

# MEDMONT STUDIO 4



## USER MANUAL



**Medmont International Pty Ltd**

Unit 1, 170-180 Rooks Road, VERMONT,  
VICTORIA 3133, AUSTRALIA

Phone: 61-3-9874-1388 Fax: 61-3-9874-1488

e-mail: [help@medmont.com.au](mailto:help@medmont.com.au)

Web: [www.medmont.com.au](http://www.medmont.com.au)

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# 1. Intended Purpose

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Medmont Studio is a powerful software package for controlling the Medmont range of medical instruments from your personal computer or laptop. The instruments include:

- Medmont M700 Automated Perimeter
- Medmont DV2000 Diagnostic Video Imaging
- Medmont E300 Corneal Topographer

The extensibility of Medmont Studio means that its capabilities expand as you purchase new instruments and software, fully integrating into a single working environment.

In addition to controlling the instruments, Medmont Studio provides additional *Analysis Tools* and *Patient Management* facilities. These include complete patient management functions out-of-the-box using Medmont's own database, or optionally via a 3<sup>rd</sup> party Practice Management system. Check the Medmont web site for an up-to-date list of supported 3<sup>rd</sup> party systems.

In a small practice Medmont Studio can be run from just one computer, managing both the patient database and controlling the instrument. This is called the *standalone* configuration.

For larger practices, Medmont Studio contains powerful features for inter-connecting multiple computers to centralise data-storage on one computer called the *server*. All other computers on the network are called *clients*. Medmont instruments may be connected to any client in the network.

This document describes the basic Medmont Studio capabilities, including patient management. Separate on-line and printed documentation is available describing the additional functionality specific to particular instruments.

## Explanation of Symbols



Caution - In event of user error or equipment fault condition there may be a serious risk to health or life of patients or operator, or product damage or loss may occur.



Compliance with the EC Directive 93/42 EEC for medical devices.

## System Accessories

- PC incl. Operating system (provided by customer)
- Licensing Dongle
- User Manual
- Isolation Transformer (optional)
- Dummy plug network connection (optional)
- Dummy plug serial 9 pin serial port (optional)
- Label for Patient environment (optional)

## 2. Hardware Configuration

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**Important:** Install the software before inserting or attaching any new hardware to your computer. This allows the software to pre-install the hardware drivers ready for when the hardware is connected.

### PC and Associated Equipment Requirements

Check that your computer meets or exceeds the very basic requirements listed below to run Medmont Studio.

- Pentium™ processor-based personal computer, P4 2.8 GHz or Higher (P4 1GHz minimum). Motherboard using genuine Intel™ PCI chipset highly recommended. VIA chipsets have proven to be unreliable.
- Microsoft™ Windows™ XP SP2 ,Microsoft™ Windows™ Vista or Microsoft™ Windows™ 7
- 1 GB RAM or more (512MB minimum)
- VGA card supporting at least 24-bit colour and 128MB onboard memory. Video cards that share main memory are not recommended. For stereo viewing using shutter glasses, a compatible NVidia video card is required.
- 10GB of available hard-disk space setup to use NT File System (NTFS).
- DVD-ROM drive (CD-ROM minimum)
- At least one free PCI slot, if using E300 Corneal Topographer or a frame grabber card for DV2000 digital imaging.
- At least 2 free USB 2.0 ports.



Use only PC and associated equipment that has been certified to the Standard EN/IEC60950 (Information Technology Equipment) and the Standards for Electromagnetic Emissions CISPR22/EN55022.



If used within a patient environment, power the PC and associated equipment with an EN/IEC60601-1 compliant isolation transformer e.g. Medmont TR2450 (230/240V), or an additional fixed protective earth connection.



Cover any open PC communication ports that have accessible conductors with dummy plugs if used in a patient environment.

If you have a previously installed version of Medmont Studio we strongly recommend that you back-up your old database before proceeding.

If you have used the *archiving* facility of the very old versions of Medmont Studio, you should un-archive old exams to allow the installation data conversion program to upgrade your data. The later versions do not support archiving.

## 3. Installation Configurations

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There are a number of configurations for a Medmont Studio installation that depend on the practice patient management environment and whether a networked computer system exists. Medmont Studio can be run in three configurations:

- **Standalone** – A small practice configuration consisting of only one computer or alternately a small network system. The latter would have a computer for instrument control and another for administration where the patient data resides, and typically including a 3<sup>rd</sup> party Practice Management package.
- **Network (Client/Server)** - For large practices with a local area computer network (LAN) in place.
- **Single User Review** - An analysis-only mode is available that allows editing and analysis, but no capture from instruments.

### Standalone

The **standalone** configuration is the most popular and simplest to use. Appropriate licensing for this configuration is included with each Medmont instrument. This is a versatile configuration that can be configured in a number of ways.

The simplest configuration consists of

- A computer.
- One or more Medmont instruments.
- The Medmont Studio software.
- Optional supported 3<sup>rd</sup> party practice management software.

Another common configuration consists of

- Two computers. One configured to control the Medmont instrument(s), and the other configured with one of the supported 3<sup>rd</sup> party Practice Management packages, the two typically connected as a Windows Workgroup.
- One or more Medmont instruments.
- The Medmont Studio software.

Both systems would also include:

- License dongle (see *Licensing* on page 64).
- An activation key with licenses for

Exactly one session.  
Instrument license(s).  
Additional functionality licenses.

### **Configuration Typical Use**

- Conducting exams.
- Subsequent review, editing, and analysis of exams.
- Patient management.

### **Network (Client / Server)**

The Medmont network configuration works with one or more Medmont **client** computers connected to a single Medmont **server** computer. The underlying network can be either a Workgroup or a Domain based system.

This configuration requires the purchase of a license upgrade from Medmont to allow multiple computers to run the software simultaneously.

Where the Medmont Studio **server** software is installed depends on the operating system running on the network's server computer. The options are:

- The Medmont Studio **server** installed on the network server computer itself, as long as the server is running Windows Server 2003 or Windows Small Business Server 2003 or later versions of these products, or
- The Medmont Studio **server** installed on one of the client computers in the network.

The computer on which the Medmont Studio is configured as a **server** requires:

- A license dongle.
- An activation key with licenses
  - Maximum number of sessions (typically more than one).
  - Instrument license(s).
  - Additional functionality licenses.
- 3<sup>rd</sup> party Practice Management software with software license as required (optional).

One or more Medmont **client** computers with:

- Medmont Studio software configured as a **client**.
- Medmont instruments as required, although a computer can be a Medmont **client** without having an instrument connected.

### **Configuration Typical Use**

- **Administration** - Provides centralized functionality for large practices
  - One shared database.
  - One practice management system.
  - Central maintenance of licensing.
- **Testing** - Exams are conducted from any client computer with an instrument attached.
- **Review** - Any computer in the network can act as a review machine, including the server.

### **Single User Review**

The **unlicensed** mode is available when no dongle or activation key is present. This mode replaces the now obsolete Medmont Studio Viewer.

The physical configuration consists of

- A computer.
- Medmont Studio software.

### **Configuration Typical Use**

- **Review** – For a small numbers of exams on a laptop or home PC. Data is transferred from the licensed system using the import/export facilities.
- **Referral to specialists** - By a specialist (non-Medmont user) who is sent exam data by a practitioner using a Medmont instrument.
- **Presentation** - When giving talks using a laptop and data projector.
- **Spread the word** - Give a copy of the Medmont Studio CD to a colleague to try before they buy.

## 4. Installing the Software

Medmont Studio is provided on a single CD that contains all the necessary software. When you insert the Medmont Studio CD the installation program should automatically run. If not then click on the **CDStarter** program in the root of the CD folder. This will display the installation options for the CD.



At this point you can browse the CD, read the Release Notes, or install Studio, Acrobat or the DirectX drivers. Clicking the Sample Data entry will open an Explorer window to the sample data on the CD, and can be used to install the various sample data sets once Studio is installed.

Click on the Install Medmont Studio entry to start the software installation. The installation has an initial common section with a subsequent section that specialises the installation for different configurations. The two major configurations are,

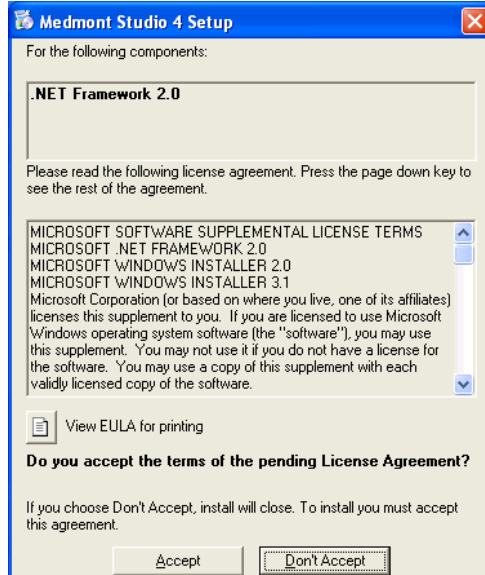
- Standalone
- Server/Client

A third option provides for integrating the Medmont Studio patient management with your practice 3<sup>rd</sup> Party Patient Management system.

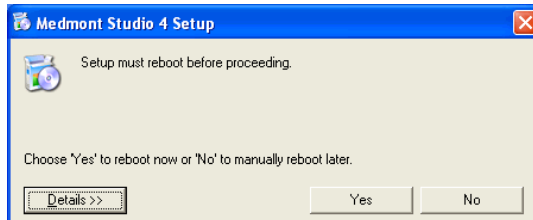
### Common Installation Steps

Medmont Studio requires that the Microsoft .Net (pronounced dotNet) software environment be installed on the computer. If you have recently installed other contemporary software packages using this state-of-the-art environment, or if your version of operating system has this preinstalled, the Medmont Studio installation will skip the next few steps.

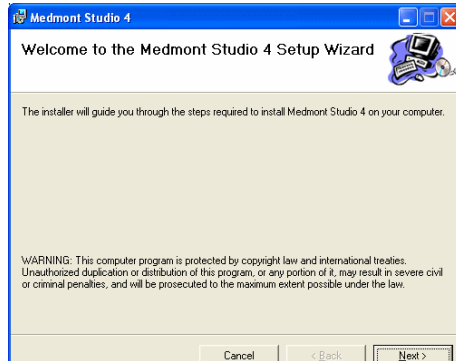
Otherwise the installation first presents the Microsoft license agreement. Click on the *Accept* button when you are ready.



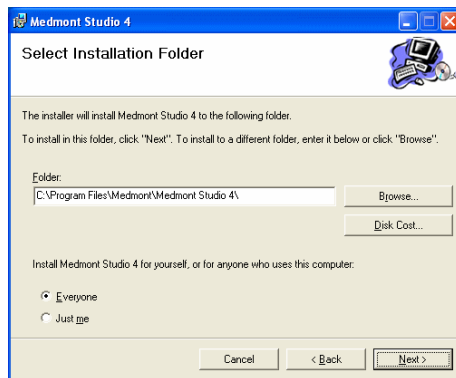
The next dialog will show the progress of the .Net installation. Once this completes, click the **Yes** button when prompted for a reboot.



After your system has rebooted or if your system had .Net already installed, the next dialog will now be displayed.



Click the *Next* button to start the Medmont Studio installation. The next dialog allows you to define where the associated files will be stored and whether Medmont Studio is available to all users of this computer or only to the currently logged-on user.



Medmont strongly recommend that you choose the default path and leave **Everyone** selected. Medmont Studio provides its own security model to restrict user access (see *Running Medmont Studio* on page 19).

Click the *Start* button. The next dialog asks you to confirm that the installation can continue. Click the *Next* button and the installation will proceed. At this point the setup process displays a dialog with a progress bar to visualise the file copying process.

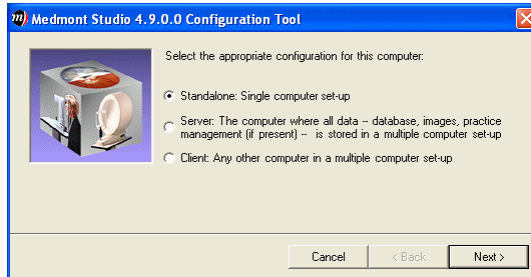
The next dialog asks you to select from the set of Medmont Studio language translations.

Once the language is selected the next dialog asks you to select the type of Medmont Studio installation.

The **Medmont Configuration** tool presents the next series of system configuration dialogs. When the installation is complete, this can be run at any time from **Start > Programs > Medmont > Medmont Studio Configuration Tool** at any time to re-configure the system.

