GrandMaster™ Suite

How to Use GrandMaster Suite

Exporting with ODBC

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How to Use GrandMaster Suite - Exporting with ODBC

Overview

GrandMaster Suite allows you to export data from its database for use in another application. This can range from simple data such as names and addresses to complex payroll data including pay frequencies and amounts.

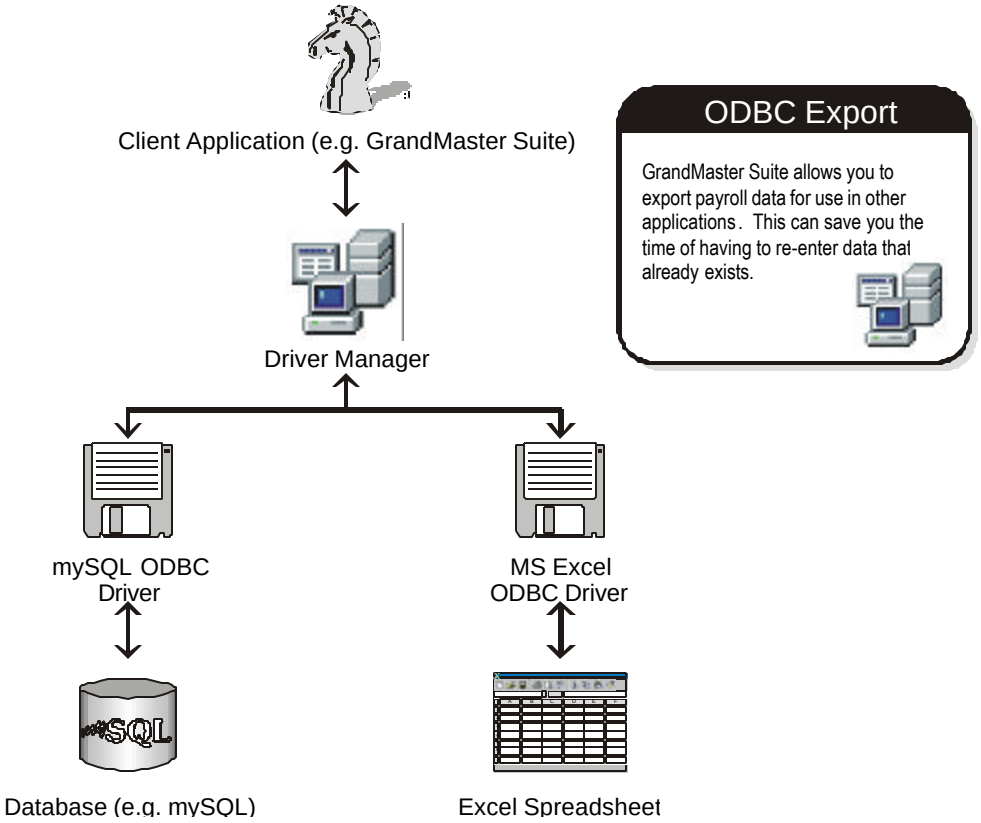
The exported data can be used in many ways, based on your specific needs. For example, if you need to perform a mail merge that includes every employee in your payroll, simply export the data to a merge file and you are ready to go.

Similarly, GrandMaster Suite allows you to import certain types of data from third party sources for use in the Payroll and Human Resource modules.

What is ODBC?

Open Database Connectivity (ODBC) is an industry wide standard way to communicate with databases. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system is handling the data.

Used as a translation engine, ODBC facilitates the movement of data between different applications with dissimilar file structures. While most applications have some sort of import file command that performs much the same task as ODBC in this kind of situation, ODBC can provide a more versatile and in some cases easier-to-use interface for transferring data between programs.



- **Client Application:** The client application is the program that processes the data (in this case, GrandMaster Suite). This client application can call ODBC functions to interact with a variety of data sources.
- **Driver Manager:** The driver manager, referred to as a DLL (Dynamically Linked Library), gives access to the individual drivers. The driver manager processes the application's function calls and directs them to the appropriate loadable driver.
- **ODBC Driver:** The ODBC drivers are DLLs which process the ODBC function calls between the driver manager and the data source. The application notifies the driver to connect to the data source. An SQL request is then passed to the data source after possible translation by the driver, with the results being returned to the application.
- **Data Source:** The data source can consist of several parts including the data, the associated Database Management System (DBMS), the platform and the associated network used to access that platform. Frequently, a data source does not include a network or DBMS - for example, the data source may simply be the path information for text data on a local drive or may involve specifying domain names or IP addresses for remote servers.

ODBC is not a file format. Rather, it is an interface that client applications can use to ask for data from servers. ODBC-capable client applications (such as GrandMaster Suite) send requests to an ODBC driver manager, also located on the client machine. The driver manager interprets the data and decides which data source is appropriate and which ODBC driver matches that data source. The request is then sent through the driver to the database, and returned through the ODBC driver manager to the client application.

ODBC has gained so much momentum over the years that it is now considered to be the standard method of interaction for many database engines. It has been ported to the most popular platforms (Win32, Unix, Linux, Mac) and is so ubiquitous that you may be using it without knowing it.

When should I use ODBC Export?

- When you have a need to extract payroll information (or other GrandMaster data) for use in another database application. Simply export the required data using the format that best suits your requirements.
- When you need to perform automated tasks such as a mail merge. You can export the data to a spreadsheet and perform the merge for any or all payroll employees.
- Almost anytime you need data in another ODBC-compliant program.

How does it work in GrandMaster Suite?

In order to employ the flexibility of exporting using ODBC functions, you must have an ODBC driver installed on your computer. These components are generally included when you install Windows. If you do not have the ODBC components installed, you can get them easily by downloading and running a program from Microsoft entitled MDAC.

NOTE: Keep in mind that data export requirements vary from system to system, and while the steps in this document provide a guideline through the ODBC export process, the actual steps may be different for your individual system.

Exporting via the Customized Payroll Report

This procedure (discussed in detail later in this guide) involves creating an Excel spreadsheet for use as your database, then using the ODBC Administrator (in the *Control Panel*) to add and configure the necessary ODBC driver. Once complete, the resulting spreadsheet can be used for a wide variety of operations including mail merges, third party reporting or general querying.

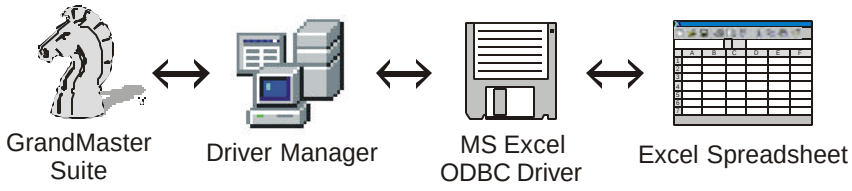


Fig. 1
Hierarchy when Exporting to ODBC

Exporting the Financial Database

This procedure (discussed in detail later in this guide) involves exporting components of your payroll to an ODBC-compliant database.

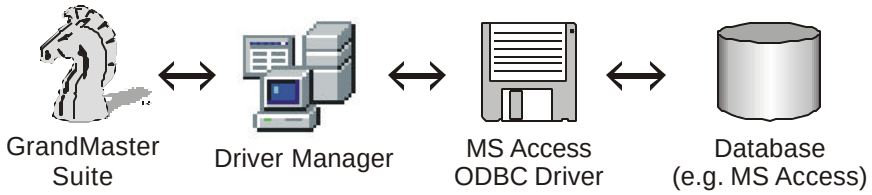


Fig. 2
Hierarchy when Exporting to an ODBC Compliant Database

Working at the Payroll Level

Although ODBC functions do not relate specifically to either the Payroll level or the Employee level, all GrandMaster ODBC export related functions are carried out at the payroll level. This is because all the settings required to access the export routines are contained under the *Payroll* module's **Import/Export Functions** menu commands or under the **Reports** menu.

Creating a Spreadsheet for Export Use

To use the example that will follow in this guide (*Exporting Via the Customized Payroll Report*), you will first need to have a database in place (in this case, an Excel spreadsheet). This section of the guide discusses how to create blank worksheet for this purpose.

TO CREATE THE EXCEL SPREADSHEET

1. Run MS Excel and ensure that you have a blank spreadsheet on the screen.

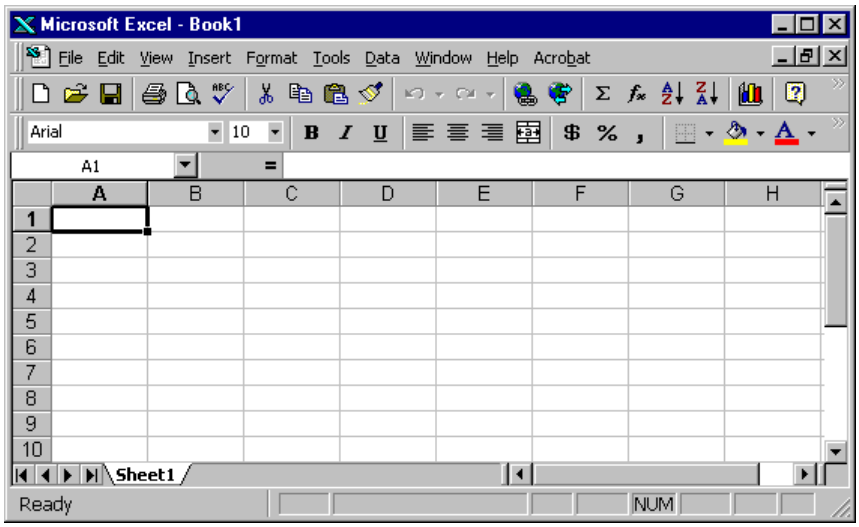


Fig. 3
The Blank Spreadsheet

2. Choose the **File - *Save*** command then navigate to the folder where you installed GrandMaster Suite and save the file as **gmsdata.xls**.

