when you load the requester. The objects include: Text fields (known as *fillers* in the Tandem vocabulary) and edit fields (known as *fields*). These objects may be formatted with Screen Designer

- **Screen Designer objects:** These objects are the objects which may be created and inserted with Screen Designer. These include: Text objects, push buttons,

pictures, frames, multimedia objects, and tabbed notebooks.

- **The requester object**:   The requester object is the background on which all other objects are placed. Each requester has but one requester object. You cannot delete the requester object or create new requester objects with Screen Designer, but you may customize it on various levels.

In this chapter we will present the various ways in which you may insert, remove, restore and format Screen Designer objects.

As you load a requester into Screen Designer, each object will be assigned a unique object name. The syntax of this name is *Objecttype(number),* as in *Text1, Text2, Edit1, Edit4, Button1,* etc. Use the **ObjName** property in the Object Inspector to assign a more meaningful name to the object.

Inserting an Object

To insert a new object:

1. From the **Object** menu, select the relevant command; **Insert Text**, **Insert Button**, **Insert Picture**, **Insert Frame**, **Insert Multimedia**, or **Insert Tabbed Notebook** Alternatively, click the corresponding button on the tool bar.

2. If you use one of the commands from the **Object** menu, an object with a set of default properties will be inserted at the centre of the screen.

3. If you insert the object by clicking one of the tool buttons on the tool bar, use the mouse to draw an

object anywhere on the screen. If the object is drawn too small, it will automatically 'snap' to a certain minimum size. This feature is included to avoid you from creating small objects by unintentionally clicking the mouse. After the object has been created you may use the mouse to resize it - also to a size that is smaller than the initial minimum size.
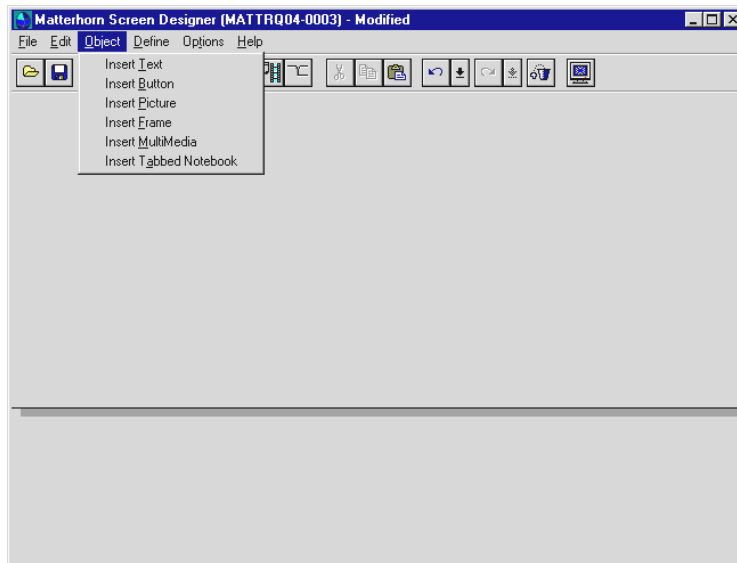
4. Use the Object Inspector to format the object.

Figure 5.2: *The **Object** menu.*

Selecting an Object

Before you can work with an object on screen, you must *select* it. To select an object, first click **Select Object** in the tool bar to enter *selection mode.* Place the mouse cursor over the object and

click the left mouse button. Eight handles appear around the object, indicating that it is selected.
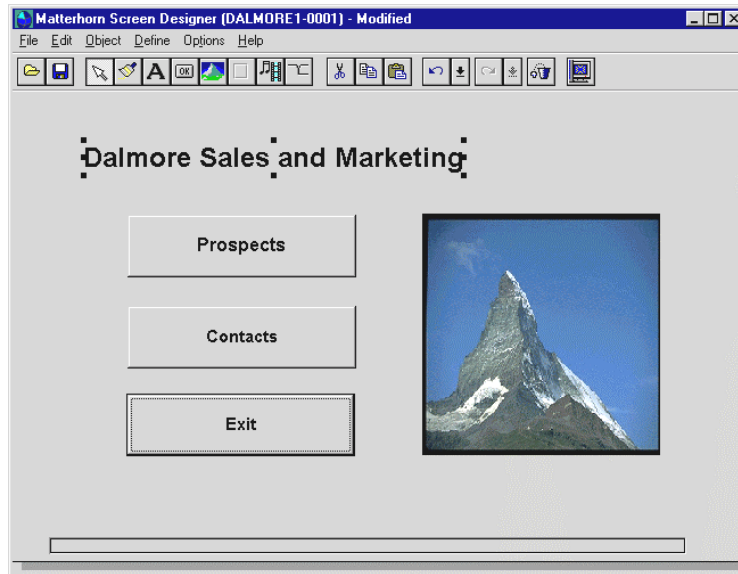

Figure 5.3: *The text object has been selected with the mouse and may be edited on various levels using the Object Inspector.*

Selecting Multiple Objects

Screen Designer has two different selection modes for selecting multiple objects: *enclose mode* and *touch mode*. These modes are controlled from the **Layout** tab in the **Preferences** dialog box (see Figure 5.4).

If the **Enclose Objects** check box is checked, the selection line indicating the selected area must be clear of the objects you wish to select.

If the **Touch Objects** check box is checked, the selection line merely has to touch the objects you wish to select.
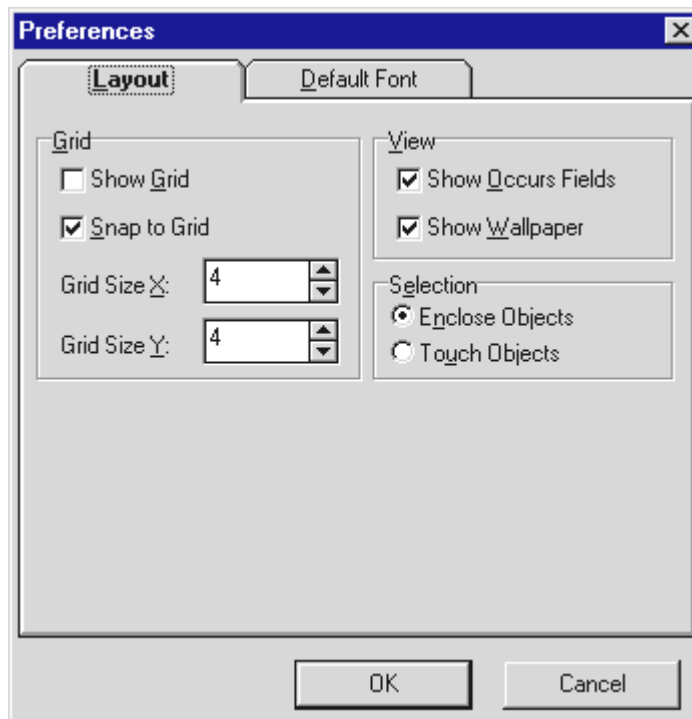
Figure 5.4: *The current selection mode is controlled from the* ***Layout*** *tab of the* ***Preferences*** *dialog box.*

Screen Designer provides a variety of ways to select multiple objects. For instance, to select a group of objects, first enter selection mode by clicking the **Select Object** tool, then drag the mouse over the objects in question (see Figure 5.5).

Another way of selecting multiple objects is to press down the Shift-key and point the mouse to the objects you wish to select and click. To select a group of objects located in a frame, press down the Ctrl-key while dragging the mouse pointer over the objects.

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Selecting multiple objects is useful, for instance, if you wish to move an entire group of objects to a different location or format multiple objects at the same time using the Object Inspector.
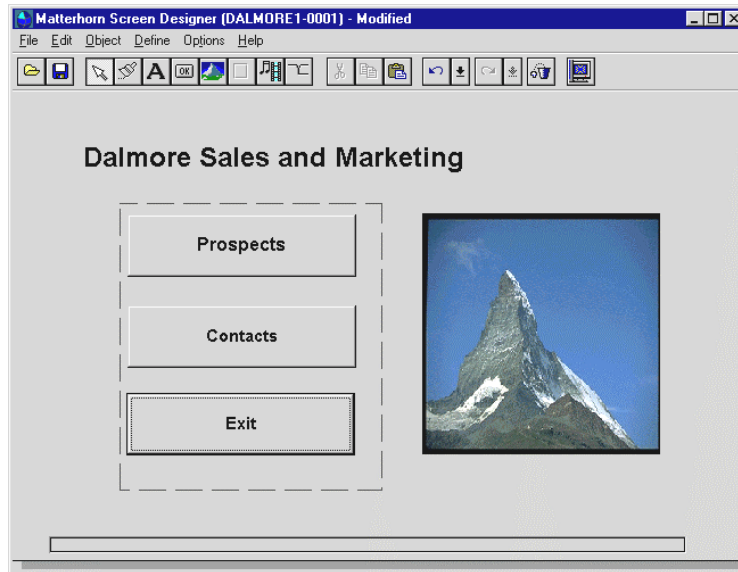

Figure 5.2: *Three buttons have been selected and may be formatted with the Object Inspector. Note that the current selection mode is enclose mode.*

Cutting, Copying and Pasting an Object

To cut an object, select it and pick **Cut** from the **Edit** menu or click the **Cut** button on the tool bar. The object will be transferred to the Clipboard. Use **Edit**, **Paste** to insert the object. Alternatively, click the **Paste** button.

You may also use the **Cut** command to cut several objects at a time. Select the objects before you use the command.

To copy an object, select it and pick **Copy** from the **Edit** menu or click the **Copy** button on the tool bar. The object will be transferred to the Clipboard. Use **Edit**, **Paste** to copy the object. Alternatively, click the **Paste** button.

You may also use the **Copy** command to copy several objects at a time. Select the objects before you use the command.

Formatting an Object

Use the Object Inspector to format your objects in Screen Designer. The Object Inspector is a separate window that will display all properties of the object that is currently selected. Below you see the Object Inspector related to button objects.

With the Object Inspector, you may adjust or set all properties of the object such as font, color, caption, object name, position, size and many more. It is also by means of the Object Inspector that you set up edit fields to use selection lists or hints and associate buttons with macros, function keys or multimedia clips.
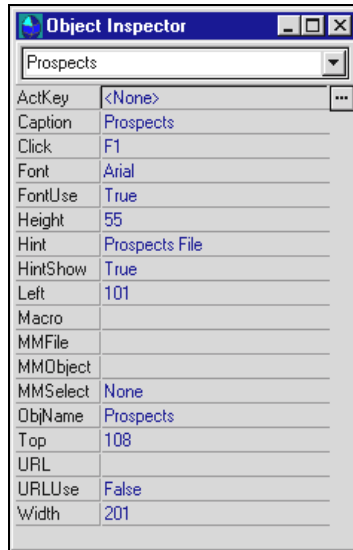
Figure 5.6: *The Object Inspector showing button properties.*

The Object Inspector enables you to format multiple objects at a time. Even objects of different types. Simply select the objects with the mouse and the Object Inspector will display those properties which may be set for the selected objects, font, color, and size, for instance.

Also note the useful Format Painter tool, which enables you to copy the format of one object to another object, simply by clicking with the mouse. To use Format Painter:

1. Click the **Select Object** tool to enter selection mode.

2. Click the object(s) you wish to use as a basis of the format copy.

3. If you wish to format the selected object at this point, use the Object Inspector.

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4. Click the **Format Painter** button. The mouse pointer transforms into a small brush.

5. Proceed to click the objects you wish to copy the format to. Each time you click an object, the format of the first object will be copied to the object that you click.

The Object Inspector of each object type is thoroughly described in [Chapter 6, Using Screen Designer](#). Read more about the [Format Painter](#) in Chapter 4.

Deleting an Object

To delete an object, select the object and press the Del-key or choose **Delete** from the **Edit** menu. The object will be removed from the main area.

Note that the deletion will not be permanent until you save the requester and exit Screen Designer. As long as you are still working with the current requester, you may still access and restore objects which have previously been deleted. To access deleted objects, click the **Restore Object** button. For further details on this button, turn to the section [Restoring an Object](#).

Restoring an Object

As mentioned in the previous section, you may still access and restore objects which have previously been deleted.

To access deleted objects, select **Edit, Restore Objects** or click the **Restore Object** button on the tool bar. This will display the **Restore Objects** window. In this window, each deleted object is presented by its object name. To restore an object, place the cursor on the type indicator and click **OK**.
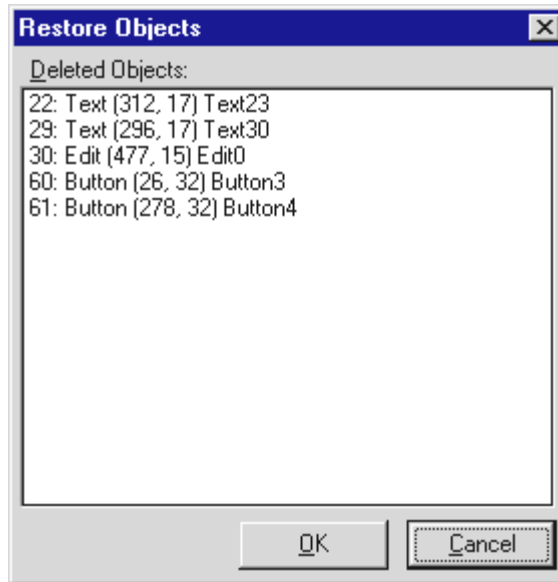
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Figure 5.7: *In the **Restore Objects** window, select the object(s) to restore and click the **OK** button.*

In connection with restoring deleted objects, you should take note of the following rules:

- When you exit Screen Designer, all deleted objects - apart from text objects - that were *not* originally part of the requester Scobol object code, will automatically be removed from the **Restore Objects** window. In other words, all objects which you have inserted with Screen Designer, and then removed again, will be removed from the **Restore Objects** window upon exit. Consequently, these objects will not be accessible the next time you load the requester into Screen Designer.

- When you exit Screen Designer, information about deleted objects that were originally part of the requester Scobol object code will be stored. This means

that you may still access these objects from the **Restore Objects** window the next time you load the requester into Screen Designer.

Moving an Object

You can move any object to a different location in the main area. To move an object, select the object and place the mouse cursor over the object. Then drag the mouse. As you move the mouse, the outline frame of the object moves with it. Release the mouse button.

When you are creating or formatting a tabbed notebook, we recommend that you move the tabbed notebook to the canvas area before moving and organizing the objects on the different tabs. In this way you have a clear view of both the objects on the requester screen and the tabbed notebook.

Note that you may also change the position of an object from the Object Inspector. Simply enter new values in the **Top** and **Left** properties. This approach is useful when you wish to align several objects - horizontally or vertically.

Resizing an Object

You may want to change the size and shape of objects. You have various methods at your disposal:

To scale an object with the mouse, select the object. Eight handles appear around the object, indicating that it is selected. Point to one of the four corner handles. The cursor transforms into a small two-headed arrow. Press the mouse button and drag the mouse until the object is the desired size. Release the mouse button.

To change the height of an object with the mouse, select the object and point to the top or bottom handle. The cursor transforms into a small two-headed arrow. Drag the mouse cursor until the object is the desired size. Then release the mouse button.

To change the width of an object with the mouse, select the object and point to the left or right handle. The cursor transforms into a small two-headed arrow. Drag the mouse cursor until the object is the desired size. Then release the mouse button.

You may also change the size of an object from the Object Inspector. Simply enter new values in the Width and Height entries. This approach is useful when you wish to give several objects the same size.

Chapter 6:
Using Screen Designer

This chapter is designed to illustrate the application of Screen Designer. By means of short, accurate examples we will explain the entire operation of Screen Designer. The chapter is organized as follows:

- ➢ Starting Screen Designer

- ➢ Opening and Saving a Requester

- ➢ Working with the Requester Object

- ➢ Working with Text Objects

- ➢ Working with Buttons and Pictures

- ➢ Working with Frames and Multimedia Clips

- ➢ Working with Tabbed Notebooks

- ➢ Working with Selection Lists and Edit Fields

- ➢ Overlay Areas

- ➢ When Requesters Have Been Updated on Tandem

Starting Screen Designer

To run Screen Designer, double-click the Screen Designer icon in the Matterhorn group window. Screen Designer loads (see Figure 6.1).
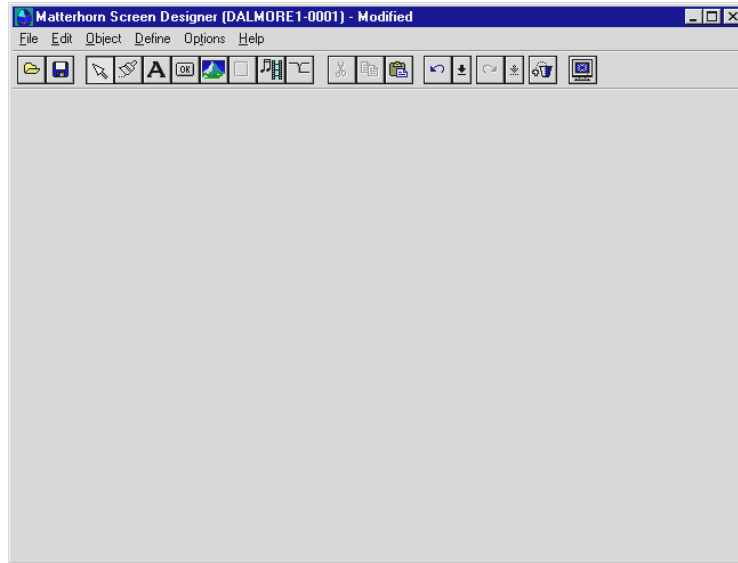

Figure 6.1: *An empty Screen Designer application window.*

Opening and Saving a Requester

To open or load a requester:

1. From the **File** menu, select **Open Requester** or click the **Open Requester** button on the tool bar. Note that the four most recently loaded requesters will also appear from the **File** menu.

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2. In the **Open Requester** dialog box, enter the requester name and, if relevant, the screen number.

3. Click the **OK** button.

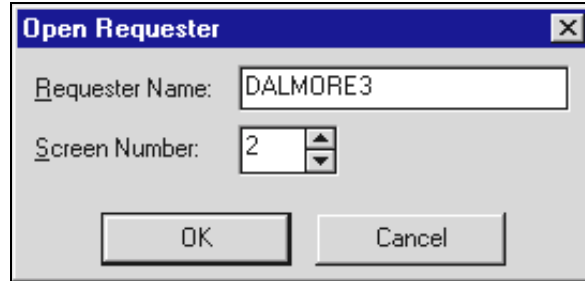4. The requester loads into the main work area.

Figure 6.2: *The **Open Requester** dialog box. Enter the requester name and screen number.*

If Screen Designer is unable to locate the requester, you will receive an error message. Please note that you may design a requester screen even as other users are running the requester. Also note that you may only work with one requester at a time.

To save a requester:

1. Select **Save Requester** from the **File** menu or click the **Save Requester** button.

2. Information about the screen layout will be saved in a separate database. The next time you run the requester, Matterhorn will use this information to display the screen.

