# *FitPlus*™ *for Windows*® *Fit Test Software*

## *User's Manual*

# FitPlus™ for Windows® Fit Test Software

## User's Manual

*December 1996*
*PN 1980284  Rev. A*

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# <u>About this Manual</u>

## Introduction

This manual describes how to install, set up, and use FitPlus™ for Windows® Fit Test Software version 1.1 and higher. FitPlus for Windows is intended for use with the PORTACOUNT® Plus Model 8020. Instructions for setting up the PORTACOUNT with FitPlus software appear in Chapter 3, Getting Started.

## Organization

This manual is organized as follows:

| Chapter | Description |
|---|---|
| 1   Introducing FitPlus for Windows Fit Test Software | Introduces FitPlus for Windows Fit Test Software and describes its functions and features. |
| 2   Getting Started | Provides instructions for installing the FitPlus software and setting up the PORTACOUNT Plus Model 8020. |
| 3   Conducting a Fit Test - Basic Procedures | Provides the basic procedures for conducting a fit test. |
| 4   Using the FitPlus for Windows Menu Options | Provides a detailed description of each of the FitPlus menu options. |

## Conventions

The following conventions are used throughout this manual:

| Convention | Description |
|---|---|
| **Boldface** | Menu options and dialog box fields are shown in boldface type. |
| R | Key names, such as R    , are shown in keyboard type. |
| **<u>Underline</u>** | Menu items can be selected with the mouse or by pressing the A    key and the shortcut key for the menu or option. The shortcut key is underlined on the screen display and in this manual. For example, to select the **<u>File</u>** menu, you can press A  F . |

## Related Publications

When using this manual and FitPlus for Windows software, you may need to refer to your Windows or Windows 95 documentation. You may also need to refer to the TSI *PORTACOUNT Plus Operation and Service Manual*.

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# Chapter 1

## Introducing FitPlus For Windows Fit Test Software

FitPlus for Windows fit test software runs under either Windows 3.x or Windows 95. The software is designed for use with the PORTACOUNT Plus Model 8020, and expands the features available with the DOS based version of FitPlus software. This chapter introduces the FitPlus for Windows features, and briefly describes the tasks you can perform with the software.

### FitPlus for Windows Features

In addition to the Windows interface, features provided by FitPlus for Windows include:

- Selection of the person to be fit tested from a database using a mouse. You no longer have to re-key the same names again and again.
- Separate databases for employees, respirators, exercise protocols, and fit test results. You also can merge databases, and can add fit-test data manually.
- Expanded report capabilities, including a tickler feature indicating who is due for a fit test. There is also a single page report for each test subject, user-designed reports, and other reports.
- Automated daily diagnostic checks.
- A real-time fit factor display for use in employee respirator training.
- A database locking capability to prevent tampering.

### FitPlus for Windows Tasks

FitPlus for Windows software allows you to perform the following tasks. Each task is described briefly. Instructions for performing these tasks appear in Chapter 3, *Conducting a Fit Test*, and Chapter 4, *Using the FitPlus for Windows Menu Options*. The tasks are:

- **Conducting a fit test**
  FitPlus for Windows software opens in daily check mode, followed automatically by the first step of the fit test. Fit testing comprises five basic steps: selecting a test subject; selecting a respirator; selecting an exercise protocol; entering mask size and operator information; and running the fit test. An optional sixth step lets you view the fit test results before beginning the next test. These steps are discussed in detail in Chapter 3.
- **Performing daily diagnostic checks**
  You can run diagnostic checks on the PORTACOUNT Plus, including the particle check, zero check, maximum fit factor check, and valve check. You either can print or save the results of these checks for permanent record keeping.
- **Conducting respirator training**
  The real-time fit factor display assists you in employee respirator training. This feature allows trainees to see the real-time effects of mask positioning and strap tightness while learning proper donning techniques.

- **Viewing, modifying, and printing reports**
  FitPlus for Windows software generates reports for fit test subjects, respirators, protocols, fit tests, next due dates, daily check results, and user-defined reports.  You have the option of viewing the reports or printing the reports.  You also can customize the reports to include specific fields only, or to sort the data in a specific order and specific ranges.
- **Setting up communications ports**
  You can select any of four communications ports on your PC for the FitPlus/PORTACOUNT communications, depending on your hardware configuration.
- **Modifying setup options**
  You can customize the setup for saving fit test data, printing fit test data, and alerting you to failed exercises and failed overall fit factors.
- **Opening and setting up databases**
  There are four default databases:  People, Respirator, Protocol, and Fit Test.  You can open each of these databases to add, delete, duplicate, or search for information.  You can also create new databases.
- **Copying, merging, and exporting databases**
  These features allow you to move data from one database to another, to merge two databases, or to export the database to a tab-delimited ASCII file.

FitPlus for Windows software also contains an online help facility.

# **Chapter 2**

## **Getting Started**

This chapter describes how to install FitPlus for Windows software. It also describes how to connect the PORTACOUNT Plus Model 8020 to your computer.

### *Installing FitPlus for Windows Software*

To install FitPlus for Windows, you must have the following minimum hardware and software configurations:

#### **Hardware Requirements**

- PORTACOUNT Plus Model 8020
- 386 or higher microprocessor
- 5MB free hard-disk space for program files
- Windows-compatible printer
- Serial port
- Pointing device

#### **Software Requirements**

- Microsoft Windows 3.x or Windows 95
- FitPlus for Windows disk

#### **Installation Procedures**

The procedures for installing FitPlus for Windows are different for Windows 3.x or Windows 95. Both procedures are included here.

#### *Installing FitPlus for Windows with Windows 3.x*

1. Insert the FitPlus disk into drive A:.
2. In the Program Manager, click on the **File** Menu and choose **Run**.
3. Type A:SETUP in the Command Line box.
4. Click on **OK**.

The setup procedure creates the TSI Products group if it is not already present on your PC. The FitPlus for Windows icon appears in this group.

*Installing FitPlus for Windows with Windows 95*

1. Insert the disk into drive A:.
2. Choose **Run** from the **Start** menu.
3. Type A:SETUP in the **Open** bar.
4. Click on **OK**.
5. Follow the installation instructions on the screen.

The setup procedure creates the TSI Products group if it is not already present on your PC.  When you select **Programs** from your **Start** menu, **TSI Products** appears on the list.  Highlight **TSI products** and then select **FitPlus for Windows**.

## Connecting the PORTACOUNT Plus

The PORTACOUNT Plus connects to the serial port on your computer.  The PORTACOUNT Plus is shipped with an RS-232 interface cable with an 8-pin RJ 45 modular connector on one end and a 25-pin or 9-pin female connector marked "COMPUTER" on the other end.  (Do not confuse this with the TSI printer cable, which has a 9-pin male connector and is marked "PRINTER".)  As many computers have more than one serial port and may have either 25-pin or 9-pin connectors, TSI supplies an adapter with the PORTACOUNT Plus to adapt the connector if necessary.

Follow the instructions below to connect your PORTACOUNT Plus to your computer:

*Note:  IBM-PC compatible serial ports always have pins (male) on the computer side.  Ports with holes (female) are not serial ports.*

### Using the 25-pin Cable with the 25-pin Computer Port

1. Plug the 25-pin RS-232 cable into the 25-pin connector on the back of your computer.
2. Tighten the keeper screws to prevent the cable from accidentally disconnecting.
3. Plug the other end of the cable into the Data Port located on the back of the PORTACOUNT Plus.

### Using the 25-pin Cable with the 9-pin Computer Port

1. Connect the small end of the adapter to the 9-pin serial port connector on your computer.
2. Tighten the keeper screws to prevent the cable from accidentally disconnecting.
3. Connect the 25-pin RS-232 cable to the 25-pin end of the adapter.
4. Plug the other end of the cable into the Data Port located on the back of the PORTACOUNT Plus.

### Using the 9-pin Cable with the 9-pin Computer Port

1. Plug the 9-pin RS-232 cable into the 9-pin connector on the back of your computer.
2. Tighten the keeper screws to prevent the cable from accidentally disconnecting.
3. Plug the other end of the cable into the Data Port located on the back of the PORTACOUNT Plus.

**Using the 9-pin Cable with the 25-pin Port**

1. Connect the large end of the adapter to the 25-pin serial port connector on your computer.
2. Tighten the keeper screws to prevent the cable from accidentally disconnecting.
3. Connect the 9-pin RS-232 cable to the 9-pin end of the adapter.
4. Plug the other end of the cable into the Data Port located on the back of the PORTACOUNT Plus.

## *Setting Up the PORTACOUNT Plus*

Before you begin fit testing, you also need to set up the PORTACOUNT Plus. The *PORTACOUNT Plus Operation and Service Manual* contains the instructions you need if you are not already familiar with setting up the instrument.

# Chapter 3

## Conducting a Fit Test - Basic Procedures

This chapter provides the basic procedures you follow to conduct a fit test using FitPlus for Windows software.  These procedures begin by default when you open the software.  The chapter discusses what you must do before you begin fit testing, and presents the dialog boxes you must fill in to complete a fit test.  The dialog boxes are easy to fill in by following the information on the screen.  However, if you need additional information, each dialog box is discussed in detail in Chapter 4, *Using the FitPlus for Windows Menu Options*.

**If this is the first time you have used FitPlus for Windows**, you must also set the COM (communications) port and set up the fit test options for automatically saving fit test results, automatically printing fit test results, and automatically terminating fit tests.  You must do this *before* you begin fit testing.  Basic instructions for completing these tasks appear in the next section.

FitPlus for Windows always starts in daily check mode.  TSI Incorporated strongly recommends that you run daily checks of the PORTACOUNT Plus before you run the first fit test.

Each fit test includes five steps:

1.  Selecting a person to be fit tested from the **People** database.
2.  Selecting a respirator from the **Respirator** database.
3.  Selecting an exercise protocol from the **Protocol** database.
4.  Entering mask size and operator identification information.
5.  Running the fit test.

**If this is the first time you have used FitPlus for Windows**, your **People** and **Respirator** databases will be empty.  The instructions in this chapter and the information in Chapter 4 explain how to add records to the databases.  FitPlus for Windows provides a **Protocol** database which includes the most commonly used exercise protocols.  If your protocol is not in this database, FitPlus also lets you add it.

### *Before you Begin the Fit Test*

Before you start the software, you must make sure the PORTACOUNT Plus is connected to the computer, is on, and is operating properly.

*   Check the cable connections to the PORTACOUNT Plus.
*   If the PORTACOUNT Plus is not already running, press the ON/OFF key on the to begin the 60-second warm-up cycle.

Then, start the software:

## IMPORTANT MESSAGE FOR FIRST-TIME USERS

Start the software as described below, **EXCEPT** do not run the Daily Checks. Click the **Cancel** button in the **Daily Checks** dialog box. When the Step 1 dialog box appears, also click the **Cancel** button. Then, follow the steps below:

1. From the FitPlus main menu (Figure 3-1), select <u>**Setup**</u>/<u>**C**</u>**ommunications Port**. Choose the correct Com port from the dialog box and click on <u>**OK**</u>.
2. Select <u>**Setup**</u>/**Fit Test** <u>**O**</u>**ptions**. Choose the options you want to apply to your fit tests from the dialog box and click on <u>**OK**</u>.
3. Select <u>**PORTACOUNT**</u>/**Daily Checks**. Run the daily checks (Figure 3-2). When the checks are complete, click on <u>**OK**</u>.
4. Select <u>**PORTACOUNT**</u>/**Fit Test**. The first fit test dialog box appears on your screen (Figure 3-3).

You are now ready to begin fit testing.

*Note: Details for the dialog boxes referenced above appear in Chapter 4, Using the FitPlus Menu Options, under the descriptions of the <u>Setup</u> and <u>PORTACOUNT</u> menus.*



**Figure 3-1. FitPlus for Windows Main Menu**

- Double-click the FitPlus for Windows icon from your TSI Products group (Windows 3.x), or select **TSI Products/FitPlus for Windows** from the list that appears when you select **Programs** from your **Start** menu.  The **Daily Checks** dialog box appears on your screen (Figure 3-2).  Run the daily checks at least once a day.  When the checks are complete, click on the **OK** button.  The first fit test dialog box appears on your screen (Figure 3-3).

*Note:*  *If you did not start the PORTACOUNT before starting the software, or if the PORTACOUNT has not completed the warm-up period, you will receive this message:*  **PORTACOUNT is not responding**, *including suggestions to check the PORTACOUNT and communications cable connections.  Start the PORTACOUNT and wait for the countdown.  Click on **OK** to continue.  You may also select **Cancel** to skip the daily checks.*

You are now ready to begin fit testing.
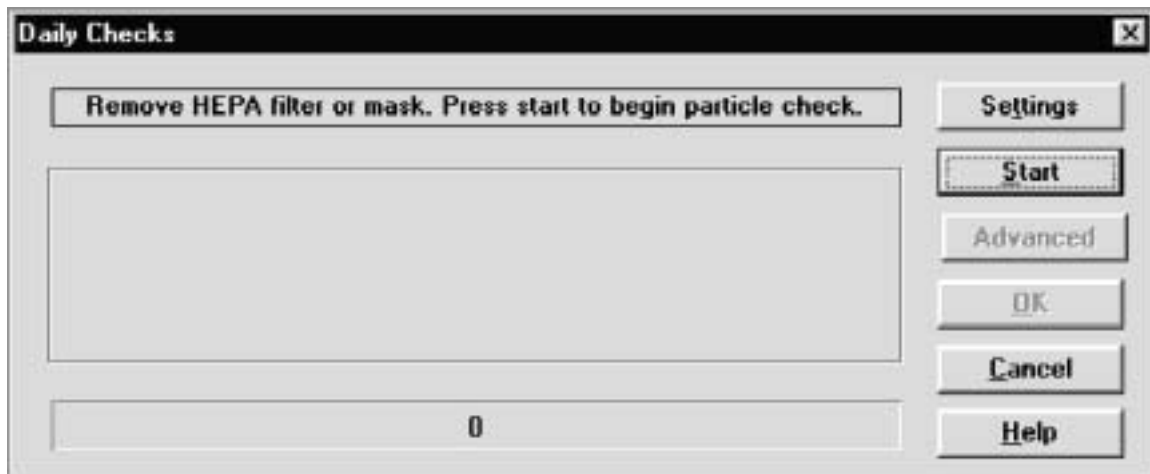


**Figure 3-2.  Daily Checks Dialog Box**

## Step 1 - Select a Person

When the **Step 1** dialog box appears, it shows the record of the first person in the **People** database. The records are arranged in alphabetical order.