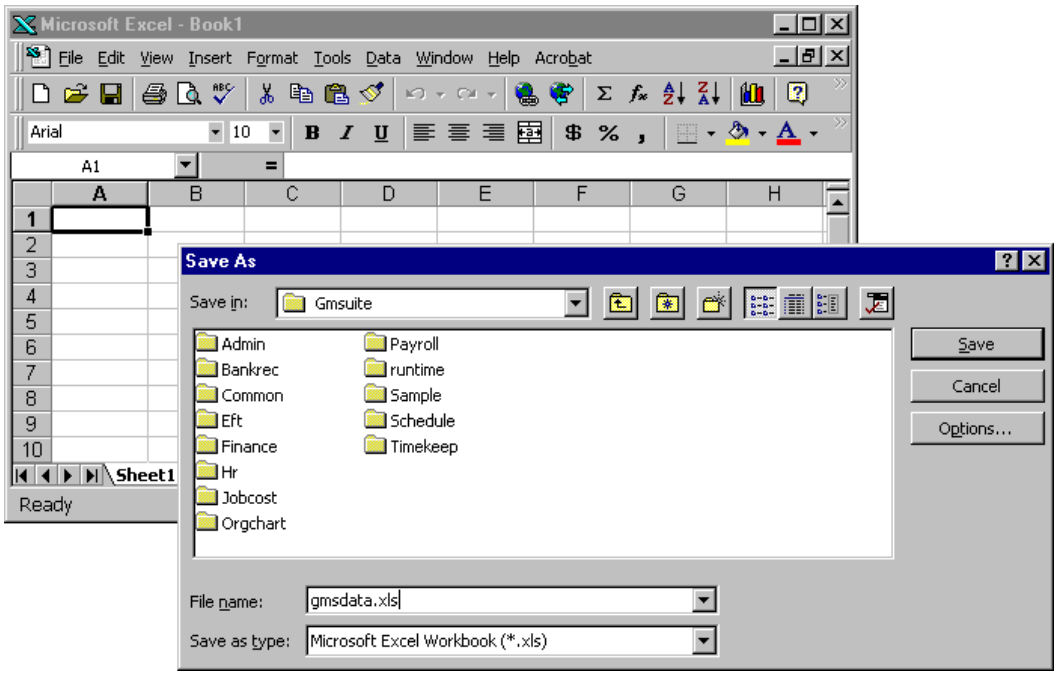


Fig. 4
Saving the Spreadsheet in the Gmsuite Folder

3. Close MS Excel once you have finished saving the file.

   You are now ready to proceed to the next step where you will define the ODBC driver that will interact with your new database (the spreadsheet).

Setting up the Excel ODBC Driver

Most computers will already have the necessary ODBC drivers installed. For example, drivers for MS Excel are installed automatically with MS Office. The *Exporting Via the Customized Payroll Report* section of this guide will require the use of the MS Excel ODBC driver.

TO SET UP THE MS EXCEL ODBC DRIVER

1. Choose the ***Start*** button - ***Settings*** - ***Control Panel*** option to open the *Control Panel*.

Fig. 5
The Control Panel

2. Double click on the *Data Sources (ODBC)* icon. This opens the *ODBC Data Source Administrator* dialog box.

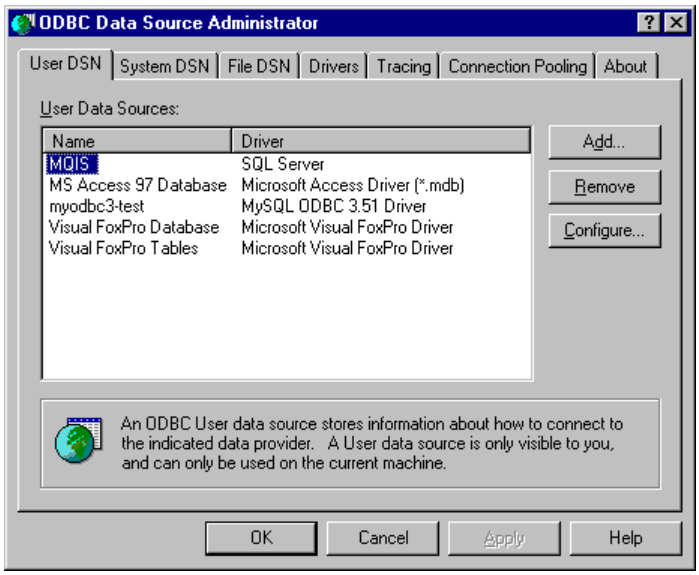


Fig. 6
The ODBC Data Source Administrator Dialog Box.

3. Select the *System DSN* tab. This will ensure that the data source you set up here will be accessible by all users on your computer (regardless of their profile).

4. Choose the *Add* button then select the *Microsoft Excel Driver (*.xls)* from the list.

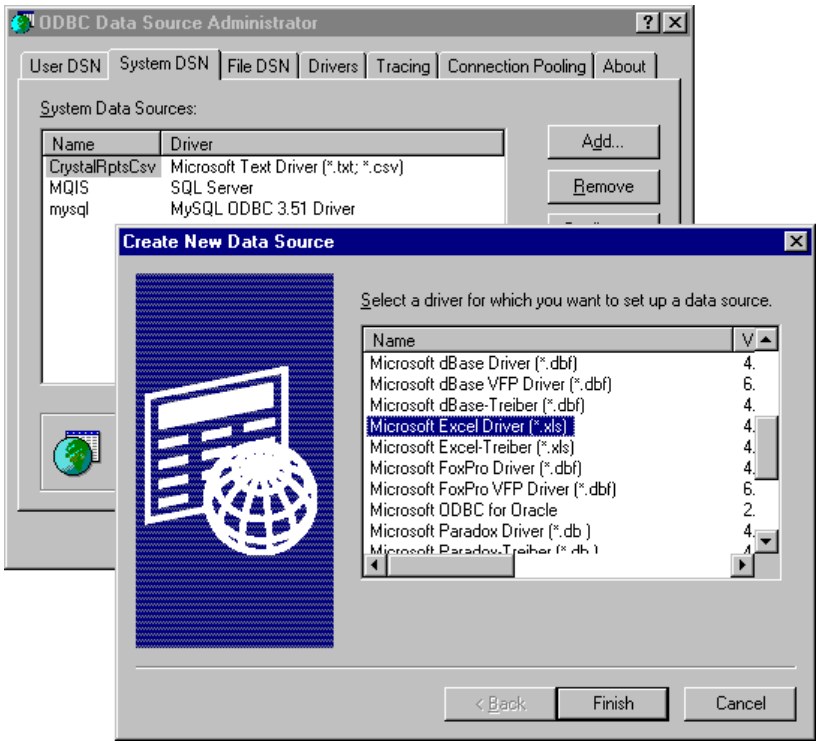


Fig. 7
The MS Excel Driver Selected

Note: If the MS Excel driver does not exist on your computer, you will need to install it using the latest version of MDAC. Please refer to the *Installing MDAC* section of this guide before proceeding.

5. Choose the *Finish* button. This opens the *ODBC Microsoft Excel Setup* dialog box where you must configure the driver settings.

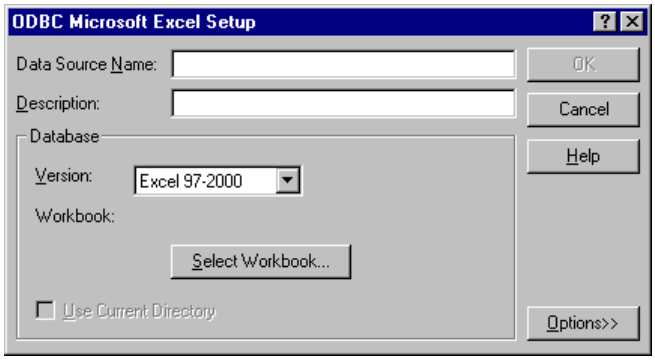


Fig. 8
The ODBC Microsoft Excel Setup Dialog Box

6. Define the *Data Source Name* and *Description* as outlined below:

- **Data Source Name:** gmsexport
- **Description:** GrandMaster Suite to Excel

Note: If you want to enter a different *Data Source Name* than the one listed in this example, ensure that the name does not contain spaces.