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Working With the Requester Object

The requester object is the background on which all other objects are placed. By assigning new properties to the requester object you may control whether or not the button panel is shown across the bottom of the screen, and customize the background color or add background effects such as wallpaper and/or gradients. You may also use the requester object to indicate that a multimedia file should be played while starting and/or closing the requester. Finally, you may indicate a macro to be launched when the user performs an accept in the screen.
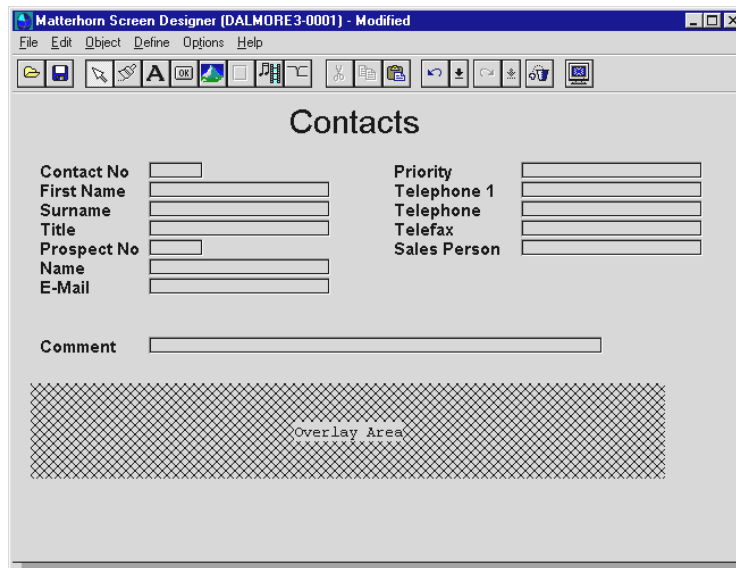

Figure 6.3: *The requester object is the background on which all other objects are placed.*

Each requester has got but one requester object. You cannot delete the requester object or create new requester objects with Screen Designer.

Formatting the Requester Object

Use the Object Inspector to customize the requester object. To activate the Object Inspector, enter selection mode and click the background of the requester with the mouse. This will produce the Object Inspector depicted in Figure 6.4. The requester object properties will be described on the following pages.
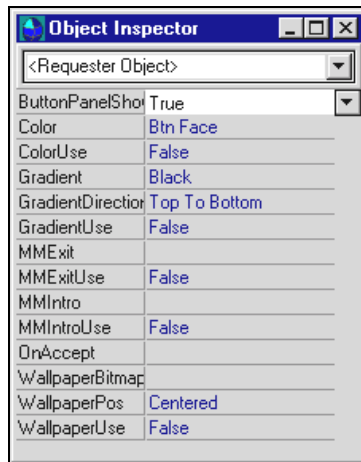

Figure 6.4: *The Object Inspector showing properties of the requester object.*

ButtonPanelShow

This property determines whether or not the button panel, which appears across the bottom of the screen during a Matterhorn session, will be displayed or not. Options are *True* and *False*.

Note that this option may only be used when you are using Screen Designer together with MattWeb.

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Color

With the **Color** property you may change the background color of the requester.

To change the background color, you may either click the **Color** property and select a standard Windows color from the dropdown list, or you may double-click the **Color** property to open the **Color** dialog box. Use this dialog box to select a background color. If you wish to fashion your own colors, click the **Define Custom Colors** button (see Figure 6.5). For more information about working with colors, turn to the *Microsoft Windows User's Guide.*
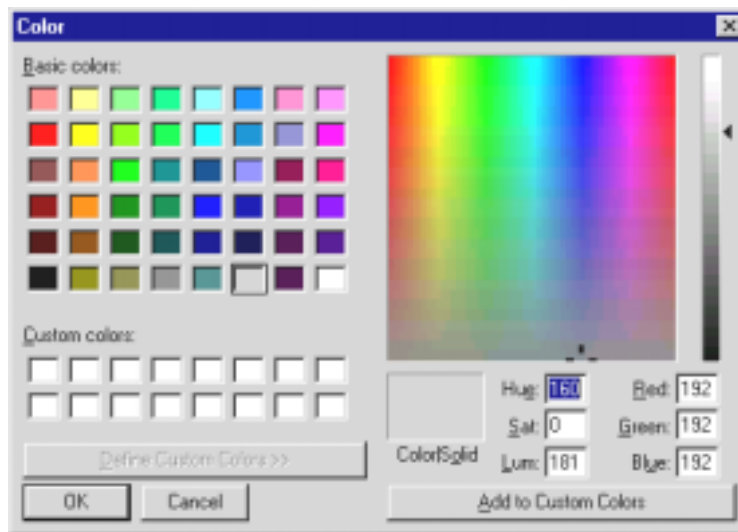

Figure 6.5: *The **Color dialog** box.*

Note that you may indicate another color to be used as a gradient fill with the background color (see the **Gradient** property).

ColorUse

This property determines whether or not the background color, indicated in the **Color** property will be shown. Options are *True* and *False*.

Gradient

Use this property to create a gradient fill. The color indicated by this property will fade to the color indicated in the **Color** property. If, for instance, you have chosen a gray background color and then select a blue gradient color, the screen will be filled with a shade of blue and gray. The shade style is determined by the entry in the **GradientDirection** property.

Wallpapers and gradient fills do not exclude each other (see Figure 6.6) Thus, you may have a gradient fill display behind a wallpaper image. If, however, the wallpaper covers the entire screen, the gradient will not display.
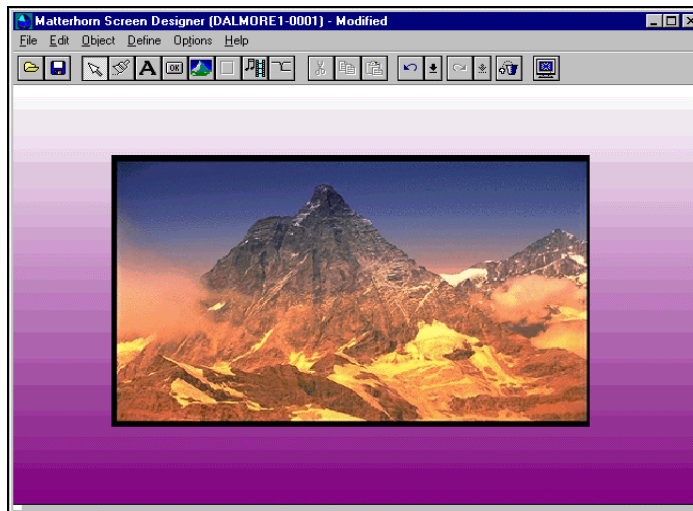

Figure 6.6: *Use gradient fills and backgrounds to fashion your requesters.*

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GradientDirection

This property determines the style of the gradient fill. Options are *Top to Bottom* and *Left to Right.*

GradientUse

This property determines whether the selected gradient fill will be used or not. Options are *True* and *False.*

MMExit

Use this property to indicate a multimedia clip to be played when the requester is terminated. What about a "See you tomorrow"-greeting from the department head? Click the small button to the right of the property name and locate the multimedia clip in the **Open Multimedia Clip** dialog box.

MMExitUse

This property determines whether or not the multimedia clip indicated by the **MMExit** property will be played when the user terminates the requester. Options are *True* and *False.*

MMIntro

Use this property to indicate a multimedia clip that will be played when the requester is launched. What about a "Welcome to work"-greeting from the department head? Click the small button to the right of the property name and locate the multimedia clip in the **Open Multimedia Clip** dialog box.

MMIntroUse

This property determines whether or not the multimedia clip indicated by the **MMIntro** property will be used when the user launches the requester. Options are *True* and *False*.

OnAccept

Use this property to indicate a macro that is to be launched as the user performs an accept of the screen, for instance when exiting or updating the requester or moving on to another requester. This option may used as a time saving feature in many cases. For instance, you may write a macro that inserts default values in specific fields of the following requester as the user proceeds to this requester.

Click the small button to the right of the property name and locate the macro on the list.

WallpaperBitmap

Use this property to indicate a wallpaper for the screen. Wallpapers and gradient fills do not exclude each other. Thus, you may have a gradient fill display behind a wallpaper image. If, however, the wallpaper covers the entire screen, the gradient will not display.

Click the button to the right of the property name to open the **Open Picture** dialog box. Locate the image and click **OK**.

WallpaperPos

Use this property to indicate the position of the wallpaper. Options are *Centered, Stretched,* and *Tiled.*

WallpaperUse

This property determines whether or not the wallpaper indicated by the **WallpaperBitmap** property will be used. Options are *True* and *False*.

Note that you may temporarily deactivate the wallpaper by unchecking the **Show Wallpaper** check box in the **Layout** tab in the **Preferences** dialog box. This will reduce the strain on Screen Designer, since screen updates will be processed much faster.

Working with Text Objects

In Screen Designer, text objects are either existing text fields (known as *fillers* in the Tandem world) or text objects, which are created with Screen Designer. You may create new text objects to complement the perception of the screen, for instance, by entering titles, subtitles, logos or guiding captions.

Inserting Text Objects

To insert a text object

1. From the **Object** menu, select **Insert Text**, or click the **Insert Text** button on the tool bar.

2. If you insert the object with the **Insert Text** command from the **Object** menu, a text object with a set of default properties will be inserted at the centre of the screen.

3. If you insert the text object using the **Insert Text** button on the tool bar, simply click on the requester background to insert a text object with a default size. If

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you wish the object to have a certain size, use the mouse to draw the text object.

4. Use the Object Inspector to format the object. For more information, turn to the section Formatting Text Objects.

Formatting Text Objects

Use the Object Inspector to format your text objects. To activate the Object Inspector, enter selection mode and select the text object with the mouse. This will produce the Object Inspector depicted in the figure below. The text properties will be described on the following pages.

Figure 6.7: *The Object Inspector showing text properties.*

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Caption

If you wish to change the text in the text object, select **Caption** from the Object Inspector. Enter the new text. Note that you may use the &-character to indicate that the following letter will be used as a hot key.

Font

If you wish to use a new font or perhaps adjust the size of the current font, select **Font** in the Object Inspector. Click the button to the left of the **Font** property to open the **Font** dialog box depicted below.
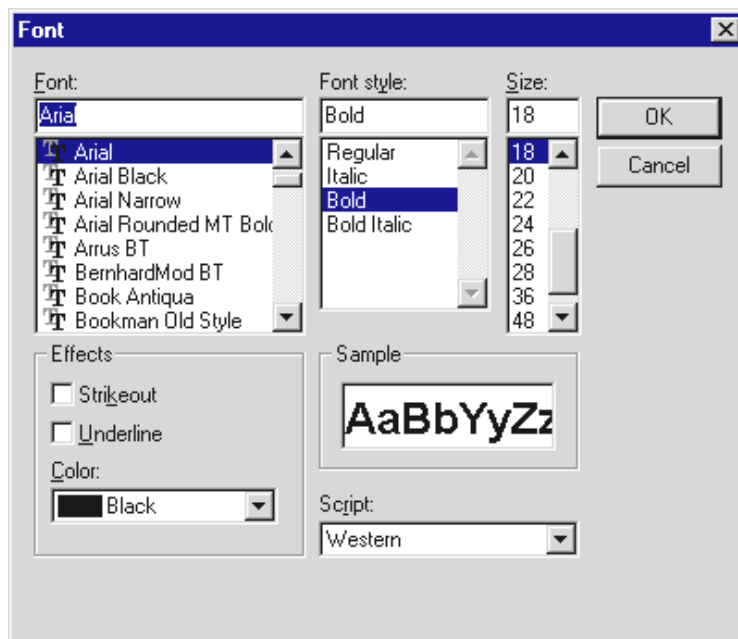

Figure 6.8: *The **Fonts** dialog box.*

From the dialog box you may select a new TrueType font, change the font style and the font size. Also, you may assign display effects such as strikeout and underline. Finally, you may choose between different colors for the text.

Note that there is an upper limit as to the size of the font. If the text becomes too large to fit in the screen, it will be truncated.

FontColorUse

This property determines whether or not the font color indicated with the **Font** property will be used for the text object letters during execution of the requester. Options are *True* and *False*. If you set the option to *False*, the requester will use the font color defined in the **Preferences** dialog box in the Matterhorn Client.

FontUse

This property determines whether or not the font face indicated with the **Font** property will be used during execution of the requester. Options are *True* and *False*. If you set the option to *False*, the requester will use the font defined in the **Preferences** dialog box in the Matterhorn Client.
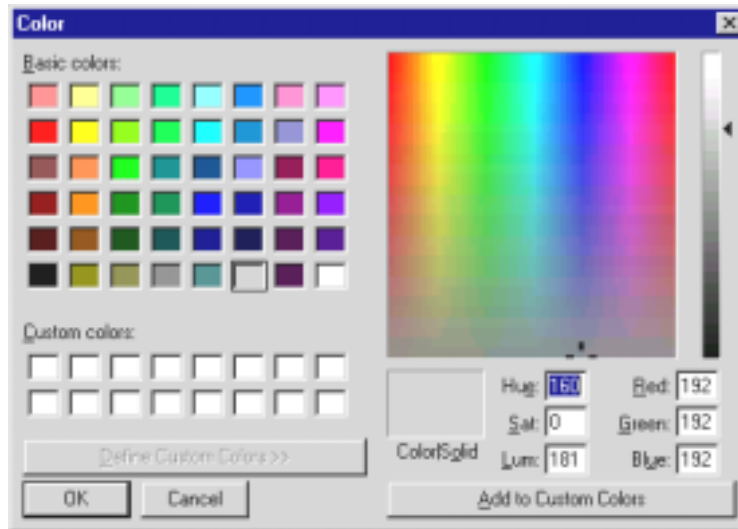
Color

With the **Color** property you may change the background color of your text object. To change a background color, you may either click the **Color** property and select a standard Windows color from the dropdown list, or you may double-click the **Color** property to open the **Color** dialog box. Use this dialog box to select a background color. If you wish to fashion your own colors, click the **Define Custom Colors** button (see Figure 6.9). For more information about working with colors, turn to the ***Microsoft Windows User's Guide.***

ColorUse

This property determines whether or not the color indicated with the **Color** property will be used as background color for the text object. Options are *True* and *False*. If you set the option to *False*, the requester will use the font defined in the **Preferences** dialog box in the Matterhorn Client.

Figure 6.9: *The **Color** dialog box.*

ObjName

This property will display the unique name of the object. Feel free to pick any name. The maximum length of an object name is 20 characters.

Width

Use this option to change the width of the text object. The unit of measurement is *pixels*. If you use the mouse to change the width, the **Width** property will change accordingly.

Top

Use this option to change the Y-coordinate of the upper left corner of the text object. If you use the mouse to drag the text object to a new position, the **Top** property will change accordingly.

If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Left

Use this option to change the X-coordinate of the upper left corner of the text object. If you use the mouse to drag the text object to a new position, the **Left** property will change accordingly.

If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Height

Use this option to change the height of the text object. The unit of measurement is *pixels*. If you use the mouse to change the height, the **Height** property will change accordingly.

Transparent

If text objects are to overlap each other, you may wish to make the background of the object which is placed in front of other objects transparent. In this way, objects in back of it show through. Set the **Transparent** property to *True* to make the text object transparent.

Note that the **ColorUse** property changes to *False* when the **Transparent** property is set to *True*.

URL

Screen Designer enables you to activate URLs (http, ftp, mailto, news, etc.) from within your requesters. You can use this feature to establish a connection to a server on the Internet or when you are creating your own company intranet. When the user clicks the text object associated with an URL, the URL will be located.

Note that this feature may only be used with MattWeb.

URLUse

This property will determine whether or not the URL that you have entered in the **URL** property will be called when the user clicks the text object. Options are *True* and *False*.

Note that this feature may only be used with MattWeb.

Working with Buttons

In Screen Designer you may associate push buttons with function keys, macros and multimedia clips. For instance, if a text prompts the user to press F5 in order to access the order file, you may use Screen Designer to create a push button

entitled *Order File* and then associate this button with the F5 function key. The user then simply has to click the **Order File** button to access the order file. Likewise, a macro that merges address information with a standard letter may be launched by clicking a Screen Designer button labeled **Merge Letter**.

Inserting Buttons

To insert a new button:

1. From the **Object** menu, select **Insert Button**, or click **Insert Button** on the tool bar.

2. If you insert the button with the **Insert Button** command from the **Object** menu, a button object with a set of default properties will be inserted at the centre of the screen.

3. If you insert the button by clicking **Insert Button** on the tool bar, use the mouse to draw a button anywhere on the screen.

4. Use the Object Inspector to format the button. For further information, turn to the section Formatting Buttons.

5. Finally, use the mouse to drag the button to another location.

Formatting Buttons

Use the Object Inspector to format your buttons. To activate the Object Inspector, select the button with the mouse. This will produce the Object Inspector depicted in the figure next page. The options will be described on the following pages.

ObjName

This property will display the unique name of the object. Feel free to pick any name. The maximum length of an object name is 20 characters.

Click

To assign a function key to an existing button, select the **Click** property from the Object Inspector. In the dropdown list box, select the key to assign.
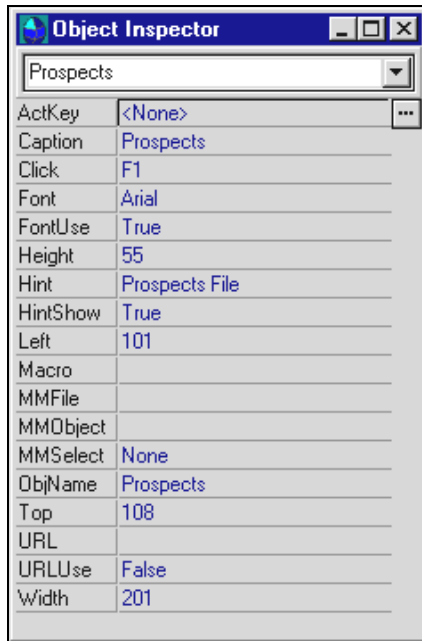

Figure 6.10: *The Object Inspector displaying button properties.*

ActKey

Use this property to associate a shortcut key or keyboard combination such as ALT+C with the button. **ActKey** enables you to activate the button using the keyboard. Click the property and enter the keyboard combination in the **Activation Key** dialog box.

Caption

If you wish to change the button title, select **Caption** from the Object Inspector. Enter the new title and press Enter.
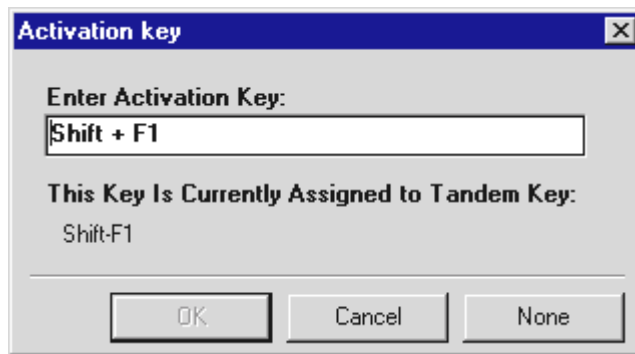
Figure 6.11: *Select an activation key for the button.*

Font

If you wish to use a new font or perhaps adjust the existing font, select **Font** in the Object Inspector. This will produce the **Font** dialog box.

From the dialog box you may select a new TrueType font, change the font style and the font size. Also, you may assign display effects such as strikeout and underline.