*Note: **If this is the first time you have used FitPlus for Windows**, your People database will be blank. The following instructions indicate which buttons you must click on to add records to the database. However, you must refer to Chapter 4, Using the FitPlus for Windows Menu Options, for detailed descriptions of the fields in the database dialog boxes.*



**Figure 3-3. Select a Person - Step 1**

If the person shown is the one you want to fit test, click on the **Next** button. Otherwise:

1. Click on the **Sorted Records** field arrow to display all the names in the **People** database, or use the **Search** button to find the name you want.
   *Note: If the person you want to fit test is not in the database, or if the record is blank, click on the **New** button and create a new record.*
2. Click on the selected person's name to display the correct record.
3. Click on the **Next** button to proceed to Step 2.

## *Step 2 - Select a Respirator*

When the **Step 2** dialog box appears, it shows the name of the first respirator in the **Respirator** database. The records are in alphabetical order (Figure 3-4).

*Note:* ***If this is the first time you have used FitPlus for Windows**, your Respirator database will be blank. The following instructions indicate which buttons you must click on to add records to the database. However, you must refer to Chapter 4, Using the FitPlus for Windows Menu Options, for detailed descriptions of the fields in the database dialog boxes.*
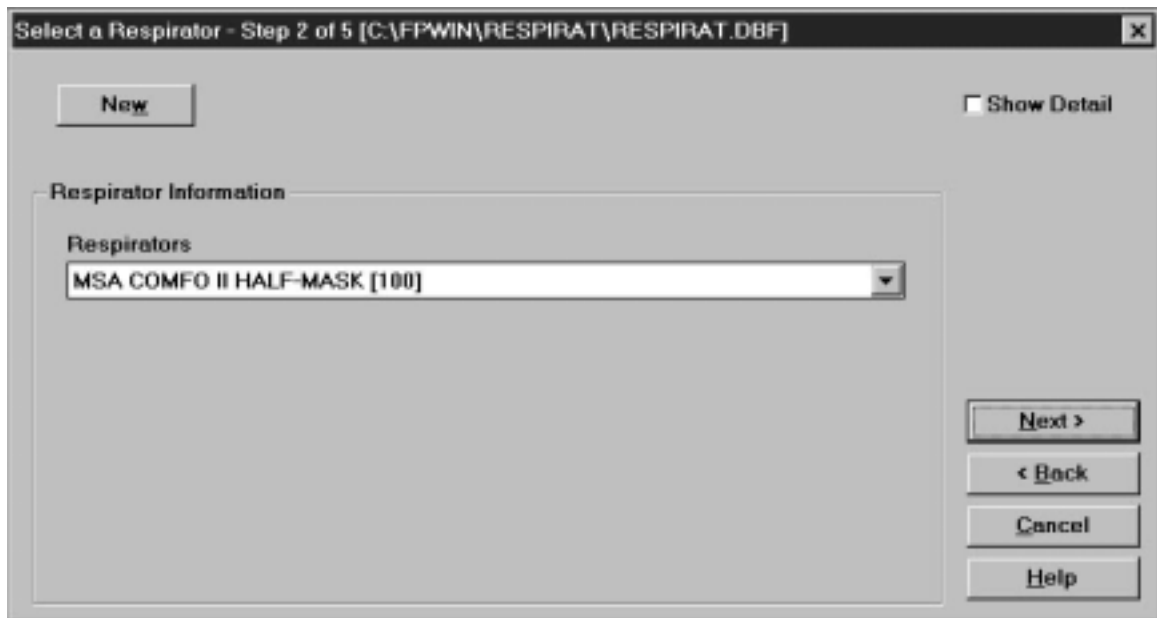


**Figure 3-4. Select a Respirator - Step 2**

If the record for the respirator you wish to use is displayed, click on the **Next** button. Otherwise:

1. Click on the **Respirators** field arrow to display all the respirators in the database. Use the scroll bar to find the respirator you want.
   *Note: If the name of the respirator you want to use is not in the database, or if the record is blank, click on the **New** button and create a new record.*
2. Click on the selected respirator name to display it in the records field. If you want to see details for the selected respirator, click on the **Show Detail** box to display the Respirator details dialog box (Figure 3-5).
3. Click on the **Next** button to proceed to Step 3.

**Figure 3-5. Respirator Details Dialog Box**

## Step 3 - Select a Protocol

When the **Step 3** dialog box appears, it shows the exercise protocol that was last used (Figure 3-6).

*Note:  **If this is the first time you have used FitPlus for Windows software**, the dialog box displays the most commonly used 6-exercise protocol named "Default."  The protocols are listed in alphabetical order.*



**Figure 3-6.  Select a Protocol - Step 3**

If you wish to use this protocol, click the **Next** button.  Otherwise:

1.  Click on the **Protocols** field arrow to display all the exercise protocols in the database.  Use the scroll bar to find the protocol you want.
    *Note:  If the name of the protocol you want to use is not in the database, or if the record is blank, click on the **New** button and create a new record.*
2.  Click on the selected protocol name to display it in the **Protocols** field.  If you wish to see details for this protocol, click on the **Show Detail** box to display the Protocol details dialog box (Figure 3-7).
3.  Click on the **Next** button to proceed to Step 4.

*Note:  FitPlus for Windows remembers the protocol you last used and defaults to that protocol for the next fit test.  If you always use the same protocol, this saves you from searching for it over and over again.*

**Figure 3-7. Protocol Details Dialog Box**

## Step 4 - Information

When the **Step 4** dialog box appears, the mask size and operator fields are blank. (Figure 3-8.) You must fill in these fields before the FitPlus software will let you continue.



**Figure 3-8. Information - Step 4 of 6**

1. Fill in the **Mask Size** field. For example: SMALL, MEDIUM, or LARGE. This is a required field.
2. Fill in your name in the **Operator** field. This is a required field.
3. Override the **Pass Level** and **Due Date** by typing in new information, if necessary.
4. Click on the **Ne<u>x</u>t** button to proceed to Step 5.

*Note: The default setting for data input is **PORTACOUNT**. If you wish to input data manually, click on **Manual**. When you click on the **Ne<u>x</u>t** button, the **Manual Entry - Step 5** (Figure 3-7) screen appears. You can use this screen to fill in information from a fit test conducted without the computer.*

## Step 5 - Conducting the Fit Test

The **Step 5** dialog box (Figure 3-9) is not active until you begin the fit test by clicking the **Start** button. Before you click on the **Start** button, *make sure the PORTACOUNT sample tube is connected to the respirator and the test subject is ready to begin the exercise protocol immediately.* Refer to the *PORTACOUNT Plus Operation and Service Manual* if you need additional information.
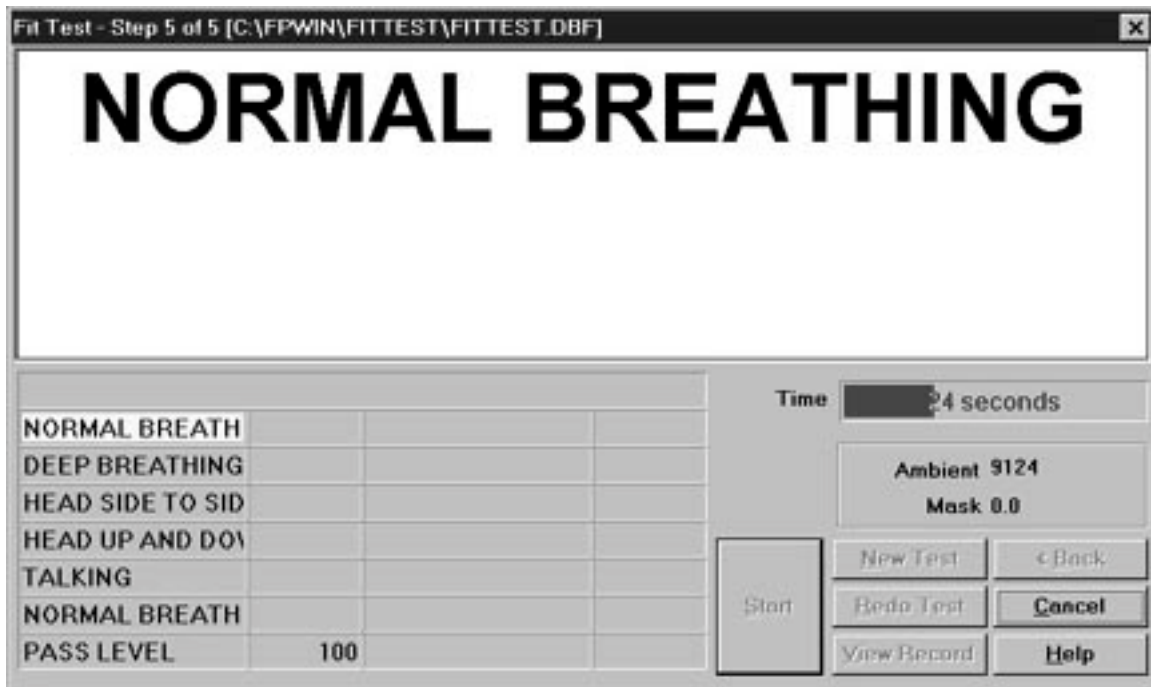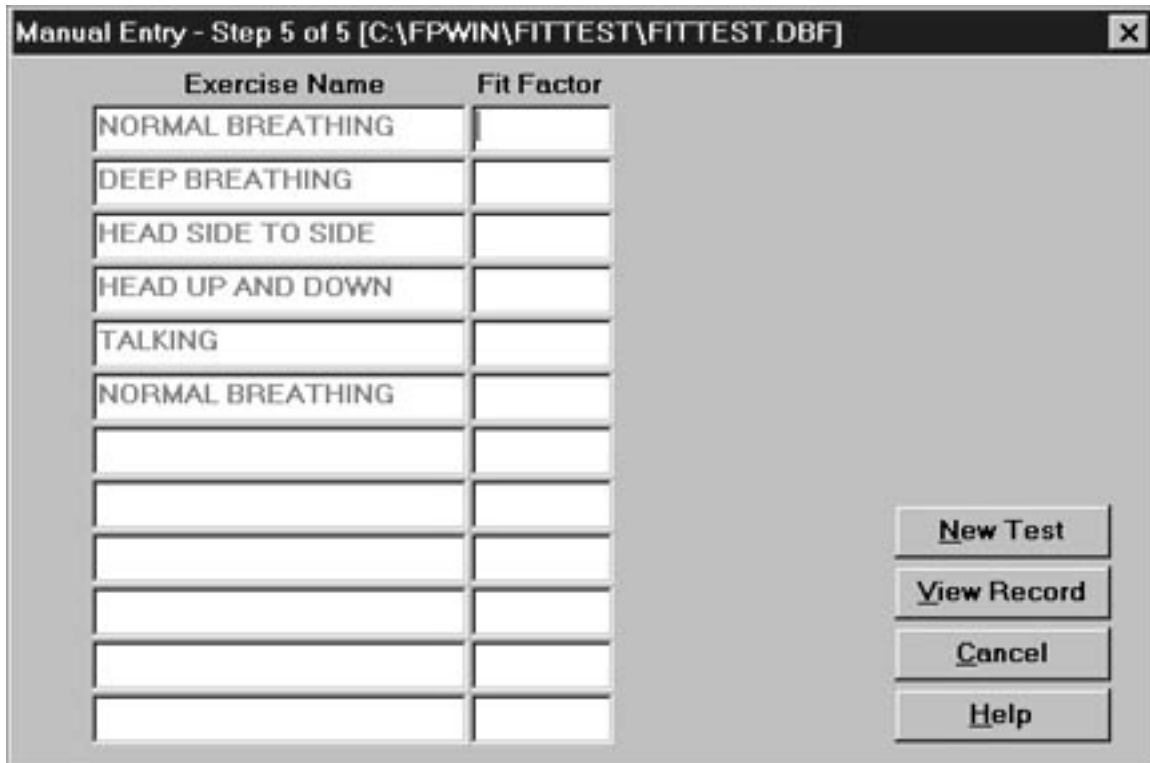


**Figure 3-9. Fit Test - Step 5**

1. Click on the **Start** button. The fit test begins immediately and the first exercise description appears in large type. The elapsed exercise time appears in the **Time** box. As each exercise is completed, the results appear in the grid at the lower left of the screen. The **Ambient** and **Mask** fields show the ambient and mask particle concentrations as they are measured.
2. FitPlus prompts you when it begins a new exercise. The exercises proceed one after another without pause.
3. When the fit test is complete, the main portion of the dialog box displays either a pass or fail status. The grid at the lower left of the screen displays the results of each exercise and the overall fit factor. You can now begin a new fit test on another person by clicking on the **New test** button, redo the test on the same person/respirator by clicking on the **Redo test** button, cancel fit testing by clicking on the **Cancel** button, or view the detailed fit test record by clicking on the **View record** button.