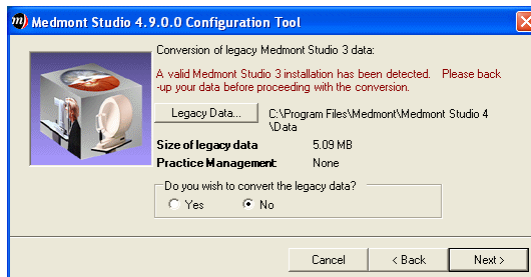
## Installing a Stand-Alone System

Click on the **Standalone** radio button and then on the **Next** button.



The contents of the next dialog will depend on whether you are upgrading an existing system or if this is a new installation. For an upgrade you will see the dialog below. This has detected the presence of an earlier version of Medmont Studio and asks if you wish to convert it to be accessible to the new installation. Select the **Yes** radio button to schedule the conversion.

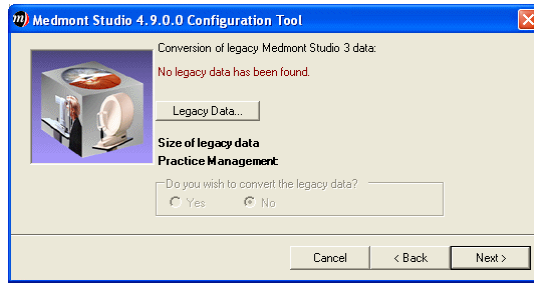
Note that the conversion just makes the previous data available to the new Medmont Studio 4 software – the previous database is otherwise unaltered and still useable.



The database conversion will occur only once. If there are no errors, a subsequent installation will not ask this question again.

There is a possibility the installation program may not find your earlier database if it was installed in a non-standard location. In this case click on the **Data Location** button and navigate to the correct location.

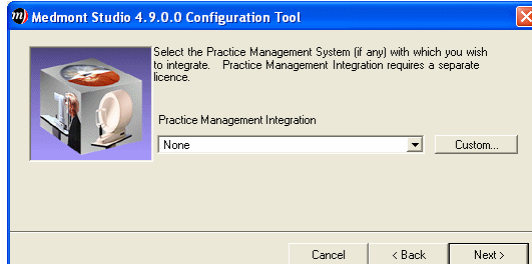
You will see this next dialog for a new installation, where obviously no previous database exists.



The next dialog asks for the location where the Medmont Studio database should be stored. Medmont recommend the default location. Click the **Next** button to continue.



At this point the installation needs to know whether you are integrating Medmont Studio with a 3<sup>rd</sup> party practice management system. This option seamlessly integrates the patient management of both systems (see *Installing with a 3rd Party Practice Management System* on page 17). We will continue with the **None** option here. Click the **Next** button to continue.



An installation typically consists of one or more Medmont instruments. The next dialog allows you to select which instruments to install. Installing instruments for which you do not have a license will use additional computer resources, but nevertheless does offer a review capability where you can view results produced by those instruments on other computers or from other practices.

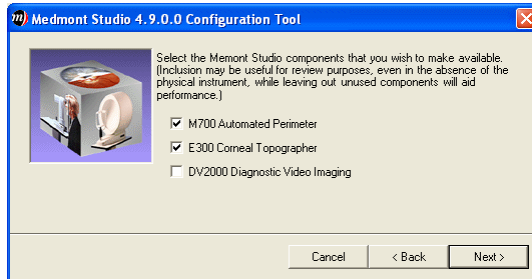


Figure 1. Instrument selection dialog.

The next dialog is associated with installing the Windows Drivers for M700 instrument features and the various digital image frame grabbers associated with the DV2000 and E300 instruments.

Complete the installation of Medmont Studio before connecting or installing the associated hardware for the first time.

Some of these selections may be greyed-out depending on the instruments that were previously selected for installation. Select the drivers associated with your instrument(s).

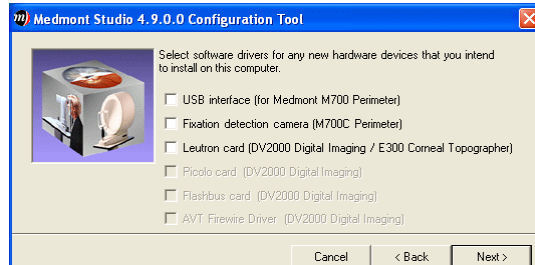
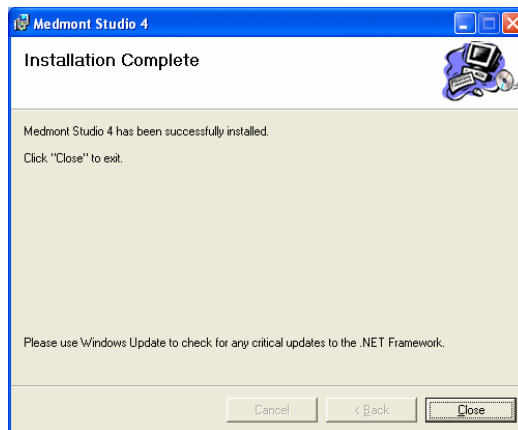



Figure 2. Windows Driver installation dialog.

Clicking the *Next* button will proceed with the installation. Once this process completes, and depending on the selected instruments and existing installed Windows Drivers, a number of device driver installers will automatically run. Simply follow the prompts and click on the *OK* button.

The installation configuration proceeds at this point and when it completes, displays the installation complete dialog.



Click on the *Close* button. If Windows requires your system must reboot before continuing, click the *Yes* button and allow the system to reboot.

The Medmont Studio icon  will now appear on the Windows desktop. Additionally, a number of utility programs will be available from **Start > Program Files > Medmont**.

## Installing a Server Based System

A server based system consists of a computer with Medmont Studio installed as a database server, and one or more additional computers with Medmont Studio installed as clients, all connected with a standard Windows network.

The server will be configured to manage the Medmont patient database. We pick up the Studio installation after the Microsoft .Net system has been installed and after the files have been copied to the destination directory.

### Installing the Server

The next dialog asks you to select the type of Medmont Studio installation. Click on the *Server* radio button and then the *Next* button.

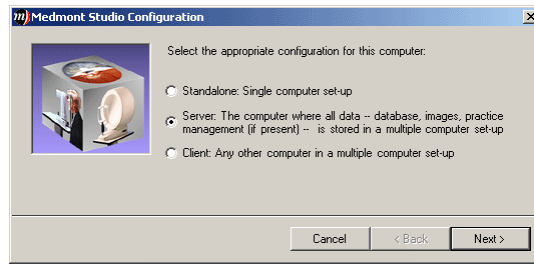



Figure 3. Selecting a Server installation.

The installation will proceed from this point exactly the same as the stand-alone installation. When the installation completes the server starts automatically and you should see the Medmont Studio server icon  in the Windows desktop tray.

Installed Medmont Studio 4 clients can now connect to the server. However there are a number of steps required to license the server and these are covered in *Running Medmont Studio* starting on page 19.

### Installing the Clients

The server installation must be completed, configured, and running on the designated server computer before attempting to install any clients.

Install the software as per the introductions in this chapter up to the point where you are presented with the installation configuration dialog. Click on the *Client* radio button to select a client computer installation as shown in Figure 4.

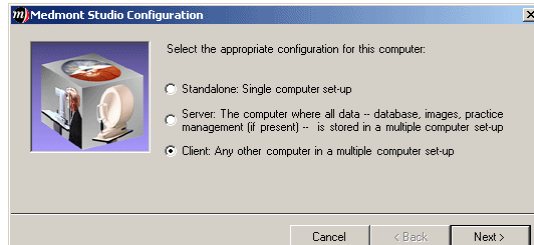
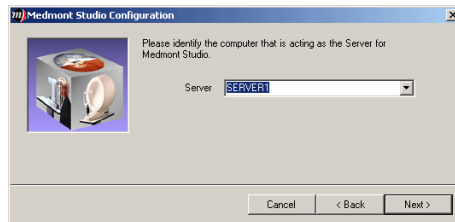


Figure 4. Selecting a Client installation.

The next dialog will present a drop-down list with the names of the computers in your network. Select the computer on which the Medmont Studio server is running, then click *Next*.



The next dialog will ask for the instruments attached to this client computer (see Figure 1). There may also be an additional dialog concerned with Windows Drivers for various instrument hardware (see Figure 2), but otherwise the setup finishes with the dialog in Figure 5. Click the *Finish* button.

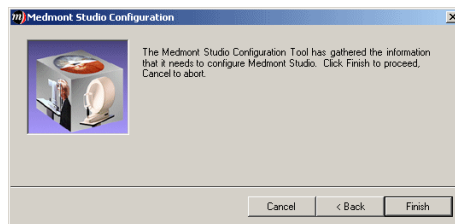
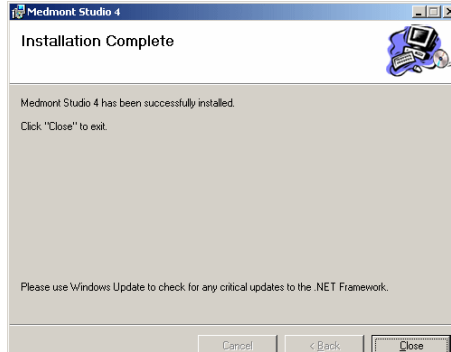


Figure 5. Final installation dialog.

The installation configuration proceeds at this point and when it completes displays the installation complete dialog.

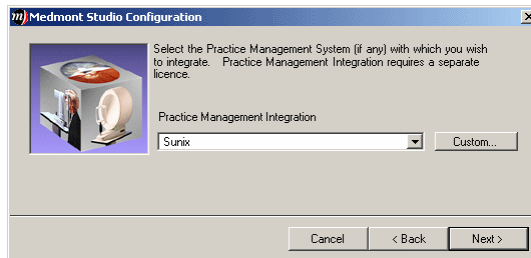


The next step depends on whether this particular client computer will have one or more Medmont instruments attached. If it will only be used for exam review, then the installation is complete. Double click the Medmont icon on the desktop to start Medmont Studio. Check that the Practice database is visible and that patient and exam details are also visible. Whether these can be edited or changed will depend on the permissions given to the particular clinician (see *Setting Permissions* on page 21).

If the computer will have an instrument attached then use the procedure described in the **Installation** section of the relevant instrument User Manual.

### Installing with a 3<sup>rd</sup> Party Practice Management System

You can integrate a 3<sup>rd</sup> party Practice Management System with Medmont Studio. The option to create a Patient Management Integration (PMI) system is presented during both a Stand-alone and a Server installation.



Select your Patient Management system from the drop-down selection box. At the time of writing, the available systems to which Medmont Studio can be linked are:

1. FOCUS
2. Houston

3. IFile
4. IOptic
5. OPM
6. OptiPro
7. Optomate
8. Optomate Premier
9. Sunix
10. Visual Eyes

The IFile and Visual Eyes PMI systems will require a separate ODBC driver to allow Medmont Studio access to their database. Please contact your vendor for details.

Click the *Next* button and you will be asked for the location of the PMI data files.

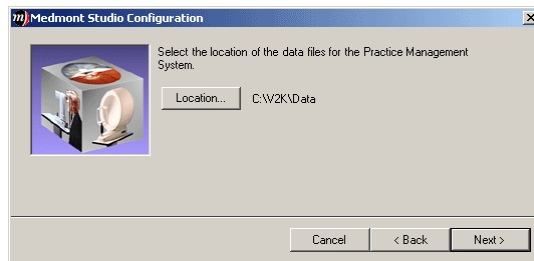


Figure 6. Selecting the path to a 3<sup>rd</sup> Party Patient management system.


Click the *Location* button to make any changes to the default if required. When you click the *Next* button the install program will examine the entered location for the expected set of files. If they exist the installation will proceed as previous.

Note that this location could be on another computer in your practice network. A not uncommon installation will have the 3<sup>rd</sup> party software installed on a computer at reception, and available to other computers within the practice.

In this case you should use Windows to **share** the disk containing the 3<sup>rd</sup> party system, and then navigate from the dialog in Figure 6 to the location on that disk containing the system database.

## 5. Running Medmont Studio

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Before you start, insert the software license dongle (see *Licensing* on page 64) into a free USB port. Double-click the Medmont Studio icon  on your Windows desktop. A banner with the Medmont Studio logo is displayed while the software loads.

### For the First Time

The first time that the software is run after installation it will start in an unlicensed mode. To activate your licence select **Tools > Licence Manager...** from the main menu, and click the *Edit* button to enter your license *Activation Key*. Depending on the type of installation, this may be a text file on the calibration CD-ROM that came with your instrument, printed on the CD itself, or supplied as a separate document.