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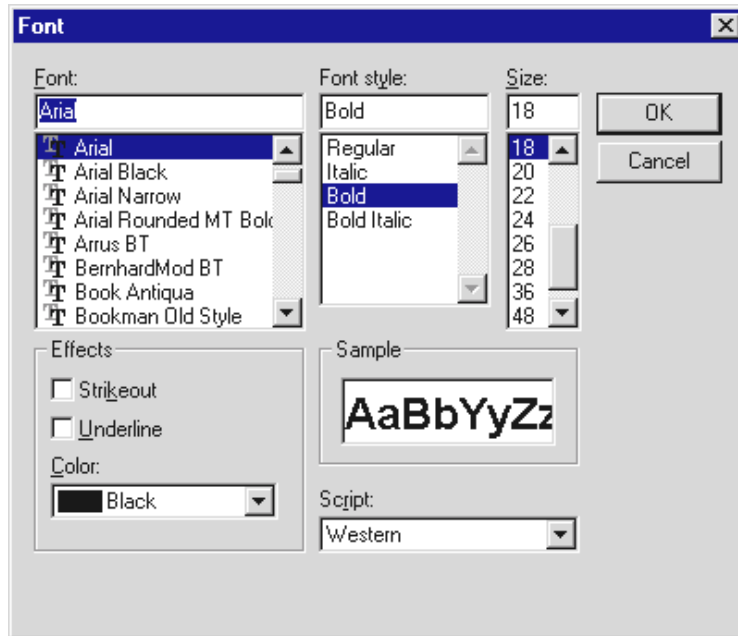
Figure 6.12 *The **Font** dialog box.*

FontUse

This property determines whether or not the font face indicated with the **Font** property will be used for the button during execution of the requester. Options are *True* and *False*. If you set the option to *False*, the button will use the font defined in the **Preferences** dialog box in the Matterhorn Client.

Width

Use this option to change the width of the button. The unit of measurement is *pixels*. If you use the mouse to change the width, the **Width** property will change accordingly

Top

Use this option to change the Y-coordinate of the upper left corner of the button. If you use the mouse to drag the button to a new position, the **Top** property will change accordingly. If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Left

Use this option to change the X-coordinate of the upper left corner of the button. If you use the mouse to drag the button to a new position, the **Left** property will change accordingly.

If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Height

Use this option to change the height of the button. The unit of measurement is *pixels*. If you use the mouse to change the height, the **Height** property will change accordingly.

Macro

Use this option to associate a macro with the button. To choose a macro, click the small button to the right of the property name. Locate the macro on the list. Only macros created with the Matterhorn macro language will appear from the list. The chosen macro will be launched when the user clicks the button.

MMFile

Use this option to associate the button with a multimedia file. The option will open the **Open Multimedia Clip** dialog box. In this dialog box, select the file type and locate the multimedia file to associate with the button. Note that you may make entries for both *MMFile* and *MMObject*. Which of the two options are used is determined by your selection for the *MMSelect* property.

MMObject

Use this option to associate the button with a multimedia object. The option displays a list of available multimedia objects for this requester. More precisely, the names on the list are the names that you have entered in the **ObjName** property when you created your multimedia objects. Note that you may make entries for both *MMFile* and *MMObject*. Which of the two options are used is determined by your selection for the field *MMSelect*.

MMSelect

Use this option to indicate which of the two options *MMFile* and *MMObject* will be used when the user clicks the button during a Matterhorn session. Options are:

None	None of the multimedia clips will be available to the user.
File	The multimedia file will be played when the user clicks the button.
Object	The multimedia object will be played when the user clicks the button.

Hint

With this option you may associate a hint with the button object. A hint is a piece of guiding text that will be displayed when the user points the mouse cursor to the button. The hint will only be displayed if the **HintShow** property has been set to *True* (see below). The maximum length of a hint is 40 characters.

HintShow

This property will determine whether or not the hint that you have entered in **Hint** will be displayed. Options are *True* and *False.*

URL

Screen Designer enables you to activate URLs (http, ftp, mailto, news, etc.) from within your requesters. You can use this feature to establish a connection to a server on the Internet or when you are creating your own company intranet. When the user clicks the text object associated with an URL, the URL will be located.

Note that this feature may only be used with MattWeb.

URLUse

This property will determine whether or not the URL that you have entered in the **URL** property will be called, when the user clicks the button. Options are *True* and *False.*

Note that this feature may only be used with MattWeb.

Working with Pictures

Screen Designer allows you to insert graphic images into your requester screens. For instance, you may insert your own images to support the general perception of the screen. You may use company logos or images depicting your company products etc. Also, you may associate a picture with a multimedia clip or a macro that will be executed as the user clicks the picture.

Inserting Pictures

To insert a picture:

1. From the **Object** menu, select **Insert Picture**, or click the **Insert Picture** button on the tool bar.

2. If you insert the picture with the **Insert Picture** command from the **Object** menu, a picture object with set of default properties will be inserted at the centre of the screen.

3. If you insert the picture by clicking the **Insert Picture** button, use the mouse to draw a picture object anywhere on the screen.

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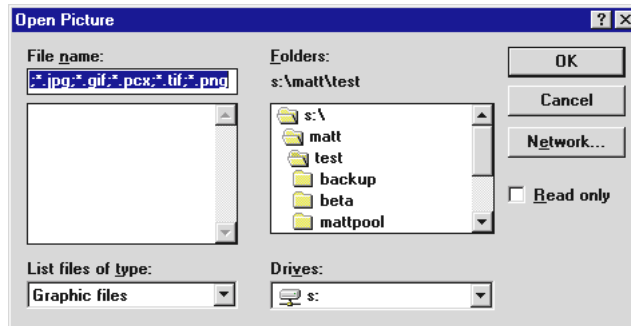
Figure 6.13: *In the **Open Picture** dialog box, locate the picture you wish to insert.*

4. Use the Object Inspector to format the picture. For further information, turn to the section Formatting Pictures.

5. Finally, use the mouse to drag the picture to another location.

Formatting Pictures

Use the Object Inspector to format your pictures. To activate the Object Inspector, select the picture object with the mouse. This will open the Object Inspector depicted in Figure 6.14 next page. The options will be described on the following pages.

Filename

The **Filename** property will display the filename of the current picture. To associate the object with a picture, click the small button to the right of the filename. This will open the **Open Picture** dialog box. Locate the image and click **OK** to load it into Screen Designer.

Click

Use the **Click** property to assign a function key to the picture. To assign a function key to an existing picture, select the **Click** property from the Object Inspector. In the dropdown list box, select the key to assign. When the user clicks the picture, the command associated with this function key will be executed.

Width

Use the **Width** property to change the width of the picture. The unit of measurement is *pixels*. If you use the mouse, the **Width** property will change accordingly.

Figure 6.14: *The Object Inspector showing picture properties.*

Top

Use the **Top** property to change the Y-coordinate of the upper left corner of the picture object. If you use the mouse to drag the picture, the value will change accordingly. If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

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OnDisk

Use the **OnDisk** property to indicate whether the picture file is located on disk or in the Screen Designer database. Options are *True* (on disk) or *False* (in Screen Designer database).

ObjName

This property will display the unique name of the picture. Feel free to pick any name. The maximum length of an object name is 20 characters.

Macro

Use this option to associate a macro with the picture. To choose a macro, click the small button to the right of the property name. Locate the macro on the list. Only macros created with the Matterhorn macro language will appear from the list. The chosen macro will be launched when the user clicks the picture.

Left

Use the **Left** property to change the X-coordinate of the upper left corner of the picture. If you use the mouse to drag the picture, the **Left** property will change accordingly. If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Height

Use the **Height** property to change the height of the picture object. The unit of measurement is *pixels*. If you use the mouse to change the height, the value will change accordingly.

MMFile

Use this option to associate the picture with a multimedia file. The option will open the **Open Multimedia Clip** dialog box. In this dialog box, select the file type and locate the multimedia file to associate with the picture. Note that you may make entries for both *MMFile* and *MMObject*. Which of the two options is used depends on your selection for the *MMSelect* property.

MMObject

Use this option to associate the picture with a multimedia object. The option displays a list of available multimedia objects for this requester. To be more specific, the names on the list are the names that you have entered in the **ObjName** property when you created your multimedia objects. Note that you may make entries for both *MMFile* and *MMObject*. Which of the two options is used depends on your selection for the field *MMSelect*.

MMSelect

Use this option to indicate which of the two options *MMFile* and *MMObject* will be used when the user clicks the picture during a Matterhorn session. Options are:

None	None of the multimedia clips will be available to the user.
File	The multimedia file will be played when the user clicks the picture.
Object	The multimedia object will be played when the user clicks the picture.

Hint

With this option you may associate a hint with the picture object. A hint is a piece of guiding text that will be displayed when the user points the mouse cursor to the picture. The maximum length of a hint is 40 characters. The hint will only be displayed if the **HintShow** property has been set to *True*.

HintShow

This property will determine whether or not the hint that you have entered in **Hint** will be displayed. Options are *True* and *False*.

URL

Screen Designer enables you to activate URLs (http, ftp, mailto, news, etc.) from within your requesters. You can use this feature to establish a connection to a server on the Internet or when you are creating your own company intranet. When the user clicks the text object associated with an URL, the URL will be located.

Note that this feature may only be used with MattWeb.

URLUse

This property will determine whether or not the URL that you have entered in the **URL** property will be called, when the user clicks the picture. Options are *True* and *False*.

Note that this feature may only be used with MattWeb.

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Working with Frames

In order to make a requester screen more clear, you may insert a frame around fields that have similar meanings or purposes. In addition, you may assign various display effects to your frames.

Inserting Frames

To insert a frame:

1. From the **Object** menu, select **Insert Frame**, or click the **Insert Frame** button on the tool bar.

2. If you insert the frame with the **Insert Frame** command from the **Object** menu, a frame with a set of default properties will be inserted at the centre of the screen.

3. If you insert the frame by clicking **Insert Frame** on the tool bar, use the mouse to draw the frame object anywhere on the screen.

4. Use the Object Inspector to format the frame. For further information, turn to the section *Formatting Pictures*.

5. Finally, use the mouse to drag the frame to another location.

Formatting Frames

Use the Object Inspector to format your frames. To activate the Object Inspector, select the frame with the mouse. This will produce the Object Inspector. The frame properties will be described on the following pages.

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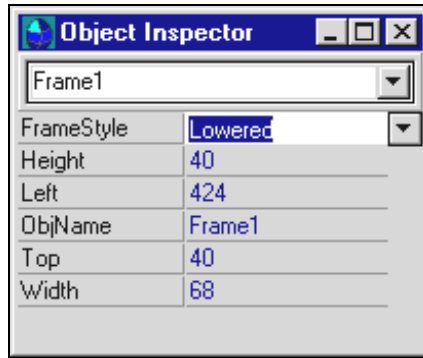
Figure 6.15: *The Object Inspector showing frame properties.*

FrameStyle

Use the **FrameStyle** property to change the style of the frame. Options are; N*ormal, Raised, Lowered, 3DRaised* and *3DLowered.*

Normal   If you select this option, the frame will be drawn with simple borders.

Raised   If you select this option, the frame will be drawn with simple borders. It will appear raised, compared to other objects on the screen.

Lowered   If you select this option, the frame will be drawn with simple borders. It will appear countersinked, compared to other objects on the screen.

3DRaised   If you select this option the frame will be drawn with three-dimensional borders. It will appear raised, compared to other objects on the screen.

3Dlowered   If you select this option the frame will be drawn with three-dimensional borders. It will appear countersinked, compared to other objects on the screen.

Width

Use the **Width** property to change the width of the frame. The unit of measurement is *pixels*. If you use the mouse to change the width, the **Width** property will change accordingly.

Top

Use the **Top** property to change the Y-coordinate of the upper left corner of the frame. If you use the mouse to drag the frame, the value will change accordingly. If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Left

Use the **Left** property to change the X-coordinate of the upper left corner of the frame. If you use the mouse to drag the picture, the **Left** property will change accordingly. If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

ObjName

This property will display the unique name of the frame. Feel free to pick any name. The maximum length of an object name is 20 characters.

Height

Use the **Height** property to change the height of the frame object. The unit of measurement is *pixels.* If you use the mouse to change the height of the frame, the value will change accordingly.

Working with Multimedia Clips

You may use Screen Designer to insert multimedia clips in your Tandem requesters. A multimedia clip may be associated with a bitmap or a button and the user subsequently plays the multimedia clip by clicking the button or bitmap. Screen Designer supports all MCI (Media Control Interface) extensions supported by your Windows version.

A video clip may either be executed within the Matterhorn session window or in a separate window.

Multimedia Objects and Multimedia Files

In Screen Designer you will meet the two terms *multimedia objects* and *multimedia files.* It is easy to distinguish between the two types:

- A multimedia file is a native MCI-compatible file located somewhere on your system.

- A multimedia object is a Screen Designer object, created, stored and formatted from within Screen Designer. The object points to a multimedia file, but Screen Designer also allows you to attach various display properties to the file.

In this book, when we refer to *both* multimedia files and multimedia objects with one phrase, we use the word

multimedia clips. Otherwise the two words refer to different entities.
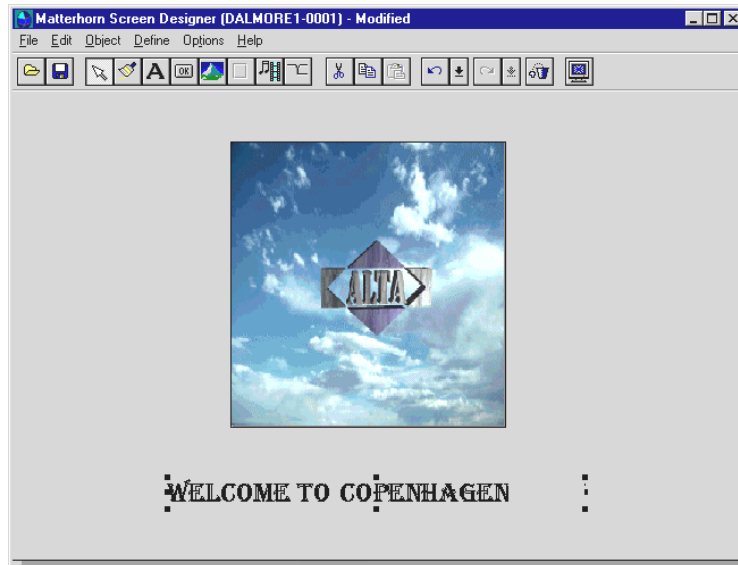
Figure 6.16: *Use Screen Designer to insert multimedia clips in your Tandem requesters.*

Creating Multimedia Objects

1. From the **Object** menu, select **Insert Multimedia**, or click the **Insert Multimedia** button on the tool bar.

2. If you insert the multimedia object with the **Insert Multimedia** command from the **Object** menu, a multimedia object with a set of default properties will be inserted at the centre of the screen.

3. If you insert the multimedia object by clicking **Insert Multimedia** on the tool bar, use the mouse to draw the multimedia object anywhere on the screen.

4. Use the Object Inspector to format the object. For further information, turn to the section [Formatting Multimedia Objects](#).

5. Finally, use the mouse to drag the object to another location.
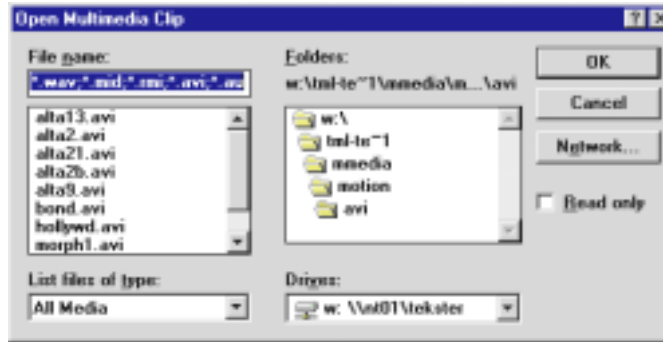
Figure 6.17: *Locate the multimedia file in the* **Open Multimedia Clip** *dialog box.*

Formatting Multimedia Objects

Use the Object Inspector to format your multimedia objects. To activate the Object Inspector, select the multimedia object with the mouse. This will open the Object Inspector.

Figure 6.18: *The Object Inspector showing multimedia object properties.*

FrameStyle

Use the **FrameStyle** property to change the style of the frame surrounding the multimedia object. Options are; *Panel, Raised, Lowered, 3DRaised* and *3DLowered.*

Panel   If you select this option, the frame will be drawn with a simple line. It will appear countersinked, compared to other objects on the screen.

Raised   If you select this option, the frame will be drawn with simple two-dimensional

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borders. It will appear raised, compared to other objects on the screen.

Lowered   If you select this option, the frame will be drawn with simple two-dimensional borders. It will appear countersinked, compared to other objects on the screen.

3DRaised   If you select this option the frame will be drawn with three-dimensional borders. It will appear raised, compared to other objects on the screen.

3DLowered   If you select this option the frame will be drawn with three-dimensional borders. It will appear countersinked, compared to other objects on the screen.

Width

Use the **Width** property to change the width of the multimedia object. The unit of measurement is *pixels*. If you use the mouse to change the width, the **Width** property will change accordingly.

Top

Use the **Top** property to change the Y-coordinate of the upper left corner of the multimedia object. If you use the mouse to drag the multimedia object, the value will change accordingly. If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Left

Use the **Left** property to change the X-coordinate of the upper left corner of the multimedia object. If you use the mouse to drag the picture, the **Left** property will change accordingly. If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

ObjName

This property will display the unique name of the multimedia object. You may enter a name of your own choice. Use this name to link the multimedia object to a button or a picture. The maximum length of an object name is 20 characters. See the section Associating a Multimedia Clip with a Button.

Height

Use the **Height** property to change the height of the multimedia object. The unit of measurement is *pixels*. If you use the mouse to change the height of the multimedia object, the value will change accordingly.

Hint

With this option you may associate a hint with the multimedia object. A hint is a piece of guiding text that will be displayed when the user points the mouse cursor to the object. The maximum length of a hint is 40 characters. The hint will only be displayed if the **HintShow** property has been set to *True*.

HintShow

This property will determine whether or not the hint that you have entered in **Hint** will be displayed. Options are *True* and *False*.

MMFile

Use this property to open the **Open Multimedia Clip** dialog box. In the **Open Multimedia Clip** dialog box, select the file type and locate the desired multimedia file.

OnLoad

Use this option to determine at what time the multimedia clip will be played. Options are *No Action, Auto Play* and *Auto Play Once*. If you select *Auto Play*, the multimedia clip will loop upon startup for as long as the user is running the requester. *Auto Play Once* will play the clip just once during startup. If you select *No Action,* the multimedia object will be represented by a blank frame. When the user double-clicks the frame, the multimedia object will be played once.

Click

To associate a function key with the multimedia object, select the **Click** property from the Object Inspector. In the dropdown list box, select the key to assign. When the user clicks the object, the command will be performed. Note that the user must double-click the multimedia object to play it.

Stretch

Options for the **Stretch** property are *True* and *False*. *True* will stretch the multimedia clip (video - not sound!) to fill out the

entire object frame. *False* will display the clip in its original size.

URL

Screen Designer enables you to activate URLs (http, ftp, mailto, news, etc.) from within your requesters. You can use this feature to establish a connection to a server on the Internet or when you are creating your own company intranet. When the user clicks the text object associated with an URL, the URL will be located.

Note that this feature may only be used with MattWeb.

URLUse

This property will determine whether or not the URL that you have entered in the **URL** property will be called, when the user play the multimedia clip. Options are *True* and *False*.

Note that this feature may only be used with MattWeb.

Macro

Use this option to associate a macro with the multimedia clip. To choose a macro, click the small button to the right of the property name. Locate the macro on the list. Only macros created with the Matterhorn macro language will appear from the list. The chosen macro will be launched when the user clicks the multimedia object.

Note that the user must double-click the multimedia object in order to actually play it.

Associating a Multimedia Clip with a Button

To associate a multimedia clip with a button:

1. Enter selection mode and select the desired button with the mouse. The Object Inspector of that object will display.

2. In the Object Inspector, three properties are relevant to running the multimedia clip: **MMFile**, **MMObject** and **MMSelect**. The first two properties determine whether the multimedia clip is a multimedia file or a multimedia object. When executed, a multimedia file will be displayed in a separate window in Windows, whereas the multimedia object will run inside the Matterhorn session window. The last property, **MMSelect**, tells Matterhorn which of the two first properties to use: **MMFile** or **MMObject**.