## Alternate Step 5 - Manual Entry

If you clicked on the **Manual** button in Step 4, the **Manual Entry - Step 5 of 6** screen appears (Figure 3-10).  You use this screen to enter the results of a fit test conducted without a computer.  Fill in the results in the **Fit Factor** column of the screen.  After you complete the manual entry of data, you can begin a new fit test on another person by clicking on the **New test** button, or go on to view the detailed fit test record by clicking on the **View record** button.
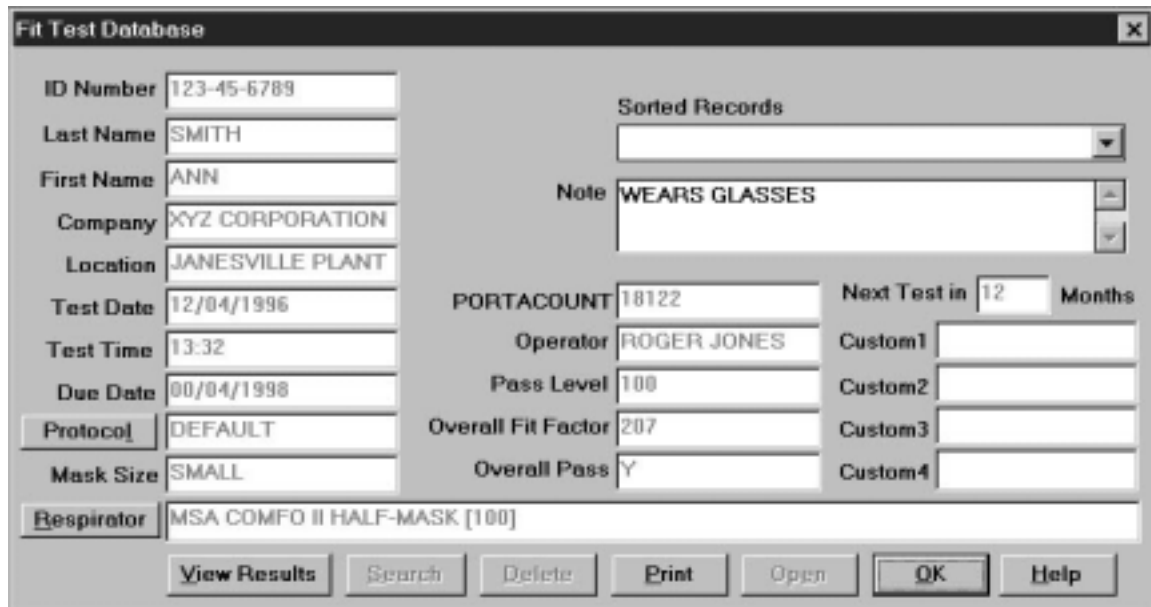


**Figure 3-10.  Manual Entry - Alternate Step 5**

## *View Record (optional)*

Clicking on **View Record** at the completion of a fit test allows you to look at the detailed information from the fit test you just finished. You cannot edit the information from this dialog box, but you may view all information and optionally print a single page fit test report. When your are done, click **OK** to begin fit testing another person.



**Figure 3-11. Fit Test record**

# Summary

This chapter presented the basic fit testing procedures provided by the FitPlus for Windows software. For detailed information on all the options available in FitPlus for Windows, refer to Chapter 4.

# Chapter 4

## Using the FitPlus for Windows Menu Options

This chapter discusses how to use the FitPlus for Windows menu options to perform all the tasks available in the FitPlus for Windows software.  It is organized in the same order as the FitPlus for Windows main menu bar, shown in Figure 4-1.  You can perform FitPlus for Windows tasks independently of the default basic procedures discussed in Chapter 3 by selecting them from the menu.
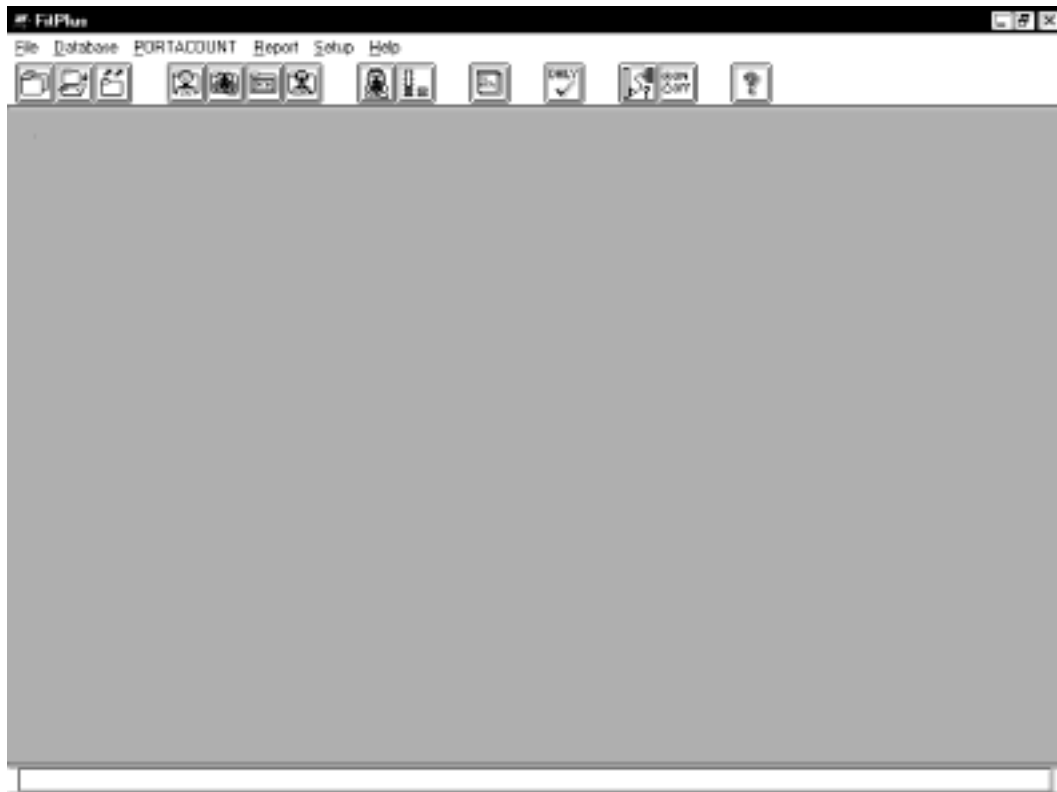


**Figure 4-1.  Main Menu**

The following table lists all of the menu selections.

| Menu | Description |
|------|-------------|
| **F**ile | The **F**ile menu contains three options:<br>• **C**opy database<br>• **M**erge databases<br>• **E**xport database<br>• E**x**it |
| **D**atabase | The **D**atabase menu contains two options:<br>• **O**pen<br>• **S**etup/Create Default Filenames |
| **P**ORTACOUNT | The **P**ORTACOUNT menu contains three options:<br>• **F**it Test<br>• **R**ealtime<br>• **D**aily Checks |
| **R**eport | The **R**eport menu contains two options:<br>• **S**elect report<br>• Single **F**it Test |
| **S**etup | The **S**etup menu contains two options:<br>• **C**ommunications Port<br>• Fit test **O**ptions |
| **H**elp | The **H**elp menu contains four options:<br>• **C**ontents<br>• FitPlus **F**eatures<br>• FitPlus **T**asks<br>• **A**bout FitPlus |

You can select any of the options using the mouse or the keyboard.

- To select an item using the mouse, move the cursor to the menu and click the left mouse button.  Then click the menu option you want to select.
- To select an item using the keyboard, press the A  key and the underlined letter of the menu you want to select.  For example, to select the **Database** menu, press and hold A  , and then press D .  Then, to select the menu option, press the underlined letter for the option you want.

In addition to the menu bar, FitPlus for Windows includes toolbar buttons.  These buttons, located directly below the menu bar, offer easy access to the most common menu options.



**Figure 4-2.  Toolbar Buttons**

Toolbar button descriptions in order from left to right are:

Copy a database file to another location and optionally rename the file

Merge one database into another and optionally rename the file

Export a database to a tab-delimited ASCII file

View or edit the People database

View or edit the Respirator database

View or edit the Protocol database

View or edit the Fit Test database

Start a fit test

Start the Real-time fit factor display

Select a report format from a list

View or print a single-page fit test report

Start daily checks

Select or test a communications port

Set fit test options

Online help

## *Using the File Menu*

The **File** menu allows you to copy, merge, or export databases, or to exit the program.  FitPlus for Windows provides a distinct directory structure for the four types of database files:  People, Respirator, Protocol, and Fit Test.  Each file type has a specific directory.  When you open any of the **Select Source/Destination Database File** dialog boxes, explained below, FitPlus for Windows automatically displays the directory structure in the right-hand side of the dialog box.

## Copying a Database

To copy a whole database from one location to another, open the **File** menu and click on **Copy Database**.  The **Copy Database** dialog box appears (Figure 4-3).



**Figure 4-3.  Copy Database Dialog Box**

1.  Click on the **Browse** button under **Select Source Database**.  The **Select source database file** dialog box appears (Figure 4-4).
2.  In the **Folders** list on the right-hand side of the dialog box, double-click on the folder for the type of database you want to copy.  The names of the files in the selected folder appear in the **File name** list on the left-hand side of the dialog box.
3.  Using your mouse, select the name of the database you wish to copy.  (If the database name does not appear in the list, search for the desired database in other folders.  If you are not familiar with basic Windows browse techniques, please refer to your Windows documentation.)  The name of the file to be copied must appear in the **File name** bar at the top left of the screen.  Click on the **OK** button.  The **Copy Database** dialog box reappears with the name of the source database filled in.

4. Click on the **Browse** button under **Select Destination Database**.  The **Select destination database file** dialog box appears.  This dialog box looks exactly like the **Select source database file** dialog box, and functions in the same way.
5. The name of the *source* database file appears in the destination database **File name** bar by default.  To change the name, type the new name in the bar.  (The default destination drive is **A:.**  If you wish to change the drive, select a new drive from the **Drives** bar at the bottom of the screen.)
   If you wish to copy and rename the file, enter the name of the new file in the **File name** bar  The Copy procedure will copy and rename the file.  Click on the **OK** button.  The **Copy Database** dialog box reappears, with the names of the source and destination databases filled in.
6. Click on the **Copy Database** button under **Execute**.  The file is copied from the source to the destination.
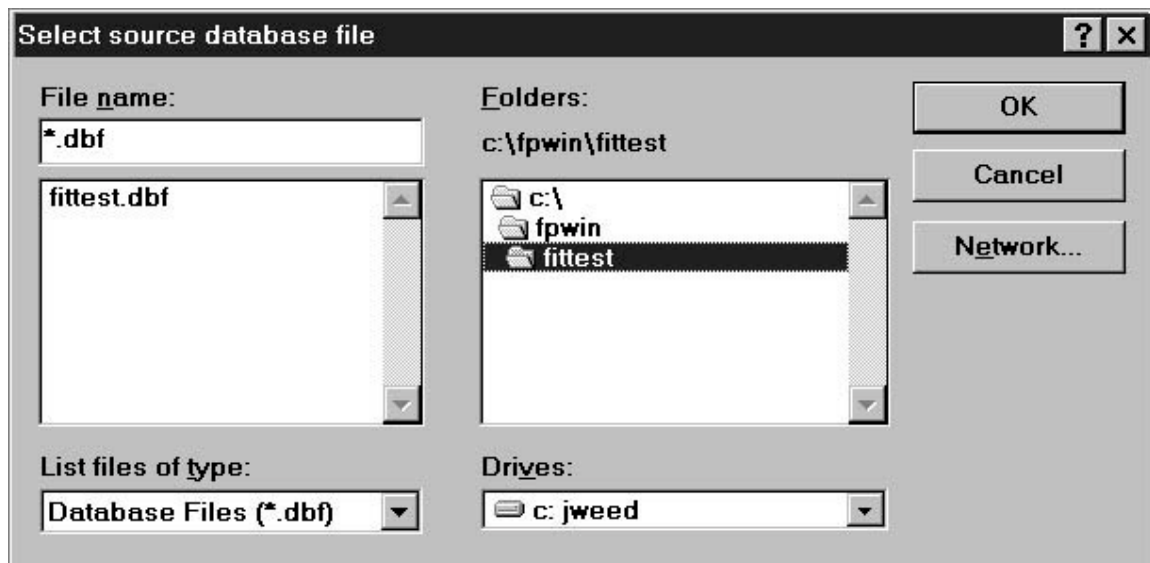


**Figure 4-4.  Select source database file Dialog Box**

If you wish to cancel the **Copy Database** procedure at any time, click on the **Cancel** button that appears on all of the dialog boxes.  You immediately return to the main FitPlus window.

If you are on a network, click on the **Network** button on the **Select Source/Select Destination Database** file dialog boxes to access other drives on the network.