Read the *Licensing* chapter on page 64 for additional information on how licensing affects the way you operate the software.

You are now ready to start using Medmont Studio.

## 6. Configuring a Server/Client System

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A standalone Medmont Studio system is ready-to-go once the installation completes. However a Server/Client installation will require some additional configuration.

### Setup for a Secure System

By default a system installed with a server and several clients will be an insecure system. This means anybody can use Medmont Studio and have full administrator privileges.

This may be an adequate configuration in a small practice. However, in a large practice with many clinicians, or in a teaching environment, the recommendation is for a password-protected system. This allows the system administrator some control over the access each clinician has to the Medmont Studio capabilities. For example, a clinician (or more correctly, a particular password) can be prevented from deleting patients, or from (re-)configuring instruments. In a teaching situation, students can be issued with a generic password that only allows for creating patients and performing tests.

Password protection can be useful even for a small practice, where the system is normally accessed via a password that allows everything except patient deletion. For this case the clinician must log back in using the admin password. This action therefore requires a specific step, and helps to prevent inadvertent deletions.

### Setting the Administrator Password

The first step is to setup the administrator password. With Medmont Studio running, click on the **Tools > Set Password** menu entry. It will present the login dialog shown here.



Fill in and confirm the password you will use to administer the networked Medmont Studio system. The name “admin” has by default all the permissions shown in Figure 8.

## Adding Clinicians

The next step is to register the clinicians who will be using the system. Click on the **Tools > Clinicians** menu entry to display the **Clinicians** dialog shown in Figure 7.

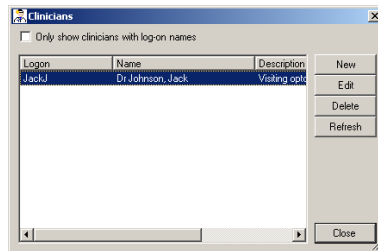


Figure 7. Manage the Clinicians in the Practice dialog.

Click the *New* button in this dialog to display the **New Clinician** dialog shown in Figure 8. Fill in the text boxes in the Details section. By default this clinician will be enabled to use the system with the **Enable Logon** checkbox ticked. Enter the name the clinician will use to log on to Medmont Studio into the **Logon** text box. Click the *Set Password* button and enter their password.

## Setting Permissions

If you tick the **Administrator** checkbox that clinician will have access to all the listed options.

If you click nothing then that clinician will be able to review results only.

Tick the other options as your situation requires.

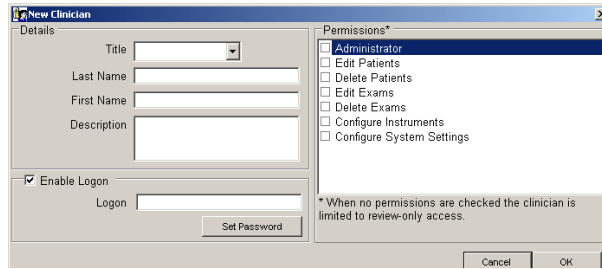
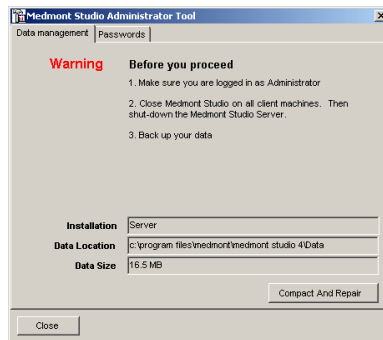


Figure 8. Enter and Edit the New Clinicians dialog.

You can prevent a user from logging on by un-checking the **Enable Logon** checkbox if necessary.

## Database management

A separate program to Medmont Studio performs database management.



Click on **Start > Programs > Medmont > Medmont Studio Administrator Tool**. The Data Management tab on this dialog provides the path to and size of the Medmont Studio database. Prior to running a system backup (see *Data Backup* on page 67) execute the steps listed on this dialog.

The Passwords tab has a single button that will clear the Medmont Studio administrator password.

## Session Management

A client logged on to the system constitutes a *Session* (see also *Session Licenses* on page 65). You can review the current sessions at any time by clicking the **Tools > Session Manager** menu entry.

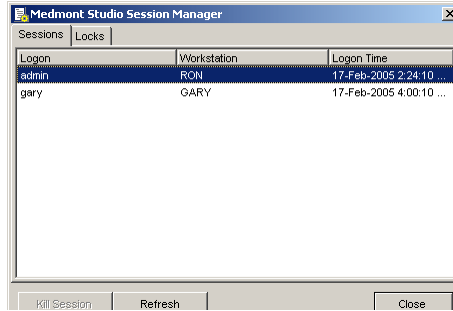


Figure 9. Medmont Studio Sessions Manager.

The administrator can kill a session at any time by selecting the entry and clicking the ***Kill Session*** button. This does not literally kill the Medmont Studio application on the client computer, but just disconnects it from the database.

If the session is in use there is a strong possibility of data loss for that session.

## Database Locks

When a client computer accesses the database by examining a patient's details or by viewing an exam, there is nothing stopping another client computer examining that same patient or exam. However, as soon as one client attempts an edit function like adding some patient details or annotating an exam, that entry in the database will be locked. Because an editing session may consist of several edits, the item will remain locked until it is dismissed, typically by the clinician saving it or by moving on to the next patient or exam.

While an entry is locked, if another client attempts to change the same entry, they are immediately presented with a message indicating that someone else has that entry locked.

As an example, if a clinician on client computer A is adding comments to a particular patient's record, and a clinician on client computer B also attempts to add some comments to the same patient record, client B will be presented with a warning message about the record being locked the instant typing starts. In effect he or she will be prevented from typing anything at all.

As soon as client A moves on, the lock will be removed. At this point if client B tries once more to add his or her comments, at the instant typing starts a message will be presented stating that another user has changed this

record. Clicking **OK** on the message will update the client B display, showing the changes made by client A. Client B can now see these new comments as well as being free to start entering further comments.


Clicking on the **Locks** tab in the Session Manager dialog shown in Figure 9 will show the current set of database locks.

## 7. Practice Management System Integration

When Medmont Studio is operating with Practice Management Integration (PMI) activated, it smoothly integrates the patient management of a 3<sup>rd</sup> party Patient Management system with its own Patient management. Medmont Studio uses the 3<sup>rd</sup> party system only as a source of patient data - it cannot change the data in any way.

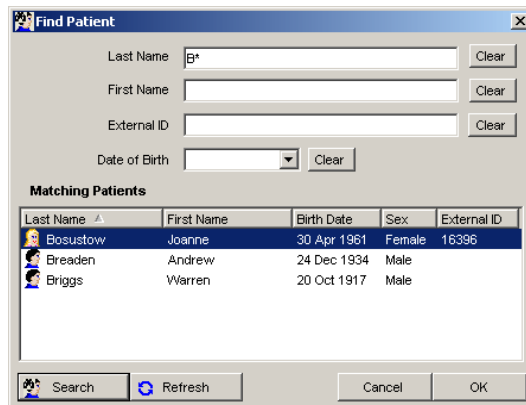
An additional license is required to connect Medmont Studio to a 3<sup>rd</sup> party Practice Management system.

Patients who are listed in Medmont Studio are those for whom an examination has been performed using a Medmont instrument. A new Medmont Studio installation will therefore have no patients listed even though the PMI may have hundreds.

While you can still create patients with Medmont Studio by clicking on the  Create New Patient icon, they will be unknown to the PMI.

### Adding a New Patient in Medmont Studio

The idea is to link Medmont Studio to a patient entry in the PMI. The technique is to use the **File > Find Patient** menu entry when starting a new exam. This displays the Find Patient dialog, which for a PMI system is directly linked to the 3<sup>rd</sup> Party Patient Management system database.



Last Name	First Name	Birth Date	Sex	External ID
Bosustow	Joanne	30 Apr 1961	Female	16396
Breaden	Andrew	24 Dec 1934	Male	
Briggs	Warren	20 Oct 1917	Male	

Figure 10. Find a Patient in 3<sup>rd</sup> party Management System.

Figure 10 shows the range of selection options for a patient search. At this point it is more than likely you will have the PMI application open prior to

starting Medmont Studio as part of your initial patient interview. This implies the patient either already existed there or you have just entered the details for a new patient. Now use the Find Patient dialog to copy the patient details to Medmont Studio.

The quickest method is to copy the 3<sup>rd</sup> party Management System patient ID number into the Medmont Studio **External ID** field and click the **Search** button. This will produce a guaranteed singular match. Click **OK** to create a matching patient entry in Medmont Studio.

The alternative is to enter some search criteria into one or more of the text boxes. In Figure 10 the clinician has entered B\* in the last name box and then clicked the **Search** button. This will search for all names in the PMI that start with “B”, as the asterisk is shorthand for “match anything” (see *Searching by Patient Name* on page 39). The search example located three patients. Select the correct one and click **OK** to create a matching patient entry in Medmont Studio.

## Synchronising the Databases

If for some reason a patient has been entered into Medmont Studio without being linked to the PMI, you can reconcile the entry at some later time.

First select the patient in Medmont Studio and then click on the **File > Synchronise Current Patient** menu entry. If the details previously entered into Studio match those in the PMI, this will reconcile the two entries, automatically adding the PMI external ID to the Medmont database. The ID will now be visible in the patient details External Record box.

What if there is no matching entry in the PMI database? As an example, suppose someone had previously entered a patient called *Peter Adams* with a birth date of 14-5-1956 and proceeded with some exams but without linking to the PMI. Perhaps the network was down. At some later time it is noticed this patient has no external ID number. Selecting this patient and clicking on the **File > Synchronise Current Patient** menu entry, Medmont Studio displays the dialog in Figure 11, indicating no matching entry in the PMI.

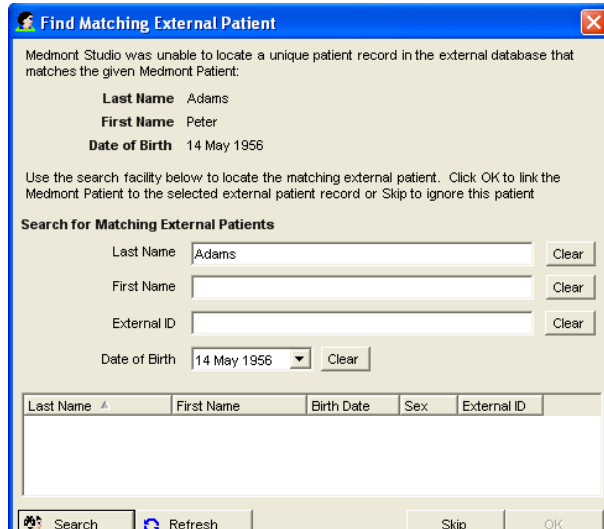


Figure 11. Example No Patient Match in PMI dialog.

The next step is to check if there is such a patient as *Peter Adams* in the PMI. Clicking on the **File > Find Patient** menu entry, entering this name and then clicking the **Search** button shows the dialog of Figure 12.

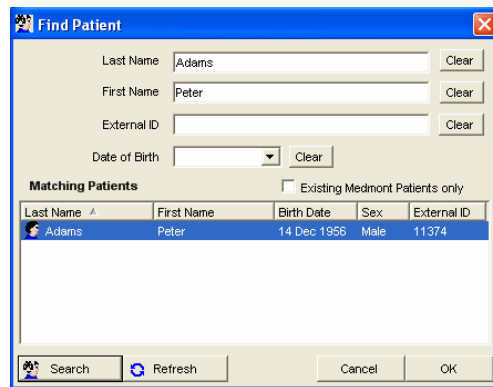


Figure 12. Example search PMI database.

The dialog shows that there is such a person, but that the birth date is 14-12-1956 rather than the 14-5-1956 entry in the Medmont Studio database. Re-doing the **Synchronise Current Patient** sequence and clicking on the **Clear** button for the Date of Birth entry will remove that criterion. Now clicking on the **Search** button will find this patient and clicking **OK** will update the Medmont Studio database with a complete entry.