3. If you wish to run a multimedia file in a separate window, click the **MMFile** property to open the **Open Multimedia Clip** dialog box. In this dialog box, select the desired MCI file type and locate the multimedia file you wish to use.

4. If you wish to run a multimedia object, click the **MMObject** property. This will display a list of available multimedia objects in Screen Designer. More precisely, the names on the list are the names that you have entered in the **ObjName** property when you created your multimedia objects. (See the section Creating a Multimedia Object).

5. Note that you may make entries for both **MMFile** and **MMObject**. Which of the two options are used, will be determined by your selection for the field **MMSelect**.

None	None of the multimedia clips will be available to the user.
File	The multimedia file will be played when the user clicks the button.
Object	The multimedia object will be played when the user clicks the button.

Associating a Multimedia Clip with a Picture

To associate a multimedia clip with a picture in Screen Designer, follow the procedure described in the previous pages. The two processes are identical. Simply make your entries in the **MMFile**, **MMObject** and **MMSelect** properties in the Object Inspector.

Working with Tabbed Notebooks

Tabbed notebooks enable you to organize the objects of a requester on separate tabs, just like most users know them from their Windows applications. Not only do tabbed notebooks help you organize the objects of your requesters better. They also provide more space on the screen. By grouping the fields of a requester on tabs with meaningful titles, screens will appear less confusing to users. The administrator who is in charge of designing screens will find it easy and fulfilling to work with tabbed notebooks.
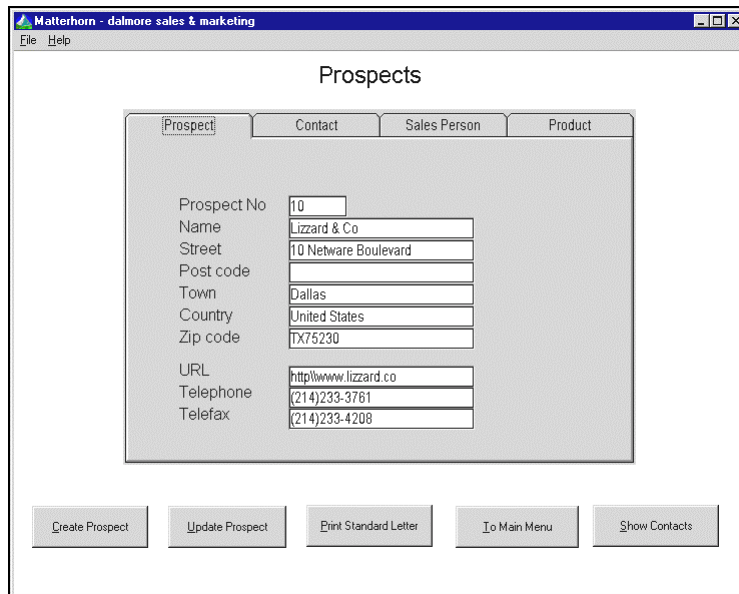
Figure 6.19: *Screen Designer enables you to create tabbed notebooks to organize your screens better.*

Creating a Tabbed Notebook

To create a tabbed notebook:

1. Select **Insert Tabbed Notebook** from the **Object** menu or click the **Insert Tabbed Notebook** button on the tool bar.

2. A blank tabbed notebook is inserted in the centre of the main work area. If you wish to move the tabbed notebook to another location, point to its background (not to the tab caption) and drag it with the mouse.

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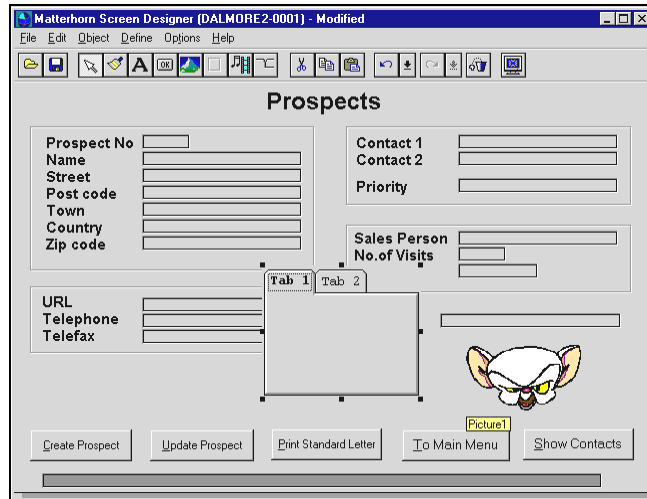
Figure 6.20: *In Screen Designer the tabbed notebook object is inserted in the centre of the application window.*

3. By default, the object contains two tabs. It is not possible to create a tabbed notebook with less than two tabs. On the other hand, try not to create too many tabs as this will ruin the purpose of the tabbed notebook: to provide clarity.

4. The Object Inspector will display a set of default properties related to the tabbed notebook.

5. Use the Object Inspector to indicate the number of tabs in this tabbed notebook and give them meaningful captions (see the section Creating, Naming and Deleting Tabs later in this chapter).

6. Move the objects from the requester object to the tabbed notebook and arrange them on the relevant tabs. You move from one tab to another by clicking the tab caption, just as you would in "real life". See the

following section Moving Objects to a Tabbed Notebook .

Moving Objects to a Tabbed Notebook

Before you start moving objects to the tabbed notebooks, we recommend that you enlarge the Screen Designer application window to display the canvas area. Then move the tabbed notebook to the canvas area. In this way you have a clear view of both the objects on the requester screen and the tabbed notebook (see Figure 6.21).
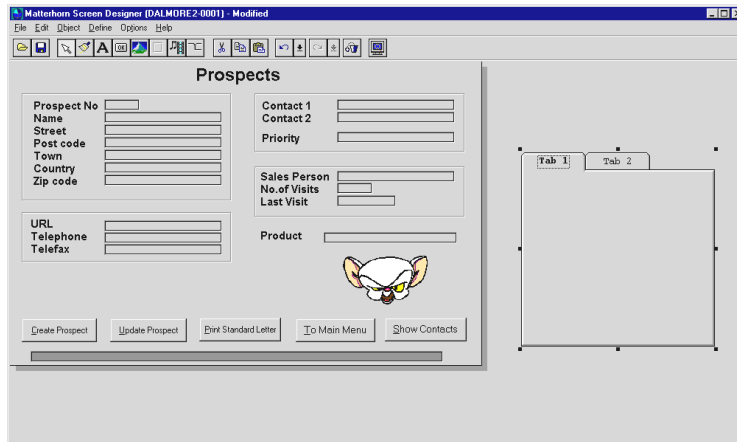
Figure 6.21: *Enlarge the Screen Designer application window to display the canvas area.*

All types of existing objects in the requester may be moved to the tabs of the notebook, including other tabbed notebooks. To move an existing object to a tab, simply select the object with the mouse and drag it to the tab. Then release the mouse button to drop the object. Of course, you may also move several objects at a time. For more information on selecting objects, turn to the section Selecting Multiple Objects in Chapter 5, *Screen Designer Objects*.

Likewise, all types of objects in Screen Designer (apart from the requester object) may be created and inserted on a tabbed notebook. You can also create new tabbed notebooks on existing ones.

As you drag objects over the tabbed notebook, a square line surrounding the tabbed notebook will highlight, indicating that the objects are over the tabbed notebook. If the objects are outside the highlighted area, and you drop the objects, they will not be inserted on the tabbed notebook, but "fall" through to the object(s) in the background. Note that you cannot drop objects on the tab captions. They must be inserted on the actual body of the tabbed notebook.
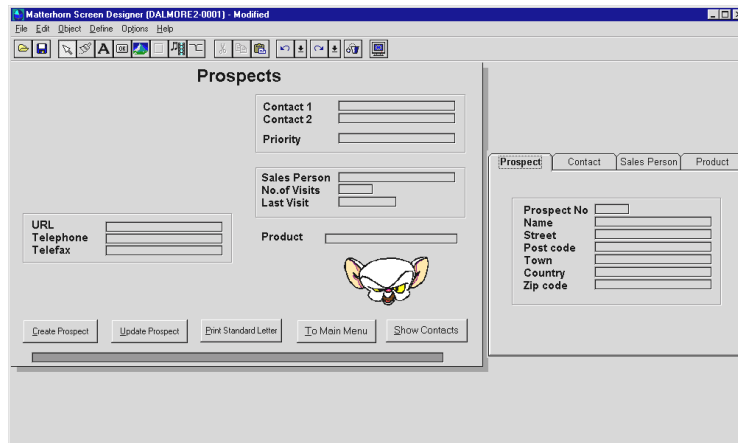
Figure 6.22: *An entire group of objects has been moved to the tabbed notebook in one go.*

Also note that the **Top** and **Left** properties of the moved objects will change, reflecting the objects' positions relative to the tabbed notebook, not to the requester object.

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Creating, Naming or Deleting Tabs

To create, name, or delete tabs and tab captions:

1. Select the tabbed notebook with the mouse.

2. Click the **Tabs** property to open the **Tab Editor** dialog box.
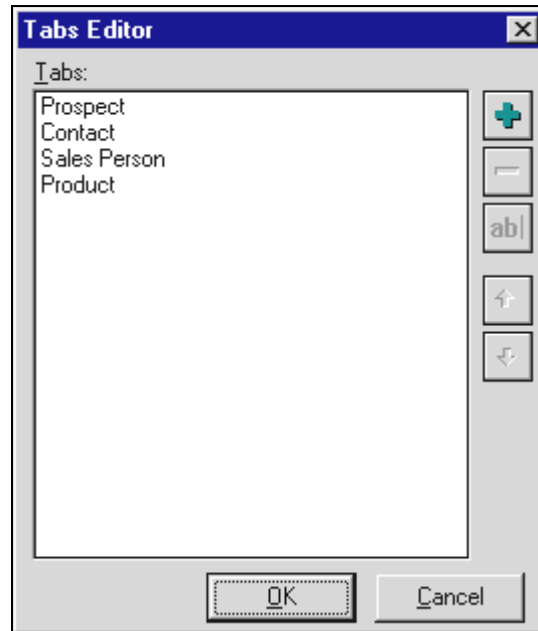
Figure 6.23: *The **Tabs Editor** dialog box.*

3. Click **+** to create a new tab and enter a relevant tab caption.

4. Highlight an existing tab, and click **ab|** to rename it, or

    - to delete it. As mentioned, a tabbed notebook must contains at least two tabs.

5. If you wish to change the order of the tabs on the tabbed notebook, click ↑ or ↓.

6. Click **OK** to return to the Object Inspector.

Formatting Tabbed Notebooks

Use the Object Inspector to format your tabbed notebooks. To activate the Object Inspector, select the tabbed notebook with the mouse. This will open the Object Inspector depicted below.
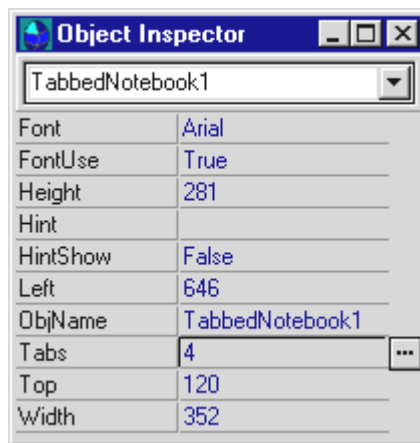
Figure 6.24: *The Object Inspector showing tabbed notebook properties.*

Font

If you wish to use a new font for the tab caption or perhaps adjust the size of the current font, select **Font** in the Object Inspector. Click the button to the left of the **Font** property to

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open the **Font** dialog box. From the dialog box you may select a new TrueType font, change the font style and the font size. Also, you may assign display effects such as strikeout and underline.

FontUse

This property determines whether or not the font face indicated with the **Font** property will be used for the tab caption. Options are *True* and *False*. If you set the option to *False*, the caption will be shown with the font indicated in the **Preferences** dialog box in the Matterhorn Client.

Height

Use this option to change the height of the tabbed notebook. The unit of measurement is *pixels*. If you use the mouse to change the height, the **Height** property will change accordingly.

Hint

With this option you may associate a hint with the tabbed notebook. A hint is a piece of guiding text that will be displayed when the user points the mouse cursor to the tabbed notebook. The maximum length of a hint is 40 characters. The hint will only be displayed if the **HintShow** property has been set to *True* (see below).

HintShow

This property will determine whether or not the hint that you have entered in **Hint** will be displayed. Options are *True* and *False*.

Left

Use this option to change the X-coordinate of the upper left corner of the tabbed notebook. If you use the mouse to drag the tabbed notebook to a new position, the **Left** property will change accordingly.

ObjName

This property displays the unique name of the tabbed notebook. Feel free to pick any name. The maximum length of an object name is 20 characters.

Tabs

Use this property to specify a tab caption or add new tabs to the tabbed notebook. Click the property to open the **Tab Editor** dialog box. From this dialog box you may also add and delete tabs and change the order of the tabs. As mentioned, a tabbed notebook cannot consist of less than two tabs.

Top

Use this option to change the Y-coordinate of the upper left corner of the tabbed notebook. If you use the mouse to drag the notebook to a new position, the **Top** property will change accordingly.

Width

Use this option to change the width of the tabbed notebook. The unit of measurement is *pixels*. If you use the mouse to change the width, the **Width** property will change accordingly.

Restoring Objects from a Tabbed Notebook

If you have deleted an object from a tabbed notebook and wish to restore it, the object will be inserted on the requester object, not on the tabbed notebook. Subsequently, you have to drag and drop the object back onto the tabbed notebook.

Restoring a Tabbed Notebook

If you have deleted a tabbed notebook, you cannot restore it with the **Restore Objects** command. Instead you may use the **Undo** button to restore the notebook.

16- and 32-Bit Tabbed Notebooks

The appearance of tabbed notebooks varies slightly depending on whether you are working with a 16- or 32-bit version of Screen Designer.

In 32-bit Screen Designer, a tiny invisible line along the edge of the tabbed notebook forms a potential trap, when you are moving objects to the tabbed notebook. If you by accident drop the objects over this line - it is only 4 pixels wide - the objects will fall through the tabbed notebook. You then have to move the objects once again, this time making sure that you do not hit the invisible line.

In a 16-bit tabbed notebook with many tabs you will not be able to scroll between the tabs. Instead the tab captions will be arranged to fit the size of the tabbed notebook.

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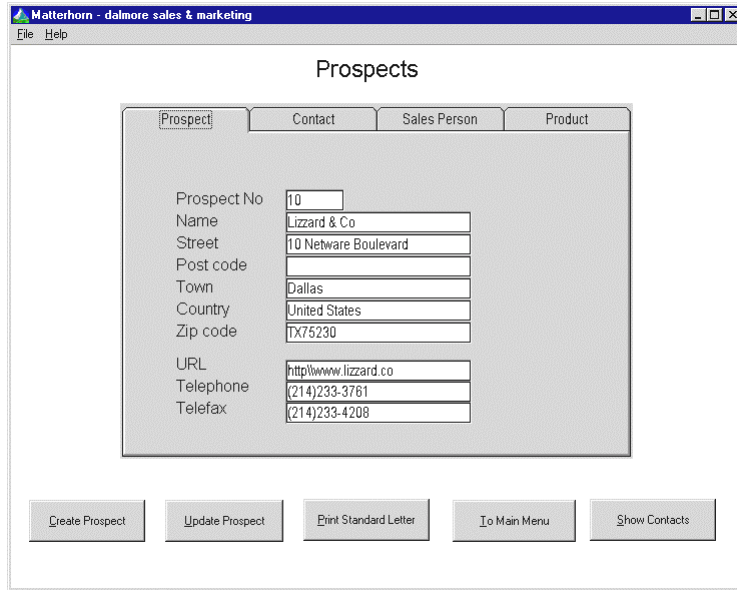
Figure 6.25: *A 16-bit tabbed notebook.*
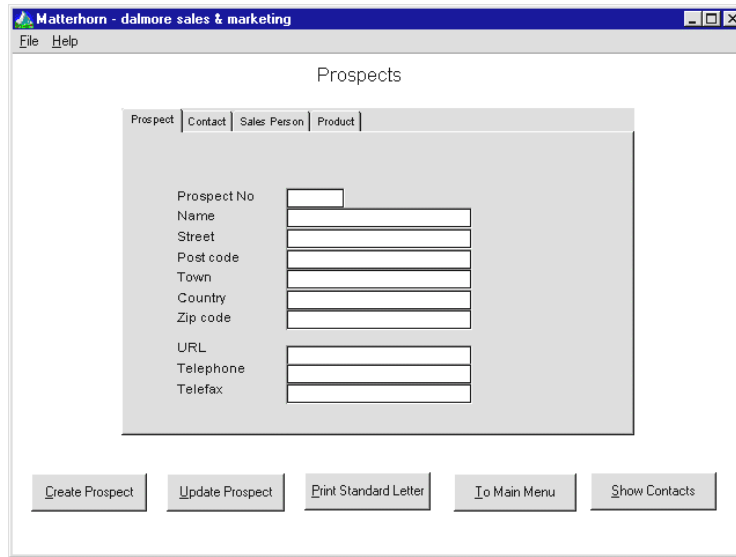
Figure 6.26: *A 32-bit tabbed notebook.*

Working with Selection Lists

With Screen Designer you may create or import selection lists and subsequently associate them with specific edit fields. A *selection list* is a fixed number of valid entries which may be used for a specific field. For instance, you may associate all valid zipcodes with a **Zipcode** field or all valid currency codes with a **Currency Code** field. When users click these fields, the values will be displayed in a dropdown list box.

Note that you may also use Screen Designer to maintain or update selection lists that have previously been created.

Associating a selection list with an edit field will ensure that users always select between valid values, preventing misspellings and other types of user input errors.

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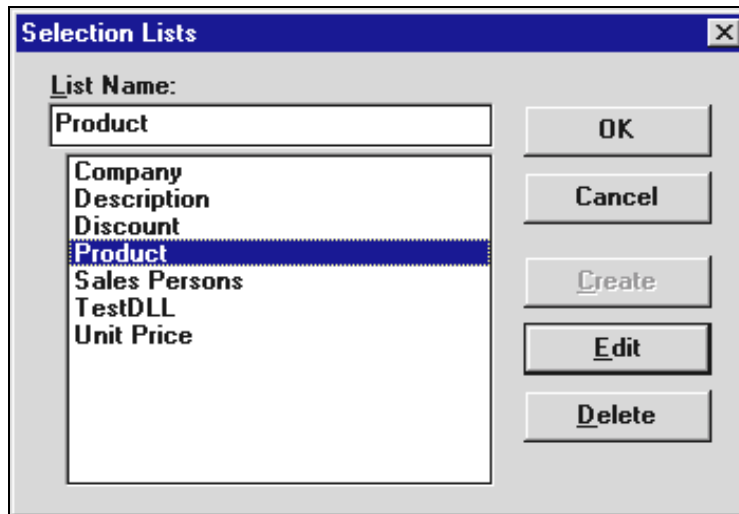
Figure 6.27: *In the* **Selection Lists** *dialog box you may either pick existing selection lists for editing or create new selection lists.*

Sources of a Selection List

The values in a selection list may come from one of four different sources: Your first option is to enter the values for a selection list manually. This approach is advisable if the selection list is static and is not to be updated. Another option is to link the selection list to a textfile and then import the values during load time. This is preferable when the selection list contains a large number of values that needs to be updated on a regular basis. The third and fourth option are to request the values from the Pathway server on Tandem or via a DLL on the PC. These approaches are useful if the selection list values are dynamic, meaning that they are generated or updated on an ongoing basis, such as exchange rates or prices of products or shares etc.