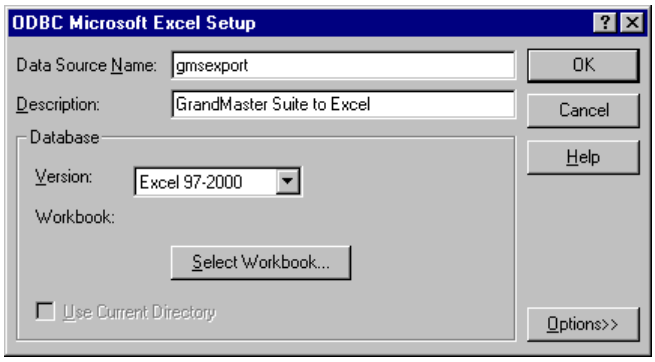


Fig. 9
The Completed Dialog Box

7. Use the options in the *Version* drop down list to specify the version of MS Excel you have installed on your computer.

8. Choose the *Select Workbook* button then use the resulting dialog box to navigate to the location where you saved the Excel spreadsheet file (if you are following the lesson, you will have saved it to the location where you installed GrandMaster Suite).

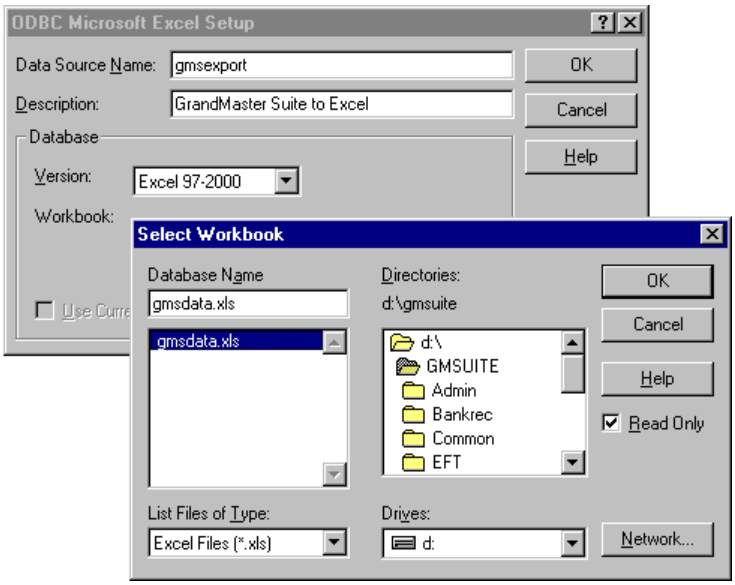


Fig. 10
The Location of the Saved Excel Spreadsheet

9. Select the spreadsheet then click *OK* to return to the *ODBC Microsoft Excel Setup* dialog box.

10. Choose the *Options* button near the bottom of the dialog box then remove the check from the *Read Only* option that appears.

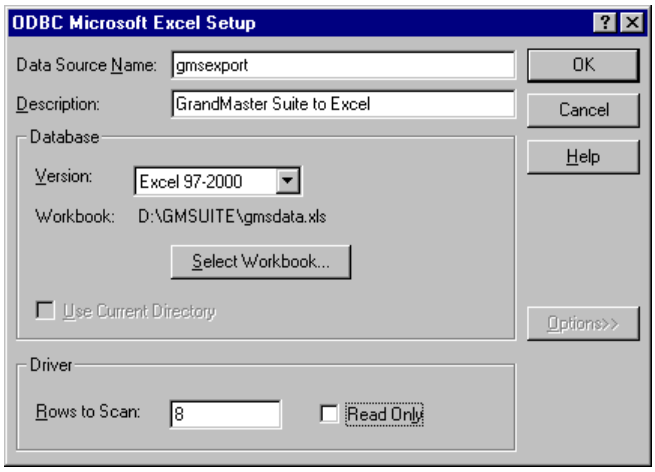


Fig. 11
The Read Only Option Deactivated

11. Click *OK* to close the remaining dialog boxes.

You are now ready to proceed to the next section where you will export data from GrandMaster Suite your new the database file.

Exporting Via the Customized Payroll Report

This section of the guide will first discuss the setting up of your export profile followed by instruction on how to perform the actual export process.

TO CREATE YOUR EXPORT PROFILE

1. Open the *Payroll Module* and ensure your payroll is open and ready for use, then choose the ***Customized Payroll*** command from the **Reports - History** submenu.

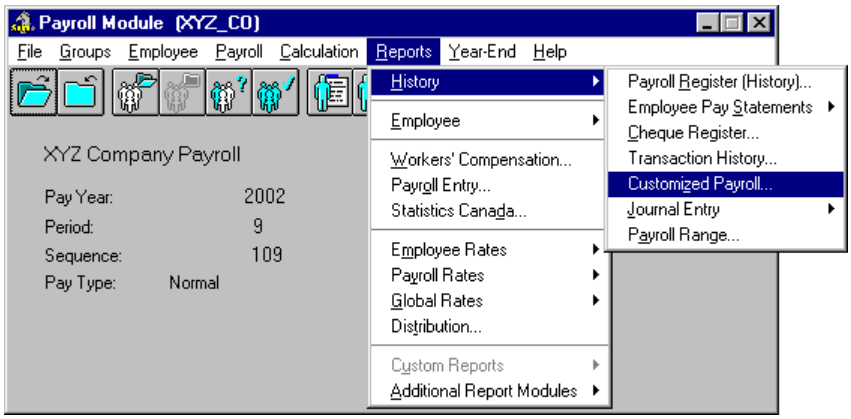


Fig. 12
The Year-End Menu

This opens the *Customized Payroll Report* dialog box that contains multiple tabs with various options that you will use to setup and export your payroll data.

The *Report* tab contains options for specifying the report's name, description and group settings. You can also add and remove report definitions here. For this lesson you will be adding a report definition that GrandMaster Suite will use to connect to the database you created in the earlier lesson.

2. Select the *New* button to open the *Save Report* dialog box, then enter a name and description for your report definition.

Note: You may enter a different *Data Source Name* than the one shown in our example, but you must ensure the name contains no spaces or special characters and is no more than 8 characters in length.

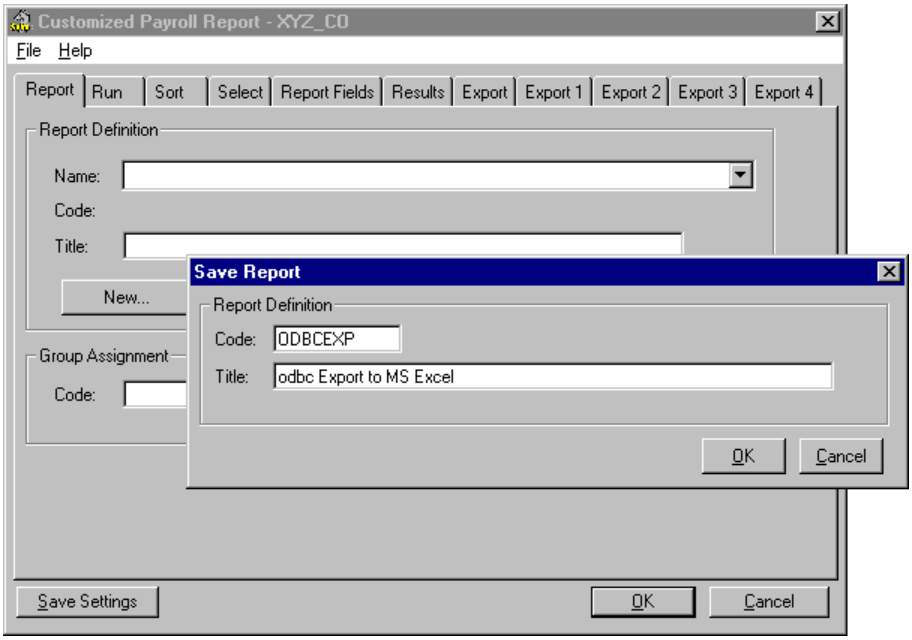


Fig. 13
The Completed Name and Description

3. Click *OK* to close the *Save Report* dialog box. This returns you to the *Report* tab where your new definition is now displayed.

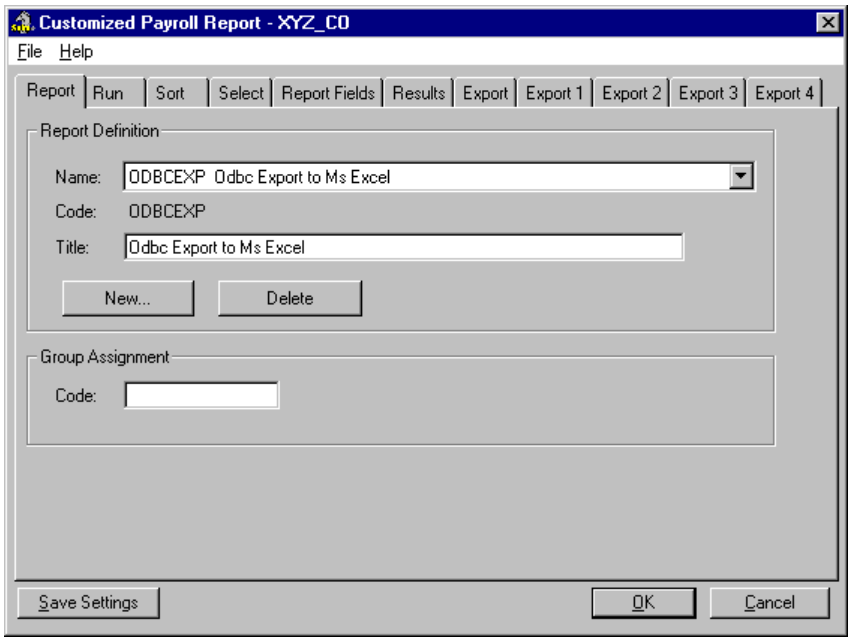


Fig. 14
The New Report Definition

Now you must setup the connection information to your database file.