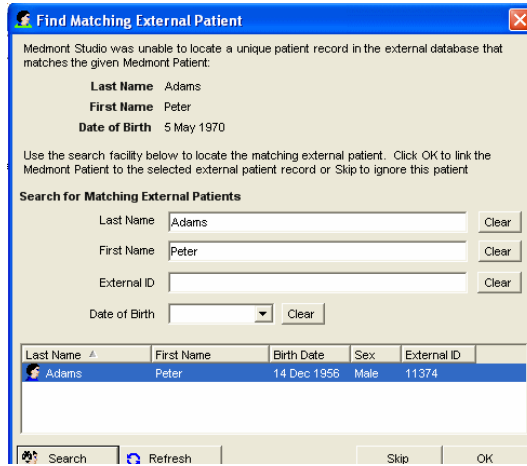


Figure 13. Example patient found dialog.

## 8. Overview

### The User Interface

Medmont Studio has a single main *Windows Explorer* style user-interface, and provides point-and-click access to its capabilities. The user can swap between instruments and most tasks with a single mouse click.

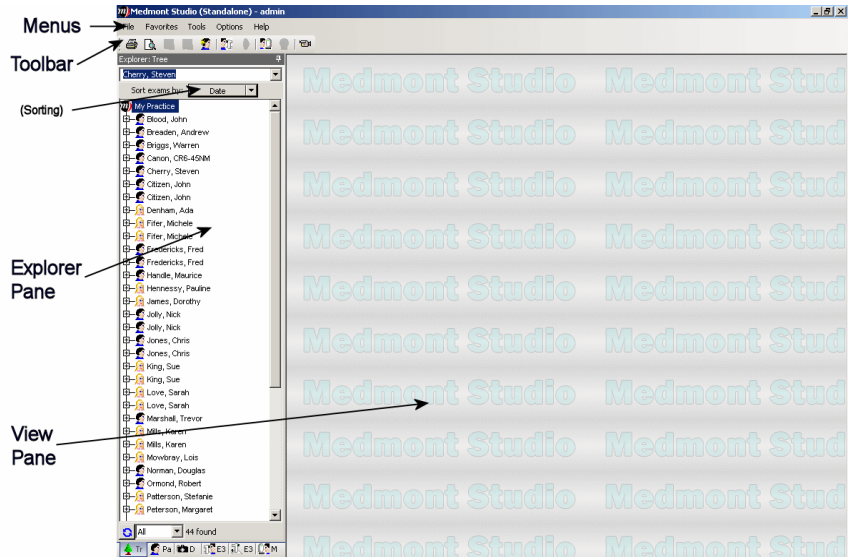


Figure 14. Studio Main Window.

The main window shown in Figure 14 is divided into four areas:

**Explorer pane:** Lists patients and exams. These can be selected by mouse click. Filtering, sorting and searching are also supported.

**View pane:** Displays the current patient(s) or exam(s) selected in the Explorer pane.

**Menus:** Drop-down menus for specifying an action. Examples are entering a new patient or creating, analysing and editing an exam.

**Toolbars:** Select an action with a single mouse click.

These are described in detail in subsequent sections.

## 9. The Explorer Pane

The Explorer pane provides a choice of data views. The basic views are the *Tree* view shown in Figure 15, and the *Patients* view shown in Figure 16.

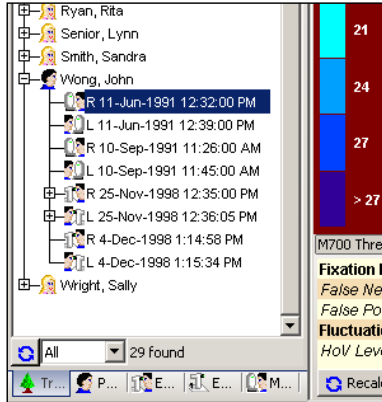


Figure 15. Explorer pane showing the Tree View.

You can select either of these views by clicking on the respective selection tab along the bottom of the Explorer pane as shown below. Additional tabs typically list the exams created with particular instruments, and will be present or not depending on the installed components.

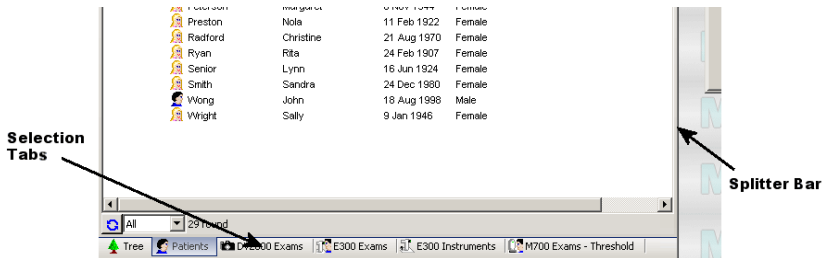


Figure 16. Explorer pane showing the Patient View.

### Sample Data

If this is the first time you have used Medmont Studio, you can become familiar with most aspects described in this and the instrument manuals by importing the various sample data sets on the distribution CD. There is sample data for the M700, E300 and DV2000 instruments and a corresponding set of patients.

Click on **File > Import** and navigate to the **Sample Data** folder on the CD. You can import any or all of the files (although only one at a time).

## Changing the Size and Position of the Explorer Pane

A vertical *splitter bar* separates the Explorer pane from the View pane (see Figure 16). The size of the Explorer pane can be changed by clicking and dragging the splitter bar to the left or right. The View pane rescales itself correspondingly.

A horizontal scroll bar will appear along the bottom edge of either pane if required.

### Docking and Undocking

Double clicking on the title bar of the Explorer pane undocks the Explorer pane turning it into a free-floating window. This creates maximum space for the View pane. If your system has dual monitors, dragging the Explorer pane to the other monitor leaves the View pane full-screen.

Double clicking the title bar again re-docks the Explorer pane in its usual spot (left of the View pane).

### Unpinning and Pinning

Clicking on the Explorer pane vertical drawing-pin icon (see Figure 17) *unpins* the pane. The pin will change to a pin lying on its side and the pane will slide off screen to the left of the main window and auto-hide itself when not in use. The pane appears as a thin vertical strip containing the same set of filter icons as were across the bottom of the expanded pane.

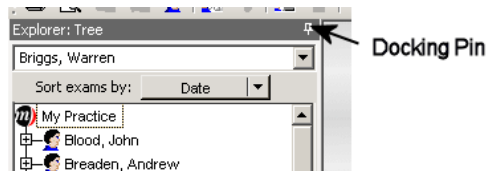





Figure 17. Explorer pane docking pin location.

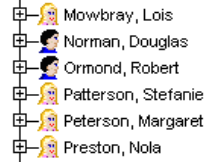
When the Explorer pane is unpinned, a single click anywhere on the expanded selection tab in this strip will temporarily expand the Explorer pane. Any one of the selection tabs can be selected by hovering the mouse cursor over the tab for a short period - no click is required.

Clicking on the horizontal pin turns off auto-hide.

## The Tree View

The tree view lists all patients known to the system in alphabetical order. An icon represents the patient's gender.

If the patient has exams stored on the system a small  symbol will be visible to the left of their name. Clicking on this symbol will show the exams for that patient, and the symbol will change to a  symbol. Clicking on this symbol will hide the exams again and restore the original  symbol.



The same symbol will appear for some types of exam that have associated sub-items.

## The Patients View

The Patients View (see Figure 18) shows a tabular list of the patients and their clients. No exams are shown. The width of the columns can be adjusted by clicking on the vertical line separating adjacent column headings and dragging left or right. The mouse cursor will change to two small vertical lines when positioned correctly as shown here.



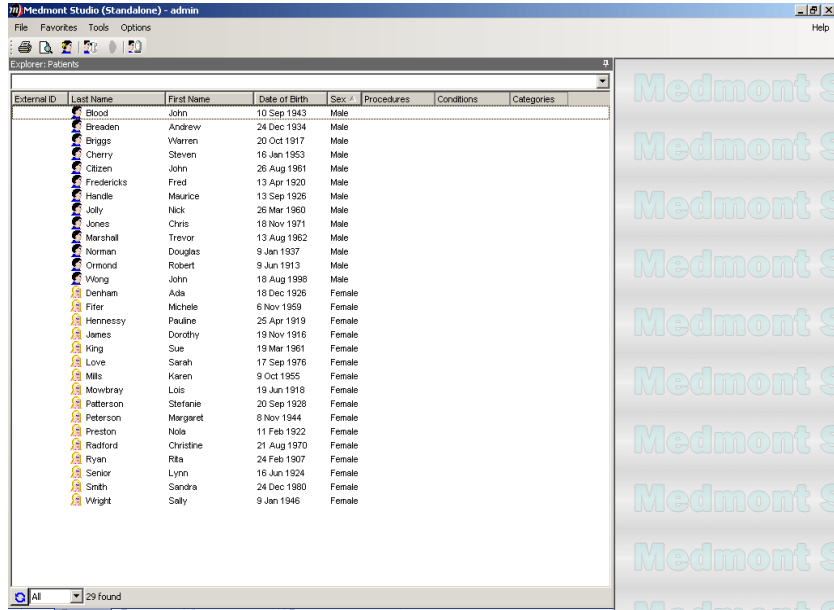



Figure 18. Studio Main Window showing the Patient View.

## Adding a Patient

From the Medmont Studio main window, click on the New Patient icon  in the toolbar, or the **File > New > Patient** menu to bring up the New Patient dialog shown in Figure 19.

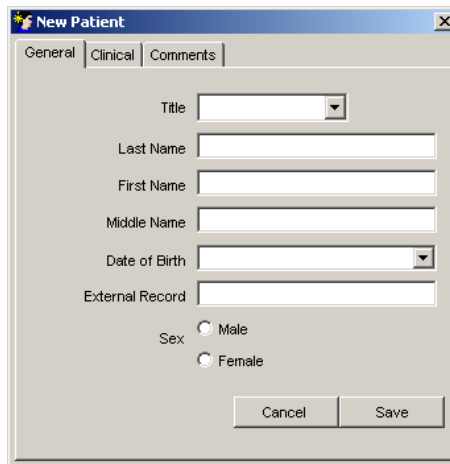


Figure 19. New Patient dialog.

Text entry boxes in Medmont Studio such as **Last Name** and **First Name** in Figure 19 use *Auto Case* by default. For details of how this effects entering patient details, see *Auto-Capitalisation* on page 59.

The General tab provides for entering a standard set of patient identification parameters such as Name, Date of Birth, Gender, etc. The External Record entry can be used to link the patient to a 3<sup>rd</sup> party patient management system.


The Clinical tab dialog shown in Figure 20 provides for selecting clinical details that describe the patient's condition. The Current Refraction entries provide for recording a current prescription and are quite straightforward. You can enter numbers directly or by using the up/down spin buttons.

	Sphere	Cylinder	Axis
Right	+0.00	+0.00	0
Left	+0.00	+0.00	0

Vertex Distance: 12.0

Figure 20. New Patient Clinical tab.

The three drop-down boxes will present selections from your practice set of categories as entered into the **Tools > Custom Fields** dialog shown in Figure 21. Use the Custom Fields dialog to enter Procedure, Condition and Category descriptions (both patient and exam) that apply in your practice. Note that you cannot make *new* entries in the Clinical tab from the New Patient dialog; they must be entered from the Custom Fields dialog.

The Comments tab of the New Patient dialog presents a simple text-editing window into which you can enter any relevant details. Once comments have been entered an indicator icon  shall appear in the title for the comments tab.

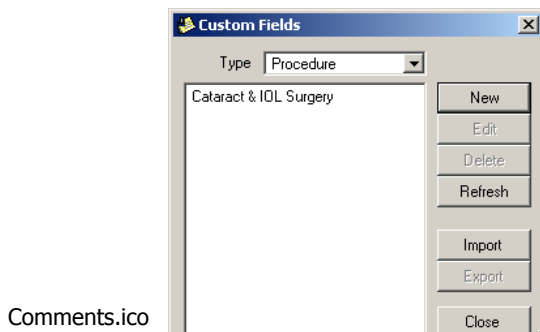


Figure 21. Custom Fields Entry and Editing dialog.

## The Refresh Button

The *Refresh* button in Figure 21 and other dialogs in Medmont Studio software only have a real function in a networked system. In these systems, clicking the button will update the items associated with the current dialog from the central database. Thus if items have been edited on one client computer, they can be updated on any other client computer by clicking the *Refresh* button in the relevant dialog.

## Editing a Patient

If you click on an existing patient you will see the same dialog shown in Figure 19, only now the title bar will show the selected patient's name and the various fields will be filled with data. You can use the dialog to review the patient's details or make any changes that may be required.

## Selecting Explorer Pane Items

To select a single item in the Explorer pane, such as a name, click on the symbol or the label to the right of the symbol (in the tree) or anywhere on the line (in other views). The selected item will be highlighted in **reversed** text and the View pane will show information or imagery for that item. Figure 22 shows a patient with the exams shown, a particular exam selected (shown in reversed text), and with that exam displayed in the View pane.