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Creating a Selection List

To create a selection list:

1. Choose **Selection Lists** from the **Define** menu to open the **Selection Lists** dialog box.

2. Enter the name of the new selection list in the field **List Name**. Then press **Create** to open the **Create Selection List** dialog box.

3. In the **Create Selection List** dialog box, indicate whether you wish to create the list manually, import it from a delimited textfile, request it from a Pathway server or via a DLL. Note that the appearance of the dialog box will vary with your choice. In the following three sections, the creation of each type of selection list is described.

Creating the Selection List Manually

To create the selection list manually:

1. In the **Create Selection List** dialog box, check the **Manual** radio button. The **Create Selection List** dialog box is depicted in the figure next page.

2. In the **Rows** field, indicate the number of rows in the selection list. The maximum number of rows is 99.

3. In the **Columns** field, indicate the number of columns in the selection list. The maximum number of columns is 2.

4. In the **Value Column** field, indicate the number of the column that will contain the values to be displayed.

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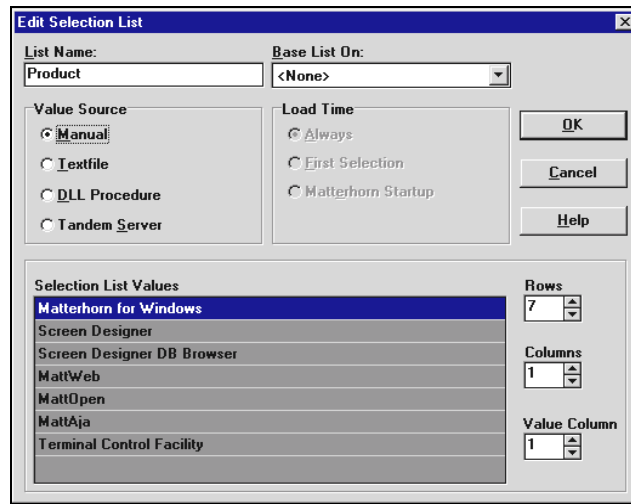
Figure 6.28: *The **Create Selection List** dialog box is used when creating the selection list manually.*

5. Proceed to enter the selection list values in the **Selection List Values** matrix at the bottom of the dialog box.

6. Click the **OK** button.

Loading the Selection List from a Textfile

To create a selection list based on a textfile:

1. In the **Create Selection List** dialog box, check the **Textfile** radio button. **The Create Selection List** dialog box is depicted in the figure below.

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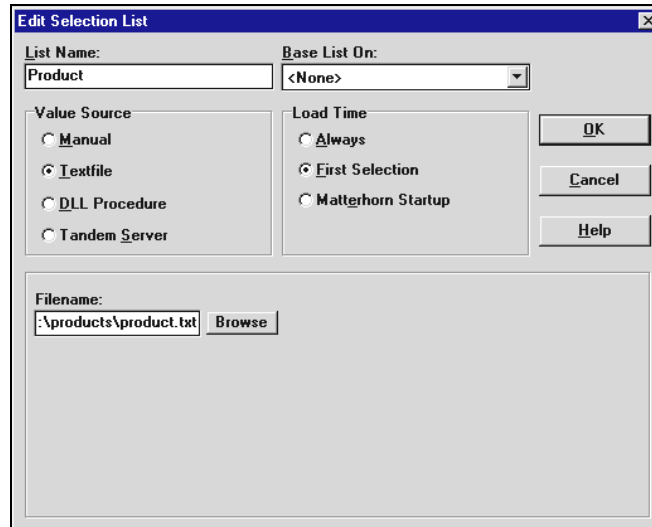
Figure 6.29: *The **Create Selection List** dialog box is used when basing the selection list on a textfile.*

2. Enter the path and filename of the textfile. Alternatively, click **Browse** to locate the file.

3. Indicate in the **Load Time** section at what point the selection list shall be loaded. Options are: *Always, First Selection,* and *Matterhorn Startup.*

Always	The list will be loaded when you activate the field. As the user exits the field, the list will be unloaded, which means that it will not take up any memory. The next time the user clicks the field, the list will be reloaded.
First Selection	The selection list will be loaded when the user clicks the field the first time. With this option, the selection list will remain

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loaded, which means that it will be available to the field while the Matterhorn session is active. The option, however, will take up more memory than the *Always* option.

Matterhorn Startup The list will be loaded and stored when the user launches the Matterhorn session. This option implies a longer start-up procedure, but will ensure a faster execution of session, since the selection list does not have to be loaded when the user clicks the field.

Loading the Selection List from a Tandem Server

To create a selection list based on a Tandem server:

1. In the **Create Selection List** dialog box, check the **Tandem Server** radio button. The **Create Selection List** dialog box is depicted in the figure next page.

2. In the **System Name** field, enter the system name of your Tandem.

3. In the **Pathway Monitor** field, enter the name of the relevant Pathway system.

4. In the **Server** field, enter the name of the relevant server.

5. In the **New Arguments** field, enter the argument(s) you wish to pass to the Tandem server when the selection list is activated. Click the **Add** button to add the argument to the **Arguments** list. Alternatively, press the **Remove** button to remove an argument from the list.

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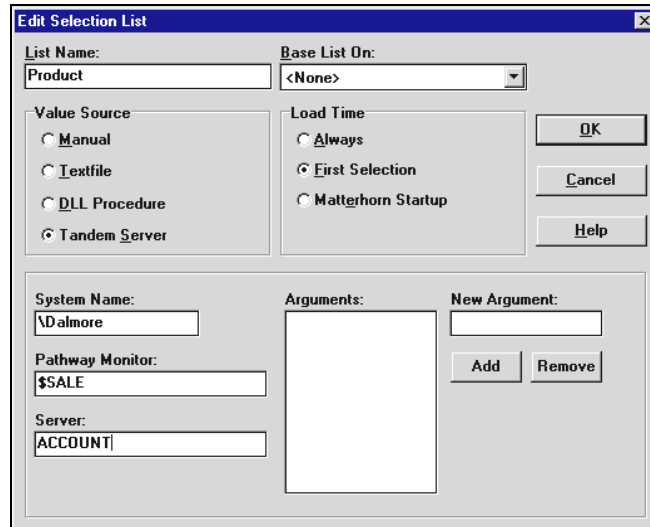
Figure 6.30: *The **Create Selection List** dialog box is used when basing the selection list on a Tandem server.*

6. Indicate in the **Load Time** section at what point the selection list is to be loaded. Options are: *Always*, *First Selection*, and *Matterhorn Startup*. (See the explanations previously in this chapter).

Loading the Selection List from a DLL

To create a selection list based on a DLL procedure:

1. In the **Create Selection List** dialog box, check the **DLL Procedure** radio button. The **Create Selection List** dialog box is depicted in the figure next page.

2. In the **Library Filename** field, enter the path and filename of the DLL. Alternatively, click **Browse** to locate the DLL

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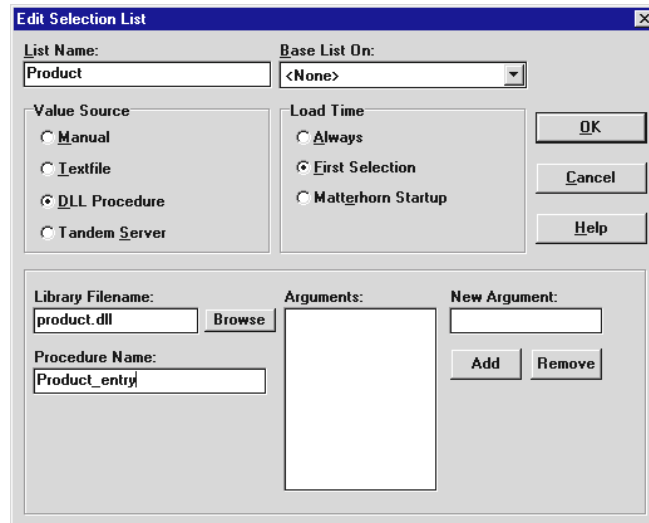
Figure 6.31: *The **Create Selection List** dialog box is used when basing the selection list on a DLL.*

3. In the **Procedure Name** field, enter the procedure to be executed.

4. In the **New Arguments** field, enter the argument(s) you wish to pass to the DLL when the selection list is activated. Click the **Add** button to add the argument to the **Arguments** list. Alternatively, press the **Remove** button to remove an argument from the list.

5. Indicate in the **Load Time** section at what point the selection list shall be loaded. Default is *Always.* (See the explanations previously in this chapter).

Associating a Selection List with an Edit Field

To associate a selection list with an edit field:

1. Select the edit field to display the Object Inspector for the field.

2. In the Object Inspector, click the **SelectList** property and locate the name of the selection list (see Figure 6.32).

3. Set the **SelectListUse** property to *True.*

Figure 6.32: *Associate the Selection List with an edit field from the Object Inspector.*

Working with Edit Fields

You cannot create edit fields from Screen Designer, but the many formatting features of Screen Designer will provide a more user-friendly interface. In addition, Screen Designer allows you to use the values in edit fields in macros and DLLs, for instance to create statistical reports.

Formatting Edit Fields

To format edit fields, use the Object Inspector. To activate the Object Inspector, select the edit field with the mouse. This will produce the Object Inspector depicted in Figure 6.33. The properties will be described on the following pages.

Font

If you wish to use a new font or perhaps adjust the size of the current font, select **Font** in the Object Inspector. This will produce the **Font** dialog box. From this dialog box you may select a new Windows font, change the font style and the font size. Also, you may assign display effects such as strikeout and underline. Finally, you may choose between different colors for the text.

FontUse

This property determines whether or not the font face indicated with the **Font** property will be used during execution of the requester. Options are *True* and *False.* If you set the option to *False*, the requester will use the font defined in the **Preferences** dialog box in the Matterhorn Client.

Figure 6.33: *The Object Inspector showing edit field properties.*

FontColorUse

This property determines whether or not the font color indicated with the **Color** property will be used for the edit field letters during execution of the requester. Options are *True* and *False.* If you set the option to *False*, the requester will use the font color defined in the **Preferences** dialog box in the Matterhorn Client.

Color

With this property you may change the background color of the edit field. To change a background color, you may either click the **Color** property and select a standard Windows color from the dropdown list, or you may double-click the **Color** property to open the **Color** dialog box. Use this dialog box to select a background color. If you wish to fashion your own colors, click the **Define Custom Colors** button. For more information about working with colors, turn to the ***Microsoft Windows User's Guide.***

ColorUse

This property determines whether or not the color indicated with the **Color** property will be used as background color for the edit field during execution of the requester. Options are *True* and *False.* If you set the option to *False*, the requester will use the font defined in the **Preferences** dialog box in the Matterhorn Client.

ClickDbl

Use the **ClickDbl** property to associate a function key with the edit field. When the user double-clicks the edit field, the function of the key will be executed.

Width

Use the **Width** property to change the width of the edit field. The unit of measurement is *pixels.* If you use the mouse to change the width, the **Width** property will change accordingly.

Top

Use the **Top** property to change the Y-coordinate of the upper left corner of the edit field. If you use the mouse to drag the edit field, the value will change accordingly. If the object is located on a tabbed notebook, the **Top** property will reflect the Y-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Left

Use the **Left** property to change the X-coordinate of the upper left corner of the edit field. If you use the mouse to drag the edit field, the **Left** property will change accordingly. If the object is located on a tabbed notebook, the **Left** property will reflect the X-coordinate of the object's upper-right corner relative to the tabbed notebook, not to the requester object.

Height

Use the **Height** property to change the height of the edit field. The unit of measurement is *pixels*. If you use the mouse to change the height, the value will change accordingly.

ObjName

This property will display the unique name of the edit field. Feel free to pick any name. The maximum length of an object name is 20 characters.

Hint

With this option you may associate a hint with the edit field. A hint is a piece of guiding text that will be displayed when the user points the mouse cursor to the edit field. The maximum

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length of a hint is 40 characters. The hint will only be displayed if the **HintShow** property has been set to *True*.

HintShow

This property will determine whether or not the hint that you have entered in **Hint** will be displayed. Options are *True* and *False*.

SelectList

With this option you may associate a selection list with the current edit field. To choose a selection list, click the small button to the right of the property name. Locate the selection list and press Enter. The selection list will only be available to the user if the **SelectListUse** property has been set to *True* (see below).

SelectListUse

This property will determine whether or not the selection list will be available to the user. Options are *True* and *False*.

EntryHist

Use this property to assign an entry history to the edit field. By clicking the field, the user may view a list of the most recently made entries for that field. This list is called an *entry history*. Using an entry history saves time when users often make the same entries in specific fields. Click the small button to the right of the property name and locate the name of the entry history.

Using entry histories is a quite flexible way of streamlining user inputs. An entry history is saved on a per-user basis in the user's personal Matterhorn initialization file.

If, for instance, the same edit field appears in two different screens, used by two different users (A and B) in two different departments (AA and BB), then two different entry histories will be generated. The entry history of user A will reflect his daily work, the entry history of user B will reflect her daily work.

EntryHistCnt

Enter an integer in this property. The integer determines the number of user inputs which should be stored and displayed in the entry history for this field.

EntryHistUse

This property will determine whether or not the entry history will be available to the user. Options are *True* and *False*.

Macro

Use this option to associate a macro with the edit field. To choose a macro, click the small button to the right of the property name. Locate the macro on the list. Only macros created with the Matterhorn macro language will appear on the list. The macro will be launched when the user double-clicks the edit field.

FrameStyle

To change the style of the frame surrounding the edit field, select **FrameStyle** from the Object Inspector. Options are: *Normal, Protected, Raised, Lowered, 3Draised,* and *3DLowered.*

Normal	If you select this option, the frame will be drawn with simple borders.
Protected	If you select this option, the appearance of the field will depend on whether or not the field has been protected on Tandem. If the field is protected, the field will be displayed as plain text without a frame. If the field is editable the frame will be lowered.
Raised	If you select this option, the frame will be drawn with simple two-dimensional borders. It will appear raised, compared to other objects on the screen.
Lowered	If you select this option, the frame will be drawn with simple two-dimensional borders. It will appear countersinked, compared to other objects on the screen.
3Draised	If you select this option, the frame will be drawn with three-dimensional borders. It will appear raised, compared to other objects on the screen.
3Dlowered	If you select this option the frame will be drawn with three-dimensional borders. It will appear countersinked, compared to other objects on the screen.

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Overlay Areas

Screen Designer will depict the overlay areas of your requesters so you do not unintentionally insert objects in these areas (see Figure 6.34). Note that Screen Designer does not prevent you from inserting objects in an overlay area. In some cases, you may wish to insert an object, for instance a picture that is to be displayed as a wallpaper.

In Screen Designer, the requesters that are normally displayed in overlay areas, will appear in a size corresponding to the size of the overlay area (see Figure 6.35). You cannot move objects outside this area.
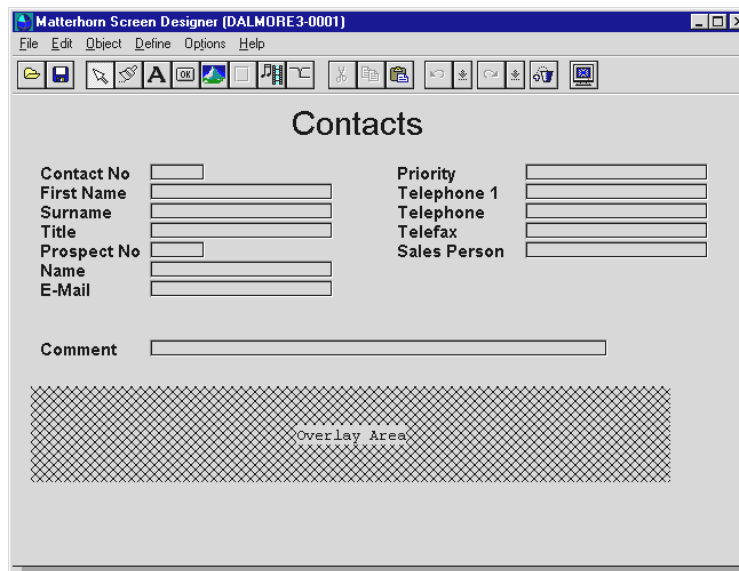
Figure 6.34: *Screen Designer will display the overlay areas of requesters.*
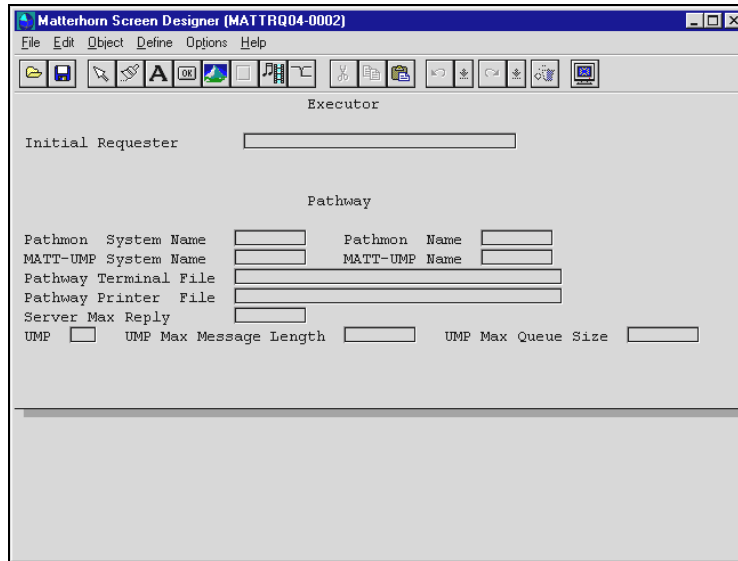
Figure 6.35: *Requesters that are normally displayed in overlay areas during execution will be displayed in a size corresponding to the size of the overlay area.*

When Requesters Have Been Updated on Tandem

Scenario: You have designed a series of requesters with Screen Designer and your system is running smoothly. At some point you need to update the requesters on the Tandem. Since the information Matterhorn needs to display the screen is located in the Screen Designer database, not in the POBJ, your changes will not be reflected on the designed versions of the requesters.

In cases like this you must load the requester into Screen Designer once again. The message in Figure 6.36 will display.

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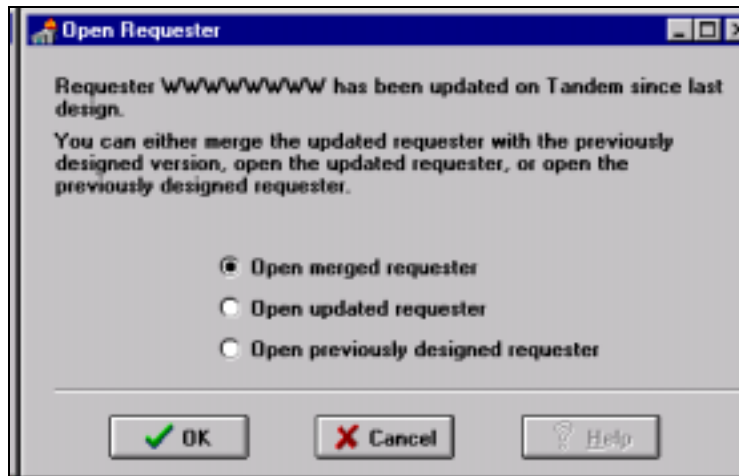
Figure 6.36: *Choose between designing the updated requester from scratch or merge the updated requester with the original design.*

You then have three options:

➤ Merge the updated requester with the previously designed requester.