## Merging Databases

To merge data from one database file into another, open the **File** menu and click on **Merge Databases**. The **Merge Databases** dialog box appears (Figure 4-5). This procedure adds data from the source database to the destination database. It does not alter the source database file.
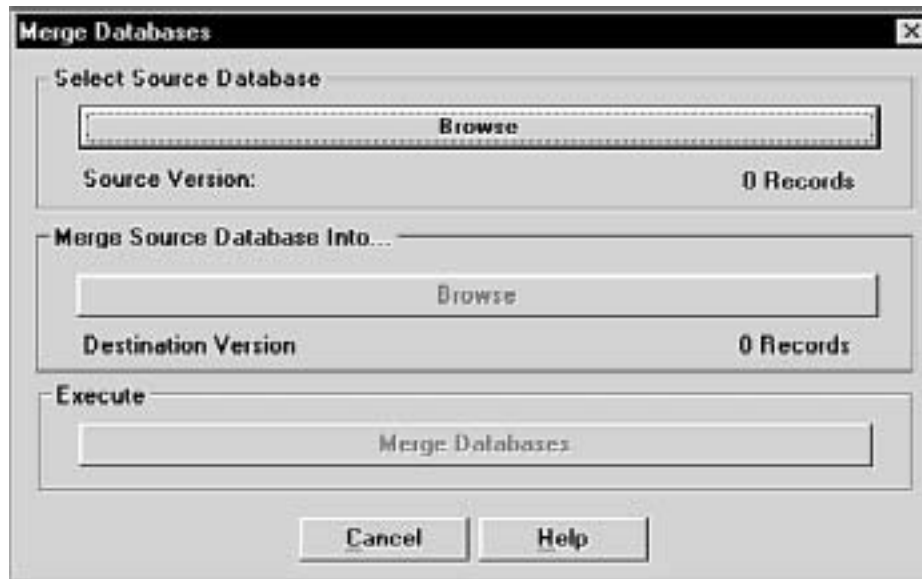
**Figure 4-5. Merge Databases Dialog Box**

1.  Click on the **Browse** button under **Select Source Database**.  The **Select source database file** dialog box appears (Figure 4-4).
2.  In the **Folders** list on the right-hand side of the dialog box, double-click on the folder for the type of database you want to copy.  The names of the files in the selected folder appear in the **File name** list on the left-hand side of the dialog box.
3.  Using your mouse, select the name of the source database you wish to merge data *from*.  (If the database name does not appear in the list, search for the desired database in other folders.  If you are not familiar with basic Windows search techniques, please refer to your Windows documentation.)  The name must appear in the **File name** bar at the top left of the screen.  Click on the **OK** button.  The **Merge Databases** dialog box reappears with the name of the source database filled in.
4.  Click on the **Browse** button under **Merge Source Database Into…**.  The **Select destination database file** dialog box appears.  This dialog box looks exactly like the **Select source database** dialog box, and functions in the same way.
5.  Select the name of the database you wish to merge data *into*.  Search for the database if it does not appear in the list.  The file must already exist or you cannot execute the merge function.  Click on the **OK** button.  The **Merge Databases** dialog box reappears, with the names of the source and destination databases filled in.
6.  Click on the **Merge Databases** button under **Execute**.  The data is copied from the source database and added to the destination database.  The source database is not altered.

If you wish to cancel the **Merge Databases** procedure at any time, click on the **Cancel** button that appears on all of the dialog boxes.  You immediately return to the previously displayed dialog box.

If you are on a network, click on the **Network** button on the **Select Source/Select Destination Database** file dialog boxes to access other drives on the network.

## Exporting Databases

The **Export Database** function allows you to transfer data to programs that cannot read dBASE IV format databases. Most popular database and spreadsheet software can read dBASE IV format databases directly.

The export database function creates a tab-delimited ASCII file containing <u>all</u> data in the database. There is no way to filter records.

To export data from one database file into a tab-delimited ASCII file, open the **File** menu and click on **Export Databases**. The **Export Database** dialog box appears (Figure 4-6).
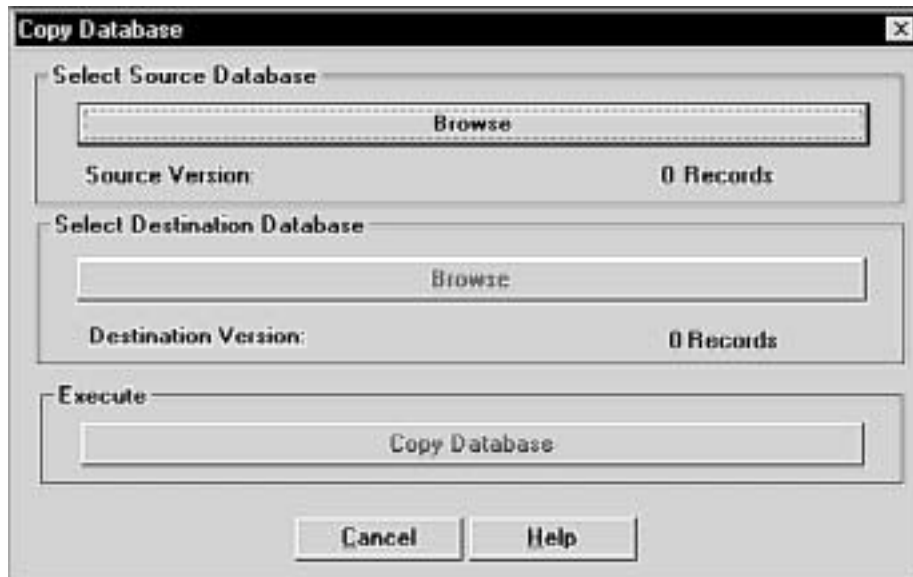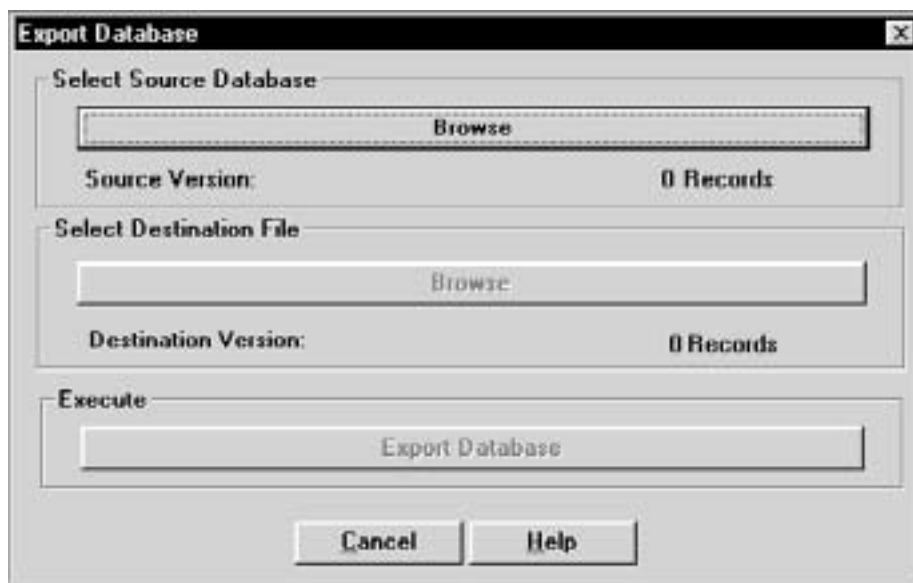


**Figure 4-6. Export Database Dialog Box**

1.  Click on the **Browse** button under **Select Source Database**.  The **Select source database file** dialog box appears (Figure 4-4).
2.  In the **Folders** list on the right-hand side of the dialog box, double-click on the folder for the type of database you want to copy.  The names of the files in the selected folder appear in the **File name** list on the left-hand side of the dialog box.
3.  Using your mouse, select the name of the database you wish to export. (If the database name does not appear in the list, search for the desired database in other folders.  If you are not familiar with basic Windows search techniques, please refer to your Windows documentation.)  The name must appear in the **File name** bar at the top left of the screen.  Click on the **OK** button.  The **Export Database** dialog box reappears with the name of the source database filled in.
4.  Click on the **Browse** button under **Select Destination File**.  The **Select destination file** dialog box appears (Figure 4-7).
5.  Select the name of the file you wish to export the data *to*.

    *WARNING:  If you select the name of an existing file, the file will be overwritten.*
    Create a new file by typing the file name in the **File name** bar, or search for the file if it does not appear in the list.  (The file extension **.txt** is used by default and may be changed if you wish.)  Click on the **OK** button.  The **Export Database** dialog box reappears, with the names of the source and destination files filled in.

6.  Click on the **Export Database** button under **Execute**.  The data is copied from the source to the destination database.

If you wish to cancel the **Export Database** procedure at any time, click on the **Cancel** button that appears on all of the dialog boxes.  You immediately return to the previously displayed dialog box.

If you are on a network, click on the **Network** button on the **Select Source/Select Destination Database** file dialog boxes to access other drives on the network.
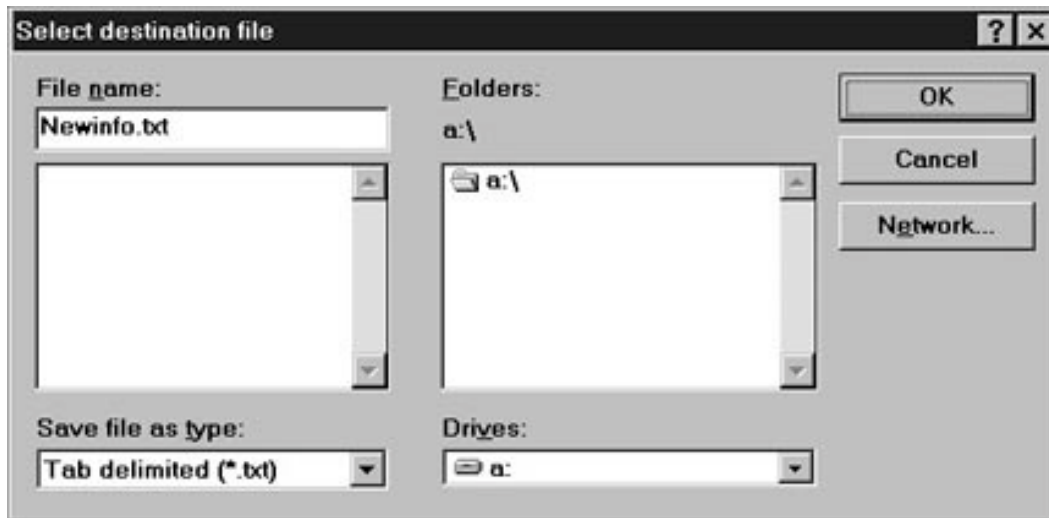
**Figure 4-7.  Select destination file Dialog Box - Export Database**

## Exiting FitPlus for Windows Software

To exit the program, open the **File** menu and click on **Exit**.  The main FitPlus window closes, terminating the application.

## *Using the Database Menu*

FitPlus for Windows uses four types of database files:  People; Respirator; Protocol; and Fit Test.
The **Database** menu allows you to open the database files, add new data to these database files,
change the default database file, or create a new database file.

All database files carry the **.dbf** extension.  The default files supplied with FitPlus for Windows
software are **People.dbf**, **Respirator.dbf**, **Protocol.dbf**, and **Fittest.dbf**.

The default databases are the databases used for fit testing.  In other words, Step 1 of a fit test
uses the default people database, Step 2 uses the default respirator database, Step 3 uses the
default protocol database, and the fit test results are stored in the default fit test database.  The
only way you can change a default database is by using the **Setup/Create Default Filenames**
option, described later in this section.

### Open and Updating the Default Database Files

To open one of the database files, click on the **Database** menu, select **Open**, and select one of the
four database files:  People, Respirator, Protocol, or Fit Test.  The first record in the default
database appears.  If you want to work on another database that is not currently defined as the
default, click on the **Open** button and select another database from the **Select Database File**
dialog box.

*Note:  Each of the four database files is described in a separate section below.*

## *Updating the People Database File*

The **People Database** dialog box automatically displays the first record in the default people database (Figure 4-8), sorted by last name.  If the database is empty, the dialog box contains all blank fields.  You enter information for a new record in the fields in the **People Information** section of the dialog box.  You can also change any of the displayed information for any existing record by overwriting these fields.



**Figure 4-8.  People Database Dialog Box**

The following table describes the function of each of the buttons or fields in the **People Database** dialog box.

| Button or Field Name | Function |
|---|---|
| **New** button | Clicking on the **New** button opens a new blank record, allowing you to enter a new record in the database. |
| **Delete** button | Clicking on the **Delete** button allows you to delete the displayed record. A warning message first appears, asking if you are sure you want to delete the record. If you click on **Yes**, the record is deleted permanently. |
| **Duplicate** button | Clicking on the **Duplicate** button duplicates the displayed record, adds it to the database, and displays the duplicate record. You can use this feature to create a record similar to the displayed record, and edit the fields as necessary. |
| **Search** button | Clicking on the **Search** button displays the **Database Search** dialog box (Figure 4-9). Type the name of the person you want to find in the **Text to search for…** bar and click on **OK**. The **People Database** dialog box reappears, displaying the selected record.<br><br>You may search other fields besides the last name field by changing the field shown in the **Data to search through** .<br><br>If the record you are searching for is not in the database file, the first record in the file reappears. Click on **New** and add the new record. |
| **ID Number** field | Displays the person's ID number. Limited to 11 alpha-numeric characters. |
| **Last Name** field | Displays the person's last name. Limited to 25 characters. |
| **First Name** field | Displays the person's first name. Limited to 25 characters. |
| **Company** field | Displays the person's company name. Limited to 25 characters. |
| **Location** field | Displays the person's division or department name. Limited to 25 characters. |
| **Note** field | Displays any information about the person that can affect the fit test circumstances or results, such as "wears safety goggles," or "wears dentures." Limited to 128 characters. |

| Button or Field Name | Function |
|---|---|
| **Sorted Records** field | Clicking on the arrow to the right of the records field displays a list of all the records in the database file. It is used to select a record for display. |
| **Custom** fields (1, 2, 3, and 4) | Displays any user-defined data you may wish to keep track of. |
| **Op<u>e</u>n** button | Clicking on the **Op<u>e</u>n** button displays the **Select people database** file dialog box. You can select another file for editing. However, this does not change the default people database for fit test purposes. |
| **<u>OK</u>** button | Clicking on the **<u>OK</u>** button closes the dialog box. |
| **<u>H</u>elp** button | Clicking on the **<u>H</u>elp** button accesses the FitPlus online help information. |
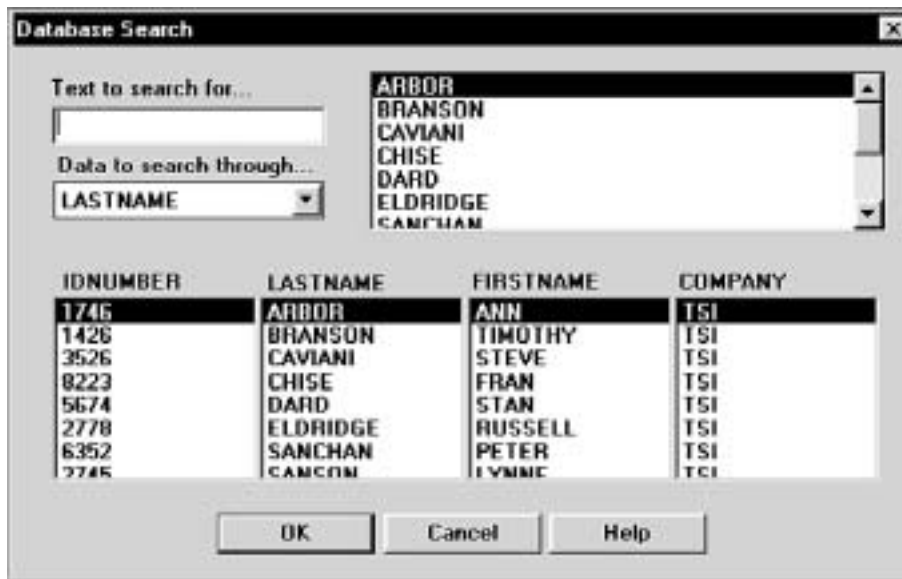