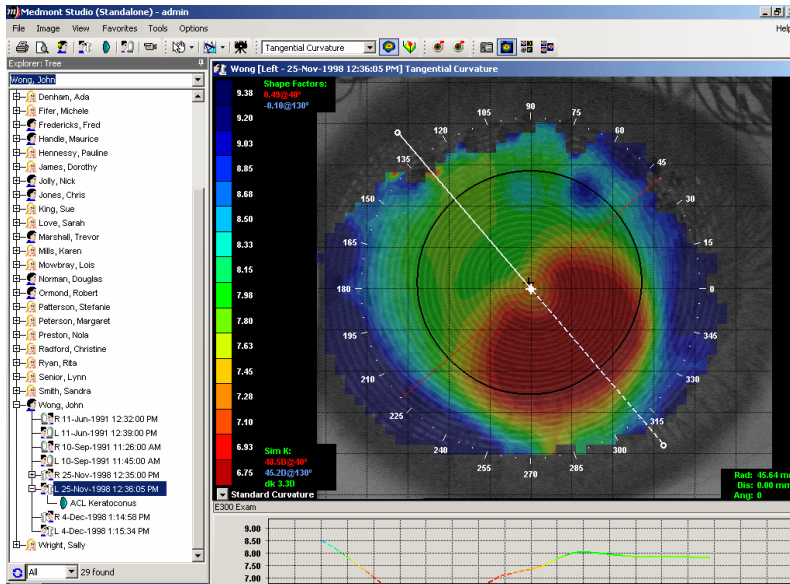


Figure 22. Selecting and Displaying an item from the Patient Explorer pane.

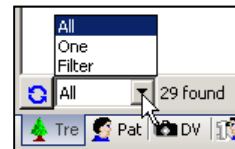
## Selecting Multiple Items

To select multiple items, hold down the control key while selecting additional items.

To select a range of items, select the first item in the range and then select the last item in the range while holding down the shift key *or* simply drag the mouse while holding the left button down, over the items you wish to select.

## Filtering

The Tree View and the Patient View both provide three filter modes: *All*, *One* and *Filter*. These are selected from the dropdown list just above the tabs at the bottom of the Explorer pane. The message “xx found” beside the selector, indicates how many matching patients can be seen using the current filter.



The selections are:

- **All** - shows all the patients in the system.

- **One** - shows the currently selected patient. This is especially useful where privacy is a concern, for example when showing a patient her or his exam; it will prevent that patient seeing a list of your other patients.
- **Filter** - pops up a custom filter that allows the user to specify more detailed criteria.

Selecting the Filter option will display the dialog of Figure 23 that demonstrates the very extensive patient filtering capabilities of Medmont Studio. As a simple example, with this dialog displayed, click on the **Female** radio button and then the **Apply** button. You should see the Explorer pane re-display with just the female patients.

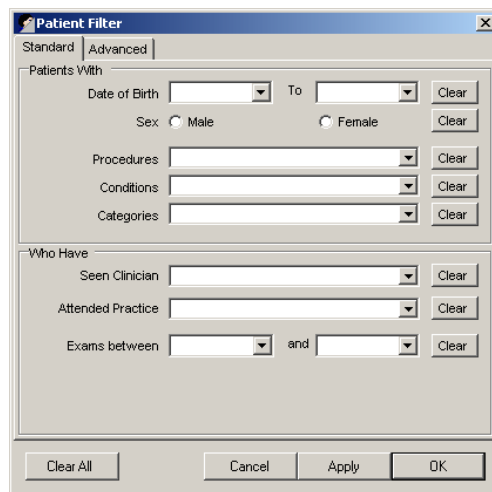


Figure 23. Patient Filter selection dialog.

This dialog provides for selection based a number of standard selection criteria. The Advanced tab however, provides for considerably more detailed selection. The initial dialog is shown in Figure 24.

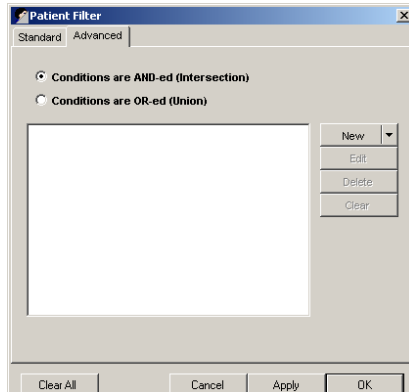


Figure 24. Advanced Filter dialog.

You may create a number of conditions via the *New* condition button, and the resulting selection will be based on each and every one being true if you leave the default **AND** radio button selected. Otherwise only one of the conditions need be true if you select the **OR** button.

Click on the *New* button to define a new simple condition.

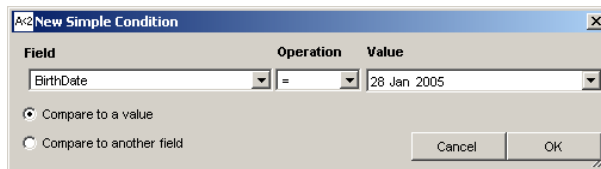


Figure 25. Advanced Filter Simple Condition entry dialog.

The Simple Condition dialog shown in Figure 25 provides for selecting a field variable and equating it in some way with a value or perhaps with another field. A *field* in the Medmont Studio condition context is a patient or exam *attribute*. A Patient attribute would be age, name, gender, etc, while Exam attributes are items like an M700 threshold exam false positive count or an E300 exam iris area.

The drop-down **Field** box allows for selection of the particular attribute. The drop-down **Operation** box provides for selecting from the criteria list, and the **Value** drop-down box provides for selecting a comparison value.

Note that this dialog can extend the width of the **Field** drop-down box by clicking and dragging the left or right edge.

Taken together, the set of simple conditions and whether they are ANDed or ORed provides for very powerful analysis of your patients and their exam results.

## Searching

In both the Tree View and the Patient View a search box is provided at the top of the Explorer pane. It normally reflects the current patient selection.

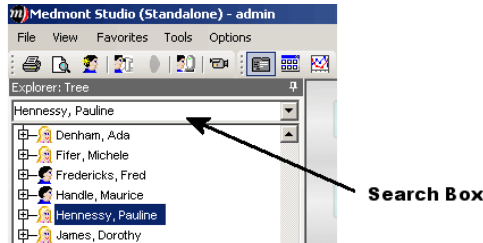


Figure 26. Patient name Search box.

### Searching by Patient Name

Type the *last-name* or a combination *last-name, first-name* to search for a particular patient. If a unique match is found that patient will be selected. Otherwise the **Find Patient** dialog will appear and you can use this to find the patient. The dialog will also appear where the search criteria is not sufficiently unique, such as entering “mi” when the patient database includes a Mills and a Mitchell.

Recently selected patients can also be found by clicking on the down arrow beside the search box.

Some additional points about searching are:

- The search is not case sensitive.
- Entering in the first few letters of the surname may be sufficient.
- You may enter patterns:
  - ? stands for any single character (e.g. Jons?n will find *Jonson* and *Jonsen*)
  - \* stands for any group of characters (e.g. St\*s will find *Sticks* and *Stones*)

Tip: Entering (for example) c,j will find all patients with the initials J C like John Citizen.

## Searching by patient External ID

You can search by the patient external identifier (the patient index in a 3<sup>rd</sup> party Patient Management system). If these are numeric, then just enter the number, eg. 2345. If your 3<sup>rd</sup> party system uses an alphabetic or alphanumeric index system, then you must precede the identifier with the hash “#” character to distinguish the identifier from a name, eg. #DF451. No *pattern* search is available for external IDs.

## Searching a 3<sup>rd</sup>-party Practice Management

If a 3<sup>rd</sup> party practice management is installed the patient search is first carried out in the 3<sup>rd</sup> party database.

If a unique match is found this will result in pertinent information about the patient being read from the 3<sup>rd</sup> party database into Medmont Studio. The information for that patient is either added to Medmont Studio or updated (the two databases are *synchronised*).

## Search Behaviour and the Different Filter Modes

The exact effect of a search depends on the current filtering:

- **All** - The selection jumps to the sought patient (the simple case).
- **One** - The selection changes to the sought patient.
- **Filter** - If the sought patient is in the filter result, the selection jumps to that patient; otherwise filtering reverts to **All** and the selection then jumps to that patient.

## Sorting

In tabular views, such as Patients view and the various Exam views, clicking on a sortable column heading will sort the patients according to that criterion. A second click reverses the order of the sort.

A small arrow in one of the column headings indicates the current sort criterion and the direction of the sort (ascending or descending).

In the Patients View the sortable columns are: External ID, Last Name, First Name, Date of Birth, and Gender.

The Tree View is not sortable and is fixed alphabetical.

You can use the **Sort Exams by** button (See Figure 14) to sort the exams belonging to each patient. The sort selections are by Date, Eye and

Instrument. This does not change the patient list order, only the order of the exams belonging to that patient.

## Using Favourites

The Favourites menu allows you to add a shortcut to frequently accessed patients and exams.

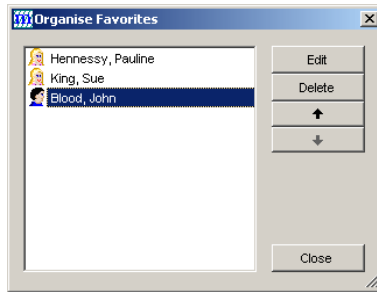


Figure 27. Organise Favourites dialog.

Select the item in the Explorer pane and then use the **Favourites > Add to Favourites** menu item to add a shortcut to the item in the Favourites menu. You can optionally rename the shortcut to indicate its purpose. The new shortcut is then shown at the end of the current Favourites menu.

The **Favourites > Organise Favourites** menu item displays the dialog shown in Figure 27. This allows you to change the order of shortcuts by selecting the shortcut and using the up or down arrows, or to edit or delete the selected shortcut.

You can jump to a favourite entry by clicking on it in this dialog. The item referenced by the shortcut will be displayed in the View pane and selected in the Explorer pane.

## 10. The View Pane

The View pane is the area to the right of the Explorer pane. It displays graphics and information for the patient or exam selected in the Explorer pane.

The exact display depends on the current view mode set using the View menu or toolbar. What is displayed depends on the Medmont instrument associated with the selected exam, and this is covered in the respective instrument manuals.

### Displaying Multiple Views

When multiple items are selected in the Explorer pane the View pane will display (if possible) a separate view for each selected item.

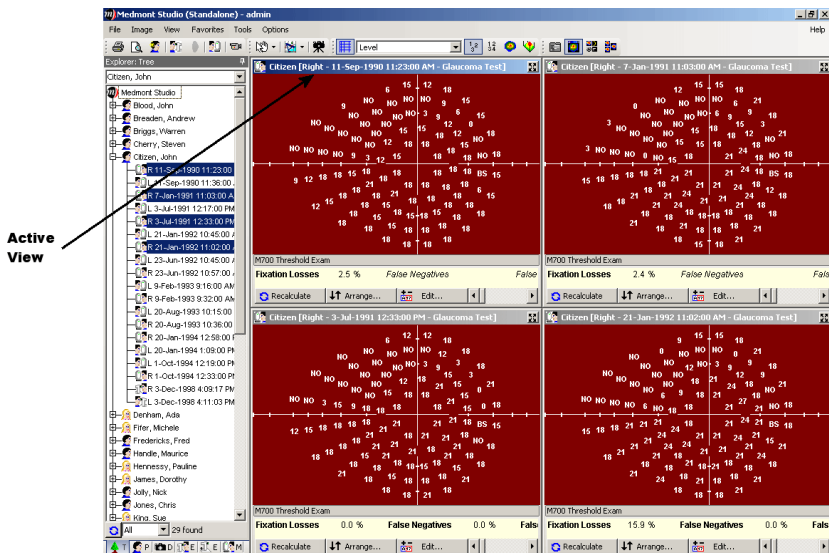




Figure 28. Multiple Views.

For this to be possible each selected item must have a view mode that supports Multiple Views. If more than four items are selected, or one of the selected items does not support Multiple Views then no views are displayed.


The title bar of one view is drawn in a different colour to indicate that this is the *active* view. The menus and toolbars displayed are determined by, and

relate to, the active view. You can change the active view by clicking on the title bar of another view.

Any of the views can be temporarily made to fill the View pane by clicking on the  *explode* button or double-clicking the view's title bar. To restore the Multiple View display, click on the  *implode* button or double-click on the view's title bar.