➤ Design the updated requester from scratch. The information in the Screen Designer database related to the previously designed requester will be deleted.

➤ Open the previously designed requester. This is recommendable if the update has not resulted in any major changes.

When you merge the requesters, Screen Designer will insert all original objects in the new requester. Note that edit fields and fillers may hide behind the original Screen Designer objects, like bitmaps, buttons or multimedia objects.

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Chapter 7:
Matterhorn Macro Language

T his chapter discusses the Matterhorn macro language, which is part of the Matterhorn Suite. The macro language enables you to create your own macros and run them in order to set up dynamic-data exchange (DDE) conversations with other applications that support DDE. In this chapter, you will learn about the principles of creating and running macros and the syntax and application of each of the statements available in the Matterhorn macro language.

Note that the macro statements required for DDE and DLL require a MattOpen license.

The chapter is organized as follows:

➢ About Matterhorn Macro Language

➢ Matterhorn Macro Statements

➢ Creating a Macro in Screen Designer

➢ Associating a Macro with an Object

➢ Associating a Macro with the Requester Object

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About Matterhorn Macro Language

The Matterhorn macro language is an integral part of the Matterhorn Suite. The macro language enables you to create macros in Screen Designer and run them from your Matterhorn sessions. Matterhorn may operate both as DDE-client and DDE-server.

When Matterhorn will operate as client, you use Screen Designer for creating the macros. When Matterhorn will operate as server, you create the macros in another macro programming language making calls to the relevant Matterhorn sessions.

➢ create macros to speed up and simplify administrative tasks.

➢ create macros and run them from your legacy Pathway applications in order to set up dynamic-data exchange (DDE) conversations with other applications that support DDE.

➢ create macros in the macro language of the client application to call your legacy Pathway applications.

➢ create and run macros that calls a Windows DLL.

➢ create macros that combine DLL and DDE technology.

➢ Matterhorn may operate both as DDE-client and DDE-server.

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NOTE Note that the macro statements required for DDE and DLL require a MattOpen license. These statements are also detailed in the MattOpen Developer's Guide.

Types of Macros

Using the Matterhorn macro language you may create macros which operate in the following ways:

- Matterhorn operating as DDE-client, requesting data from any application with DDE-server capabilities, for instance Microsoft Word, Excel or Access, or from other Matterhorn sessions (see Figure 7.1). In this case, the entire macro is created from Screen Designer.
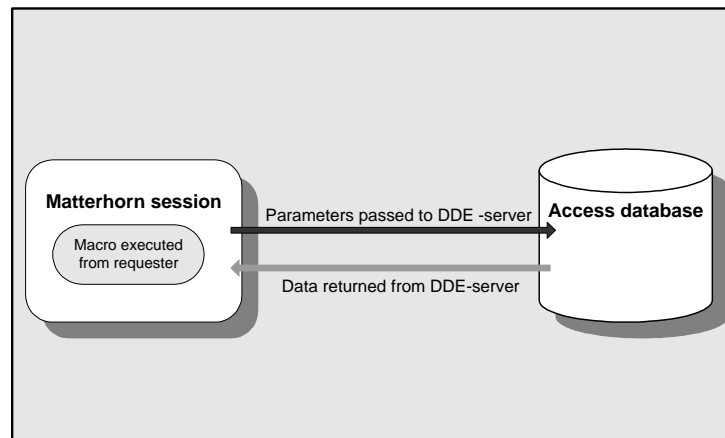
Figure 7.1: *Matterhorn operating as DDE-client, requesting data from Access.*

- Any DDE-compatible application operating as DDE-client, requesting data from one or several Matterhorn sessions or from other DDE-compatible applications

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(see Figure 7.2). In this case, the entire macro is created in the client application.

- Matterhorn and the DDE-compatible application both operating as client and server in turn, requesting data from each other or from other applications that may operate as DDE-servers. For instance, a macro, which is run from a Matterhorn session, may activate a macro in Word, which in turn will request data from another Matterhorn session (see Figure 7.3).

- Matterhorn operating as client making a call to a Windows DLL (see Figure 7.4).

Macro executed from Word. Word operating as DDE-client.

Parameters passed to Matterhorn session

Matterhorn session

Data returned from Matterhorn
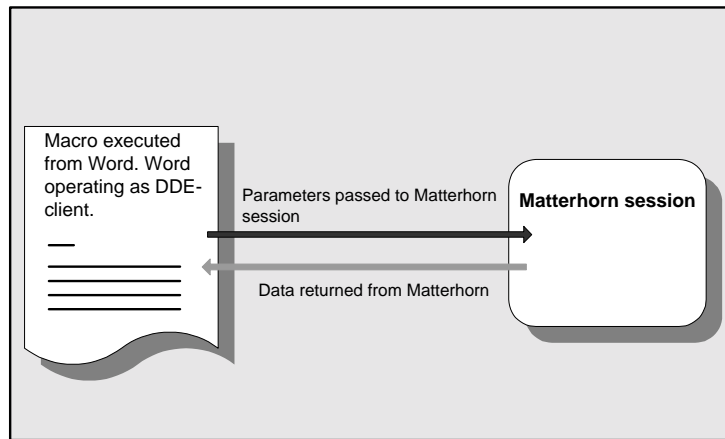
Figure 7.2: *Word operating as DDE-client, requesting data from a Matterhorn session.*
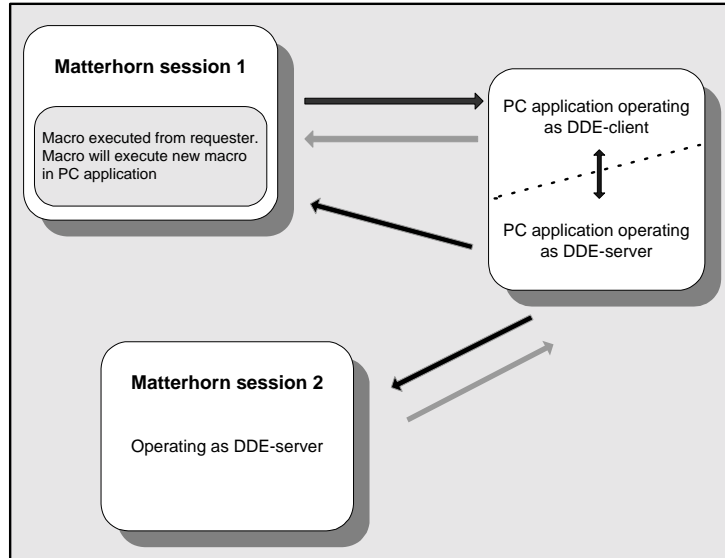
Figure 7.3: *Matterhorn macro executing a Word macro, which is requesting data from a second Matterhorn session.*
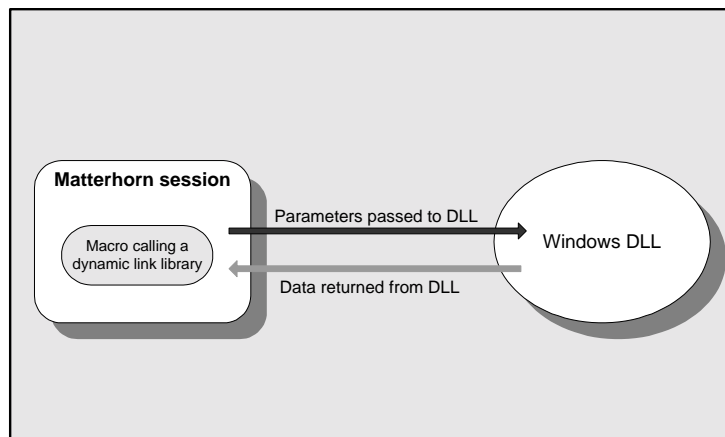
Figure 7.4: *A macro calls a Windows DLL from the requester.*

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Matterhorn Macro Statements

The Matterhorn macro language provides the following statements:

- ➢ DDEInitiate
- ➢ DDEExecute
- ➢ DDEPoke
- ➢ DDERequest
- ➢ DDETerminate
- ➢ DDETerminateAll
- ➢ CallDLL
- ➢ Let
- ➢ SetCursor
- ➢ DoFKey
- ➢ DSC_*variables*

Before we proceed with the descriptions of the statements, however, you should study the section Parameter Types in Macro Statements.

Parameter Types in DDE Statements

On the following pages we will describe the various statements of the Matterhorn macro language. Each statement takes one or several of the following two types of parameters:

➢ Integer

➢ Identifier

The *Integer* parameter may be any whole number between 1 and 10.

The *Identifier* parameter may be any one of the four following types; *string*, *user variable*, *DSC variable*, and *edit field*.

The String Identifier

The string identifier is a string constant. String constants must be enclosed in quotation marks as in "*string*". If you should ever need to use quotation marks *within* a string you must use the ""*string*"" syntax.

Note that you may also use the concatenation operator '&' to build new strings, "Tom "&"Jones" = "Tom Jones".

The User Variable Identifier

You may use up till 255 user variables. User variables are internal storage and may be used as you please. For the user variable identifier you use the following notation; VAR[1].

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The DSC Variable Identifier

The DSC variable identifier identifies a is a descriptor in working storage. For DSC variables you use the following notation: dsc[70].

The Edit Field Identifier

The edit field identifier identifies a specific edit field in the current requester. As you load a requester into Screen Designer, each edit field in the requester will have a unique object name assigned to it.

Rather than referring to edit fields by screen coordinates, Matterhorn refers to a field by its unique object name, enabling the macros to locate a field no matter where it is placed on the screen.

The syntax of this name is *Edit<number>,* as in Edit1, but you may change the object name. Note that the maximum length of an object name is 20 characters.

DDEInitiate

The DDEInitiate statement initiates a DDE-conversation with the server application and opens a DDE-channel through which the conversation may take place.

When you start a DDE-conversation using DDEInitiate(), you reserve a channel for a specific topic recognized by the server application. In Microsoft Word, for example, each open document is a separate topic. The statement has the following syntax:

```
DDEInitiate(Channel:Integer,Application:Identifier,
       Topic:Identifier)
```

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Channel   The channel number used for the DDE-conversation. From 1 to 10.

Application   The application's EXE-file. Note that the application should appear from your PATH-statement. If the Matterhorn Client is to operate as DDE-server, remember that the application name of Matterhorn is Mattwin.

Topic   This parameter may either be a string identifying a document or a spreadsheet, for instance, or an edit field in the current Matterhorn session.

Many applications that support DDE, including Matterhorn, recognize a topic named System, which is always available and can be used to find out which other topics are available. The string topic associated with a Matterhorn session is a so-called session identifier. The session identifier is the current session name.

DDEInitiate Exemplified

In a Matterhorn session macro, the following statement appears:

```
DDEInitiate(1, "WINWORD","LETTER.DOC")
```

When the user runs the macro from the Matterhorn session, this statement will reserve channel 1 for DDE-conversation with Word and the document LETTER.DOC. If Word is not currently running, the macro will ask you to confirm that the application is launched.

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```
DDEInitiate(1, Edit1,Edit2)
```

To run the macro, the user must make entries for the fields
Edit1 and Edit2 (an application name and a topic). The
statement will then reserve channel 1 for DDE-conversation
with the specified application name and topic and launch the
application.

DDEExecute

The DDEExecute statement sends a command or series of
commands to an application through a dynamic-data
exchange. Use this command, for instance, to launch a Word
macro from a Matterhorn session macro. The statement has the
following syntax:

```
DDEExecute (Channel:Integer, Command:Identifier)
```

Channel   The channel number of the DDE-conversation
as provided by DDEInitiate().

Command   A command or series of commands recognized
by the server application, for instance a macro
or a function key. You can also use the format
described under SendKeys to send specific key
sequences. If the server application can't
perform the specified command, an error
occurs.

DDEExecute Exemplified

In many applications that support dynamic-data exchange,
Command should be one or more statements or functions in the
application's macro language. For example, in Microsoft Excel

the XLM macro instruction to create a new worksheet is NEW(1). To send the same command through a DDE channel, you use the following instruction:

```
DDEExecute (1, "[NEW(1)]")
```

Note that some applications, including Matterhorn, require that each command (like macros) received through a DDE-channel be enclosed in brackets. Keys and function keys must be enclosed in braces:

```
DDEExecute(1,"{F1}")
```

You can use a single DDEExecute instruction to send more than one command. For example, the following instruction tells Microsoft Excel to open and then close a worksheet:

```
DDEExecute (1, "[NEW(1)][FILE.CLOSE(0)]")
```

Note that there is no space between commands in brackets; a space character between the commands would cause an error. The preceding instruction is equivalent to the following two instructions:

```
DDEExecute (1, "[NEW(1)]")
DDEExecute (1, "[FILE.CLOSE(0)]")
```

Another example: In a Matterhorn session macro, the following statement appears:

```
DDEExecute (1, Edit3)
```

To run the macro, the user must make an entry for the field Edit3 (the command name) prior to launching the macro.

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A third example: In a Word macro, the following statement appears:

```
DDEExecute(1,"[SetCursor(Edit5)]{Return})
```

The Word macro is designed to initiate a Matterhorn session for DDE-conversation with Word. The SetCursor-command will then be executed, placing the cursor in the edit field identified by Edit5. Subsequently, the edit field will receive a Return keystroke.

DDEPoke

The DDEPoke statement uses an open DDE-channel to send data to an application. When you start a DDE-conversation using DDEInitiate(), you open a channel to a specific topic recognized by the server application. In Microsoft Word, for instance, each open document is a separate topic.

When you send information to a topic in the server application, you must specify the item in the topic you want to send information to. In Microsoft Excel, for instance, cells are valid items and are referred to using either the "R1C1" format or named references. DDEPoke sends data as a text string; you cannot send text in any other format, nor can you send graphics.

The statement has the following syntax:

```
DDEPoke (Channel:Integer, Item:Identifier,
        Data:Identifier)
```

Channel   The channel number of the DDE-conversation, as provided by DDEInitiate().

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Item   An item within a DDE-topic. If the server application does not recognize *Item*, an error occurs. In Word, an item may be a bookmark field

Data   The data to be sent to the server application.

DDEPoke Exemplified

In a Matterhorn session macro, the following statement appears:

```
DDEPoke(1, "NAME",Edit4)
```

The statement will use channel 1, which has previously been reserved for a DDE-conversation with Word and the document LETTER.DOC. The contents of Edit4 in the Matterhorn session will then be transferred to the bookmark field NAME in the Word document.

DDERequest

The DDERequest statement uses a DDE-channel to request an item of information from a server application and transfer it to the client application. When you start a DDE-conversation using DDEInitiate(), you reserve a channel for a specific topic recognized by the server application. In Microsoft Word, for instance, each open document is a separate topic.

When you request information from the topic in the server application, you must specify the item in the topic whose contents you are requesting. In Microsoft Excel, for example, cells are valid items and they are referred to using either the "R1C1" format or named references.

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DDERequest() returns data as a text string only; if the function is unsuccessful, it returns an empty string (""). Text in any other format cannot be transferred, nor can graphics.

The statement has the following syntax:

```
DDERequest (Channel:Integer, Field
       Name:Identifier, Item:Identifier)
```

Channel   The channel number of the DDE-conversation as provided by DDEInitiate().

Field Name The edit field in the Matterhorn session, where the requested data will be inserted. The edit field may also be identified by a descriptor from working storage or a user variable.

Item   The item within a DDE-topic recognized by the server application. DDERequest() returns the entire contents of the specified item. If the server application doesn't recognize *Item*, an error occurs.

DDERequest Exemplified

In a Matterhorn session macro, the following statement appears:

```
DDERequest (1, Edit5, "NAME")
```

When the macro is executed, the statement will use the open DDE-channel to request the content of the item "NAME" and insert it in the edit field identified by Edit5 in the Matterhorn session.

Matterhorn and other applications that support DDE recognize a topic named System. Three standard items in the System topic are described below. Note that you can get a list of the other items in the System topic using the item SysItems.

SysItems
Returns a list of all items in the System topic.

Topics
Returns a list of available topics.

Formats
Returns a list of all the Clipboard formats supported by the server application.

DDETerminate

The DDETerminate statement closes the specified dynamic-data exchange (DDE) channel. To free system resources, you should close channels you aren't using. The statement has the following syntax:

```
DDETerminate(Channel:Integer)
```

Channel   The channel number of the DDE-conversation as provided by DDEInitiate().

DDETerminate Exemplified

In a Matterhorn session macro, the following statement appears:

```
DDETerminate(1)
```

The statement closes the DDE-conversation that has previously been reserved by channel 1.

DDETerminateAll()

The DDE TerminateAll statement closes all dynamic-data exchange (DDE) channels opened by Matterhorn. Using this statement is the same as using a DDETerminate statement for each open channel. DDETerminateAll does not cause an error if no DDE channels are open.

If you interrupt a macro that opens a DDE channel, you may inadvertently leave a channel open. Open channels are not closed automatically when a macro ends, and each open channel uses system resources. The statement has the following syntax:

```
DDETerminate()
```

CallDLL

The CallDLL statement enables you to call a dynamic link-library from a Matterhorn session macro. The statement requires a MattOpen license. The statement has the following syntax:

```
CallDLL(DLLName,DLLProcedure,Param1,….ParamN, Identifier)
```

DLLName   Name of dynamic link library to be called. The DLL name may also be identified by a descriptor from working storage or a user variable.

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DLLProcedure   Name of procedure to be executed. The procedure name may also be identified by a descriptor from working storage or a user variable.

Parameter   The edit field(s) in the Matterhorn session whose contents will be processed during the call. The fields may also be identified by descriptors from working storage or user variables.

Identifier   See the section Parameter Types in DDE Statements.

CallDLL Exemplified

In a Matterhorn session macro, the following statement appears:

```
CallDLL("TEST.DLL","TESTFUNC",Edit1,Edit2)
```

The statement will call the dynamic link library TEST.DLL and execute the procedure TESTFUNC with the contents of the Matterhorn session fields Edit1 and Edit2.

Let

The Let statement enables you to place a value in an edit field or save an edit field value in a variable and then use this value in a later screen. Also, the Let statement enables you to assign a working storage value to an edit field. The statement has the following syntax:

```
Let Identifier=Value
```

Identifier may be either an edit field, a variable or a descriptor. *Value* may be either an edit field, a variable, a descriptor or a fixed string.

Let Exemplified

In a Matterhorn session macro, the following statement appears:

```
Let Edit1="MATTCONF"
```

The statement will insert the string MATTCONF in the edit field Edit1.

SetCursor

The SetCursor statement places the cursor in an edit field. The statement has the following syntax:

```
SetCursor (Edit field)
```

Edit field refers to the edit field.

SetCursor Exemplified

In a Matterhorn session macro, the following statement appears:

```
SetCursor (Edit1)
```

This statement will place the cursor in the edit field Edit1, no matter where it is located on screen.

DoFKey

DoFKey enables you to launch a Tandem terminal key from the macro. The statement has the following syntax:

```
DoFKey ("FKey")
```

FKey is a Tandem terminal key.

DoFKey Exemplified

In a Matterhorn session macro macro, the following statement appears:

```
DoFKey ("F3")
```

This statement will launch the terminal key F3.

DSC_variables

The DSC-statement enables you to retrieve a descriptor value from the Tandem working storage. The statement has the following syntax:

```
DSC_number
```

DSC-variables Exemplified

In a Matterhorn session macro, the following statement appears:

```
DSC_127
```

This statement will get the value from the working storage section variable 127. To locate the descriptor number, compile

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the Screen Cobol source file with Map option. This will list the variables and their descriptor numbers.

Creating a Macro in Screen Designer

The Matterhorn macro language is an integral part of Screen Designer, which means that Screen Designer is the development tool you use when creating macros. It is also from Screen Designer that you associate the macros with the objects of a requester.

Creating the Macro

Start Screen Designer and load a requester into the main work area. Once a requester is loaded into Screen Designer, the **Define** menu becomes accessible and your are ready to create the macro:

1. Select **Define**, **Macro** to open the **Macro** dialog box (see Figure 7.5).

2. In the **Macro Name** field, enter a name for the new macro. If you wish to modify an existing macro, locate the macro name in the list. Depending on your choice, you will open the **Edit Macro** dialog box or **Create Macro** dialog box (see Figure 7.6).

3. In the **Macro Description** field, enter the relevant macro statements.

4. Click the **OK** button.
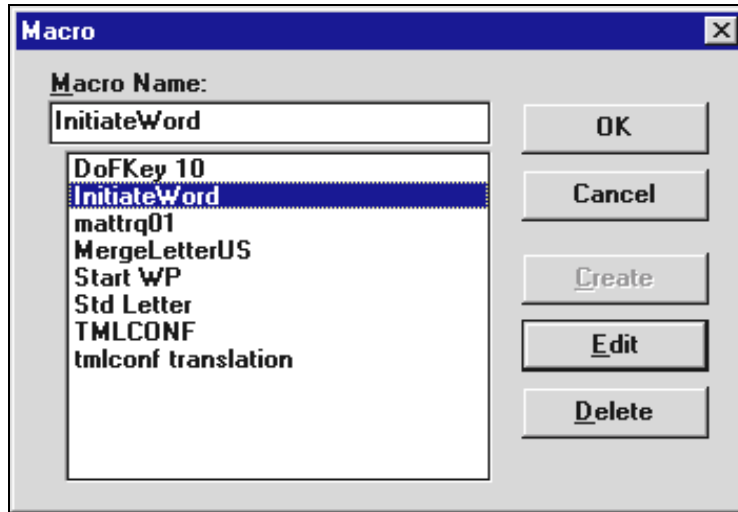
Figure 7.5: *The Macro dialog box.*
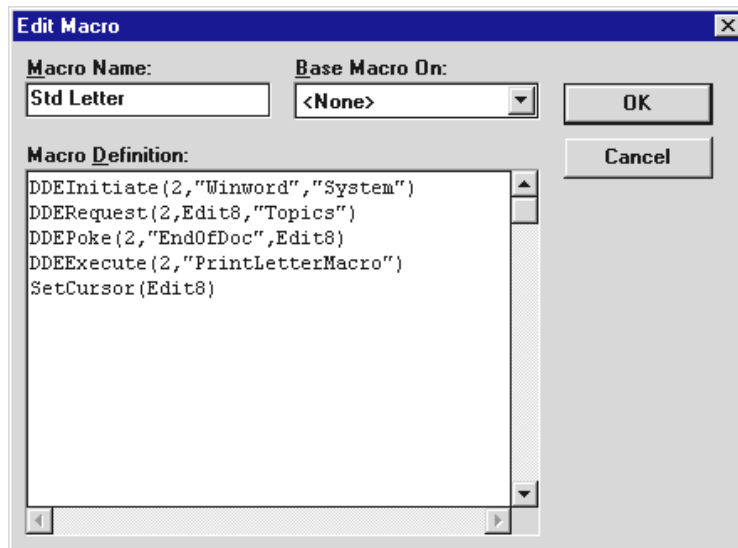
Figure 7.6: *Enter the macro Statements in the **Macro Definition** field.*

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For more information about how to associate a macro with a button, turn to the section .

Associating a Macro with an Object

In Screen Designer you may associate a macro with the following types of objects:

Buttons	Click the button to launch the macro.
Edit fields	Double-click the edit field to launch the macro.
Pictures	Click the picture to launch the macro.
Multimedia objects	Click the multimedia object to launch the macro.
Requester object	The macro will be executed as the user performs an accept of the screen, for instance when exiting or updating the requester or moving on to another requester.

Associating the Macro with an Object

A macro may be associated with the object when creating or formatting the object in Screen Designer. To insert a new object and associate it with a macro:

1. From the **Object** menu, select the relevant **Insert** command, or click the corresponding button on the tool bar.

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2. A blank object will be inserted at the centre of the main work area.

3. Use the associated Object Inspector to format the object (see Figure 7.7).

Object Inspector	
Button3	
ActKey	Alt + P
Caption	&Print Standard Letter
Click	Run macro
Font	MS Sans Serif
FontUse	True
Height	32
Hint	Click to print
HintShow	True
Left	257
Macro	MergeLetterUS
MMFile	
MMObject	
MMSelect	None
ObjName	Button3
Top	348
URL	
URLUse	False
Width	111
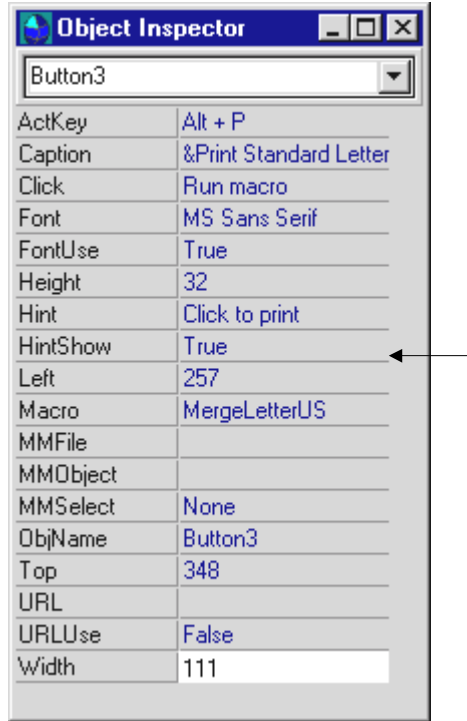
Figure 7.7: *Associate the macro with the object from the Object Inspector.*

4. Click the small arrow to the right of the **Macro** property name to display a list of available macros. Scroll down the list until you've located the desired macro.

Associating a Macro with the Requester Object

If you associate the macro with the requester object, you can have the requester launch the macro as the user performs an accept of the screen, for instance when exiting or updating the requester or moving on to another requester. As an example, you may write a macro that inserts default values in specific fields of the following requester as the user proceeds to this requester.

To associate a macro with the requester object:

1. Click anywhere in the background of the requester to open the Object Inspector of the requester object.

2. Click the small button to the right of the **OnAccept** property name and locate the macro on the list.

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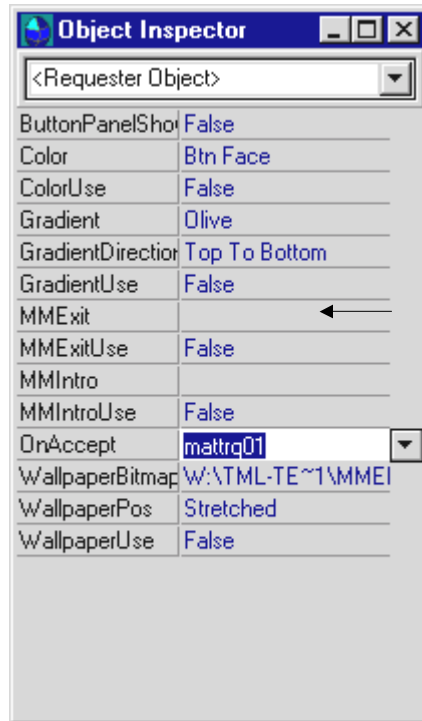
Figure 7.8: *Associate the macro with the requester object from the Object Inspector.*

Testing the Macro

To test the macro, run the Matterhorn session, by clicking the relevant icon in your Matterhorn group folder. Locate the relevant object and launch the macro.

If you experience problems, open the **Messages** window. This window displays error messages that may assist you in debugging the macro.

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Chapter 8:
Data Explorer

T his chapter describes the productivity tool Data Explorer, which is a part of your Screen Designer package. Use Data Explorer to monitor and maintain your Screen Designer databases on a large scale.

The chapter is organized as follows:

> ➤ About Data Explorer

> ➤ Installing Data Explorer

> ➤ Starting Data Explorer

> ➤ The Data Explorer Application Window

> ➤ Navigating Data Explorer

> ➤ The Menus

> ➤ The Tool Bar

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About Data Explorer

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

Data Explorer provides a structured overview of your Screen Designer databases. You may create entirely new databases and construct them on the basis of existing databases. Thus, you may drag requesters from one database and drop them in another database. Using Data Explorer, you may drag selected objects from one requester to another and from one database to another - a technique known from Microsoft Explorer.

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

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

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

Installing Data Explorer

Data Explorer is part of your Screen Designer package. The Data Explorer icon will be created as you create the Screen Designer icon. For more information about installing Screen

Designer and creating a Screen Designer icon, turn to Chapter 2, Installing Screen Designer.

Starting Data Explorer

To start Data Explorer, click the Data Explorer icon. Alternatively, select **Launch Data Explorer** from the **File** menu in Screen Designer.

The Data Explorer Application Window

Figure 8.1 depicts the Data Explorer application window. This window is your work place when working with Screen Designer databases. The application window consists of the main work area, the menu bar, and the tool bar.
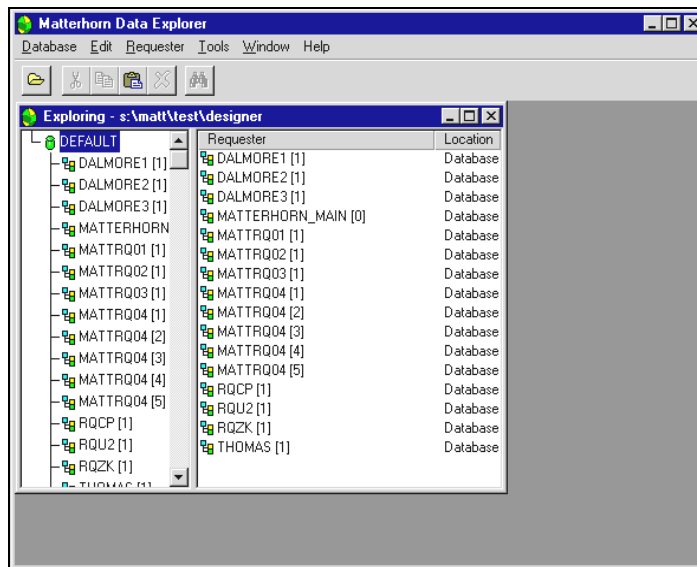
Figure 8.1: *The Data Explorer application window.*

The Main Area

When you load a database into Data Explorer, it will be loaded into the *main area.* In many ways, the main area of Data Explorer resembles the Microsoft Explorer. Each element (user group, requester, object, or subobject) is represented by an icon.

The Data Explorer Menu Bar

The menu bar runs just below the title bar. The menu bar holds all of Data Explorer's pull-down menus that will help you manage your Screen Designer databases. The section The Menus in this chapter describes the operation of each menu and menu option.

The Data Explorer Tool Bar

The tool bar runs just below the menu bar. The tool bar consists of icons each representing a tool or option which you can use in Data Explorer. The section The Tool Bar in this chapter describes the operation of each icon in the tool bar.

Navigating Data Explorer

In many ways, the look and feel of Data Explorer resemble the Microsoft Explorer. Like Microsoft Explorer, the main area is divided into a left- and right-hand side. The design provides easy access to all parts of the database. The contents of whatever is active in the left-hand side of the main area will be displayed in the right-hand side.

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Element Levels in Data Explorer

On the top level of the element structure, you find the Screen Designer databases containing one or several user groups. Each user group is represented by a green database icon.

Each user group contains one or several requesters and a special *system element* containing information about selection list, macros, requester remappings, and keyboard mappings. These elements are depicted on the next level.

On the third level - the object level - you find the various object types represented by icons: text objects, edit fields, buttons, frames, pictures, selection lists, multimedia objects, tabbed notebooks, etc. When an object is selected in the left-hand side of the main area, the Object Inspector will display the properties of that object.
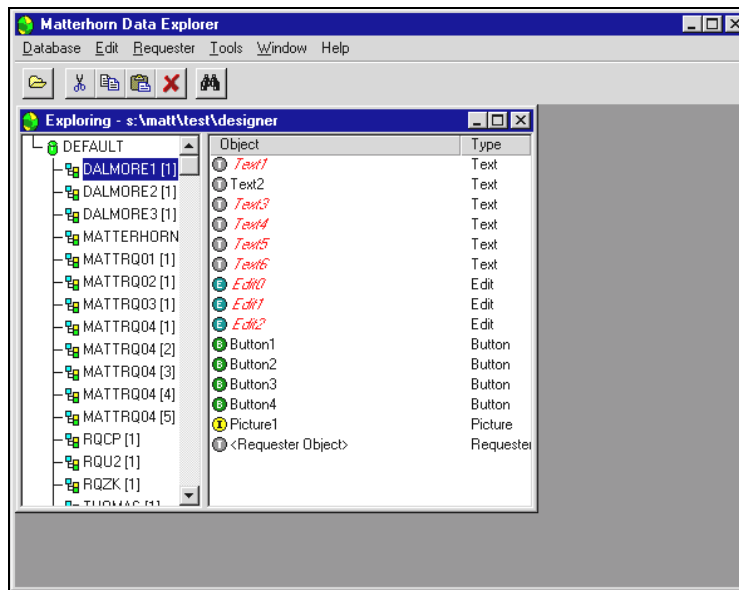
Figure 8.2: *In Data Explorer, each element is represented by an icon. Clicking an icon will expand elements beneath the current level.*

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Note that you may customize Data Explorer to expand requesters and objects or not when you click them. For more information, turn to the section, The Database Menu.

When you click an element, the window will expand to display any subelements of that element. Thus, when you click a requester icon, the objects of that requester will be displayed on a list of object icons (see Figure 8.2). And when you click an object, the Object Inspector will display the properties of that object (see Figure 8.3).

Note that picture objects and tabbed notebooks contain several subobjects. These subobjects contain data which are relevant to the parent object (the picture or the tabbed notebook), but not to the person using Data Explorer. You cannot edit or manipulate these subobjects in any way. If you copy (or move) a picture or a tabbed notebook to a new location, the subobjects will also be copied (or moved).
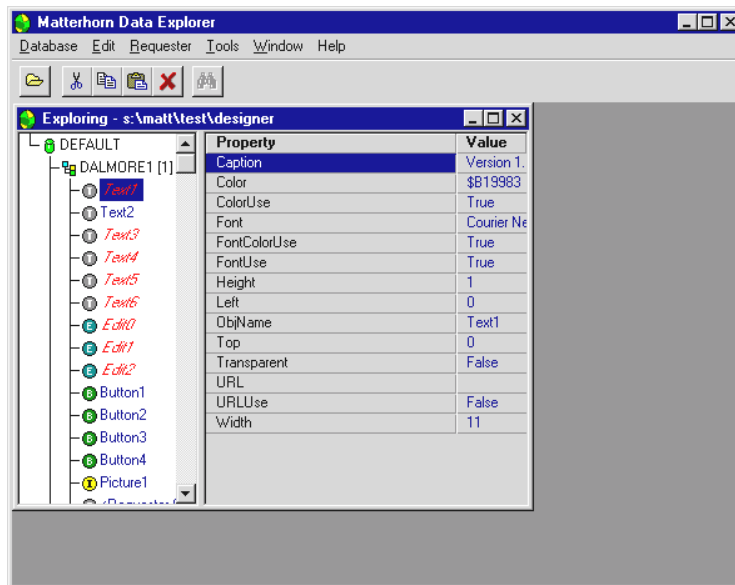
Figure 8.3: *Data Explorer will display the properties of screen objects. Note that you cannot edit object properties from Data Explorer.*

You may customize Data Explorer to display these subobjects by checking the **Show Subobjects** check box in the **Preferences** dialog box. For more information, turn to the section, The Database Menu.
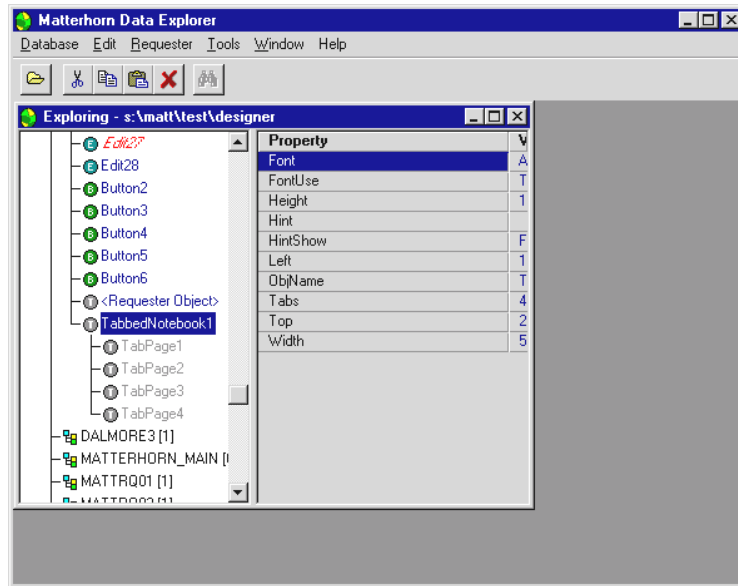
Figure 8.4: *A tabbed notebook with subobjects.*

Working With Several Databases

As mentioned, Data Explorer allows you to work with several databases at a time. Each database will open in a separate window in the main area. Data Explorer lets you arrange all open databases, tiled or cascaded. You may then drag requesters and/or objects from one database to another using

the mouse, and you may switch from one database to another, simply by clicking in the new database window (see Figure 8.5).
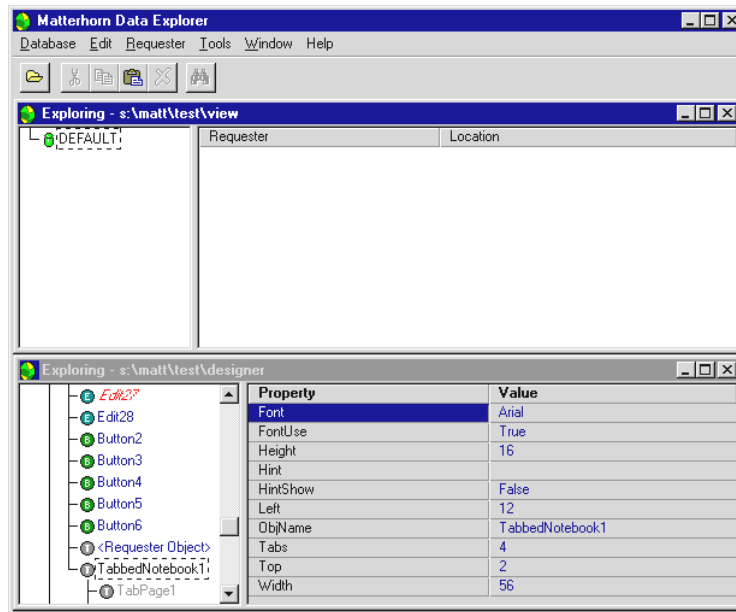
Figure 8.5: *Data Explorer allows you to work with several open databases at a time.*

Dragging and Dropping Elements

One of the powerful features of Data Explorer is the ability to drag elements from one location and then drop them in another location. Note that dropping an element is the equivalent of copying that element with all its properties preserved.

As mentioned you may drag selected objects from one requester to another, and from one database to another. In

addition, you may drag requesters from one database and drop them in another database.

Note that you can also use the **Cut**-, **Copy**- and **Paste** commands when rearranging, moving and copying elements in Data Explorer.

To drag and drop an element:

1. Select the element with the mouse and press down the left mouse button.

2. Move the mouse to the location where you wish to drop the element. As you move the mouse, the cursor transforms into one of two drag-and-drop symbols, each indicating whether or not the element may be dropped. If the cursor transforms into a stop sign you cannot drop the icons.

3. When the cursor is over the destination element, release the mouse button.

Note that the changes you make to your databases by dragging and dropping will be implemented instantly. If you regret a drag-and-drop procedure, you can undo it by deleting the element which you have just copied from the destination element.

Moving Objects Between Data Explorer and Screen Designer

Using the **Cut**-, **Copy**- and **Paste** commands, you can copy and move elements from Screen Designer to Data Explorer, and vice versa.

In Screen Designer, select the object with the mouse and pick **Cut** or **Copy** from the **Edit** menu. Proceed to Data Explorer

and locate the target requester. Select **Paste** from the **Edit** menu to insert the object. The object will be inserted at the bottom of the object list.

In Data Explorer, select the object on the object list and pick **Cut** or **Copy** from the **Edit** menu. Proceed to the Screen Designer application window and select **Paste** from the **Edit** menu. The object will be inserted on the screen in accordance with its object properties.
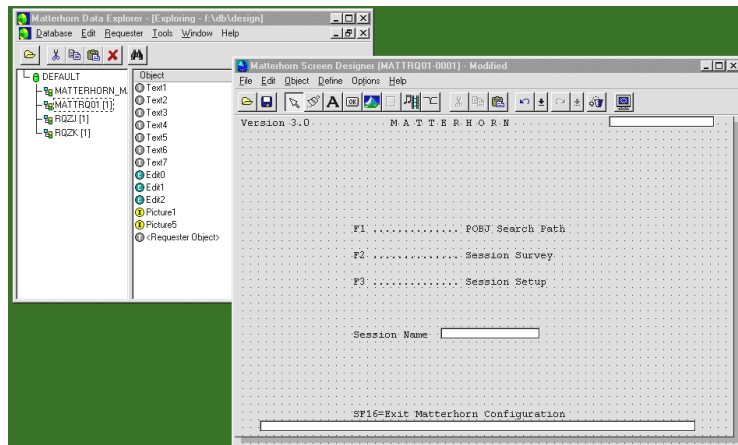
Figure 8.6: *You may move and copy objects from Screen Designer to Data Explorer and vice versa.*

Dragging an Element to Multiple Elements

Data Explorer allows you to mass reproduce one or several selected elements by copying them to other elements. For instance, you may copy the same button to several target requesters.

This powerful feature enables you to create template requesters and then use the templates as a basis for creating new requesters.

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To copy a button to multiple requesters in another database:

1. Open Database1 and Database2 and make sure to arrange the windows so that both databases show.

2. Locate and select the button in Database1.

3. Locate and select the target requesters in Database2.

4. Drag the button and drop it over the requesters in Database2.

To copy a button to multiple requesters in the same database:

1. If Database1 is already open, select **New Window** from the **Window** menu. Arrange the windows so that both source and target elements show.

2. Locate and select the source button in Window1.

3. Locate and select the target requesters in Window2.

4. Drag the button and drop it over the requesters in Window2.

Selecting Elements in Data Explorer

Before you can drag and drop elements in Data Explorer, you must select them with the mouse.

To select an element:

- Point the mouse to the element and click with the left mouse button. The element will be highlighted, indicating that it is selected.

To select a block of adjacent elements:

- Press down the Shift-key and point the mouse to the first element in the block and click with the left mouse button. Then point the mouse to the last element in the block and click. The entire block will be highlighted, indicating that the elements have been selected.

To select multiple non-adjacent elements:

- Press down the Ctrl-key and point the mouse to the first element and click with the left mouse button. The element will be highlighted, indicating that it has been selected. Whilst pressing down the Ctrl-key, proceed to click the other elements.

Note that you can use the **Select All** command from the **Edit** menu to select all elements in the right-hand side of the main area.

The Menus

The menu bar runs just below the title bar. The menu bar holds all of Data Explorer's pull-down menus that will help you to monitor and maintain your databases. This section takes you through the menus and menu options of the Data Explorer menu bar.

The Database Menu

The Database menu provides three different options:

➢ New Database

➢ Open Database

➢ Preferences

> ➢ Exit

> ➢ Recently Used Databases List

New Database

To create a new Screen Designer database, select **New Database** from the **Database** menu. In the **New Database** dialog box, select a location and enter the name of the new database. Screen Designer databases are saved as .db3 file types. An empty database window opens. You may now drag elements from other databases to this database to create entirely new screens.

Open Database

To open an exiting Screen Designer database, select **Open Database** from the **Database** menu. In the Open **Database** dialog box, locate the database and click **Open**.

Preferences

To open the **Preferences** dialog box, select **Preferences** from the **Database** menu. In the **Preferences** dialog box, you may customize Data Explorer on various levels.

Recently Used Databases List	To change the number of databases listed in the **Database** menu, enter a number from 1 to 16 in the **Entries** box.
Expand Requesters	This check box lets you configure whether or not requester and object icons will expand to show the underlying elements (objects and

object properties, respectively) when you click them.

If the **Expand Requesters** check box is checked and you click a requester icon, the objects of the requester will display. And if you click an object icon, the Object Inspector will open displaying the properties of that object.

If the **Expand Requesters** check box is not checked, the requesters and objects will not expand as you click their icons.
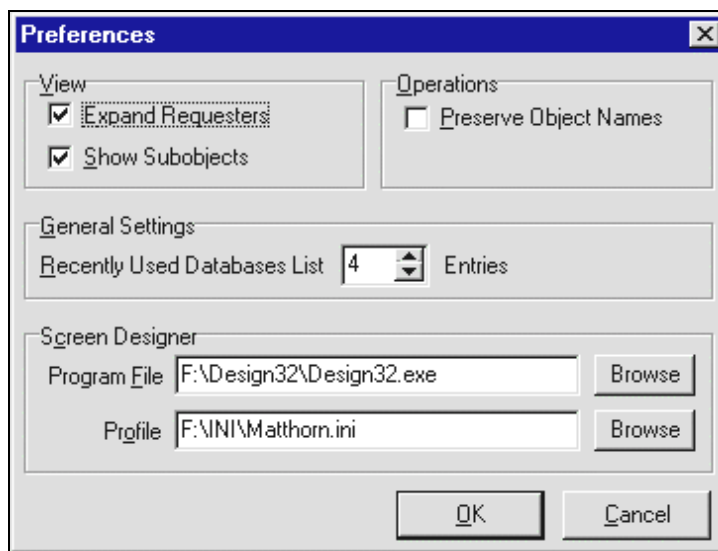
Figure 8.7: *The **Preferences** dialog box.*

Show Subobjects   Picture objects and tabbed notebooks contain several *subobjects*. These

subobjects contain data which are relevant to the parent object (the picture or the tabbed notebook), but not to the person using Data Explorer.

Check this option if you wish to see the subobjects of the pictures and tabbed notebook in your requesters.

Preserve Object Names

Checking this box implies that object names (the entry in the **ObjName** property) will be preserved as you copy the objects from one location to another.

The option is useful in cases when the destination (database or requester) contains objects with names which are identical to the objects you are copying. The option controls whether or not the objects at the destination should be overwritten by the objects which are copied.

Checking the option implies that objects with similar object names will be overwritten by the objects you are copying.

If you leave the check box unchecked, the objects will be given new object names. If, for instance, you copy Button1, -2, and -3 from one requester to another requester containing Button1, -2, and -3, then the new objects will be assigned the object names Button4, -5, and -6.

Program File	Use this field to enter a path to a Screen Designer program file. Click **Browse** to browse for the file. To launch Screen Designer, you must select **Launch Screen Designer** in the **Tools** menu.
Profile	Use this field to enter a path to a Matterhorn profile. Click **Browse** to browse for the profile. To launch Screen Designer you, must select **Launch Screen Designer** in the **Tools** menu.
OK	Click **OK** to confirm the settings in the **Preferences** dialog box.
Cancel	Click **Cancel** to annul any changes made in the **Preferences** dialog box.

Exit

To exit Data Explorer, select **Exit** from the **Database** menu.

Recently Used Databases List

At the bottom of the **Database** menu you will see the names of the most recently loaded databases. Select the database name with the mouse to open the database.

The Edit Menu

Using the commands in the **Edit** menu you may cut, copy, paste and delete database elements and select all elements. The **Edit** menu provides these options:

➢ Cut

➢ Copy

➢ Paste

➢ Delete

➢ Select All

Cut

Use this command to cut the selected elements from Data Explorer to the Clipboard. Alternatively, press Ctrl+X. Elements which have been cut may be pasted into other elements, also if the elements are located in other databases. Note that you may also gain access to this command by right-clicking the mouse anywhere in the Data Explorer main area.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section Dragging and Dropping Elements.

Copy

Use this command to copy the selected elements in Data Explorer into the Clipboard. Alternatively, press Ctrl+C. Elements which have been copied may be pasted into other elements, also if the elements are located in other databases. Note that you may also gain access to this command by right-clicking the mouse anywhere in the Data Explorer main area.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section Dragging and Dropping Elements.

Paste

Use this command to paste the contents of the Clipboard into the current database. Alternatively press Ctrl+V. Note that you cannot paste edit fields. Also note that you cannot paste selection lists, macros, etc. within the same database. Note that you may also gain access to this command by right-clicking the mouse anywhere in the Data Explorer main area.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section Dragging and Dropping Elements.

Delete

To delete an element from the Screen Designer database, select **Delete** from the **Edit** menu. You cannot restore an element once it has been deleted. Neither can you delete a user group or a database with this command.

Note that you may also gain access to this command by right-clicking the mouse somewhere in the Data Explorer main area.

Select All

Use the **Select All** command to select all elements in the active window. For more information on selecting elements, turn to the section Selecting Elements in Data Explorer.

The Requester Menu

The **Requester** menu contains two menu options:

➢ Preview

➢ New Group

➢ Launch Screen Designer

Preview

Use this command to preview the requesters one by one. Note that you may also gain access to this command by right-clicking the mouse somewhere in the Data Explorer main area.

New Group

To create a new user group, select **New Group** from the **Requester** menu. In the **New Group** dialog box, enter a new group name. A user group icon will be inserted at the bottom of the list in the Data Explorer application window.

Launch Screen Designer

Use this command to launch Screen Designer from within Data Explorer. Screen Designer will open in a separate Screen Designer application window. This powerful feature provides easy access to online screen editing and also helps you preview and monitor the changes you make to the databases using Data Explorer.

Before activating this command, make sure that the **Program File** and **Profile** fields in the **Preferences** dialog box contains valid paths to the Screen Designer program file and the Matterhorn profile you wish to use. The **Preferences** dialog box is available from the **Databases** menu.

Note that you may also gain access to this command by right-clicking the mouse somewhere in the Data Explorer main area.

The Tools Menu

The **Tools** menu provides four options for maintaining your Screen Designer databases:

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➢ Refresh Window

➢ Refresh All

➢ Rebuild

➢ Reindex

➢ Convert DAT to DB3

➢ Take Snapshot

➢ Restore Snapshot

➢ Backup

Refresh Window

Use the **Refresh Window** command to refresh the current database in Data Explorer. Since the changes you make to your requesters in Screen Designer will not be immediately implemented in Data Explorer the command is useful when you are moving and copying elements between Data Explorer and Screen Designer. The **Refresh Window** command will load the most recently saved version of the database in Data Explorer.

Refresh All

Use the **Refresh All** command to refresh all open databases in Data Explorer. Since the changes you make to your requesters in Screen Designer will not be immediately implemented in Data Explorer the command is useful when you are moving and copying elements between Data Explorer and Screen Designer. The **Refresh All** command will load the most recently saved versions of the databases in Data Explorer.

Rebuild

To rebuild the database, select **Rebuild** from the **Tools** menu. The command implies that the database will also be reindexed. If the operation was not successful, you will receive an error message.

Reindex

To reindex the database, select **Reindex** from the **Tools** menu.

Convert DAT to DB3

To convert a Screen Designer database version 1.0 to version 5.0, select **Convert DAT to DB3** from the **Tools** menu. Screen Designer 1.0 databases have the extension .tab and versions 5.0 have the extension .db3.

Take Snapshot

Use the **Take Snapshot** command to take a snapshot of the database. The feature enables you to "revert" to a previously saved version of the database. You may take as many snapshots as you wish, but only the 9 most recent snapshots can be restored. Each snapshot will be stored in a separate slot.

If you click the **Take Snapshot** button on the tool bar, Data Explorer will store the snapshot in the next available slot. If no slots are available, Data Explorer replaces the oldest snapshot with the new snapshot.

Restore Snapshot

Use the **Restore Snapshot** command to restore a snapshot. Scroll down the pulldown menu and select the snapshot you wish to restore.

Backup

To perform a backup of the database, select **Backup** from the **Tools** menu.

The Window Menu

The **Window** menu lets you customize the way windows are arranged in the main area. The menu provides the following options:

➢ New Window

➢ Tile Horizontally

➢ Tile Vertically

➢ Cascade

New Window

To open a new window containing the current database, select **New Window**. Use this option to obtain a clearer view of larger databases, for instance when you are dragging and dropping from one area of the database to another area of the same database which is not visible with just one open window.

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Tile Horizontally

To tile open windows horizontally, select **Tile Horizontally** from the **Window** menu.

Tile Vertically

To tile open windows vertically, select **Tile Vertically** from the **Window** menu.

Cascade

To rearrange all open windows so they overlap in a cascade, select **Cascade** from the **Window** menu.
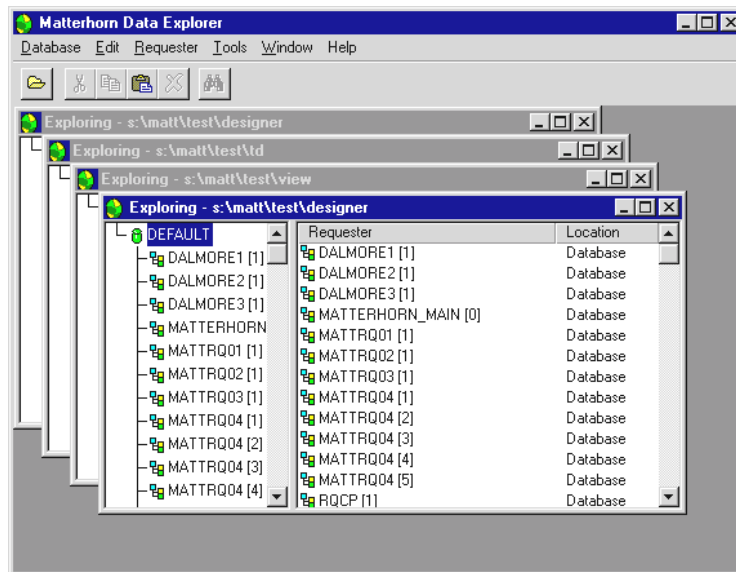
Figure 8.8: *Cascading database windows in Data Explorer.*

The Tool Bar

The tool bar runs just below the menu bar. For your convenience, you may use these tool and function buttons instead of the menu options.
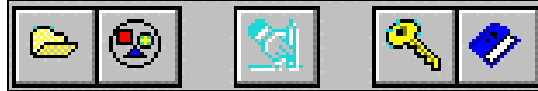
Figure 8.9 *The Data Explorer tool bar.*

These are the tool and function buttons in Screen Designer:

- ➤ Open Database

- ➤ Cut

- ➤ Copy

- ➤ Paste

- ➤ Delete

- ➤ Preview

Open Database   To open a database, click the **Open Database** button. Locate the name of the database in the **Open Database** dialog box and click the **OK** button.

Cut   To cut the selected elements from Data Explorer to the Clipboard, click the **Cut** button. Elements which have been cut may be pasted into other elements, also if the

elements are located in other databases.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section [Dragging and Dropping Elements](#).

Copy

To copy the selected elements from Data Explorer to the Clipboard, click the **Copy** button. Elements which have been copied may be pasted into other elements, also if the elements are located in other databases.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section [Dragging and Dropping Elements](#).

Paste

To paste the contents of the Clipboard into the current database, click the **Paste** button. Note that you cannot paste edit fields.

Also note that you may drag and drop elements in Data Explorer. For more information, turn to the section [Dragging and Dropping Elements](#).

Delete

To delete an element, click the **Delete** button. You cannot restore an element once it has been deleted. Neither can you delete a database with this command.

Preview

To preview the current requester, click the **Preview** button. Note that the requester must be selected in the right-hand side of Data Explorer main area.

Glossary

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.

Entry History

An entry history is a list of the entries, or inputs, most recently made for a particular edit field. When you activate the option for a field in Screen Designer, the entry history will be displayed when the user clicks the field during execution. This will save time if the user often makes the same entries in specific fields. Using entry histories is a quite flexible way of streamlining user inputs.

An entry history is saved on a per-user basis in the user's personal Matterhorn initialization file. If, for instance, the same edit field appears in two different screens, used by two different users (A and B) in two different departments (AA and BB), then two different entry histories will be generated. The entry history of user A will reflect his daily work, the entry history of user B will reflect her daily work.

Initial Requester   The initial requester is the first requester to be called in a session.

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-POBJ   The Matterhorn POBJ server. This server will transfer the code of the requester to the PC. The Matterhorn Client will then execute the code on the PC. For more information about the operation of MATT-POBJ, turn to the [Matterhorn Installation and Setup Guide](#).

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. Three fields are relevant when using Screen Designer and running redesigned versions of your requesters. They are all located in the Miscellaneous section: **Use Screen Designer Layout**, **Screen Designer User Group** and **Screen Designer Database Location**.
Dataexpl.exe	The Data Explorer executable file.
Designer.exe	The Screen Designer executable file.
Mattwin.exe	The executable file of the Matterhorn Client.
Mattwin.ini	The filename of the Matterhorn profile which is part of your Matterhorn package. You must create a profile for each of your Matterhorn sessions. The profile provides the Matterhorn Client executable file, Mattwin.exe and the Screen Designer executable file, Designer.exe with information necessary to address the Tandem system and the Matterhorn Pathway system.
Object Inspector	Screen Designer objects are formatted by means of the Object

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	Inspector. The Object Inspector displays all properties of the currently selected object(s) like font selection, size, on-screen position etc. in a separate window.
POBJ	The Screen Cobol program libraries containing the object codes of your requesters.
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.
Screen Cobol	A procedural language that is used to define and control terminal displays.
Selection List	A selection list is a fixed number of valid entries which can be used for a specific field. For instance, you may associate all valid zipcodes with a **Zipcode** field or all valid currency codes with a **Currency Code** field. When users click these fields, the valid values will be displayed in a dropdown list box.
Session Name	The Session Name is a unique name identifying the current Screen Designer or Matterhorn session on both the Tandem and the PC. Screen Designer and Matterhorn both use the Session Name entry in the Matterhorn

profile to locate the corresponding Session Name on Tandem.

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.

Screen Designer Database

When using Screen Designer, you create and relate a database of information to the object code of your Tandem requesters. The database will store information about advanced screen layout, available selection lists, macros etc. Subsequently, Matterhorn will use the information in the database as a basis of displaying the screen when you execute the requester as a Matterhorn session. This database may be located either on the Tandem or on the PC.

Screen Designer Object

As you will learn, the term o*bject* is a core term in Screen Designer. The basic objects are *edit fields* (known as *fields* on the Tandem) and *text fields* (known as *fillers* on the Tandem). In addition, you may use Screen Designer to add new objects to your screens, including frames, push buttons, graphics, multimedia objects, and tabbed notebooks.

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