4. Click on the *Export* tab then choose the *Export to ODBC* radio button located in the *Export Output* section. This will activate the ODBC-related options in the tab.

5. Enter the name of your data source into the ODBC DSN field. If you are following the lesson outlined in the previous section, the DSN name will be **gmsexport**.

Note: The ODBC DSN entry must match the entry you defined previously in the *ODBC Data Source Administrator* dialog box's *Data Source Name* field. If these entries do not match, GrandMaster Suite will not be able to link the program to the database.

6. Move to the *ODBC Table* field and enter **name_address**. This name will be applied to the new worksheet that will be created as part of your MS Excel spreadsheet.

7. Ensure that the *Export Column Headers* box has a check in its box (otherwise the export will not function). This ensures that each column of data in your database is labeled for easy reference. This completes the export settings.

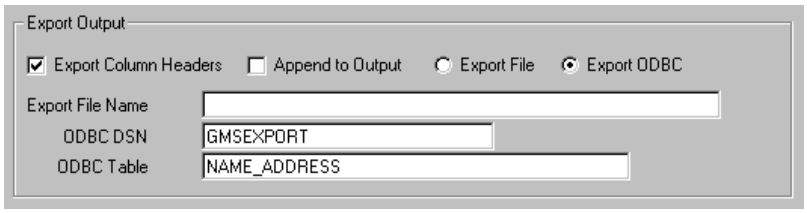


Fig. 15
The Completed Export Output Section

The final step before the export process begins is to specify exactly which portions of data you wish to export. For the purposes of this lesson, we will export the basic name and address information for the employees in the current payroll.

TO DEFINE THE DATA TO BE EXPORTED

1. Click on the *Export 1* tab then place a sequential number in each box in the first column, beginning with the *First Name* field and ending with the *Sex* field. The result should be 9 fields, each with a unique number (1 through 9).

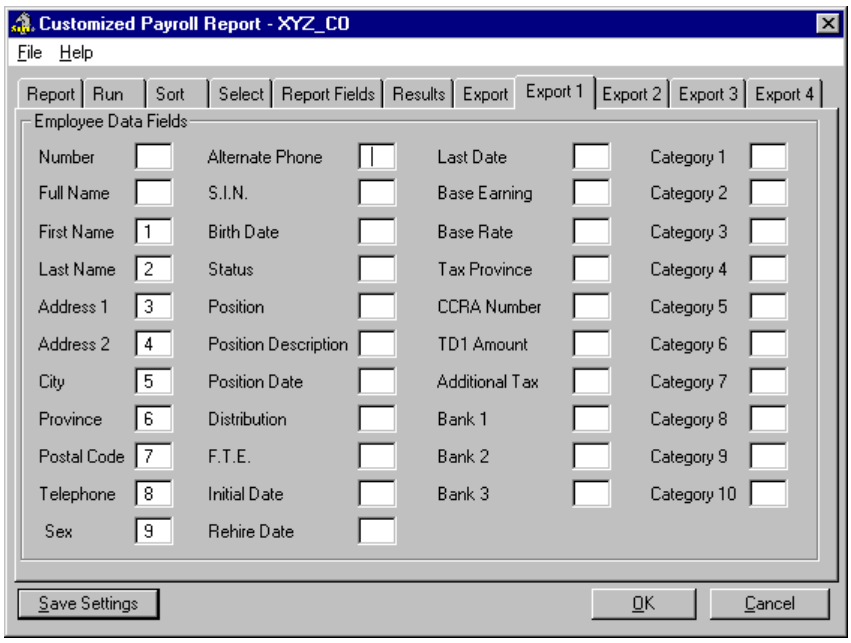


Fig. 16
The Completed Employee Data Fields

2. Choose the *Save Settings* button to store the changes for later use. This enables you to return to this dialog box in the future and quickly choose the settings by simply selecting the corresponding report definition to which they belong (in this case, the *ODBCEXP* definition).

   You are now ready to export the data to your Excel spreadsheet.

TO EXPORT THE DATA

1. Choose the *OK* button at the bottom of the *Customized Payroll Report* dialog box. This invokes the export process and the program displays a *Function Progress Notification* message.

   Soon after this, you will receive the *Logon to the Database* message. This allows you to enter the user name and password that will provide access to a given database (if these items are defined in the other application or in the settings for the ODBC driver).

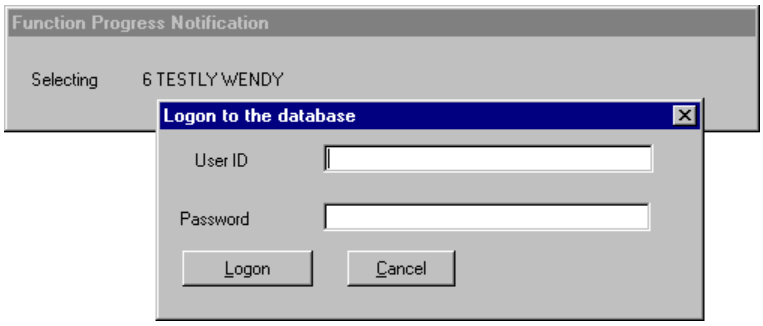


Fig. 17
The Database Logon Prompt

2. We have not defined either of these items in this lesson so you click *Logon* to proceed.

   The export process continues and once complete, you will receive a message that displays the number of records exported, along with the DSN name and table that was used.

Fig. 18
The Completed Export Message

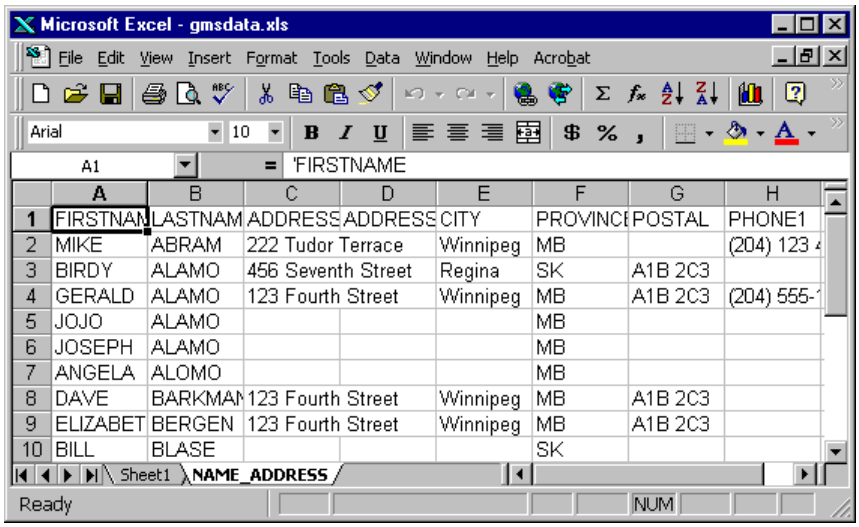
3. Click *OK* to close the message box, thus completing the export process.

   Now all that remains is to verify the exported data by viewing the updated spreadsheet.

TO VIEW THE UPDATED DATABASE

1. Run Excel and open the database file you created earlier. If you are following this lesson, the database file will be located in the folder where you installed GrandMaster Suite and will be entitled **gmsdata.xls**.

   When the file opens, you will notice a new worksheet entitled *NAME_ADDRESS*. This corresponds to the Table Name you defined earlier when you setup the report definition in GrandMaster Suite.



	A	B	C	D	E	F	G	H
1	FIRSTNAM	LASTNAM	ADDRESS	ADDRESS	CITY	PROVINCI	POSTAL	PHONE1
2	MIKE	ABRAM	222 Tudor Terrace		Winnipeg	MB		(204) 123
3	BIRDY	ALAMO	456 Seventh Street		Regina	SK	A1B 2C3	
4	GERALD	ALAMO	123 Fourth Street		Winnipeg	MB	A1B 2C3	(204) 555-
5	JOJO	ALAMO				MB		
6	JOSEPH	ALAMO				MB		
7	ANGELA	ALOMO				MB		
8	DAVE	BARKMAN	123 Fourth Street		Winnipeg	MB	A1B 2C3	
9	ELIZABET	BERGEN	123 Fourth Street		Winnipeg	MB	A1B 2C3	
10	BILL	BLASE				SK		

Fig. 19
The Updated Data in the Spreadsheet

The top row of the worksheet shows the column headers as specified when you activated the *Export Column Headers* checkbox earlier in the lesson.

The remaining columns show the general name and address data you specified earlier in the *Export 1* tab.

2. Close MS Excel once you are completed viewing the data.

Creating a Database for Export Use

To use the example that will follow in this guide (*Exporting the Financial Database*), you will first need to have a database in place (in this case, an Access database). This section of the guide discusses how to create blank database for this purpose.