You can use the zoom and pan controls in this view and the translations will apply to all images. The Cntrl-I key for example, will zoom in on all four images, and the Cntrl-O will zoom them out. Note that if you have a wheel mouse, the wheel allows you to zoom in and out on just the currently active view.

### Thumbnail View

Some Explorer pane items provide a special kind of multi-view known as the  *thumbnail* view. This View displays a thumbnail image of each item belonging to the current selection (typically a patient). For example, the Thumbnail View for a patient displays images of all exams for that patient (see Figure 29).

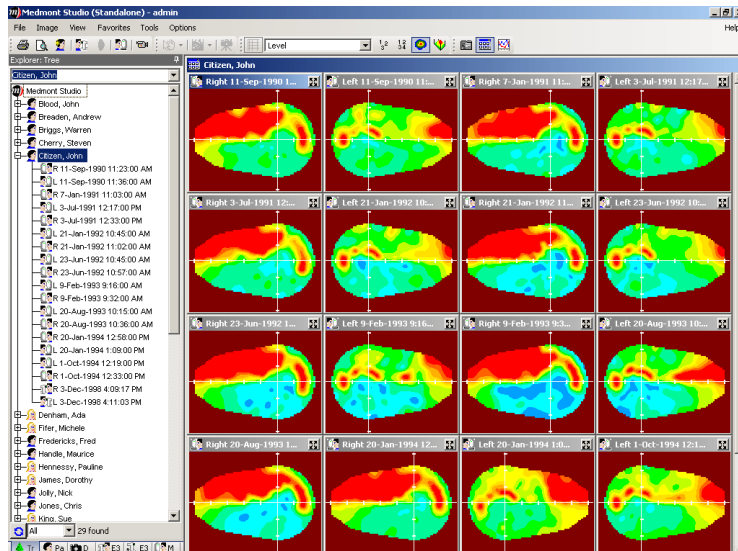


Figure 29. Thumbnail View

By default, this view will show a 4x4 grid of the patient's exams, but this configuration can be changed in the **Options > Preferences** menu, under the **Review Pane** tab to allow for more (or less) rows and columns.

If the number of exams for that patient exceeds the number of grid squares (e.g. sixteen grid squares for a 4x4 grid), a vertical scrollbar will appear, allowing you to scroll through the images.

# 11. The Menus

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Medmont Studio has a single *menu bar* along the top of the main window. The entries in this menu bar will change depending on what instrument is currently being managed, but will have at least these entries:

File	Favourites	Tools	Options	Help
------	------------	-------	---------	------

Many of the functions available from the menus have toolbar shortcuts, and these are described *The Toolbars* on page 48.

## Standard Menus and Menu items

The following lists the typical contents of each menu and its entries, and gives a brief summary of the function each entry performs. Some entries shown here depend on which instruments are installed.

### The File Menu

**New** - Create a new *Patient* or *Exam*.

**Delete** - Permanently delete the currently selected patient(s) or exam(s).

Note - deleting a patient will also delete <i>all</i> of that patient's exams.
--

**Save Changes** – This is only active if you have made changes to the current exam, such as adding some annotation. Selecting this will make any changes permanent.

**Abandon Changes** – This is only active if you have made changes to the current exam, such as adding some annotation. Selecting this will clear any new editing to the current image/exam.

**Find Patient** – Search for a particular patient based on their name, birth date, or external ID if using 3<sup>rd</sup> party practice management.

**Refresh** – Forces an update of data from the database. Useful in client/server configurations where users on other computers may be making simultaneous changes to the database.

**Copy Exams** – Duplicates, without removing, the selected exam(s) from the current patient to a different patient. Copying exams whilst a patient is selected copies all exams belonging to that patient to a different patient.

**Move Exams** – Copies the selected exam(s) from the current patient to a different patient, and removes them from the current patient. Moving

exams whilst a patient is selected moves all exams belonging to that patient to a different patient.

**Print** - Print a report based on the currently selected patient(s) or exam(s).

**Print Preview** - Preview the appearance of a print report.

**Export** - Export a file summarising the currently selected items and other information on which they depend. For example, if an exam is selected, the essential information about the clinician who conducted the exam will be included in the export file.

**Import** - Reads in a file created by *Export*.

**Exit** - Close the application.

## The View Menu

Select a particular view of the selected patient(s) or exam(s). The patient views are:

**Details** - View and edit personal details and clinical notes.

**Thumbnail** - Shows thumbnail-sized images of all the patient's exams.

**Regression** - Statistical analysis tools.

Exam views include a primarily text-based **Details** view, together with a variety of instrument-specific graphic views.

## The Favourites Menu

Create and manage shortcuts to frequently accessed patients and exams.

**Add to Favourites** – Add a patient to the Favourites list.

**Organise Favourites** – Change the order of favourites in the list or add/delete an entry.

## The Tools Menu

**Licence Manager** - Check and update licensing details.

**Session Manager** - Check who is logged on and has exclusive access (*data locks*) to particular patients and exams.

**Logon as Different User** - Switch users without restarting the application.

**Set Password** - Change the password of the current user.

**Clinicians** - Add or modify clinicians using Medmont Studio and assign or edit their passwords and security access.

**Practices** - Add, modify, import or export associated practice names.

**Custom Fields** - Define or edit *conditions*, *procedures*, *categories* (of exams), and *categories* (of patients).

**Attributes** – Displays the Attributes management dialog.

**Select Contact Lens Designs** – Select from the contact lens manufacturers.

**E300 System Settings** – E300 system settings dialog.

### The Options Menu

**Customize Toolbars** - Create new toolbars and customize the existing toolbars.

**Reset Toolbars** - Reset all toolbars to the system defaults.

**Large Toolbars** - Toggle between larger and smaller font for toolbar text and larger and smaller icons.

**Text Toolbars** - Toggle between icon-only and an icon plus text description in the toolbars.

**Reset User Settings** - Define or edit *conditions*, *procedures*, *categories* (of exams), and *categories* (of patients).

**Preferences** – Select patient display settings.

**Export E300 Bitmaps** – Enable exporting E300 bitmaps.

### The Help Menu

Links to the various electronic User Manuals and other useful information. See *Help* on page 53 for more details.

### Additional menus

Additional menus and menu items will appear depending on the current context, which patient(s) or exam(s) are selected, and also depending on which instruments and licences are present.

The additional menus include:

**Links** - Export data to 3<sup>rd</sup> party tools, for example contact lens designer tools.

**Image** - Zoom, pan or annotate an exam; set the general viewing options.

Menu items that are inappropriate for the current exam(s) or patient(s) appear *greyed out* (disabled), and clicking will have no effect.

## 12. The Toolbars

The toolbar area provides a variety of toolbars containing icons for quick, single click access to common operations.

Toolbar items that are inappropriate for the current exam(s) or patient(s) appear *greyed out* (disabled), and clicking will have no effect.

Turning on Large Toolbars from the Options menu will make the toolbars and menu text larger.

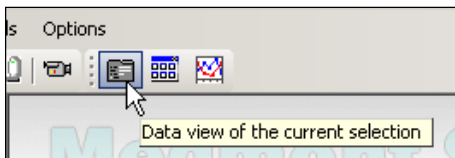
### Strategies for Learning about Toolbar Buttons

If you are new to Medmont Studio you may wish to turn on Text Toolbars from the Options menu. This supplements each button with a text description. As an example, the View toolbar is shown here with and without text.



The obvious disadvantage of this approach is that it takes up significant space in the toolbar area.

Alternatively, you can check the function of a toolbar button by just moving the mouse pointer over the button, without clicking, for about a second. A small yellow *tool-tip* will pop up with a brief description of the function of that button as shown here.



Finally, you can learn about toolbar buttons via the menu system. The same icons are used for corresponding functions in both the menus and the toolbars, so if you are familiar with a particular function from the menu system, look for the corresponding button in the toolbar area.

## The Basic Toolbars

Medmont Studio provides two basic toolbars: The **File** and **View** Toolbars. Medmont instruments may provide additional toolbars to support the specific functionality of an instrument. You may also create new toolbars and customise the content of toolbars provided by Medmont Studio and the instruments.

### The Standard toolbar

The standard toolbar shown here provides some common actions from the **File** menu.



From left to right, these are:

- Print the default report,
- Print preview the default report,
- Create a new patient,
- Create a new E300 exam,
- Create a new E300 contact lens,
- Create a new M700 exam, and
- Create a new DV2000 exam.

Whether you see all of these will depend on what instrument licences your installation supports.

### The View Toolbar

The view toolbar shown here provides the same choice of *views* as the View menu for the currently selected patient(s) or exam(s), and also indicates which view is currently in use by highlighting that button.



## Advanced Toolbar Features

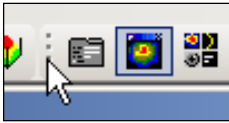
The Medmont Studio Toolbars can be fully customized to suit your individual requirements and usage patterns. Medmont Studio saves your custom settings and restores them when the application is next run. This section introduces the most useful advanced operations. If you get into trouble you can always restore the system defaults by selecting **Options > Reset Toolbars**.

## Undocking and Docking Toolbars

Initially all toolbars appear adjacent to each other along the top of the screen below the main menu. They are *docked* (like ships at a wharf) along the top of the screen.



However, it is possible to grab any toolbar by clicking the left button of the mouse on the toolbar's handle and dragging it to a new location. Selecting the toolbar handle looks like:



Clicking and dragging a toolbar into the centre of the screen will make it appear as a small window with a heading. The toolbar is now *undocked*:



Toolbars may be docked along any edge of the screen. Where there are multiple toolbars (look for the handles), they can be rearranged within a docking area, by clicking on their handles.

## Changing Toolbar Button Order

You can change the position of a button in a particular toolbar, moving it from its current position to any new position.

1. Select **Customize Toolbars** from the Options menu.
2. From the Toolbars tab, check the relevant toolbar you wish to modify.
3. With the **Customize Toolbars** dialog still open, position the mouse cursor over a button. Click-and-drag it to its new position.
4. Repeat step 3 to continue reordering buttons.
5. Dismiss the **Customize Toolbars** dialog when finished.

## Deleting a Button from a Toolbar

You can remove buttons from the pre-defined toolbars to conserve screen space:

1. Select **Customize Toolbars** from the Options menu.
2. With the **Customize Toolbars** dialog still open, position the mouse cursor over the button that you wish to delete and right-click; a dialog menu will appear.
3. Click on *Delete*.
4. Dismiss the **Customize Toolbars** dialog when finished.

## Adding a Button to a Toolbar

You can add buttons to the pre-defined toolbars:

1. Select **Customize Toolbars** from the Options menu.
2. Select the **Commands** tab and browse the categories to find the command button that you wish to add.
3. Click-and-drag the button onto a toolbar. Note that you must position the button within or at either end of an existing bar. A black I-bar appears when the cursor is correctly positioned.



4. Dismiss the **Customize Toolbars** dialog when finished.

## Creating and Deleting User-defined Toolbars

You can create completely new toolbars:

1. Select **Customize Toolbars** from the Options menu.
2. Click on *New* and give your toolbar a name.
3. A small empty toolbar as shown here will appear in the toolbar area of the screen.
4. Add buttons to your toolbar.



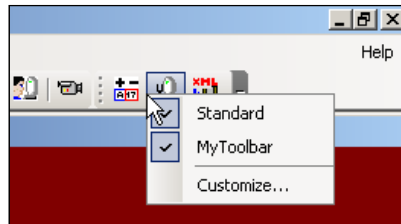
You can delete user-defined toolbars.

1. Select **Customize Toolbars...** from the Options menu.
2. Click on the user-defined toolbar.
3. Click on the *Delete* button.

Note that System-defined toolbars cannot be deleted.

### Hiding and Showing User-defined Toolbars


Click the right mouse button over the main menu bar to show a dialog list consisting of the Standard toolbar plus any user-defined toolbars. Visible toolbars appear with a check mark ✓ to the left of the name. Click on the name of the toolbar that you wish to hide or show.



## 13. Help

The **Help** menu provides access to the User Manuals for Studio and the installed instruments. These are in PDF format and therefore require the installation of a PDF reader such as Adobe Acrobat or similar. These readers are freely available on the Internet and a version of Acrobat is provided on the Medmont Studio distribution CDROM.

The individual manuals include a Bookmark page organised as a directly accessible table of contents that indexes the main section headings. Press F6 to show the bookmarks page or click on the sidebar. Clicking on an entry will navigate to the corresponding page.

Also directly accessible are the internal links within each document such as the italicised chapter headings, page numbers, Figures and Tables. Move the mouse cursor over any of these links and the cursor will change to a pointing figure . Figure 30 shows a typical situation. Clicking on any of these will move the displayed page to the reference. Use the **Previous View** button on the Acrobat toolbar to return to the original page.