**Figure 4-9. Database Search Dialog Box**

## Updating the Respirator Database

The **Respirator Database** dialog box automatically displays the first record in the default respirator database (Figure 4-10), sorted by description.  You use the **Sorted Records** field to display and select any existing respirator record.  If the database is empty, the dialog box contains all blank fields.  You enter information for a new respirator in the **Respirator Information** section of the dialog box. You can also change the displayed information for any existing record by updating the appropriate fields.



**Figure 4-10.  Respirator Database Dialog Box**

The following table describes the function of each of the buttons or fields in the **Respirator Database** dialog box.

| Button or Field Name | Function |
| --- | --- |
| **New** button | Clicking on the **New** button opens a new blank record, allowing you to enter a new record in the database. |
| **Delete** button | Clicking on the **Delete** button allows you to delete the displayed record. A warning message first appears, asking if you are sure you want to delete the record. If you click on **Yes**, the record is deleted permanently. |
| **Duplicate** button | Clicking on the **Duplicate** button duplicates the displayed record, adds it to the database, and displays the duplicate record. You can use this feature to create a record similar to the displayed record, and edit the fields as necessary. |
| **Search** button | Clicking on the **Search** button displays the **Database Search** dialog box. (This box is structured exactly like the box shown in Figure 4-11, although it displays respirator information.) Select the data to search through, and type the information to search for in the **Text to search for…** bar. Click on **OK**. The **Respirator Database** dialog box reappears, displaying the selected record.<br><br>If the record you are searching for is not in the database file, the first record in the file reappears. Click on **New** and add the new record. |
| **Sorted Records** field | Clicking on the arrow to the right of the **Sorted Records** field displays a list of all the respirator records in the database. You can select a new record or leave the current record in the dialog box. |
| **Manufacturer** field | Displays the respirator manufacturer's name. |
| **Model** field | Displays the respirator model. |
| **Style** field | Displays the description of the respirator style, such as half- or full-face. |
| **Approval** field | Displays the respirator approval number. This is typically the NIOSH approval number. |

| Button or Field Name | Function |
|---|---|
| **Fit Factor Pass Level** field | Displays the fit factor pass level number for this respirator, such as 100 for half masks and 500 for full-face masks. Consult the applicable regulations for additional information. |
| **Description** field | Displays the respirator description, also shown in the **Sorted Records** field. See **Auto Description** at the end of this table. |
| **Open** button | Clicking on the **Open** button displays the **Select respirator database file** dialog box. You can select another file for editing purposes. However, this does not change the default respirator database for fit test purposes. |
| **OK** button | Clicking on the **OK** button updates the displayed record and closes the dialog box. |
| **Help** button | Clicking on the **Help** button accesses the FitPlus online help information. |
| **Auto Description** Check Box | If **Auto Description** is checked, the description field will automatically be filled in using the information from the manufacturer, model, style and fit factor pass level fields. You may overwrite the automatic description if necessary. |

## Updating the Protocol Database

The **Protocol Database** dialog box automatically displays the records in the default protocol database in alphabetical order.  (Figure 4-11).  You use the **Sorted Records** field to display and select any existing exercise protocols.  If the database is empty, the dialog box contains all blank fields.  You enter information for a new exercise protocol in the **Protocol Information** section of the dialog box. You can also change the displayed information for any existing record by updating the appropriate fields.
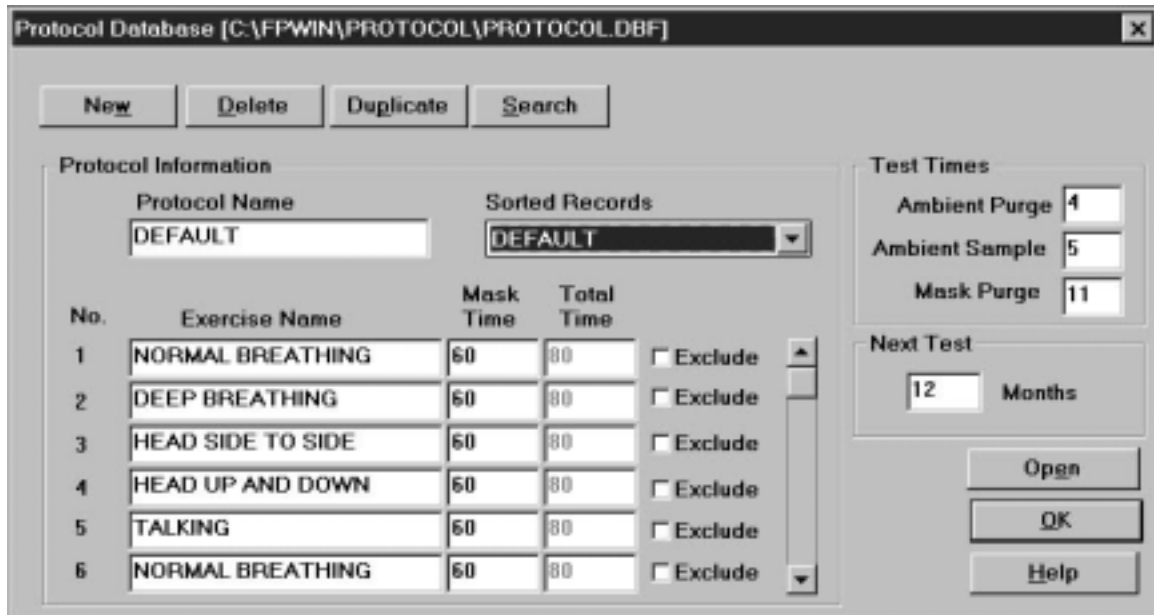


**Figure 4-11.  Protocol Database Dialog box**

The following table describes the function of each of the buttons or fields in the **Protocol Database** dialog box.

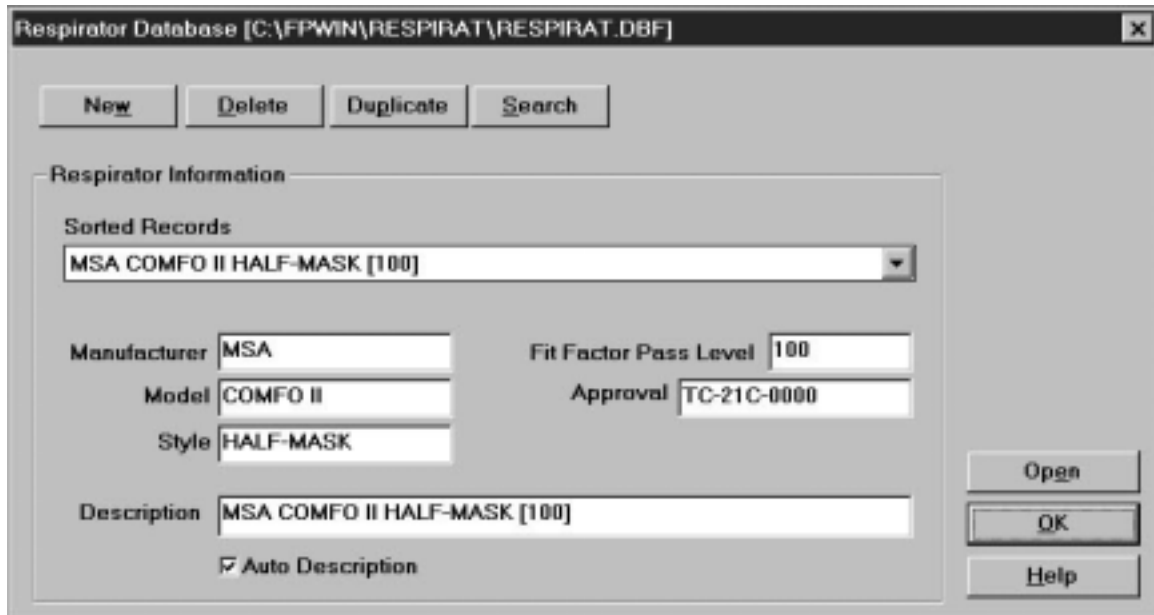| Button or Field Name | Function |
|---|---|
| **New** button | Clicking on the **New** button opens a new blank record, allowing you to enter a new record in the database. |
| **Delete** button | Clicking on the **Delete** button allows you to delete the displayed record. A warning message first appears, asking if you are sure you want to delete the record. If you click on **Yes**, the record is deleted permanently. |
| **Duplicate** button | Clicking on the **Duplicate** button duplicates the displayed record, adds it to the database, and displays the duplicate record. You can use this feature to create a record similar to the displayed record, and edit the fields as necessary. |
| **Search** button | Clicking on the **Search** button displays the **Database Search** dialog box. (This box is structured exactly like the box shown in Figure 4-9, although it contains only the protocol names.) Type the name of the protocol for this fit test in the **Text to search for…** bar and click on **OK**. The **Protocol Database** dialog box reappears, displaying the selected record.<br><br>If the record you are searching for is not in the database file, the first record in the file reappears. Click on **New** and add the new record. |
| **Protocol Name** field | Displays the name of the displayed exercise protocol. |
| **Sorted Records** field | Clicking on the arrow to the right of the **Sorted Records** field displays a list of all the Protocol records in the database. You can select a new record or leave the current record information in the dialog box. |
| **Exercise Name** fields | Displays the names of all the exercises in the protocol. There are up to 12 exercises. Use the scroll bar to the right of the **Exclude** buttons to display Exercises 7 through 12. |
| **Mask Time** field | Displays the mask sample time in seconds for each exercise. Use 60 seconds unless applicable regulations allow other settings. |

| Button or Field Name | Function |
|---|---|
| **Total Time** field | Displays the total time in seconds for each exercise. The total time is the mask plus ambient purge plus ambient sample plus mask purge times. FitPlus for Windows automatically updates the total when you move to the next field. You cannot update this field directly. |
| **Exclude** buttons | Clicking the **Exclude** button for an exercise excludes those exercise results from the overall fit factor result for the entire fit test. Do not exclude exercises unless you are absolutely certain that they are not required for the overall fit factor result. |
| **Ambient Purge** field | Displays the ambient purge time in seconds. The default is 4. Do not change this setting under normal circumstances. |
| **Ambient Sample** field | Displays the ambient sample time in seconds. The default is 5. Do not change this setting under normal circumstances. |
| **Mask Purge** field | Displays the mask purge time in seconds. The default is 11. Do not change under normal circumstances. |
| **Next Test** field | Displays the number of months before the next fit test is due. This is typically 12 months, although some regulations call for 6 months. Consult the applicable regulations for additional information. |
| **Open** button | Clicking on the **Open** button displays the **Select protocol database file** dialog box. You can select another file for editing purposes. However, this does not change the default protocol database used for fit testing. |
| **OK** button | Clicking on the **OK** button updates the displayed record and closes the dialog box. |
| **Help** button | Clicking on the **Help** button accesses the FitPlus online help information. |

## Viewing the Fit Test Database

The **Fit Test Database** file dialog box automatically displays the first record in the default fit test database, sorted by last name (Figure 4-12). Many of the fields in this dialog box are display only, you cannot modify them.



**Figure 4-12. Fit Test Database Dialog Box**

You can display a new record by clicking on the arrow next to the **Sorted Records** field and selecting a new record from the resulting list. You can also click on the <u>**Search**</u> button at the bottom of the screen to display a dialog box that allows you to select a specific fit test record.