TO CREATE THE ACCESS DATABASE

1. Run MS Access and choose the *Blank Database* option when the startup window appears.

Fig. 20
Choose the Blank Database Option from Microsoft Access

This open the *File New Database* dialog box where you must specify the name and location where the new database will be stored.

2. Navigate to the folder where you installed GrandMaster Suite and *Create* (save) the file as **gmsdata.mdb**.

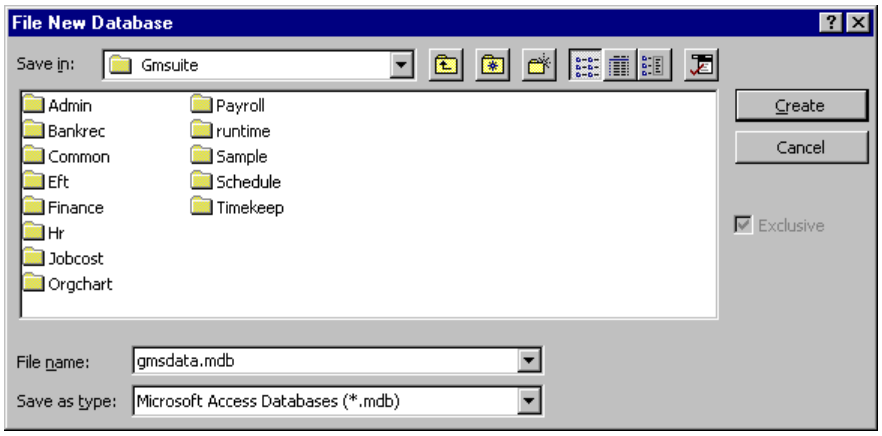


Fig. 21
Saving the database in the Gmsuite Folder

When you choose the *Create* button, the new database appears in a window entitled **gmsdata**.

3. Close MS Access.

Now that you have successfully created the database, you ready to proceed to the next step where you will define the ODBC driver that will interact with your new database.

Setting up the Access Driver

As mentioned in the previous lesson, your computer will probably already have the ODBC driver that will be required for this following section. However, if the MS Access driver does not exist on your computer, you will need to install it using the latest version of MDAC. Please refer to the *Installing MDAC* section of this guide before proceeding.

TO SET UP THE MS ACCESS ODBC DRIVER

1. Choose the ***Start*** button - ***Settings - Control Panel*** option to open the *Control Panel*.

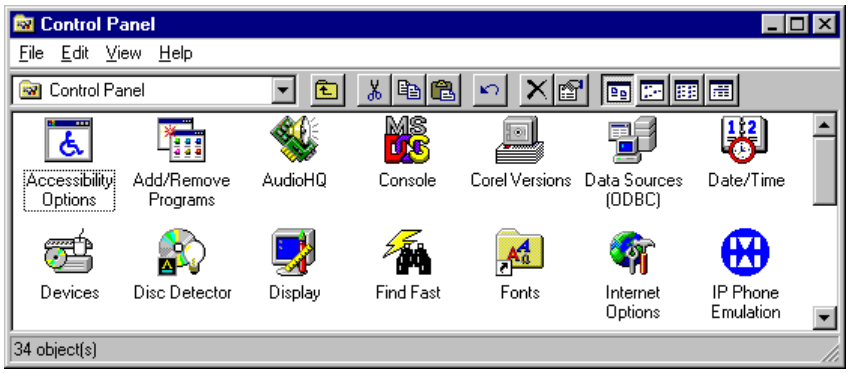


Fig. 22
The Control Panel

2. Double click on the *Data Sources (ODBC)* icon. This opens the *ODBC Data Source Administrator* dialog box.

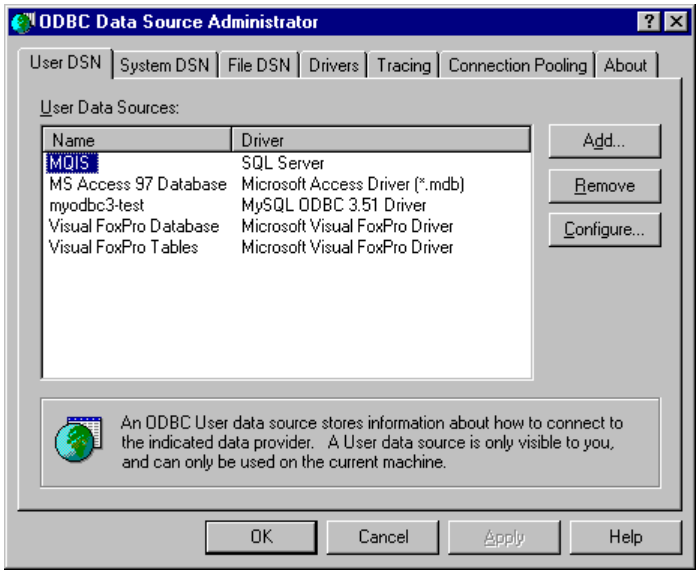


Fig. 23
The ODBC Data Source Administrator Dialog Box.

3. Select the *System DSN* tab. This will ensure that the data source you set up here will be accessible by all users on your computer (regardless of their profile).

4. Choose the *Add* button then select the *Microsoft Access Driver (*.mdb)* from the list.

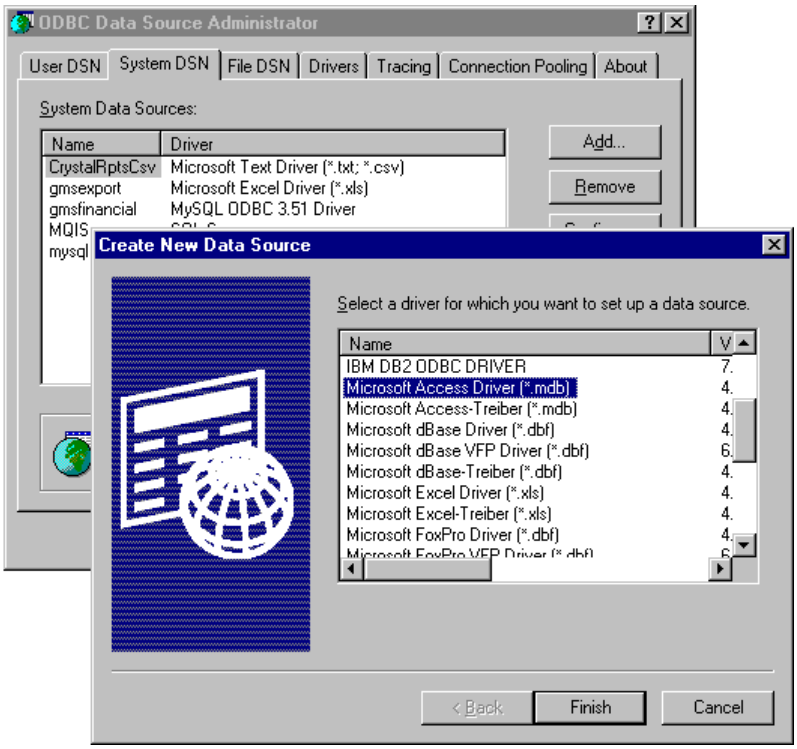


Fig. 24
The MS Access Driver Selected

Note: If the MS Access driver does not exist on your computer, you will need to install it using the latest version of MDAC. Please refer to the *Installing MDAC* section of this guide before proceeding.

5. Choose the *Finish* button. This opens the *ODBC Microsoft Access Setup* dialog box where you must configure the driver settings.

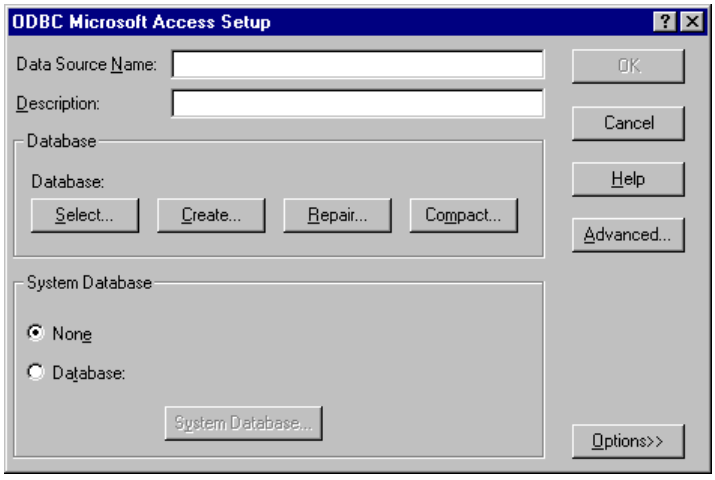


Fig. 25
The ODBC Microsoft Access Setup Dialog Box

6. Define the *Data Source Name* and *Description* as outlined below.

- **Data Source Name:** gmsaccess
- **Description:** GrandMaster Suite to Access

Note: If you want to enter a different *Data Source Name* than the one listed in this example, ensure that the name does not contain spaces.

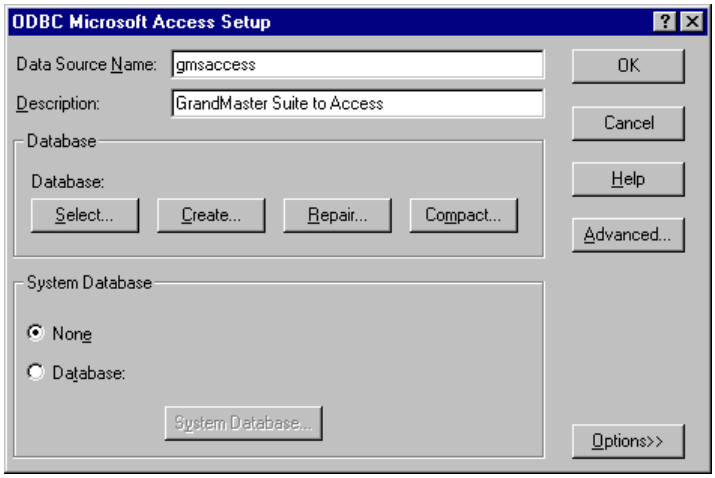


Fig. 26
The Completed Dialog Box

7. Choose the *Select* button then use the resulting dialog box to navigate to the location where you saved the Access database (if you are following the lesson, you will have saved it to the location where you installed GrandMaster Suite).

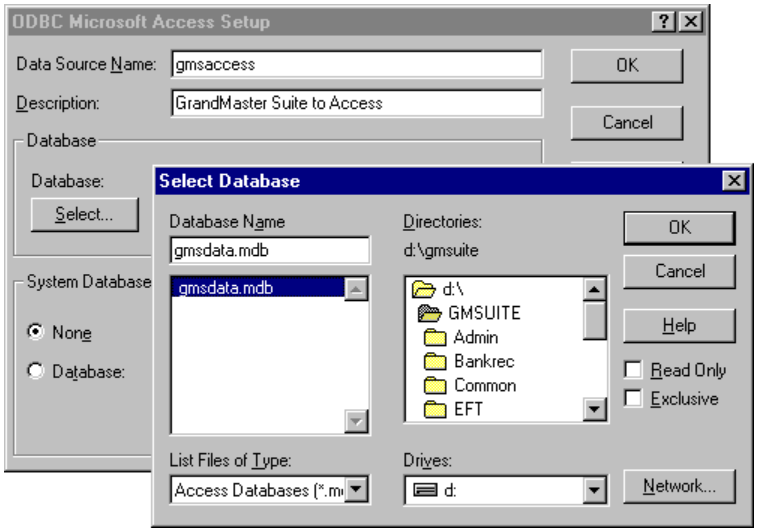


Fig. 27
The Location of the Saved Access Database

8. Select the database, ensure that the *Read Only* option is not selected, then click *OK* to return to the *ODBC Microsoft Access Setup* dialog box.

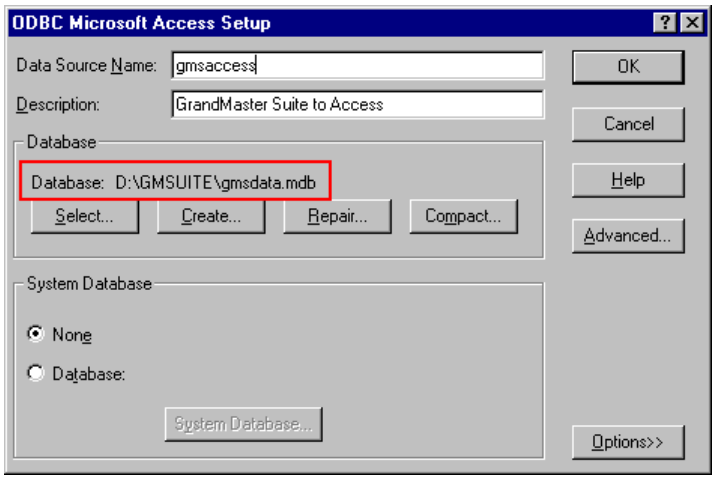


Fig. 28
The Dialog Box With the Database Defined

9. Click *OK* to close the remaining dialog boxes.

You are now ready to proceed to the next section where you will export data from GrandMaster Suite your new the database file.

Exporting the Financial Database

This section of the guide will first discuss the setting up of your export profile followed by instruction on how to perform the actual export process.

TO CREATE YOUR EXPORT PROFILE

1. Open the *Payroll Module* and ensure your payroll is open and ready for use, then choose the ***Export Financial Database*** command from the **Payroll - *Import/Export Functions*** submenu.

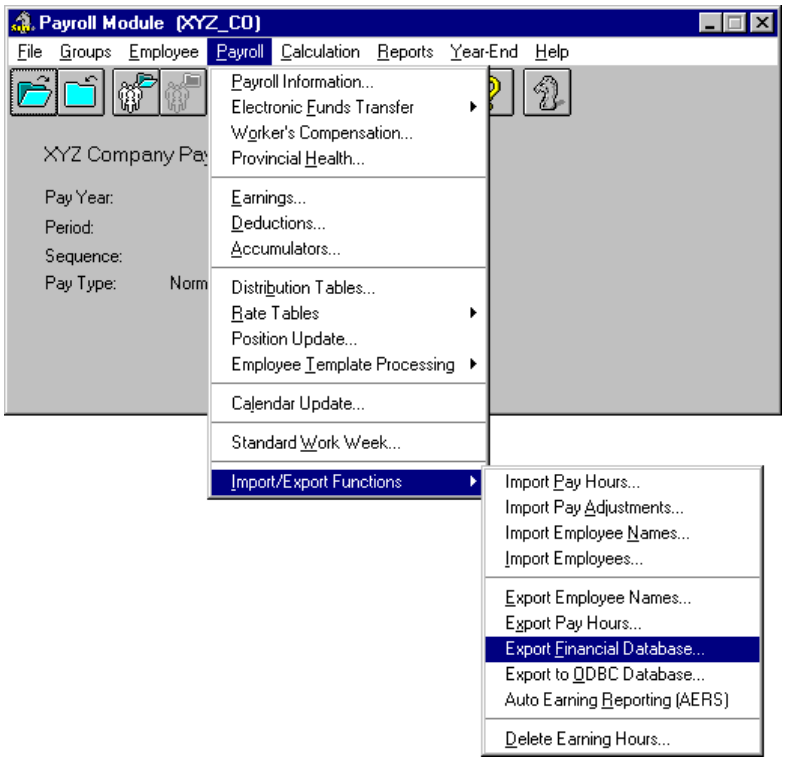


Fig. 29
The Import/Export Functions Submenu

This opens the *Export Financial Database* dialog box that contains multiple tabs with various options that you will use to setup and export your payroll data.

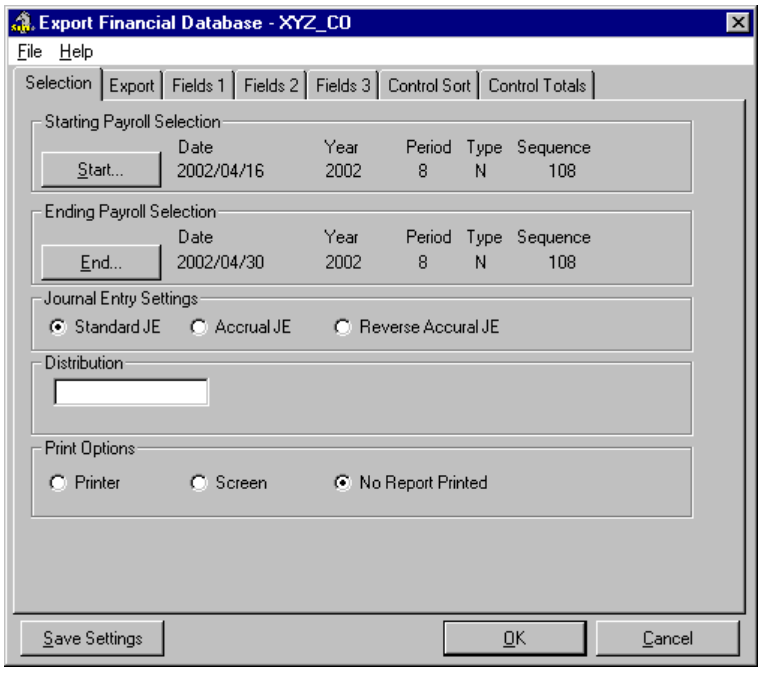


Fig. 30
The Export Financial Database Dialog Box

The *Selection* tab contains options for specifying the exported file's effective pay range, journal entry type and distribution code information. For this lesson, the default pay range will be used (thus no changes are required).

2. Select the *Export* tab and choose the *MS Access/Excel DB* option from the drop-down list. This instructs the program to use the settings that will create a link to an MS Access or MS Excel database.

   Now you must setup the connection information to your database file.

3. Move to the *Database Name* field and enter **gmsaccess**. This name corresponds to the name of the database you created in the earlier section of this lesson.

Note: If you used a different database name than the one suggested in this lesson, you must ensure that the name used here matches the entry you defined previously in the *ODBC Data Source Administrator* dialog box's *Data Source Name* field. If these entries do not match, GrandMaster Suite will not be able to link the program to the database.

4. Move to the *Table Name* field and enter **financial**. This name will be applied to the new table that will be created as part of your database.

5. Ensure that the following four options are *active* by placing a check in their respective boxes:

   - Generate Export File
   - Export Column Headers (*required for the export process to function*)
   - MS Access/Excel DB
   - 4 Digit Year (*optional, but recommended*)

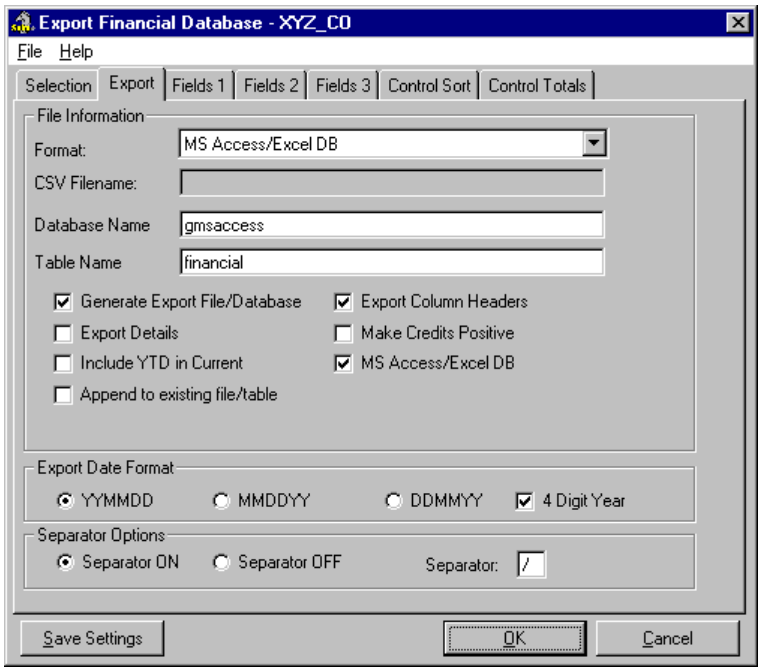


Fig. 31
The Completed Tab

The final step before the export process begins is to specify exactly which portions of data you wish to export. For the purposes of this lesson, we will export all of the assigned the GL codes, their description and the common dollar/hour values.

TO DEFINE THE DATA TO BE EXPORTED

1. Click on the *Fields 1* tab then place the number **1** in the *G/L (all)* field and a number **2** in the *GL Description* field.

Note: In our example, we chose the *G/L (all)* option to have all 8 segments exported to one data field. If you require your GL segments to be exported to individual fields, then you should use the individual G/L segment fields as required.

2. Move to the *Dollar and Hour Values* section and fill in *all* of the fields with sequential numbers starting from the number **3**. The resulting tab should consist of 14 fields, each with a unique number (1 through 14).

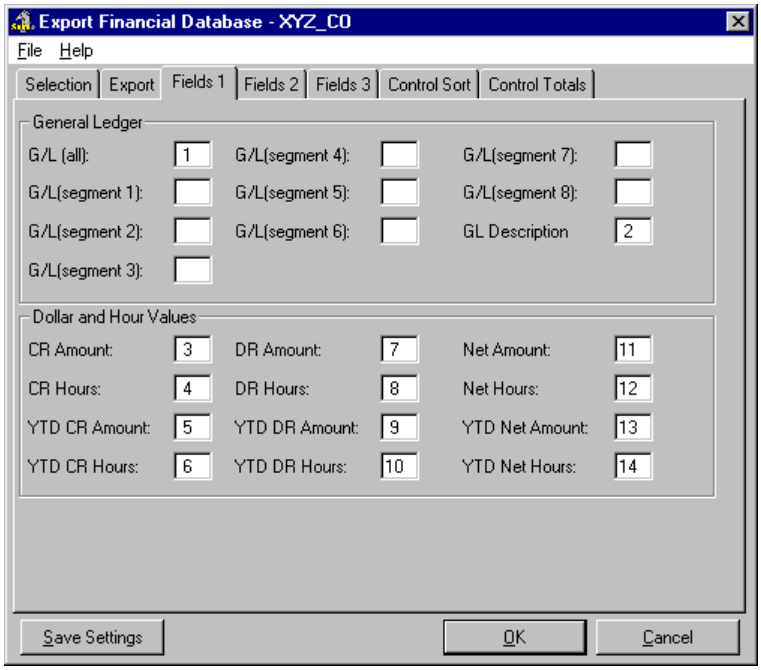


Fig. 32
The Completed Data Fields

3. Choose the *Save Settings* button to store the changes for later use. This enables you to return to this dialog box in the future and quickly choose the settings by simply selecting the corresponding export format to which they belong (in this case, the *MS Access/Excel* format).

   You are now ready to export the data to your MS Access database.

TO EXPORT THE DATA

1. Choose the *OK* button at the bottom of the *Export Financial Database* dialog box. This invokes the export process and the program displays a *Function Progress Notification* message.

Soon after this, you will receive the *Logon to the Database* message. This allows you to enter the user name and password that will provide access to a given database (if these items are defined in the other application or in the settings for the ODBC driver).

Error Message? If you receive a message entitled *Errors Detected*, please refer to the *Frequently Asked Questions* section at the back of this guide for more information.

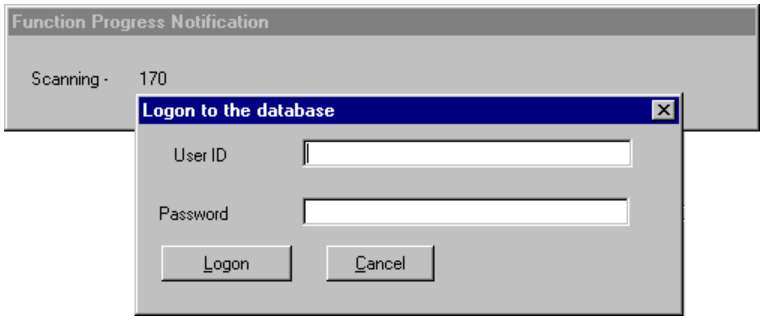


Fig. 33
The Database Logon Prompt

2. We have not defined either of these items in this lesson so you click *Logon* to proceed.

   The export process continues and once complete, you will receive a message that displays the number of records exported, along with the DSN name and table that was used.

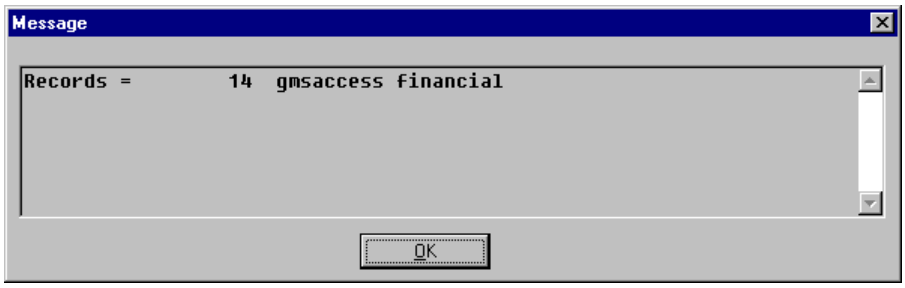


Fig. 34
The Completed Export Message

3. Click *OK* to close the message box, thus completing the export process.

   Now all that remains is to verify the exported data by viewing the updated database.

TO VIEW THE UPDATED DATABASE

1. Run MS Access and open the database file you created earlier. If you are following this lesson, the database file will be located in the folder where you installed GrandMaster Suite and will be entitled **gmsdata.mdb**.

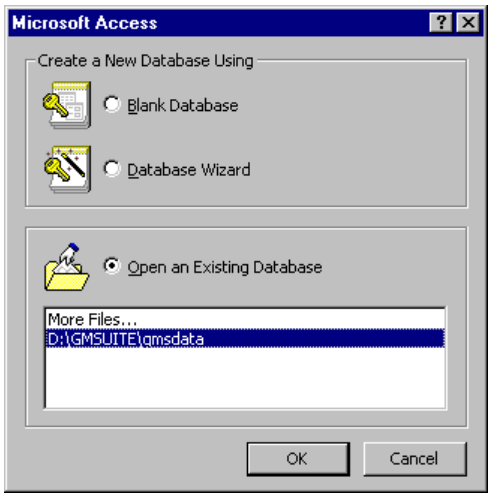


Fig. 35
Open the Database in Microsoft Access

When the file opens, you will notice a new table entitled *financial*. This corresponds to the Table Name you defined earlier in GrandMaster Suite.

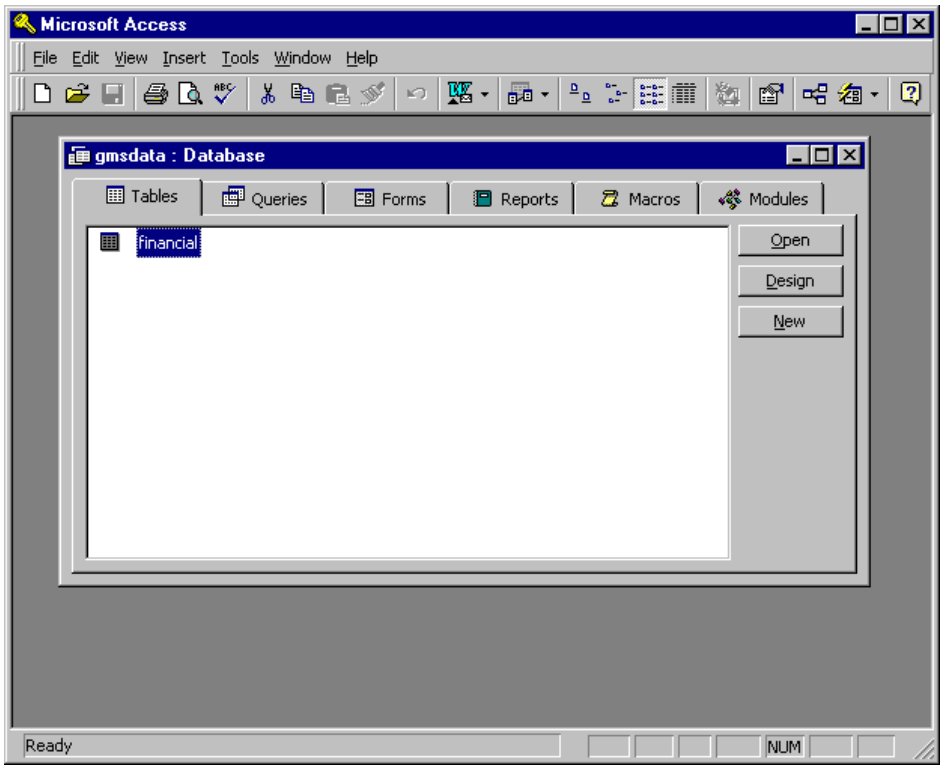


Fig. 36
The Newly Created Table

2. Select the table name then click the Open button. This opens a new window that displays the final exported data.

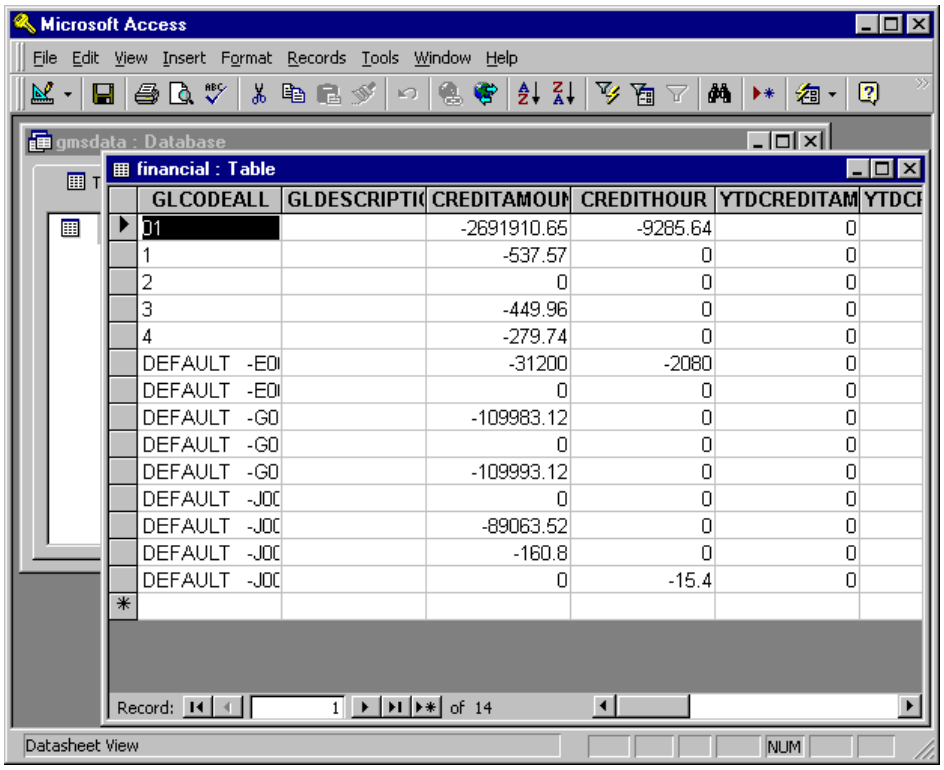


Fig. 37
The Exported Data in the Database

The top row shows the column headers as specified when you activated the *Export Column Headers* checkbox earlier in the lesson.

The remaining columns show the GL numbers, description and dollar/hour amounts you specified earlier in the *Fields 1* tab.

3. Close MS Access once you are completed viewing the data.

Updating the Database: If you need to perform the export process again, you must first ensure that you have the file closed in MS Access before proceeding.

When is the Best Time to Set Up This Feature?

GrandMaster Suite is flexible and offers no restrictions on when you can setup and use the ODBC export features. For example, if you already have a payroll with employees, you are free to begin using the ODBC functions as required.

Note: If you are exporting a large amount of historical data or employee data for the first time, the export process may take some time. Once you have exported a large amount of data for the first time, subsequent exports will be much shorter in duration, assuming you perform them on a regular basis.

Frequently Asked Questions

I cannot locate a certain ODBC driver in my ODBC Administrator dialog box.

If a given MS ODBC driver does not exist on your computer, you will need to install it using the latest version of MDAC. A copy of MDAC is provided on the GrandMaster Suite CD-ROM. Some database programs (e.g. MySQL, Oracle, IBM DB2) provide ODBC drivers of their own and are not included with Microsoft's MDAC program. Contact your database program provider if you require one of these drivers.

Can I change export settings once I have already completed the export process?

Yes. You may change the export settings as required and export the data as many times as you need. Just remember to close the database file each time you perform the export procedure, otherwise GrandMaster Suite will not be able to access the data.

Also, if you have an existing exported database table and subsequently decide to change the export settings, we recommend you do not use the *Append* option to add this new data. Instead, you should export the new data (along with the new settings) to a brand new database table (simply by defining a new *Table* name).

What does the export process fail before completion?

There are a number of reasons that may cause the export process to be terminated before completion. Listed here are some basic reasons.

- The database file is still open in the database program. Close the database file before attempting to perform the export procedure from GrandMaster Suite.
- Appropriate database read/write privileges are not assigned to the person who is performing the export procedure. Ensure that the user can read and write to the database file.
- The database file may be marked as *Read Only*. This setting can be verified (and deactivated if required) via the *ODBC Administrator* dialog box in the *Control Panel*.
- The DSN name has not been defined correctly. Ensure that the *DSN Name* in the *ODBC Administrator* dialog box exactly matches the name defined in GrandMaster's *Export* or *Output* tabs.
- The ODBC Driver is not defined correctly in the *ODBC Administrator* dialog box. Reopen the *ODBC Administrator* dialog box and ensure that the correct driver is defined along with the appropriate settings.
- You may be trying to write the file to a location that is write protected. If you are writing to a floppy drive or zip disk, verify that the write protect tab is open.

My exported database does not include all the data that it should.

There are a number of reasons that may cause the export procedure to not produce all of the required data. Listed here are some basic reasons.

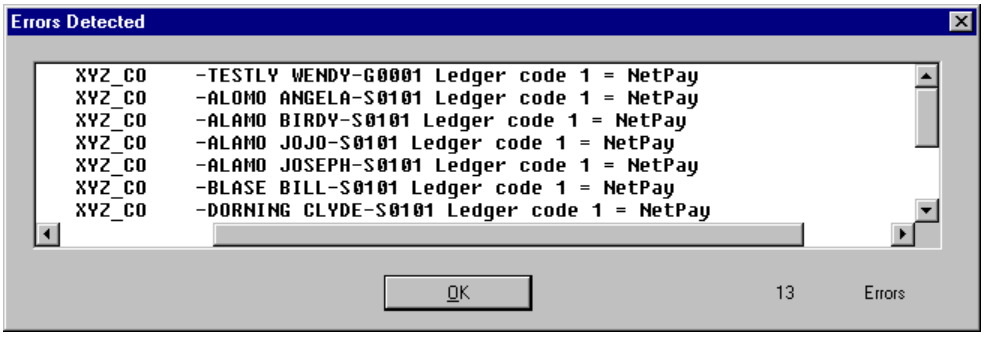
- None of your employees received pay for the current pay period. This may result in blank records for the corresponding employees.
- You have not closed the pay period in GrandMaster Suite (for certain export types). For example, the Financial Database export will not contain employee payroll data until you close the pay for the first time.

What if I forget my database password?

If you forget your database password, you will not be able to complete the export process (since GrandMaster Suite requires the password for this procedure). Since GrandMaster Suite has no control over the passwords you define in your database program, you may wish to keep a copy of the password in a secure location.

Why do I receive an "Errors Detected" message when I export the Financial Database?

If you receive this message it means that you have incomplete distribution table settings. You will need to verify that the listed employees have a distribution assigned to them (perhaps the *Default* distribution or one that you have created) and that the table has been defined with the appropriate GL codes.



This message will not restrict you from completing the export process, but you may wish to contact CanPay Technical Support for further instruction on how to remedy the issue.

Why do I see "Missing Ledger Code" in my exported database?

This occurs when the corresponding Distribution Table does not have a General Ledger code assigned or the GL Code is not defined correctly. You should open the Distribution Tables dialog box and ensure that the correct settings are assigned.