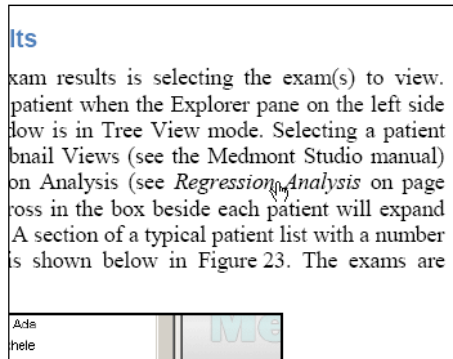


Figure 30. Selection of an internal navigation link.

## 14. Annotations

Medmont Studio allows you to define eight types of shapes on your exam images. These are shown in Figure 31.

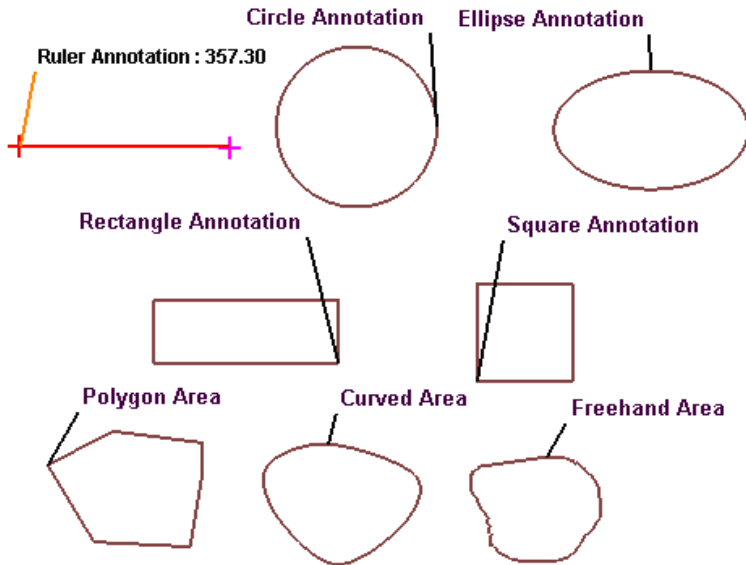


Figure 31. Available annotation shapes.

- Ruler Annotation
- Circle Annotation
- Ellipse Annotations
- Rectangle Annotation
- Square Annotation
- Curved Area Annotation
- Freehand Area Annotation and
- Polygon Area Annotation

Click on the desired shape tool from the **Image > Annotate** menu. Move the mouse to the image pane, the mouse cursor changes to reflect the type of shape being drawn.

See the individual instrument manuals for examples of how to use Annotations.

## 15. Attributes

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Attributes are named values that apply to a particular type of exam result. They may be a physical measurement or dimension, or they could be a number that is the result of applying some statistical based calculation.

Medmont have supplied a large set of standard attributes for each instrument. In many cases you can elaborate on these attributes or use the underlying exam results to derive your own.

The tools and methods to explore attributes are common to all instruments, with each manual including detailed explanations.

# 16. Printing

## The Print Dialog

The **File > Print** and **File > Print Preview** menu items bring up a list of reports pertinent to the current selection.

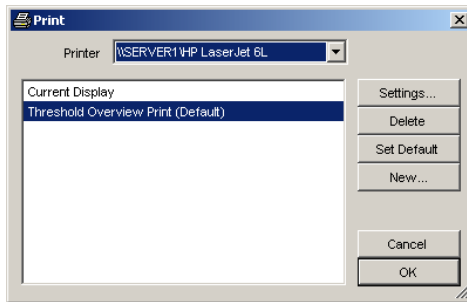


Figure 32. The Print dialog.

Select a report format from the list and click **OK** to Print or Print Preview the report.

## Print Dialog Settings

Clicking the **Settings** button in this dialog brings up another that allows you to customize the report by changing the *General* settings (see Figure 33).

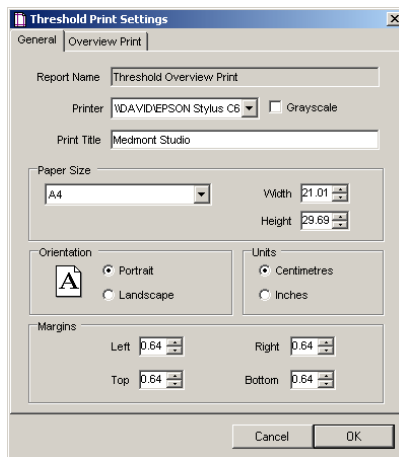


Figure 33. Print Settings dialog.

For some reports, typically exams, additional options are available from a second tab. An M700 exam for example, would name the second tab an **Overview Print**, and selecting this tab would display the dialog in Figure 34.

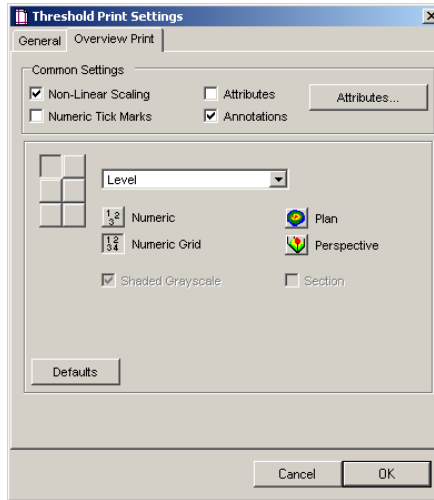


Figure 34. M700 Threshold exam Overview Print dialog.

The **New** button enables you to name a customized report format and retain it for future use.

## Print Preview

The **File > Print Preview** menu item brings up a similar dialog to **File > Print**, but clicking **OK** now shows a *preview* window containing a precise version of what the report would look like on paper.

Note that what is printed for a given view is not necessarily the current display in the View pane, depending on the Print settings.

The preview window provides the following menus for working with the preview:

1. File
  - a. **Print** - Prints the report.
  - b. **Settings** - Change the settings for this report.
  - c. **Select Report** - View a different report.
  - d. **Copy to Clipboard** - Save the preview image to the clipboard.

- e. **Save as Image** - Save the preview image to a file. Supported file formats are:
  - i. **Windows bitmap** - .bmp
  - ii. **Graphics-interchange-format** - .gif
  - iii. **JPEG** - .jpg
2. **View** - Controls the number of pages visible at once.
3. **Zoom** - Enlarge or reduce the size of the on-screen preview.

## 17. Usage Hints

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This section provides some hints for making the most of Medmont Studio.

### Keyboard Accelerators

Most Medmont Studio menus (see page 45, *The Menus*) can be accessed via the keyboard. Use the Alt key to activate a menu. Use the letter underlined in the menu to activate menus and submenu items. For example:

Alt-F-P selects the **File > Print** menu item.

### Auto-Capitalisation

Text entry boxes in Medmont Studio use *Auto Case* by default. This means that if you type “john citizen”, it will automatically be translated to “John Citizen” as you type. However, this is not what you want if you are entering a name like “McDonald”, so you can change this option with a right mouse click.

For example, if you are entering a Procedure called “Cataract & IOL Surgery” into the custom Fields dialog, you will need to turn off auto-case so the “IOL” is not entered as “Iol”. A right-click on the Name text box will popup a window (see Figure 35) that allows you to select from the available options. The options are:

uSer cAse	There is no automatic case control. Only the keyboard Shift key controls case.
Auto Case	The leading character of any single word will be capitalised.
UPPER CASE	All characters entered will be converted to upper case, regardless of the keyboard Shift key.
lower case	All characters entered will be converted to lower case, regardless of the keyboard Shift key.

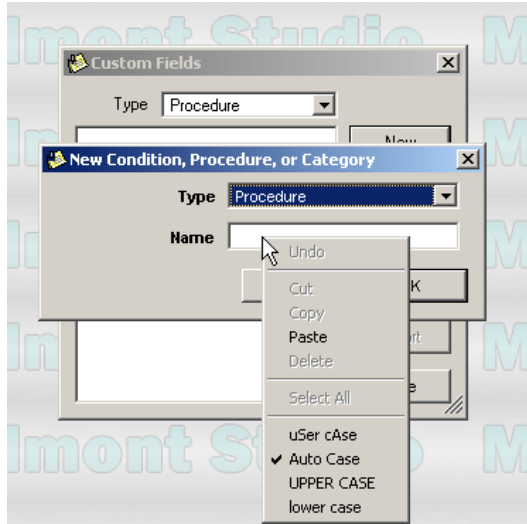


Figure 35. Right mouse click for Case entry control.

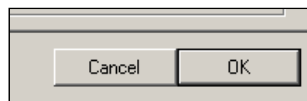
The particularly dialog will remember the auto-case setting. Thus if you have selected **uSer cAse** to enter a new patient name like “MacDonald”, the next time you enter a new patient the setting will still be **uSer cAse**.

## Tabbing between Fields

When entering data in dialogs, you can navigate between data fields using the Tab key. This is often more efficient than swapping continually between using the mouse and keyboard. Tab moves the focus to the next field. Shift-Tab moves the focus to the previous field.

## Default Buttons

Many displays and dialogs support *default* buttons. This is the button with a darker shadow around it, like the **OK** button shown here.



You can activate the default button at any time by just pressing the Enter key. When combined with the use of Tab, these keys provide a very efficient mechanism for entering data.

## Entering Dates

Many dialogs use the Microsoft Date control for entering dates. This control lets you enter dates in a variety of ways. Choose the one that suits your needs best:

### Numeric / Arrow Key Entry

1. Select the date control. The day is highlighted.
2. Type in the day using the numeric keypad.
3. Press the spacebar, “/” key, “\_” key, or right arrow key to move to the month. You can change the month using the up/down arrow keys.
4. Move to the year. You can enter either a 2- or 4-digit year. Change the year using the up/down arrow keys.

### Graphic Calendar Selection

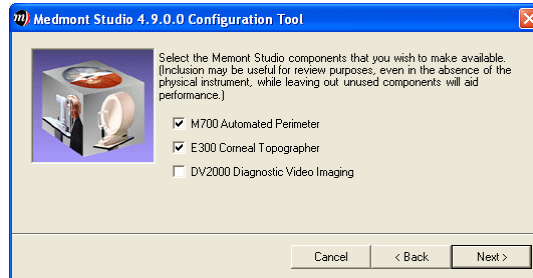
1. Select the down arrow next to the date control.
2. A small calendar is displayed.
3. Click on the year and use the up/down arrow keys to select the year.
4. Click on the month to select the month from a drop down list, or click on the left/right arrow keys.
5. Select the day on the displayed calendar.

Today’s date can be quickly selected by clicking on “**Today**” at the bottom of the calendar.

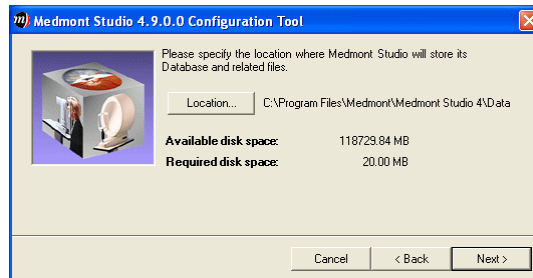
## 18. Utilities

### Medmont Studio Configuration Tool

The Configuration tool allows you to re-configure Medmont Studio without requiring a new installation. Run this tool if, for example, you have purchased a new instrument, selecting it in the Select Instruments dialog:



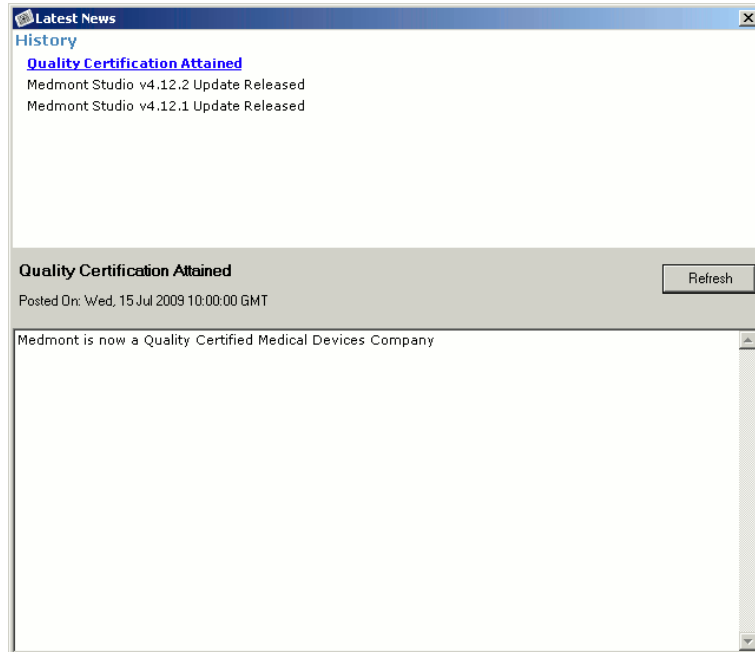
As another example, if it was necessary to move the Medmont Studio database to a different folder on another disk or even onto another computer, use this tool to manage the transfer. Ensure Medmont Studio is not running then move through the Configuration dialogs until the data location entry appears. Note the current location, as you will need this later.