The following table describes the function of each button and field in the **Fit Test Database** dialog box. It also indicates whether or not you can modify the field.

| Button or Field Name | Modify? | Function |
|---|---|---|
| **First Name** field | Y | Displays the first name of the fit test subject. |
| **Last Name** field | Y | Displays the last name of the fit test subject. |
| **ID Number** field | Y | Displays the ID number of the fit test subject. |
| **Company** field | Y | Displays the company name of the fit test subject. |
| **Location** field | Y | Displays the division or department name of the fit test subject. |
| **Test Date** field | N | Displays the date of the fit test. |
| **Test Time** field | N | Displays the time the fit test began. |
| **Due Date** field | Y | Displays the date that the next fit test is due. |
| **Protocol** field | N | Displays the protocol used for the fit test. |
| **Mask Size** field | Y | Displays the size of the mask used for the fit test. |
| **Respirator** field | Y | Displays the name of the respirator used for the fit test. |
| **Sorted Records** field | n/a | Clicking on the arrow to the right of the **Sorted Records** field displays a list of all the Fit Test records in the database.  You can select a new record or leave the current record information in the dialog box. |
| **Note** field | Y | Displays any information about the person that can affect the fit test circumstances or results. |
| **Custom** fields (1, 2, 3, and 4) | Y | Displays any user-defined data. |
| **PORTACOUNT** field | N | Displays the serial number of the PORTACOUNT used for the fit test. |
| **Operator** field | Y | Displays the name of the operator who conducted the fit test. |
| **Pass Level** field | N | Displays the pass level used for the fit test. |
| **Overall Fit Factor** field | N | Displays the overall fit factor result for the fit test. |
| **Overall Pass** field | N | Displays a Y for a passed fit test; an N for a failed fit test. |
| **Protocol** button | n/a | Clicking on the **Protocol** button displays detailed exercise protocol information for this fit test (Figure 4-13). |

| Button or Field Name | Modify? | Function |
|---|---|---|
| **Respirator** button | n/a | Clicking on the **Respirator** button displays detailed information on the respirator used for this fit test (Figure 4-14). |
| **View results** button | n/a | Clicking on the **View results** button displays the detailed exercise results for this fit test (Figure 4-15). |
| **Search** button | n/a | Clicking on the **Search** button displays the **Database Search** dialog box.  (This box is structured exactly like the box shown in Figure 4-9, although it contains fit test information).  Select the type of data to search through, and type the information to search for in the **Text to search for…** bar.  Click on **OK**.  The **Respirator Database** dialog box reappears, displaying the selected record.

If the record you are searching for is not in the database file, the first record in the file reappears.  Click on **New** and add the new record. |
| **Delete** button | n/a | Clicking the **Delete** button permanently deletes this record from the fit test database.  A warning message first appears asking if you are sure you want to delete the record. |
| **Print** button | n/a | Clicking the Print button prints a detailed one-page report for this fit test. |
| **Open** button | n/a | Clicking on the **Open** button displays the **Select fit test database file** dialog box.  You can select another file for editing purposes.  However, this does not change the default fit test database used for fit testing. |
| **OK** button | n/a | Clicking on the **OK** button updates the displayed record and closes the database dialog box. |
| **Help** button | n/a | Clicking on the **Help** button accesses the FitPlus online help information. |

**Figure 4-13.  Protocol Information**



**Figure 4-14.  Respirator Information**
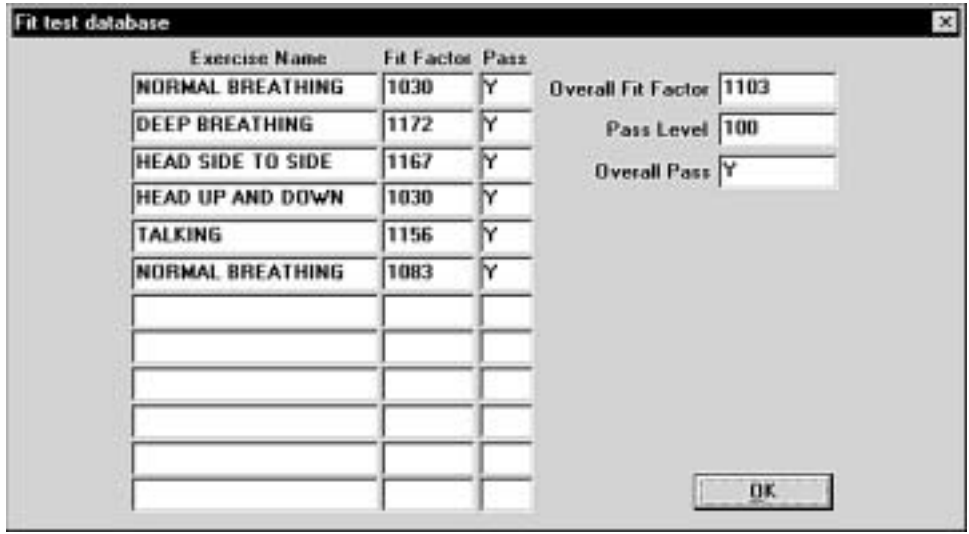
**Figure 4-15. Complete Fit Test Results**

## Changing the Default Database Files

The default databases are the databases you use for new fit tests.  Although you can have numerous databases in your database directories, only those designated as the defaults are used for new fit tests.  To change the default database files, open the **Database** menu and select **Setup/Create Default Filenames**.  The **Setup/Create Default Database Filenames** dialog box appears (Figure 4-16).



**Figure 4-16.  Setup/Create Default Database Filenames Dialog Box**

The **Setup/Create Default Database Filenames** dialog box displays the names of each of the default databases.  Clicking on the **People**, **Respirator**, **Protocol**, or **Fit Test** button displays the **Select or create default database** dialog box (Figure 4-17).

FitPlus for Windows provides a distinct directory structure for the four types of database files.  Each file type (People, Respirator, Protocol, and Fit Test) has a specific sub-directory under the main FitPlus for Windows directory (usually C:\FPWIN).  When you open any of the **Select or create default database** dialog boxes, FitPlus for Windows automatically opens the correct database directory for the database type you selected.
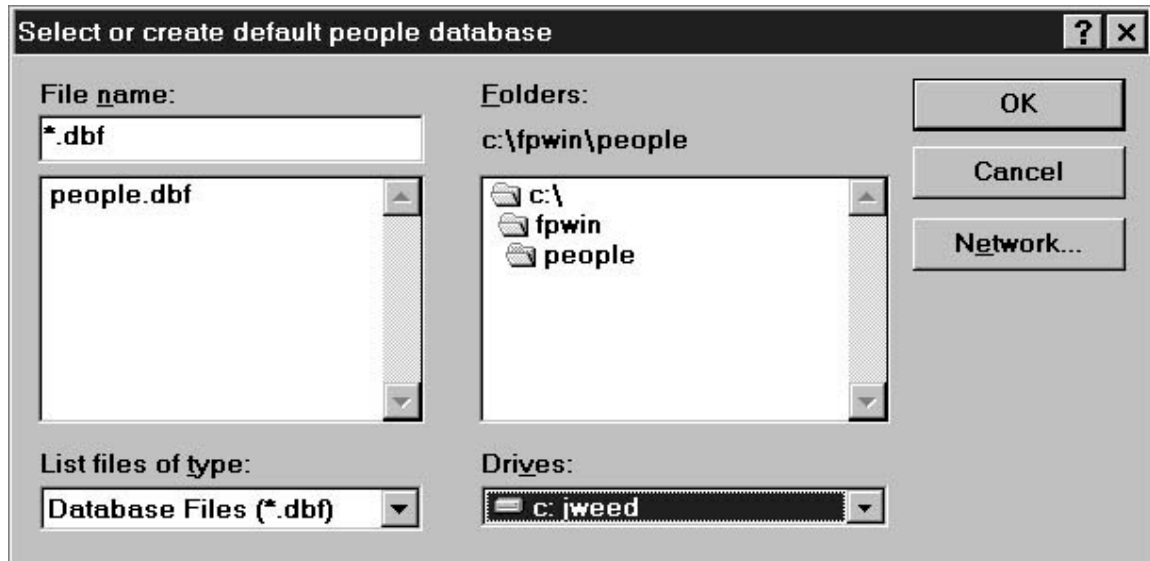
**Figure 4-17. Select or create default database Dialog Box**

Follow these instructions to select a new default database file. The instructions are the same for all database types.

1.  Select **Setup/Create Default Filenames** from the **Database** menu. The **Setup/Create Default Database Filenames** dialog box appears (Figure 4-16).
2.  Select the type of database you want to change. The **Select or create default database** dialog box appears (Figure 4-17).
3.  Using your mouse, select the name of the new default database. (If the database name does not appear in the list, search for the desired database in other folders. If you are not familiar with basic Windows search techniques, please refer to your Windows documentation.) The name must appear in the **File name** bar at the top left of the screen after you have selected it. If you wish to create a new database, type the new file name into the file name bar.
4.  Click on the **OK** button. The **Setup/Create Default Database Filenames** dialog box reappears with the name of the new default database displayed in the field next to the appropriate button. Click on the **Protected** box next to the database name to protect existing records in the database from being changed. With this box selected, you can only add new records to the database, but you cannot edit existing records.
5.  To edit the new database file, return to the **Database** menu. Select **Open**. Refer to the instructions in the previous section, *Opening/Updating the Default Database Files*, if you need additional information.

You now see this default database file when you select **Open** from the **Database** menu, and when you begin a fit test.

You can cancel the selection at any time by clicking on the **Cancel** button to return to the **Setup/Create Default Database Filenames** dialog box.

If you are on a network, click on the **Network** button on the **Select or create default database** dialog box to access other drives on the network.

## Creating New Default Database Files

To create new database files, open the **Database** menu and select **Setup/Create Default Filenames**. The **Setup/Create De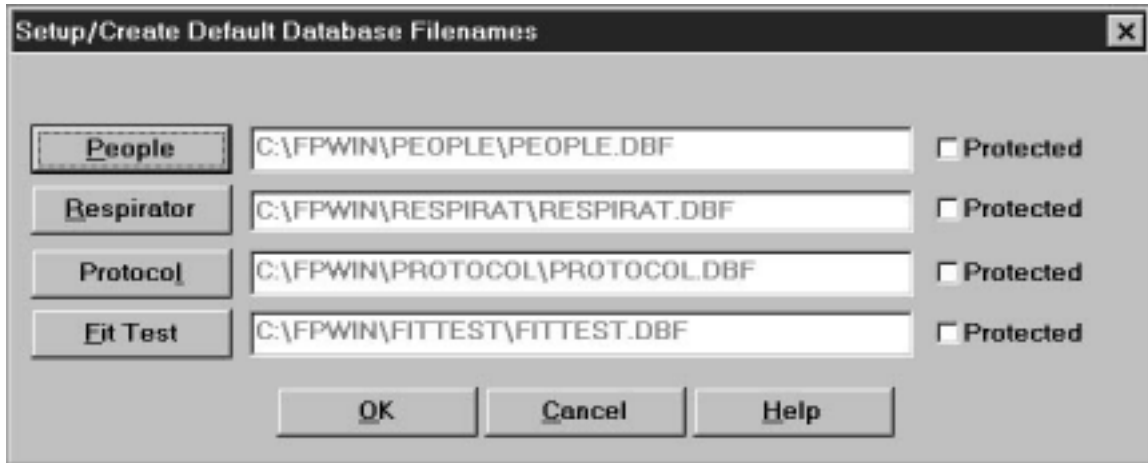fault Database Filenames** dialog box appears (Figure 4-16). Click on the button for the type of database file you wish to create. The **Select or create default database file** dialog box appears (Figure 4-17).

Follow these instructions to create a new default database file. The instructions are the same for all database types.

1. Click on the **File name** field of the **Select database file** dialog box. Enter the name of your new database file. Overwrite the name already in the box if necessary. You do not need to include the .dbf file extension.
2. Click on the **OK** button. The **Setup/Create Default Filenames** dialog box reappears, with the new database name in the field next to the appropriate button.
3. Click on the **OK** button to return to the main menu. Open the **Database** menu and select **Open**, choosing the type of database file you just created. The database opens and displays a blank record.
4. Complete all the necessary fields in the new record. Refer to the tables earlier in this chapter for descriptions of the fields. When you are finished, click on the **New** button to display another blank record.
5. Add all your new records. After you have added the last record, click on **OK**. The main menu reappears.

To view your new file, select the appropriate database type using **Open** from the **Database** menu. The first record of your new file appears in the database dialog box.

## Using the PORTACOUNT Menu

FitPlus for Windows software allows you to run daily diagnostic tests and provides real-time fit factor displays for use in employee respirator training. Both of these selections are available from the **PORTACOUNT** menu. The **PORTACOUNT** menu also includes a Fit Test selection.

### Conducting a Fit Test

To begin the fit test, open the **PORTACOUNT** menu and select **Fit test**. The **Select a Person, Step 1 of 5** dialog box appears. The fit test procedure is identical to the procedure described in Chapter 3, *Conducting a Fit Test - Basic Procedures*. Please refer to Chapter 3 for additional information.

If you need specific field descriptions, the fields on the dialog box for Step 1, and on the detailed dialog boxes for Steps 2 and 3, are described in the previous section of this chapter, *Opening and Updating the Current Default Database Files*. These dialog boxes correspond to the People, Respirator, and Protocol database dialog boxes (Figures 4-8, 4-10, and 4-11). Chapter 3 provides information for Steps 4 and 5.

### Displaying Real-time Fit Factors

FitPlus for Windows software allows you to display real-time fit factors to assist in employee respirator training. This allows a person to experiment with respirator straps and fit while watching the effect in real-time. The person then learns how each adjustment affects the fit, and learns how to achieve a fit that is comfortable and has minimum leakage. This feature is intended for classroom training and should not be used immediately before a fit test. Using the feature to help the test subject immediately before the official fit test defeats one of the main purposes of fit testing: ***to prove that the test subject knows how to don the mask properly without help***. Use the Real-time Fit Factor feature in the classroom for training and practice only.

*Note:* *You can use the real-time fit factor display just prior to a fit test as long as you have the test subject remove the mask and put it on again (without help) before the final test.*

Before you start the real-time fit factor display, you must have the PORTACOUNT on and properly attached to the computer, and must have someone wearing a respirator that is properly attached to the PORTACOUNT.

To begin the display, open the **PORTACOUNT** menu and select **Realtime**. The **Realtime Fit Factor Display** dialog box appears (Figure 4-18).
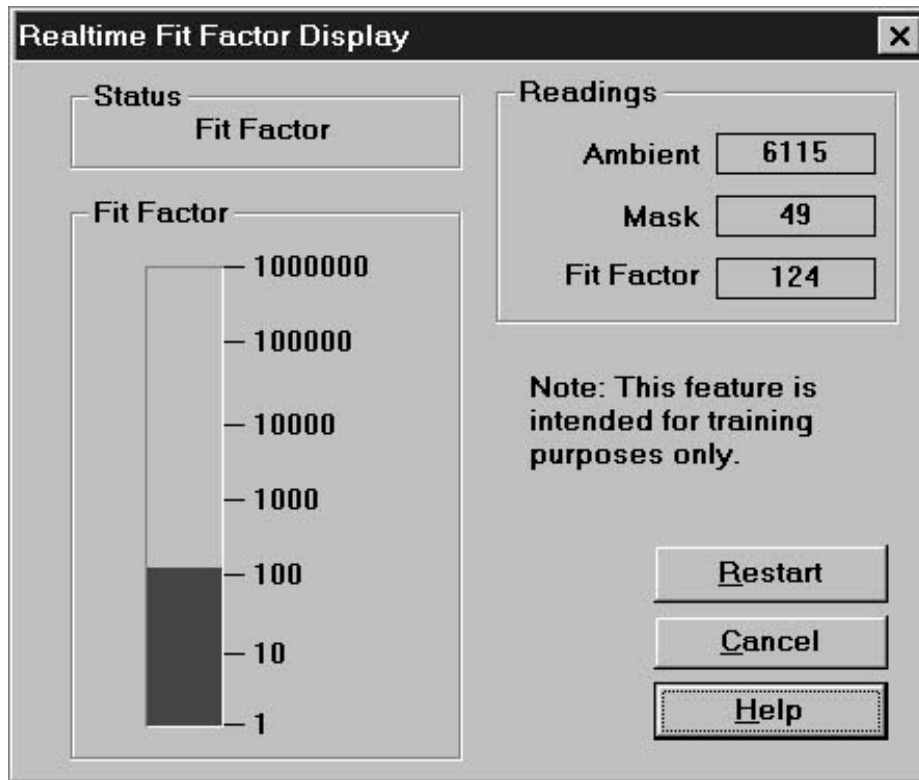


**Figure 4-18. Real-time Fit Factor Display Dialog Box**

Because this dialog box monitors a process as it occurs, you cannot modify any of the fields manually. You can observe which process is occurring in the **Status** field, see the actual readings for the Ambient and Mask Purges and the Fit Factor in the **Readings** field, and watch the Fit Factor reading fluctuate in the graph portion of the dialog box. You can also stop the display by clicking on the **Cancel** button, and stop and restart the display by clicking on the **Restart** button. The display pauses periodically while the PORTACOUNT takes an ambient reading. Clicking on the **Restart** button forces a new ambient reading immediately.

## Performing Daily PORTACOUNT Checks

Daily checks consist of the particle check, zero check, and maximum fit factor check.  There is also an optional valve check.  TSI Incorporated strongly recommends daily checks of the PORTACOUNT before you begin fit testing.  FitPlus for Windows software provides a very easy way for you to complete these checks.  Daily Check results are automatically recorded in a database named **daily.dbf**.  This database is located in the directory that holds the FitPlus for Windows executable files (usually C:\FPWIN).

FitPlus for Windows automatically initiates the daily checks when you first start the program.  The PORTACOUNT must be on and the 60-second countdown must be completed for this to work.  You may click **Cancel** to skip the checks.

To start the daily checks manually, open the **PORTACOUNT** menu and select **Daily Checks**.  The **Daily Checks** dialog box appears (Figure 4-19).
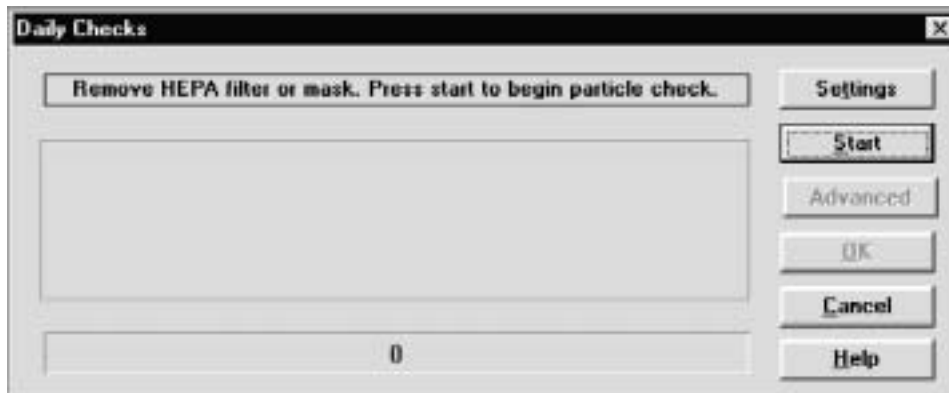


**Figure 4-19.  Daily Checks Dialog Box**

The dialog box instructs you to remove the HEPA filter or mask and press **Start**.  Once you click on the **Start** button, the daily check process begins and the status appears in the middle of the dialog box, with the elapsed time in seconds appearing in the bar at the bottom of the dialog box.

*Note:* *If you wish to change the settings for the Daily check before starting, click on the **Settings** button.  The **Daily Checks Settings** dialog box displays the current settings and allows you to reset them.  Do not change these settings unless you are sure you should do so.  The default settings appear in Figure 4-20.*
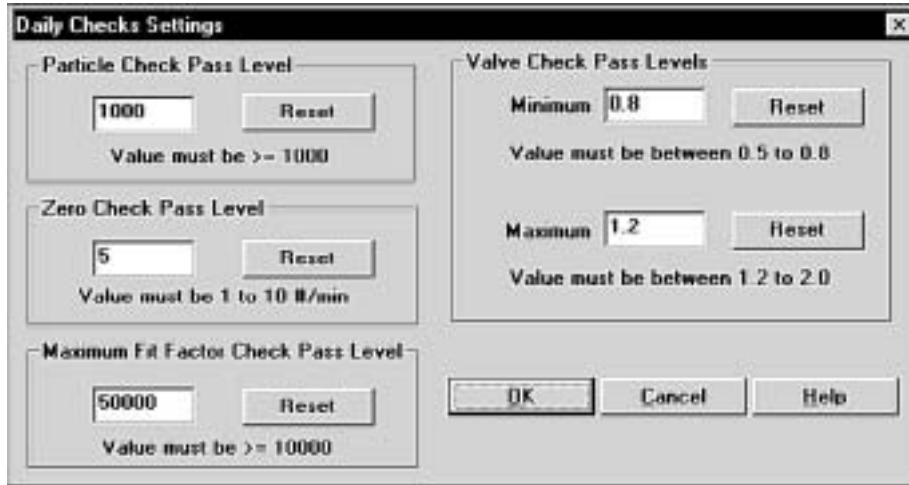


**Figure 4-20.  Daily Checks Settings Dialog Box**

The Particle check is performed first.  After the Particle check is complete, the dialog box instructs you to attach a HEPA filter and press **Start** again.  This starts the Zero check and Maximum Fit Factor check.

When these checks are complete, you can click on the **OK** button to save the results and close the dialog box, or click on **Advanced** to run the optional Valve check.  The dialog box instructs you to again remove the HEPA filter and press **Start**.  This starts the Valve check.  When the Valve check is complete, all the test results appear in the dialog box.  Click on the **OK** button to save the results and close the dialog box.  The results are saved in a database called **daily.dbf**.  You can access them through the **Report** menu, discussed in the next section.

## *Using the Report Menu*

FitPlus for Windows provides the following reports:

- People Database report
- Respirator Database report
- Protocol Database report
- Fit test Database report
- Next Due report
- Daily check Results report
- DOS Fit Test Database report
- User defined reports 1 through 4  (You can rename and customize these reports.)

You can access these reports by opening the **Report** menu and selecting **Select Report**.  The **Report List** dialog box appears (Figure 4-21).
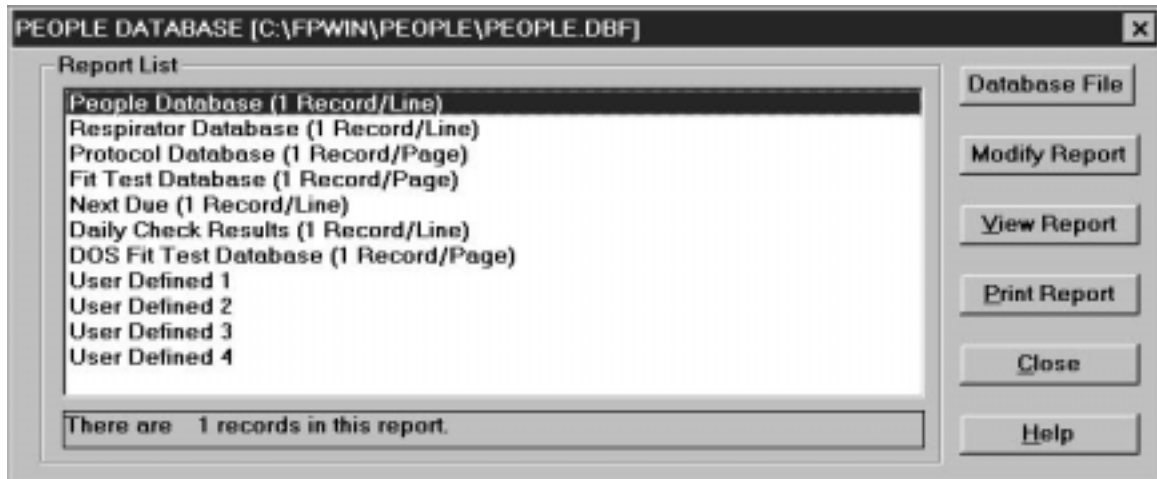


**Figure 4-21.  Report List Dialog box**

The **People Database** is the first in the list, and is highlighted. The name of the database file used for the report appears across the top of the dialog box. This is the default database, although you can choose another database if you wish. The number of records included in the highlighted report appears in the field under the list. The following table describes each of the fields and buttons in the **Report List** dialog box.

| Button or Field Name | Function |
| --- | --- |
| **Report List** field | Displays the names of the reports provided by FitPlus for Windows. |
| Number of Records field | Displays the number of records contained in the report highlighted in the **Report List** field. |
| **Database File** button | Clicking on the **Database File** button opens the **Select database file** (Figure 4-17) dialog box and allows you to choose another database for report purposes. The **Select database file** dialog box is described previously in the *Changing the Default Database Files* section.<br><br>**Note:** Selecting another database in this dialog box does not permanently change the default database used for fit testing.<br><br>If you do select another file for report purposes and click on the **OK** button, the new filename then appears at the top of the **Report List** dialog box. |

| Button or Field Name | Function |
|---|---|
| **Modify Report** button | Clicking on this button displays the **Select Fields to Use for Sorting** dialog box (Figure 4-22). This dialog box lets you select fields to use for sorting reports. To select a new field:<br><br>1. Use your mouse to highlight the sort field name on the left hand list. You can add more than one field if you wish. Note that the right-hand list has **<end of list>** highlighted. Any fields you add to the list appear at the end of the list by default. If you want to insert the fields elsewhere in the list, highlight the field name that you want the new field to appear *above*. The order of the fields in the right-hand list determines the sort order of the fields in your report.<br>2. Click on the **Add** arrow. The names appear in the right hand list. These fields are now used in order to sort the selected report.<br>3. To remove sort fields, be sure they are highlighted in the right hand list and click on the **Remove** arrow. The names move back into the left hand list and are not used for sorting.<br><br>Click on the **Next** button at the bottom of the **Select Fields to Use for Sorting** dialog box. The **Select Records to Include in Report** dialog box appears (Figure 4-23). If you wish to include all records in the report, click on the **All Records** button at the top left of the dialog box. To include selected records only, click on **Selected Records** and choose the field you wish to use for filtering in the **#1 Select Record with** section of the screen, such as **Company** or **Last Name**; the filtering operation, such as "equal to" or "greater than"; and the specific filter criteria, such as an actual company name. You can include a second criteria by clicking the **And** button and completing the **#2 Select Record with** section of the screen, click on **None** to use no second criteria, or click on **Or** to use the second criteria only. Click on the **Next** button to redisplay the Report List. Click on **View Report** to display your modified report. All changes to your reports are saved.<br><br>**TO MODIFY USER DEFINED REPORTS**<br>If you selected a user defined report to modify, the **Rename Report Title (Optional)** dialog box appears (Figure 4-24). Type a name for the report if you wish and click on **Next**. The **Select Database** dialog box appears (Figure 4-25). Choose the type of database you wish to associate with this report and click on **Next**. The **Select Fields to Include in Report** dialog box appears (Figure 4-26). Choose the fields you want in your report and click on **Next**. The **Select Fields to Use for Sorting** dialog box appears. Refer to the beginning of this **Modify** |

| Button or Field Name | Function |
| --- | --- |
| <u>V</u>iew Report button | Clicking on this button displays the first record in the selected report. Click on **Ne<u>x</u>t** to view the next record in the report. Click on **Close** to return to the **Report List** dialog box. To select another database, refer to the **Database File** button description above. |
| <u>P</u>rint Report button | Clicking on this button sends the selected report to your designated printer. The entire multi-page report is printed. If you want to print selected records only, refer to the **Modify report** button description above. |
| <u>C</u>lose button | Clicking on this button closes the **Report List** dialog box. |
| <u>H</u>elp button | Clicking on this button accesses the FitPlus online help information. |



**Figure 4-22.  Select Fields to Use for Sorting Dialog Box**

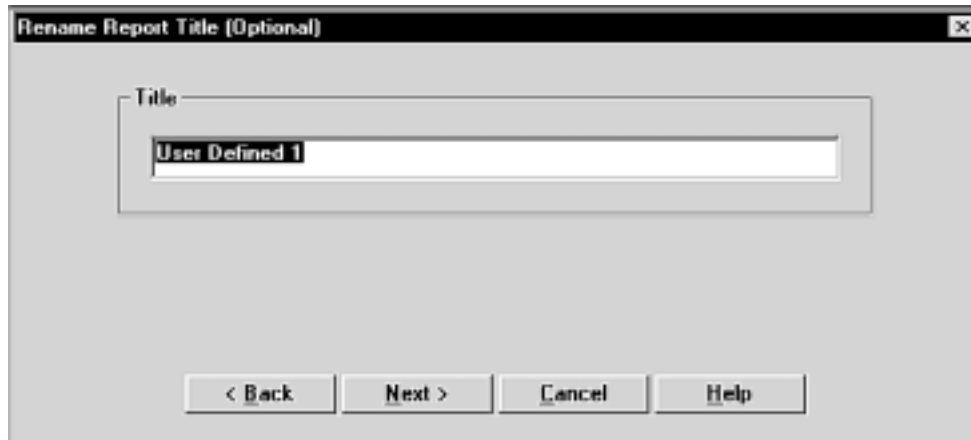**Figure 4-23. Select Records to Include in Report Dialog Box**



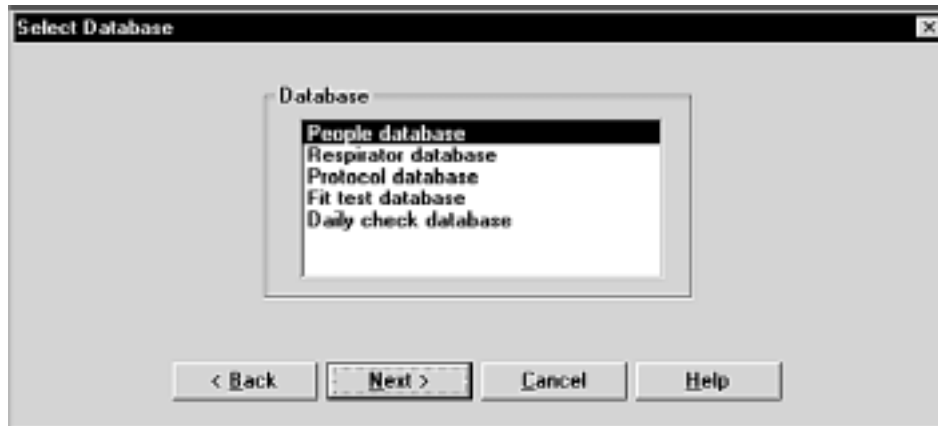**Figure 4-24. Rename Report Title (Optional) Dialog Box**

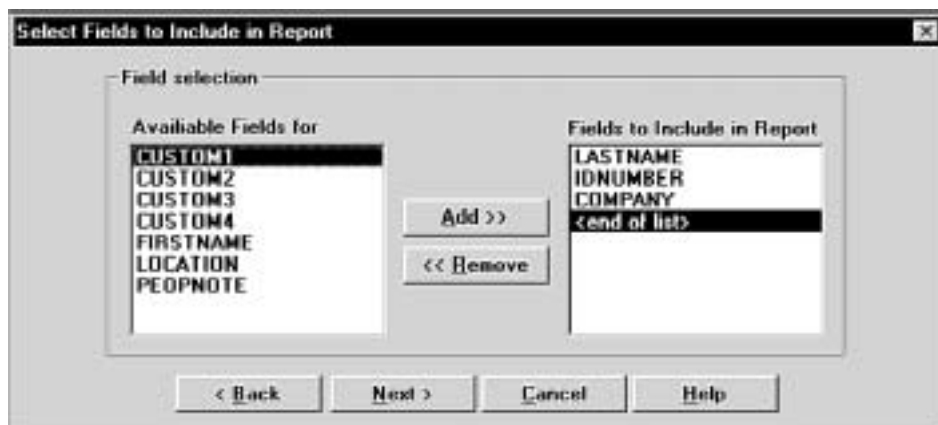**Figure 4-25. Select Database Dialog Box**



**Figure 4-26. Select Fields to Include in Report Dialog Box**

When you display the reports using the **View report** button described in the above table, the first record in the report appears on the screen. All reports have a **Next** and a **Close** option in the menu bar across the top of the report screen. Click on **Next** to view the next record in the report. Click on **Close** to return to the **Report List** dialog box.

## Report Examples

The following examples include instructions for generating four different types of reports: a Next Due report; a single page Fit Test report; a user defined report; and report based on FitPlus for DOS database files. Although these are only a representative sample of the many reports you can generate with FitPlus for Windows, the examples show how to navigate through the many Report dialog boxes, and should provide some basic guidelines for generating other types of reports.

### *Example 1 - Next Due Report*

Follow the steps below to generate a report showing who is due for a fit test. This report will have one record per line.

1. Open the **Report** menu and choose **Select Report**. From the **Report List** dialog box, select **Next Due**. The report obtains the data from the default Fit Test database. If you want to use a different Fit Test database, click on **Database File** and choose another one. The name of the database file used for the report always appears across the top of the **Report List** dialog box.
2. Click on **Modify Report** to choose the fields to use for sorting: for example, **Last Name** and **ID number**. If you do not select any fields, the report appears blank when you view it.
3. Click the **Next** button to choose the records to include in the report: for example, click **Selected Records** and choose **Due Date less than *xx/xx*/1996**, using whatever date you wish.
4. Click **None** for the #2 filter.
5. Click **Next** and choose **View Report** or **Print Report**. The report shows all people due for a fit test prior to the date you entered.

### *Example 2 - Single Page Fit Test Report*

Follow the steps below to generate a single page fit test report. Each fit test will be printed on a separate page.

1. Open the **Report** menu and choose **Select Report**. From the **Report List** dialog box, select **Fit Test Database**. The report obtains the data from the default Fit Test database. If you want to use a different database, click on **Database File** and choose another one. The name of the database file used for the report always appears across the top of the **Report List** dialog box.
2. Click on **Modify Report** to choose the fields to use for sorting. If you do not select any fields, the report appears blank when you view it.
3. Click the **Next** button to choose the records to include in the report: for example **Company equal to ABC**.
4. Click **None** for the #2 filter.
5. Click **Next** and choose **View Report** or **Print Report**. The report shows each fit test report on a separate page.

## Example 3 - User Defined Reports

Follow the steps below to generate a user-defined report.

1. Open the **Report** menu and choose **Select Report**. From the **Report List** dialog box, select **User Defined 1**.
2. Click on **Modify Report** and type a name for the report in the **Rename Report Title (Optional)** dialog box.
3. Click **Next** and choose the type of database you wish to take the data from. The report will obtain data from the default database.
4. Click the **Next** button to choose the fields to include in the report. The report will be structured in columns with one field per column. The first field in the list is used for column one, the second field for column two, and so forth.
5. Click **Next** and select the fields to use for sorting the report.
6. Click **Next** and select the records to include in the report.
7. Click **Next** and choose **View Report** or **Print Report**.
   *Note: If you want to change the database used for the report, click on **Database File** and select a different one.*

## Example 4 - Reports Based on FitPlus for DOS Data Files

Follow the steps below to generate a report based on a FitPlus for DOS database file.

1. Open the **Report** menu and choose **Select Report**. From the **Report List** dialog box, select **DOS Fit Test Database**.
2. Click on **Database File** to choose a FitPlus for DOS database file. You can usually find these files in the FitPlus directory on your hard drive. The most commonly used file name is **testdata.dbf**. When you have chosen the file, click on **OK**.
3. Click on **Modify Report** and select a field to sort on.
4. Click **Next** and choose **All Records** or **Selected Records** from the **Select Records to Include in Report** dialog box.
5. Click **Next** and choose **View Report** or **Print Report**. A one page report from each fit test is displayed or printed.

## *Using the Setup Menu*

The two selections on the **Setup** menu allow you to select the communications port for you computer and to change the default fit test options.

### Selecting the Communications Port

To select the communications port for the PORTACOUNT, open the **Setup** menu and choose **Communications port**.  The Communications Port dialog box appears (Figure 4-28).
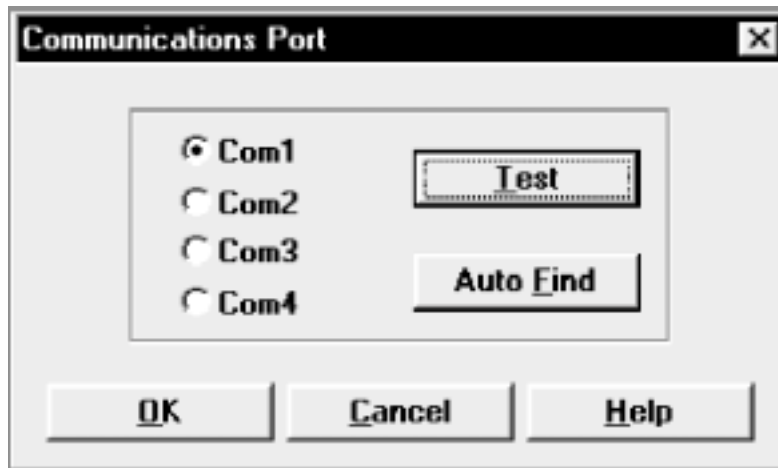


**Figure 4-28.  Communications Port Dialog box**

Make sure your PORTACOUNT is attached to your computer, the power is on, and the 60-second countdown is complete.  If you don't know which port number the instrument is attached to, click on **Auto Find.**  The software will assign the correct port number.

If you do know the port number, click on **Com1**, **Com2**, **Com3**, or **Com4**.  Then, click on **Test**. The software will verify that you have selected the selected the correct port.

Clicking on **OK** saves the information, closes the dialog box, and returns you to the main menu.

## Changing the Default Fit Test Options

To change the default fit test options, open the **Setup** menu and select **Fit test options**. The Fit Test Options dialog box appears (Figure 4-29).
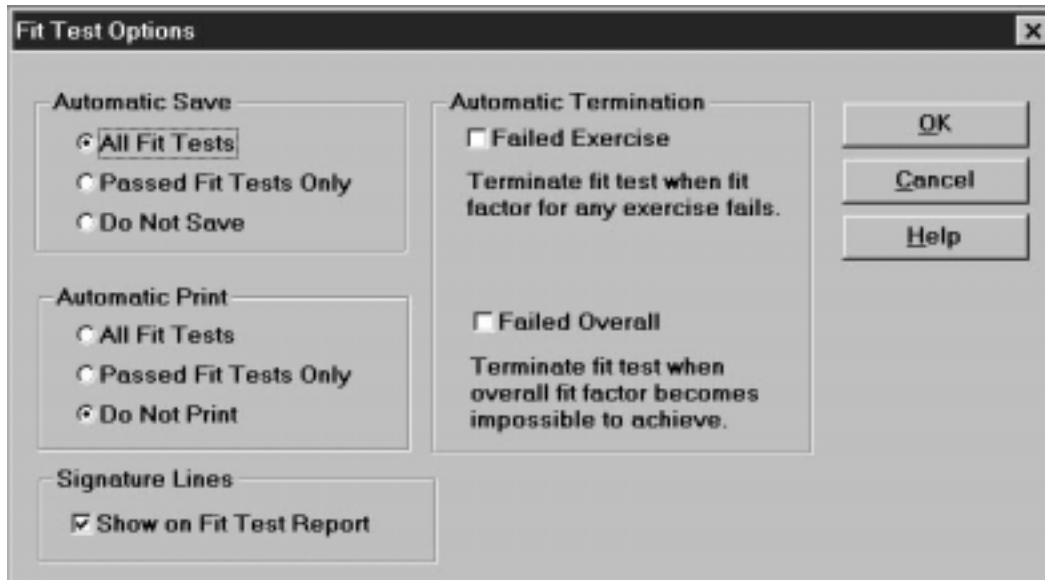


**Figure 4-29. Fit Test Options Dialog box**

The default settings are to automatically save all fit tests, to not automatically print fit test results, to not automatically terminate fit testing, and to include signature lines on reports. Once you have made any changes to these options, click on **OK**. The dialog box closes, the options are changed, and the main menu reappears.

## Automatic Save and Automatic Print

To change the **Automatic Save** and **Automatic Print** options, click on the options you want.

**Automatic Save** allows you to:
- Save every fit test, regardless of the end result (except manually terminated fit tests).
- Save passed fit tests only
- Never save fit tests

**Automatic Print** allows you to:
- Print all fit tests, automatically at the end of each test
- Print passed fit tests only, automatically at the end of each test
- Never print automatically

You must have the printer attached to the computer with the power on during fit testing to use the autoprint options.

## Automatic Termination

Automatic termination allows you to terminate a fit test when only one exercise fails, or when it is certain that the overall fit factor will fail.

**Failed Exercise**
Technically, it is possible to fail an exercise but still pass the overall test. If you want to require that all exercises pass, select the **Failed Exercise** box.

**Failed Overall**
FitPlus for Windows always warns you when a fit test in progress is progressing so poorly that a passing fit factor is impossible. The fit test continues as usual until the last exercise is complete. The fit test then fails. If you would like to terminate fit tests automatically when an overall failure warning appears, select the **Failed Overall** box.

## Signature Lines

The default setting is to show signature lines on single-page fit test reports. If you do not want signature lines, click on the checked box to deselect this feature.