Ensure the new data directory exists. Click on the **Location** button and navigate to the new folder. Click on **OK** and then move through to finish the configuration. This step will have reconfigured Medmont Studio to now use the new folder, but it has not moved the data. You will need to use Windows Explorer or similar to actually copy the data from the old to the new location. Remember to copy all the source sub-folders too.

## RSS News Reader

Medmont Studio incorporates an RSS news reader to display up-to-date company announcements. In order for this feature to operate correctly, the computer must have a working internet connection. When connected to the internet, the software will query the Medmont internet server and alert the user to any new company announcements.



To display the RSS news reader at any time, select **Help > Latest News**. From within the news reader, click the desired link to view the full article. The RSS news reader may be disabled or enabled at any time, by selecting **Options > Preferences**, and then selecting the **News Reader** tab and selecting the **Check News At Startup** option.

## 19. Licensing

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### The License Dongle

The Medmont Studio software licensing is *dongle*-based. The dongle is a small key-sized piece of hardware that plugs into a USB port on your computer.

Medmont Studio will function in Single User Review Mode in the absence of a valid dongle and activation key. However, to unlock its full capabilities, a dongle and corresponding activation key (a manually entered code) are both required.



### Standalone Configuration and the Dongle

Only one dongle is required (and allowed) for the standalone configuration. If you own two or more Medmont instruments and wish to connect all of them to the same computer, you will need to speak to your Medmont supplier about either:

1. Purchasing an additional instrument licence (this will also allow you to run your instruments on separate computers), or
2. Arranging to transfer all your instrument licences to work with one dongle (a lower cost option). This involves returning additional dongles to Medmont, and will mean that you cannot operate the separate instruments simultaneously on separate computers (since each would require its own dongle and there is now only one).

### Network Configuration and the Dongle

In a network configuration a single dongle is plugged into the server computer. No client computer requires a dongle.

### The Activation Key

Each Medmont instrument is supplied with a dongle and corresponding activation key.

**Example activation key:** BF9D-5C22-EDC6-8A36-3D87-4B0F-AD57-7059

The activation key carries information about which instruments and software components can be used with a particular license dongle.

## The Licence Manager

The current licensing information is accessible from the **Tools > Licensing Manager** menu and shown in Figure 36.

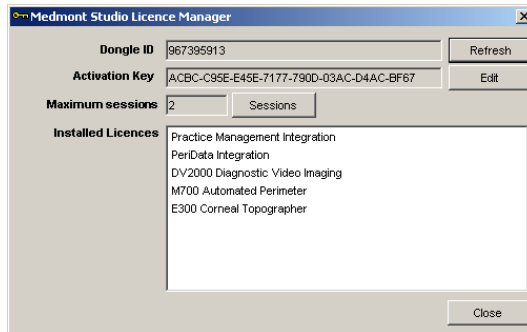


Figure 36. Medmont Studio License Manager dialog.

The **Maximum Sessions** number should be greater than one for a **Network** configuration.

The **Installed Licences** box lists which instruments and additional software modules are licensed to run on this Medmont Studio installation.

## Session Licenses

Sessions are important for network configurations. In these, each active Medmont Studio application running on a **client** computer needs the **server** computer to supply it with a *session*. The maximum number of sessions allowed is controlled by the license and is encoded in the activation key.

This means that licenses can float between computers. The server will assign up to the maximum number of sessions to client machines, so there may be more client computers than sessions as long as at any one time there are only the given number of clients actively using Medmont Studio.

In normal use each time the Medmont Studio software is started on a client computer, the server assigns a license to that client. When the application exits the license is returned to the server pool and becomes available for another client.

Once a license has been assigned to a client that client gains all functionality available under the license.

For example, a local-area network with ten computers attached could run Medmont Studio on all of the computers at different times, but if the

maximum number of sessions is five, then no more than five computers can run Medmont Studio simultaneously. A sixth user trying to start Medmont Studio will get a **Not Enough Sessions** error message.

If this happens, the user could ask another user to exit, thereby freeing up a license. If this happens often, you may wish to purchase licensing for additional sessions from Medmont.

Extraordinary conditions that could result in the client software ceasing to operate include an administrator logging off a user, the server software shutting down, or the dongle being pulled out of the server.

## **Purchasing additional licences**

Licences for additional instruments, software components and extra sessions can be purchased from Medmont.

Medmont will then supply a new activation key that is entered into the Licence Manager to unlock the added functionality (see *The Activation Key* on page 64).

## 20. Data Backup

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It is in your own interests to regularly perform backups to avoid loss of data due to hardware failure or accidental deletion or corruption of the database.

If you have been using a 3<sup>rd</sup> party Practice Management system, it will have its own database files, and it is likely you will have already established a regular backup procedure. If so, then simply add the Medmont database location (see *Backup Locations* on page 68) to the list of folders you are already backing up.

However, if you are just at the planning stage of a backup policy, Medmont suggests that all the various practice databases be regularly backed up to media that can be taken off-site. This could be a laptop computer that is plugged into the practice network, a CD-ROM or DVD, or a USB disk.

Medmont recommend that you periodically backup to media your can store.

### Backup Media

The choice of backup media will depend somewhat on the size of your practice, the instruments you are using, and the number and type of exams your practice does in a given period. But no matter how small your practice, the days of using floppy disks for backup are long gone. A medium sized practice that includes imagery as a service can easily require several gigabytes of backup storage.

Backing up to a laptop is convenient in that you can just connect it to the practice network, navigate to the various Medmont and Practice Management data folders, and use Windows Explorer to copy the files. The feasibility of this method depends on first having a laptop with a large enough disk, having plug-in access to the network, and your confidence in the long-term reliability of the laptop.

USB disks in early 2007 come in sizes up to 4 gigabytes, and this would be adequate for most practices. The amount of storage available on these devices will only get bigger, so with the same caveat about long-term reliability, this could be a satisfactory backup solution.

Backup to a CD-ROM burner is a more reliable option, in that the CD is essentially a permanent system snapshot. However, if you are using instruments that produce imagery such as the Medmont E300, it will not be long before your overall database size exceeds the around 700 megabytes available on a single CD. In comparison, the hardware costs and procedures

to backup to a DVD burner are now no different to a CD-ROM, with the advantage of nearly seven times the backup space.

With all this in mind, Medmont recommend using a DVD burner as your backup medium, either mounted in the server computer or capable of being plugged into its USB2 port.

The next decision is the backup software. Unlike Windows 2000, Windows XP and subsequent versions like Vista provide for direct transfer from the various database storage locations to a DVD using Explorer. However this means manually navigating to the various directories to backup each individual database for the products your practice uses. Windows provides a backup program appropriately called Backup on the Windows distribution CD, and if installed it is available from **Start > Programs > Accessories > System Tools**. This has facilities that allow you to pre-program the integration of selected files and folders from a number of locations into a single backup file, along with how it should be stored and to where (an adequate solution if you are backing up to another computer or a laptop). However the program knows nothing about CD-ROMs or DVDs.

The requirement is therefore for backup software that offers facilities to pre-specify the locations and folders that require backup (i.e. it will remember the various locations between backup sessions), and the ability to copy to a CD-ROM or DVD burner. In addition, it should have the ability to span the backup file across multiple disks for when the size of the backup exceeds the media capabilities.

Medmont recommended you survey the market yourself for backup software that meets these requirements.

## Backup Locations

The Medmont Studio database is by default stored in a sub-folder of the **Medmont Studio 4** folder called **Data**. In a default installation this will be:

C:\Program Files\Medmont\Medmont Studio 4\Data

Do not confuse this <b>Data</b> directory with the data directory belonging to an earlier Version 3 Medmont Studio that was usually located at C:\Program Files\Medmont\Data.
---

At installation this folder can be assigned to any computer in the practice network, to any disk on that computer, and to any folder path on that disk. However, clicking on **Start > Medmont > Medmont Studio Administrator**

**T**ool will display the dialog in Figure 37, and this will list the database location in the **Data Location** field.

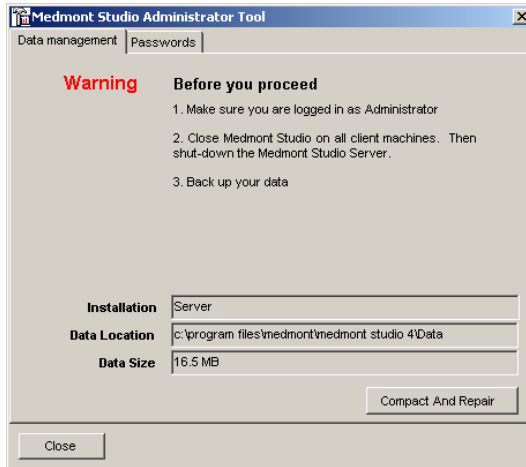


Figure 37. System Administrator Tool.

## Initiating a Backup

No matter what Medmont configuration you have installed, all copies of Medmont Studio must be stopped before initiating a backup. For a stand-alone system this is easy, but for a server system you will need to stop the Medmont server using the Server Manager.

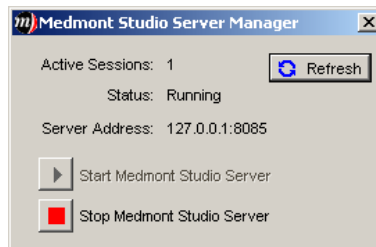



Figure 38. Medmont Studio Server Manager.

The Server Manager icon  will be present in the desktop tray of the network server computer. Double click on this icon to display the Studio Server Manager dialog shown in Figure 38. The **Active Sessions** entry will show if any clients are running Medmont Studio. Click the **Refresh** button if the Manager has been running. You can choose from two options.

1. Find the machine(s) currently running Medmont Studio to ensure no one is using it, shut it down, and then come back and click the ***Stop Medmont Studio Server*** button, or
2. Click the ***Stop Medmont Studio Server*** button.

The effect of clicking this button on connected clients is to disconnect them from the server with no mechanism to reconnect other than re-starting, so the second option has the potential for data loss if the computer is currently in use. Avoiding this situation is a company procedures issue, where either a certain time is set-aside for backup or it happens after hours.

The more usual effect of stopping the server is, of course, to prevent clients starting Medmont Studio. If they try they will see the message shown in Figure 39 and Studio will refuse to start.

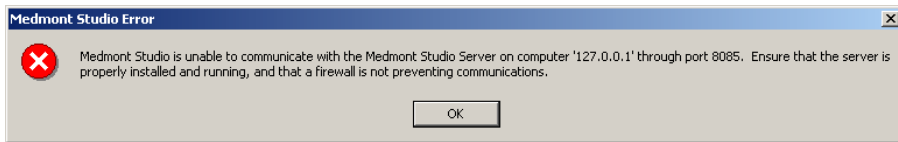


Figure 39. Error message for when no server is available.

Once the server is stopped you can proceed with your backup procedure. If necessary, click the ***Compact and Repair*** button on the Administrator tool (see Figure 37) for occasional database management.

## 21. Compliance

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The Medmont Studio 4 software has been manufactured by

Medmont International Pty Ltd  
Unit 1, Whitehorse Business Park  
170-180 Rooks Road, 3133  
Victoria, Australia

It has been classified as a Medical Device Class 1 and is in conformity with the essential requirements and provisions of the European Council Directive 93/42 EEC.

As identification of its conformity, Medmont Studio 4 is labelled with the CE mark as shown below.



## 22. Representatives

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The EU Authorised Representative:

*BiB Ophthalmic Instruments  
Unit 8, The Orbital Centre, Cockerel Close  
Gunnels Wood Road  
Stevenage, Hertfordshire SG1 2NB  
England  
Tel: 0044 (0)1438 740823  
Fax: 0044 (0)1438 356093*

Your Local Medmont Authorised Agent is: