

PCS Clinical Audit Tool – User Guide

Version 2.8

PART 1

INSTALLATION AND CONFIGURATION

Company Contacts

Sydney (Head Office)

Pen Computer Systems
Level 6, The Barrington
10-14 Smith St
PARRAMATTA NSW 2150

Phone: +61 2 9635 8955
Fax: +61 2 9635 8966
Email: enquiries@pencs.com.au
Web: www.pencs.com.au

Melbourne Office

Pen Computer Systems
Level 5
434 St Kilda Rd
MELBOURNE VIC 3004

Phone: +61 3 9866 8477
Fax: +61 3 9866 5699

Document Contact

Contact: **Christine Chidgey**
Project Officer

Phone: +61 3 9866 8477

Email: christine.chidgey@pencs.com.au

Document Control

Version	Date	Modified By	Description
2.4	16/02/2009	Christine Chidgey	Initial Document for Installation and Configuration instructions. The CAT User Guide has been split into 2 parts – this is Part 1.
2.4.1	26/03/2009	Christine Chidgey	Updates for <ul style="list-style-type: none">• changes to login screen and license key information• configuration of Billing Software – available for MD users with Pracsoft3
2.5	28/05/2009	Christine Chidgey	No changes this release
2.5.1	23/06/2009	Christine Chidgey	Updates for new logos on screens
2.5.2	20/07/2009	Christine Chidgey	Add Zedmed compatibility
2.6	12/10/2009	Christine Chidgey	No changes this release
2.7	30/11/2009	Christine Chidgey	No changes this release
2.8	09/02/2010	Christine Chidgey	Update document template. No changes this release.

Contents

COMPANY CONTACTS.....	2
<i>Sydney (Head Office)</i>	2
<i>Melbourne Office</i>	2
DOCUMENT CONTROL	3
CONTENTS	4
1 INTRODUCTION	5
1.1 CLINICAL AUDIT TOOL (CAT).....	5
1.2 USER GUIDE	5
1.3 NOTES ABOUT THIS USER GUIDE	6
1.4 DEFINITIONS, ACRONYMS AND ABBREVIATIONS	6
1.5 RELATED DOCUMENTS	6
2 SYSTEM REQUIREMENTS	7
2.1 OPERATING SYSTEM.....	7
2.2 MICROSOFT .NET FRAMEWORK.....	7
2.3 INTERNET EXPLORER	8
2.4 INTERNET CONNECTION.....	8
2.5 MEMORY	8
2.6 DISK SPACE	8
2.7 CLINICAL DESKTOP SYSTEM COMPATIBILITY.....	8
2.8 BILLING SYSTEM COMPATIBILITY	9
2.9 BEST PRACTICE REQUIREMENTS.....	9
2.10 GENIE REQUIREMENTS	9
2.11 ZEDMED REQUIREMENTS.....	10
3 INSTALLATION.....	11
3.1 INSTALLING TO A DESKTOP PC.....	14
3.2 INSTALLING TO TERMINAL SERVICES OR CITRIX	14
3.3 PROXY SERVERS.....	15
3.4 USING CLINICAL AUDIT OFFLINE	16
3.5 CAT LICENSE TOKEN	16
4 CONFIGURATION.....	17
4.1 SETTING YOUR PREFERENCES	18
4.1.1 <i>Choosing your Clinical Desktop System</i>	19
4.1.2 <i>Choosing a preferred Data Extract Directory</i>	22
4.1.3 <i>Choosing and configuring your Billing System</i>	23
5 CAT USER INTERFACE.....	25
5.1 NAVIGATING THE CAT USER INTERFACE.....	25
6 COLLECTING DATA SETS	26
6.1 WHAT DATA IS COLLECTED	27
6.2 HOW IS THE DATA STORED.....	27
6.3 EXISTING DATA SET COMPATIBILITY WITH CHANGES TO CAT	27
7 DATA FILTERING AND DATA SET ANALYSIS	27

1 Introduction

1.1 Clinical Audit Tool (CAT)

The Clinical Audit Tool (CAT) analyses clinical information from GP Clinical Desktop Systems. It translates data into real statistical and graphical information that is easy to understand and action. This allows practitioners to assess and improve the quality and completeness of patient information. The benefit to the practice is to assist with its ongoing accreditation and provide opportunities to grow practice income. The emphasis of the tool is to help practice staff to take specific action to improve patient coverage in chronic disease management and prevention.

Other benefits of CAT are many and include:

- targeting patients with particular needs
- targeting patients with specific health risk profiles
- improved compliance with statistical data collections
- extracting data to meet the needs of others
- meeting reporting requirements

Statistics that are required for the Australia Primary Care Collaboratives (APCC) program and the DoHA Future Directions Key Performance Indicators for Divisions are a by-product of the use of the system.

1.2 User Guide

The purpose of this document is to provide instructions on how to install and use the functionality provided by the CAT.

This manual is split into 2 parts:

Part 1: Installation and Configuration including how to collect data sets

Part 2: Functionality

1.3 Notes about this User Guide

This User Guide describes the use of the PCS Clinical Audit Tool with reference to the HCN Medical Director, Best Practice and Genie Clinical Desktop Systems.

Wherever Medical Director is used in this document we are referring to the Health Communications Network – Medical Director™ Clinical Desktop System.

Wherever Best Practice is used in the document we are referring to the Clinical Desktop System produced by Best Practice Software.

Wherever Genie is referred to we are referring to the Clinical Desktop System produced by Genie Solutions.

Wherever Zedmed is referred to we are referring to the Clinical Desktop System produced by Zedmed Medical Software Solutions.

There are other Clinical Desktop Systems that may interoperate with the PCS Clinical Audit Tool in the future and additions will be made to this User Guide when they are available.

1.4 Definitions, acronyms and abbreviations

Term	Description
CAT	Clinical Audit Tool
MD	Medical Director
PCS	Pen Computer Systems
RACGP	Royal Australian College of General Practitioners

1.5 Related Documents

'PCS Clinical Audit Tool – User Guide Part 2 – Functionality'

This User Guide provides instructions on how to use install and configure CAT.

This guide is available from
<http://help.pencs.com.au/cat.htm>

2 SYSTEM REQUIREMENTS

The minimum and recommended system requirements to be able to run the Clinical Audit tool are provided in this section.

2.1 Operating System

Clinical Audit runs under the following environments;

Microsoft Windows VISTA

Microsoft Windows XP

Microsoft Windows 2003 Server

Microsoft Windows 2003 R2 Server

2.2 Microsoft .NET Framework

PCS Clinical Audit requires the Microsoft .NET Framework version 2.0 to be installed prior to installing PCS Clinical Audit. This can be downloaded from

<http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5&displaylang=en>

How to check which version of .NET you have installed:

Method 1:

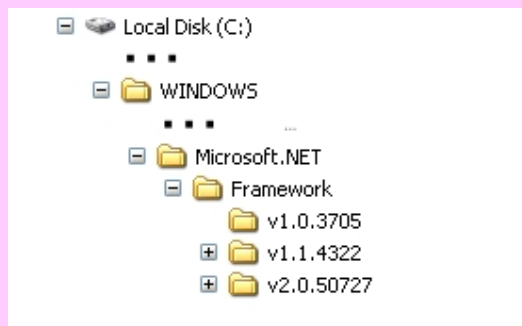
Go to Start > Control Panel

Open 'Add or Remove Programs'

Check to see that 'Microsoft .NET Framework 2.0' appears in the list

Method 2:

Using windows explorer



Locate the
%systemroot%\Microsoft.NET\Framework
folder

[The %systemroot% is found under your
c:\ drive and will usually be named
'WINDOWS' or 'WINNT']

The versions that are installed will be
listed by folder.

2.3 Internet Explorer

To install PCS Clinical Audit you must use Internet Explorer version 5.5 or later. Clinical Audit can be installed by going to the following URL

<http://www.pencs.com.au/ClickOnce/ClinicalAudit/publish.htm>

2.4 Internet Connection

PCS Clinical Audit uses an authentication mechanism that requires a persistent internet connection. It is recommended that you have a broadband internet connection to operate PCS Clinical Audit.

2.5 Memory

Clinical Audit requires at least 196MB of available memory for a typical Clinical Desktop System installation (eg. Medical Director with approximately 10,000 patient records). It is recommended that you use Clinical Audit on a system with at least 512MB of RAM installed.

2.6 Disk Space

The program itself is relatively small; however, each snapshot for a typical Clinical Desktop System (eg. Medical Director) installation¹ will require around 25MB of disk space.

2.7 Clinical Desktop System Compatibility

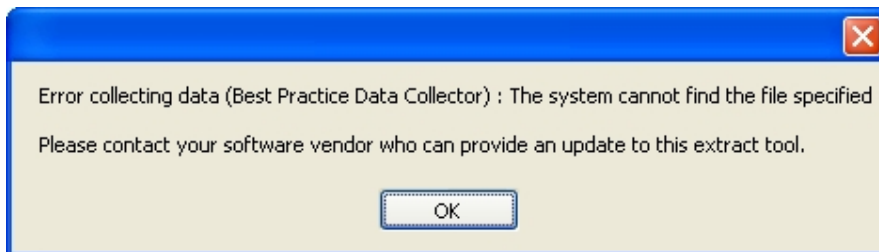
- *Medical Director*
Clinical Audit has been tested against Medical Director Versions 2 and 3. As new versions of Medical Director are released, PCS Clinical Audit will be validated and, if required, updated to maintain compatibility.
- *Best Practice*
Clinical Audit is compatible with Best Practice version 1.6.0.395 and later. As new versions of Best Practice are released, PCS Clinical Audit will be validated and, if required, updated to maintain compatibility.
- *Genie*
Clinical Audit is compatible with Genie Version 7.5.3 and later. As new versions of Genie are released, PCS Clinical Audit will be validated and, if required, updated to maintain compatibility.
- *Zedmed*
Clinical Audit is compatible with Zedmed Version 11 and later. As new versions of Zedmed are released, PCS Clinical Audit will be validated and, if required, updated to maintain compatibility.

2.8 Billing System Compatibility

- Pracsoft3 and Medical Director
Clinical Audit is compatible with Pracsoft3 when used in conjunction with Medical Director Version 2 and 3.

2.9 Best Practice Requirements

Best Practice Software provides a new executable file that must exist with your Best Practice application in order for Clinical Audit to be able to collect data. If this file is not installed you will receive the following error message when you click the Clinical Audit 'Collect' button.



If you receive this message contact Best Practice Software and they will provide a copy of the file for you.

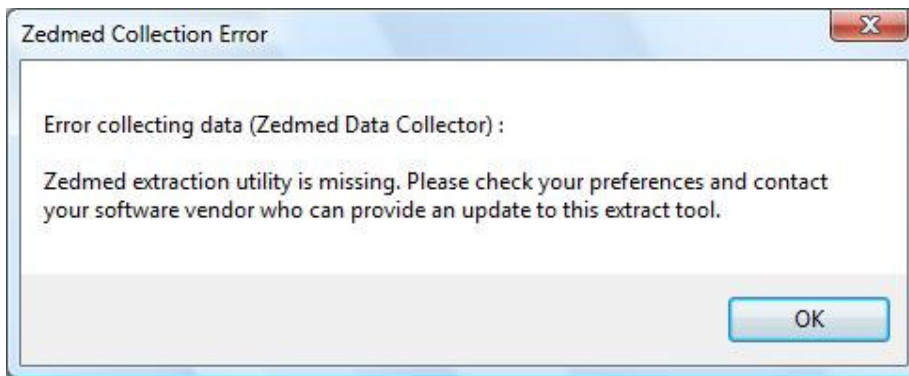
2.10 Genie Requirements

The Genie software application provides a new Reports menu option that performs the data extraction for Clinical Audit. This is described in the Appendices section of the 'PCS Clinical Audit Tool User Guide Part 2' and in the inbuilt 'Help' that is installed with CAT.

2.11 Zedmed Requirements

Zedmed provides a new executable file (PenDataExtract.exe) that must exist in your local Zedmed installation directory in order for Clinical Audit to be able to collect data. The local Zedmed installation directory is usually C:\Zedmed or C:\Patients.

If this file is not installed you will receive the following error message when you click the Clinical Audit 'Collect' button.



If you receive this message contact Pen Computer Systems and they will provide a copy of the file for you. It is intended that this file will be included in future releases of the application.

3 INSTALLATION

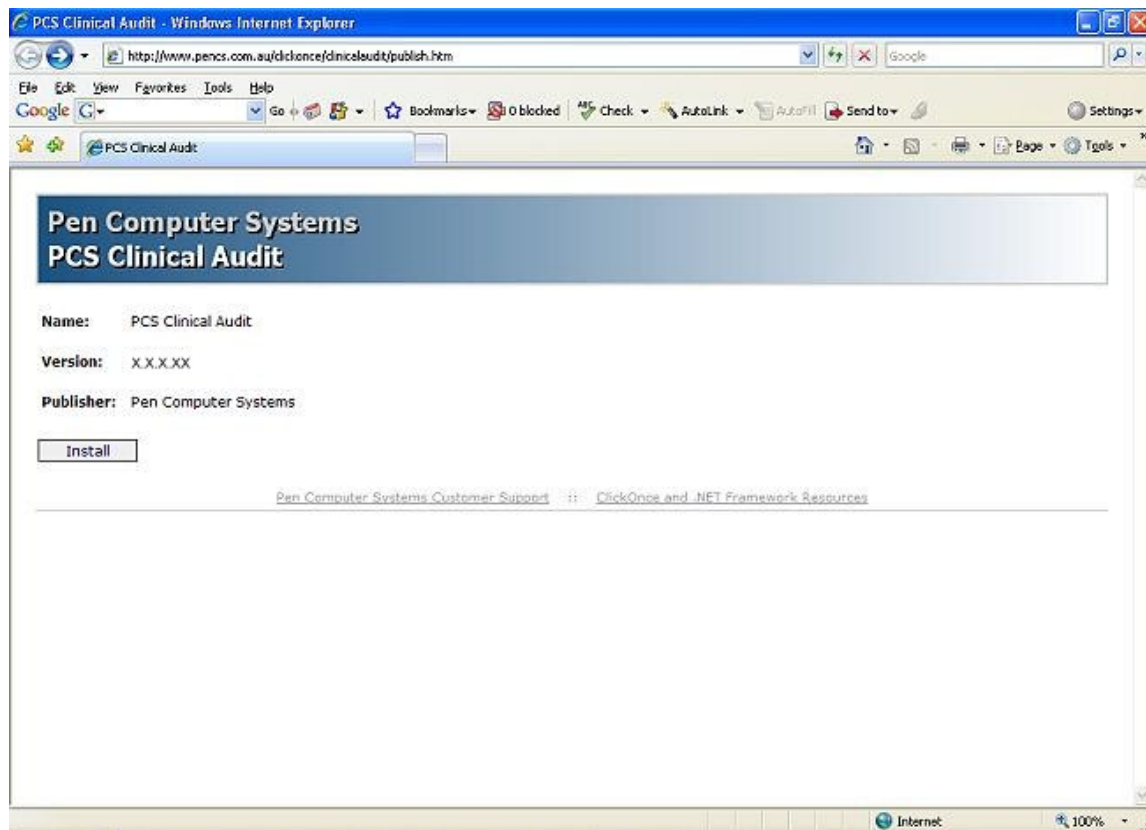
The Clinical Audit Tool is available using Microsoft ClickOnce technology.

Using **Internet Explorer** and go to the URL

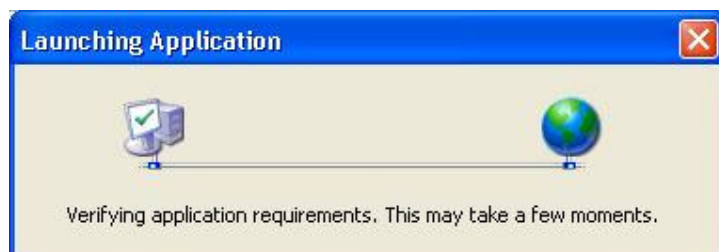
<http://www.pencs.com.au/clickonce/clinicalaudit/publish.htm>

Note: ClickOnce technology is not compatible with FireFox.

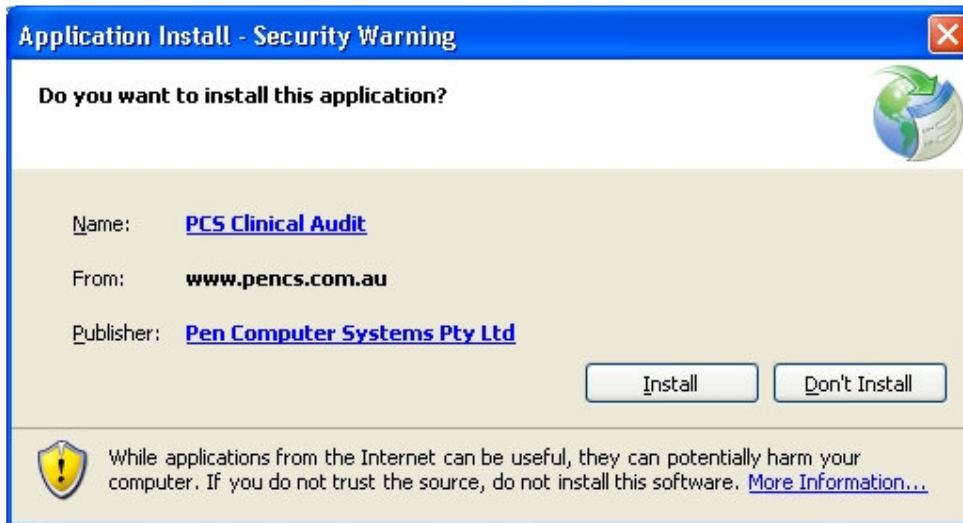
Click the 'Install' button



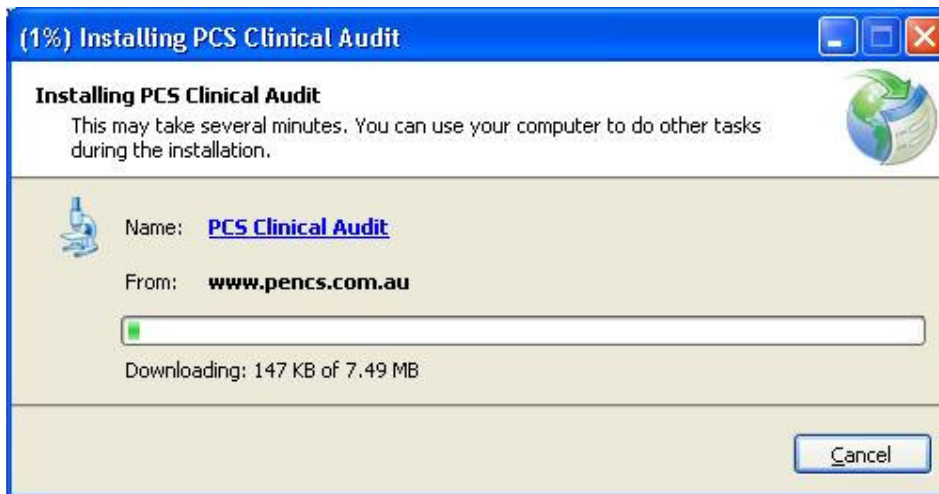
The application will be launched.



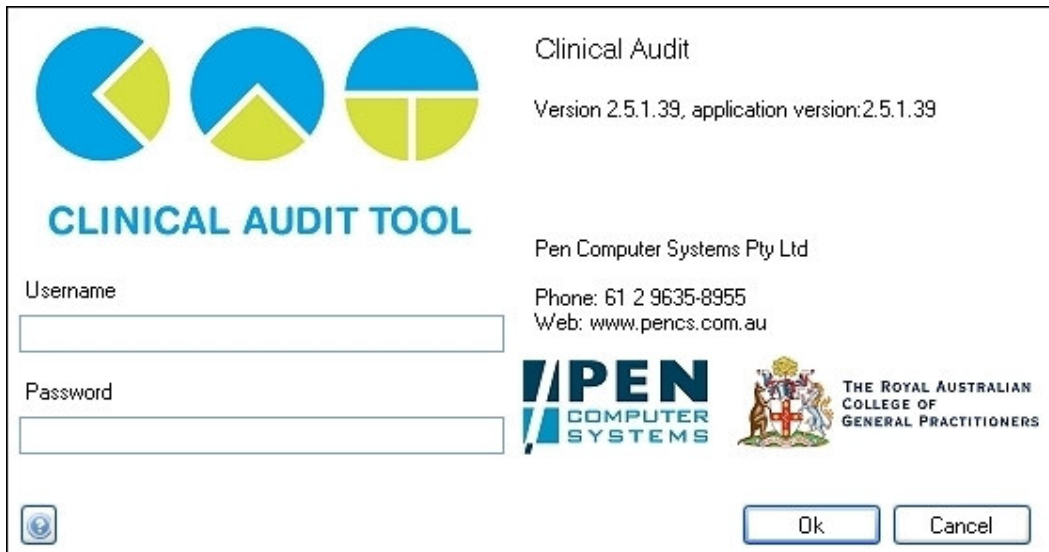
You will be provided with some security information about the application. Click the 'Install' button to continue with the install.



A dialog box will display showing you the progress of the install.



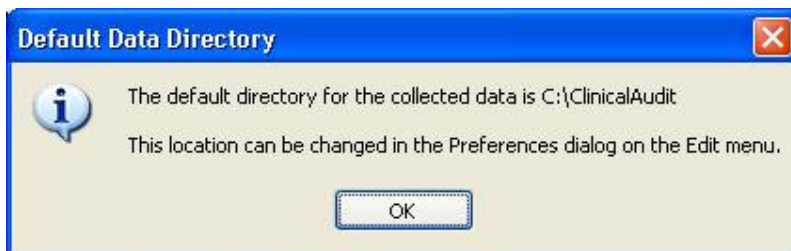
Once the install has completed the Clinical Audit Tool Login screen will appear.



Username and **Password** – enter the details provided to you.

Click 'Ok'

The first time you login the dialog box below will pop up.



This lets you know that the folder 'C:\ClinicalAudit' on your PC will be used to store the 'snap-shots' of your data for analysis by the Clinical Audit Tool. If you prefer to store them somewhere else you can change this by selecting Edit > Preferences from the top menu. Setting your preferences is explained in the next section: 'Setting Your Preferences'.

3.1 Installing to a Desktop PC

Clinical Audit needs to be installed under each profile (login) that will be using it on the PC. That is, if multiple people log on to the one PC and they each want to use Clinical Audit the installation needs to be repeated for each login. The application generally only installs once but 'activates' itself for the other logins on additional installs.

3.2 Installing to Terminal Services or Citrix

The only differences to the preceding installation instructions are the following:

1. Clinical Audit needs to be installed on the SERVER
 - Log on as the user via a Terminal Services or Citrix session and you will automatically be on the server. Follow the installation instructions in the preceding section.
2. Clinical Audit needs to be installed under each profile (login) that will be using it. That is, if multiple people will be using it, the installation needs to be repeated for each login. The application generally only installs once but 'activates' itself for the other logins on additional installs.
 - Log on as each user that will be using CAT and repeat the install instructions.

NOTE: If access privileges are an issue, then you will need to elevate the user's privileges to install and then restore them afterwards. This is a Microsoft configuration.

3.3 Proxy Servers

If you are having trouble installing the Clinical Audit Tool it may be because you are behind a Proxy Server. Some Proxy Servers will prevent you from installing the Clinical Audit Tool which uses a very new deployment technology developed by Microsoft.

When attempting to install one of the following may occur

- you get a message like "the application failed to install"
- you get a message indicating a "CGI error"
- you can't login even though you have the correct user name and password

These problems are most likely caused by your system's Proxy Server.

If you cannot install the Tool, please contact your Network Administrator or IT support person and advise them of this issue. There is a hot-fix supplied by Microsoft that may help in allowing installation to occur behind your Proxy Server.

The hot-fix can be downloaded here:

http://www.myhealthpractice.com.au/DOTNETHOTFIX_Proxy_KB917952.zip

If your Network Administrator or IT support contact is unable to help please contact your division.

Follow these steps

1. Logon to the computer you are installing CAT onto as Administrator
2. Download the zip file and extract the files
3. Run the extracted .exe file
4. Reboot the computer

3.4 Using Clinical Audit Offline

You must install and login initially to Clinical Audit while connected to the Internet so your login details can be validated.

You can then use CAT without being connected to the Internet for a period of 1 month.

When you are connected to the Internet CAT is able to verify your registration credentials are still valid and check to see if there are any application updates available for download.

If you use CAT for a long period of time without connecting to the Internet then your credentials will eventually expire. You will need to connect again and go to the CAT installation URL to download an update.


Note: If you have a Desktop Shortcut to CAT and it does not work offline you simply need to delete and recreate it.

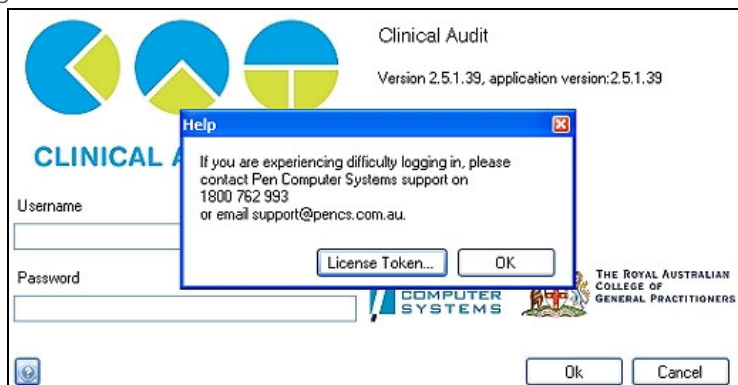
3.5 CAT License Token

When your registration credentials are validated a CAT license token is generated for you 'behind the scenes'. This provides access to all the standard CAT functionality described in Part 2 of this manual: **'PCS Clinical Audit Tool – User Guide Part 2 - Functionality'**.

Custom CAT modules may be developed to meet specific user requirements. License tokens can be issued to users that provide access to the standard functionality and the required additional modules.

If you are provided with a custom license token you can enter this by

- clicking the Help icon 
- clicking the 'License Token' button
- pasting the license token into the License Token box.



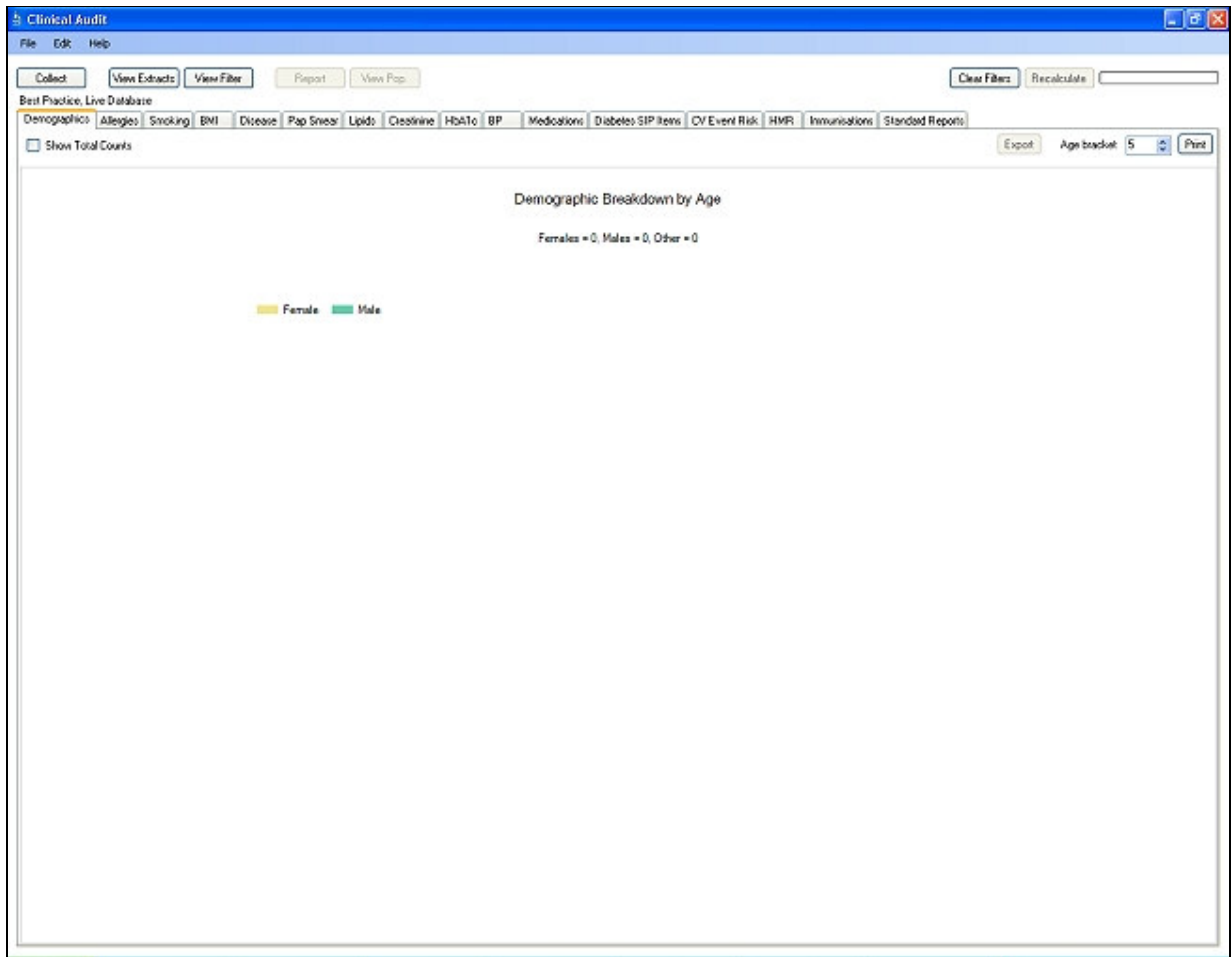
4 CONFIGURATION

Once the CAT software has been installed it is available from your Programs List.

Click Start > All Programs > Pen Computer Systems > PCS Clinical Audit

Enter your Account name and Authorisation key and click 'OK'.

Once you have logged in the screen below will display. You will see the population figure is initially 0 because you have not yet collected data from your clinical desktop system.

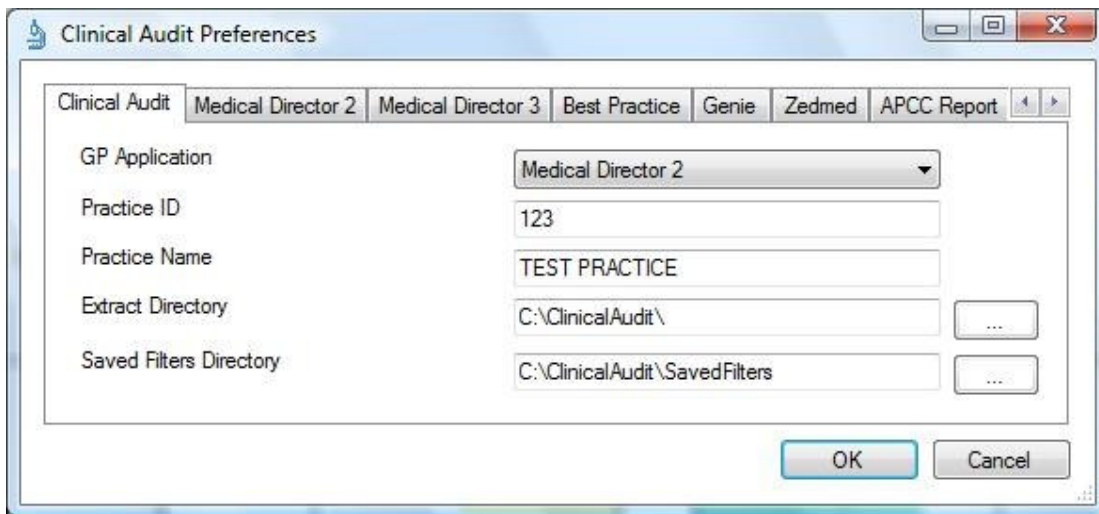


4.1 Setting Your Preferences

Your Preferences are set by selecting Edit > Preferences from the top menu.



The Preferences Dialog box will be displayed.



GP Application

From the drop down list select the Clinical Desktop System you wish to collect from. Then click the tab for that Clinical Desktop System to enter further values.

Practice Name and Practice ID Number

Fill in the values for these fields with your practice details. At a future time these values will be used if your practice decides to participate in projects that send consented, de-identified patient clinical data to your Division or other data repository.

Extract Directory

This folder is used to store the 'snap-shots' of your data for analysis by the Clinical Audit Tool. By default the data will be stored in the folder 'C:\ClinicalAudit' on your PC. If you prefer to store them somewhere else you can change this by clicking the 'Browse' button and choosing another Data Folder Location. Click 'OK' when you have selected a new location. Click 'OK' to save this location and close the Dialog box.

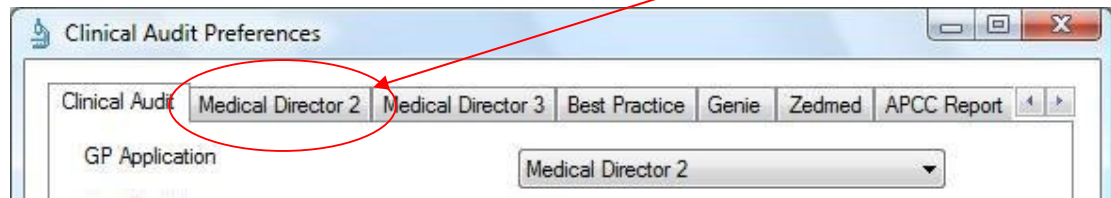
Saved Filters Directory

This folder is used to store your saved filter criteria. Saved filters can be reloaded and run at a later time. Details are provided in the 'PCS Clinical Audit User Guide Part 2'.

4.1.1 Choosing your Clinical Desktop System

Once you have selected your Clinical Desktop System from the 'Clinical Audit' tab, click the corresponding tab for that Clinical Desktop System to enter further configuration options.

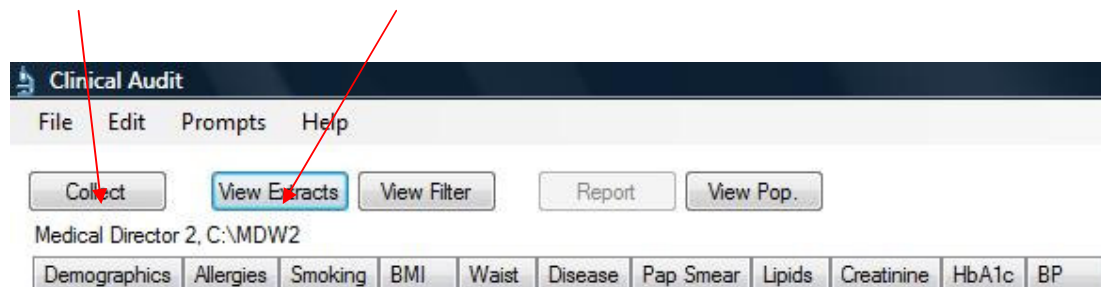
Eg. GP Application 'Medical Director' selected, now click the corresponding tab



The options available for each system are explained in the following pages. Values will be defaulted where possible.

Once you have selected and configured your Clinical Desktop system the details will be displayed above the row of tabs.

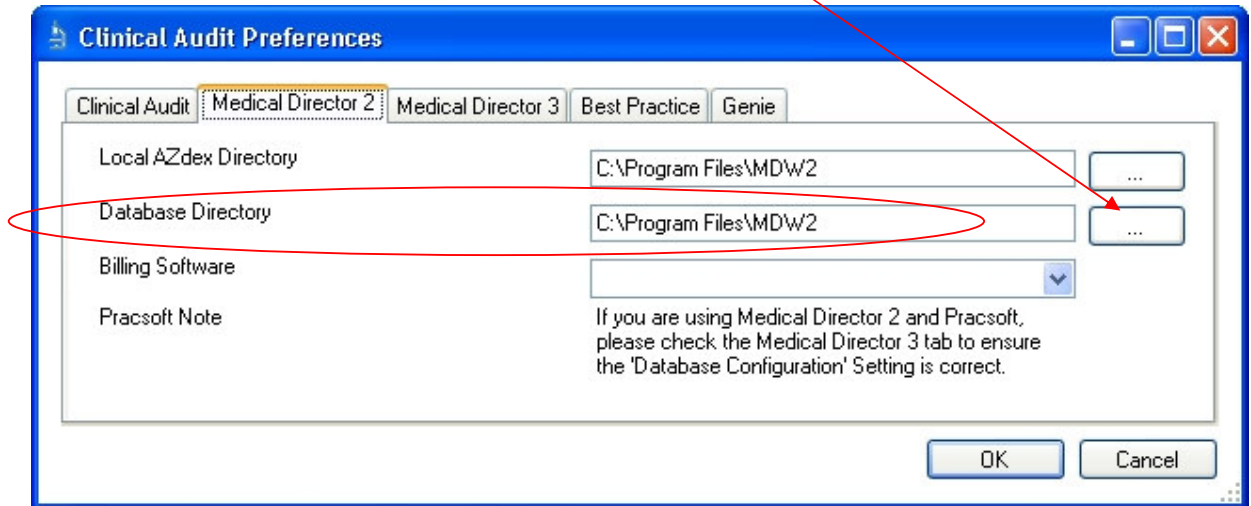
Clinical Desktop System Database Location



Medical Director users who are also using Pracsoft3 as their Billing software can configure their preferences to include Pracsoft3 and collect billing data as well as clinical data. This is explained further in the section 4.1.3.

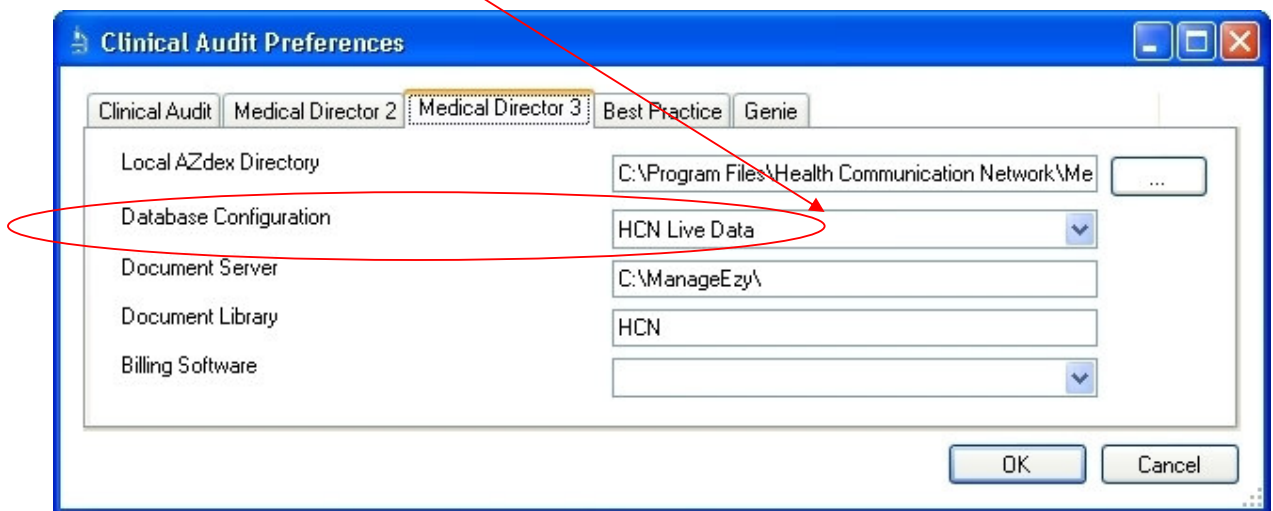
Medical Director 2

Click the browse button to locate the Database Directory.



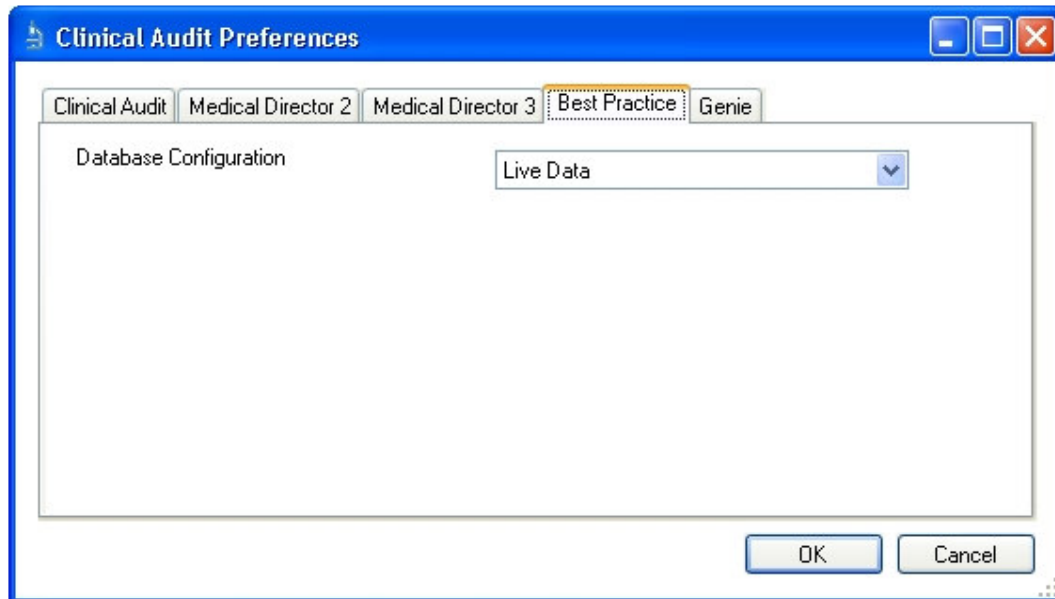
Medical Director 3

Select your Database Configuration from the drop-down list. These will match the configurations you have available through the 'HCN Maintenance' icon on your desktop.



Best Practice

Select either 'Live Data' or 'Sample Data' from the drop down list.



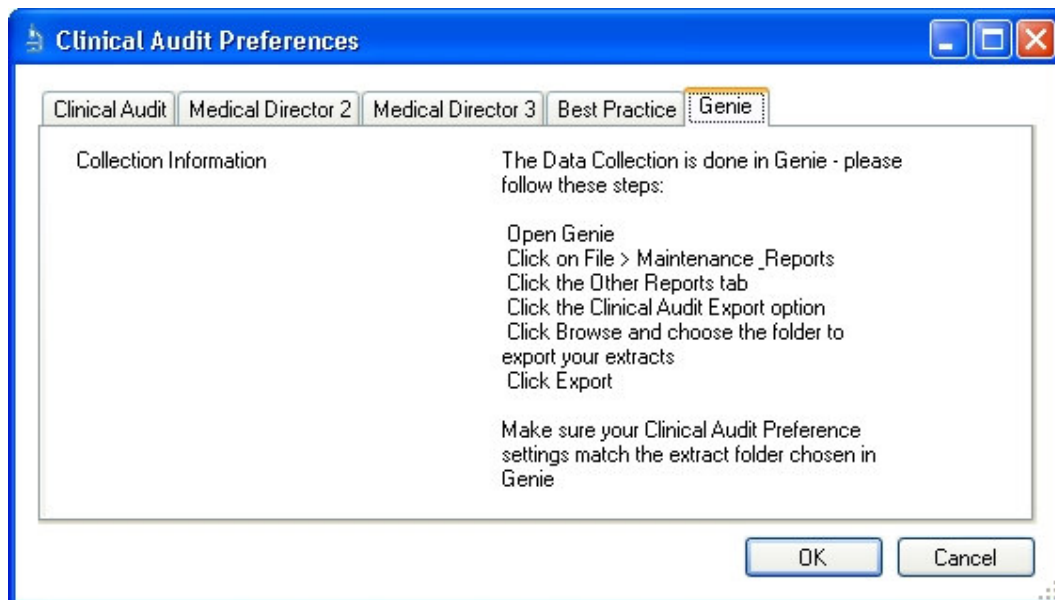
Genie

There is no further set up for Genie.

The Genie software application itself provides a new Reports menu option that performs the data extraction for Clinical Audit. This is described in the Appendices section of the 'PCS Clinical Audit Tool User Guide Part 2' and in the inbuilt 'Help' that is installed with CAT.

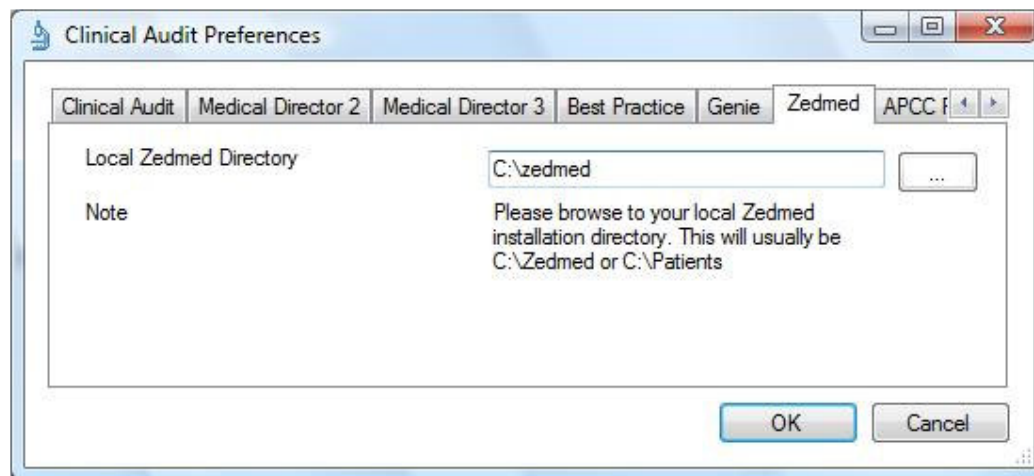
The Genie preference tab summarises the steps you should follow.

Ensure the **Extract Directory** on the 'Clinical Audit' tab matches the extract folder chosen in Genie.



Zedmed

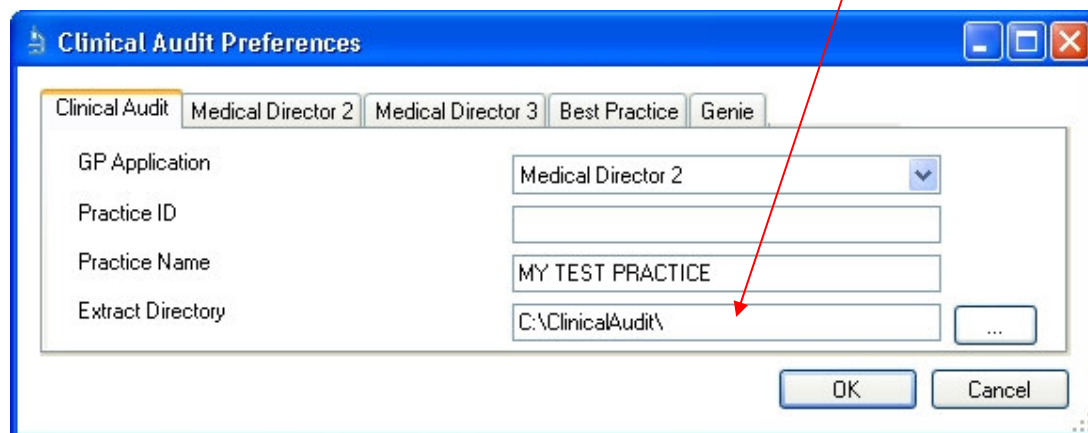
Browse to the local Zedmed installation directory.



4.1.2 Choosing a preferred Data Extract Directory

If there are a few clinicians in the practice that are using CAT then choose a **network drive** that is accessible to all.

Use the 'Edit > Preferences' option to set the same 'Extract Directory' for each user.



More than 1 user can work with the same snapshot at the same time.

Genie users will need to make sure this folder matches the folder they select from the Genie application when they do the extract. This is described in the Appendices section of this manual.

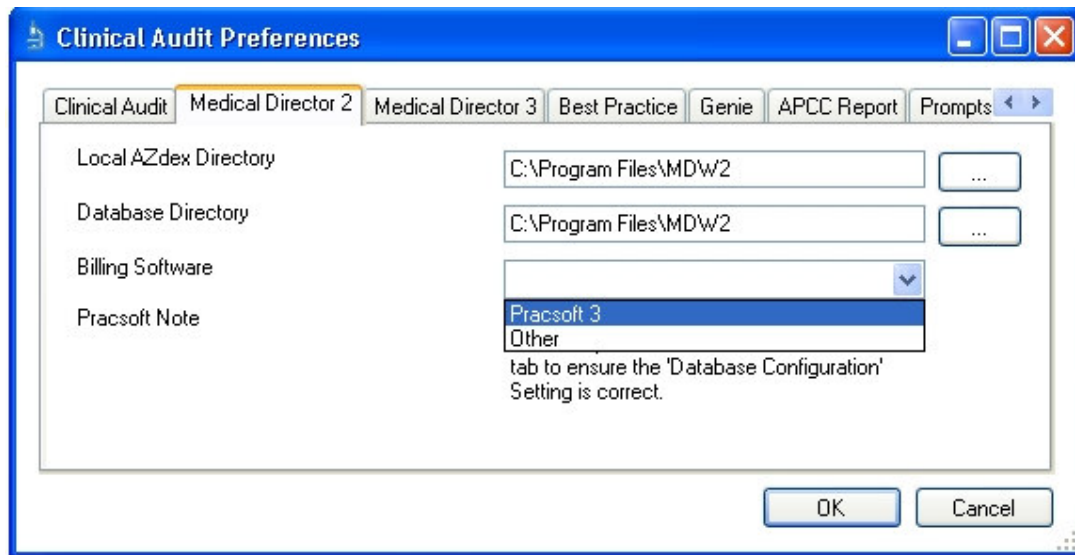
4.1.3 Choosing and configuring your Billing System

Medical Director users who are using Pracsoft3 as their Billing software can configure their preferences to include Pracsoft3 and collect billing data as well as clinical data.

MD2 and Pracsoft3

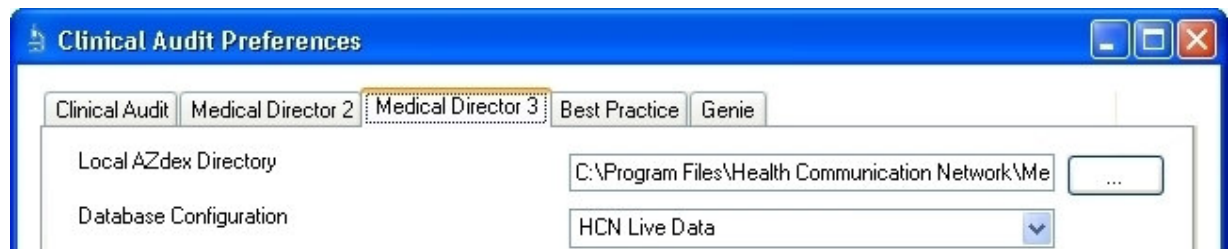
From the Medical Director 2 tab:

- Choose 'Pracsoft3' from the Billing Software drop-down list
- Go to the Medical Director 3 tab



From the Medical Director 3 tab:

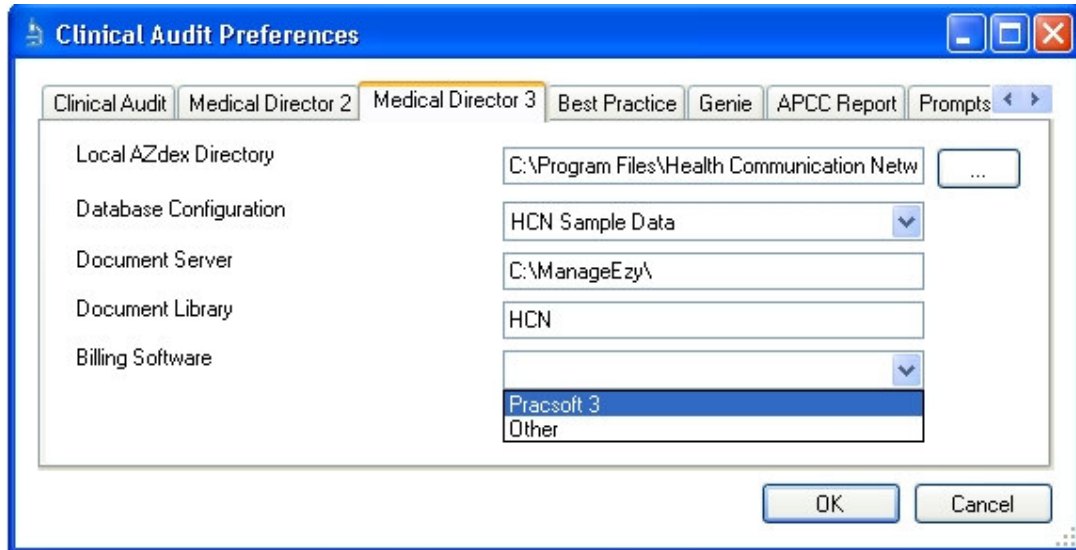
- Choose the Database Configuration (this required because Pracsoft3 shares the same database as MD3 - this is the only MD3 field required)



MD3 and Pracsoft3

From the Medical Director 3 tab:

- Choose 'Pracsoft3' from the Billing Software drop-down list
- The Document Server and Document Library should default correctly (these can be updated if required at a later date)



5 CAT USER INTERFACE

Once the CAT software has been installed it is available from your Programs List.

- Click Start > All Programs > Pen Computer Systems > PCS Clinical Audit
- Enter your Account name and Authorisation key and click 'OK'.

5.1 Navigating the CAT User Interface

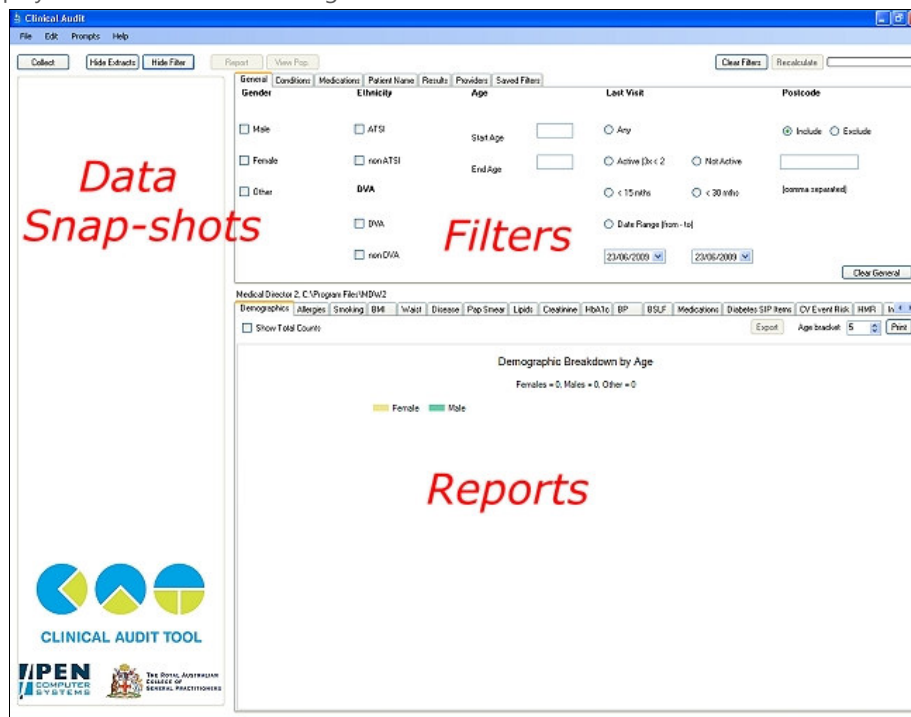
Click the 'View Extracts' and the 'View Filter' buttons to display all the areas of the CAT user interface.

The screen is divided into 3 sections:

- Data **Snap-shots** (or Extracts) collected for analysis (Left Hand Panel)
- Data **Filters** (Top Right Panel)
- Data **Reports** (Bottom Right Panel)

It is handy to be able to hide the data collection and data filter areas of the screen in order to make best use of your screen space to view the data results. You can toggle between the View/Hide modes at any time. Once you have logged in the screen below will display.

You will see the population figure is initially 0 because you have not yet collected data from your clinical desktop system or loaded an existing extract file.



6 COLLECTING DATA SETS

NOTE:

Before you start collecting data sets ensure you have set up your preferences to point to the correct clinical desktop system for your practice. (See 'Setting Your Preferences' for details about how to do this.)

A data set is collected by clicking the 'Collect' button at the top left of the screen.

Once you click the 'Collect' button you will see the 'status bar' in the top right hand corner of the screen flashing while the data is retrieved from the clinical desktop system.

- Genie users please note that the data collection is performed from within the Genie application. Clicking the CAT 'Collect' button at the top left of the screen will provide you with the summary steps on how this is done within Genie. Step by step details are provided in the Appendices section of the 'PCS Clinical Audit Tool User Guide Part 2' and in the inbuilt 'Help' that is installed with CAT.

The data set collected is saved in your preferred data folder (see 'Setting Your Preferences' for more information).

When the data retrieval has completed you will see an entry in the left hand column. The data is stored as a 'snap-shot' on your PC. You can use this 'snap-shot' for analysis at any time in the future.

Tip: To refresh the list of 'snap-shots' click Edit > Preferences and click 'OK'.

Each entry displays the date/time of collection, the number of records retrieved and the machine name on which the collection was done.

12/06/2008 12:56 PM	11776	PENMLB_01
10/06/2008 12:40 PM	11776	PENMLB_01

You can collect as many data sets as you wish over time. Each data set will be listed as an entry in the left hand column.

To analyse a specific data set click on the entry for that data set. It will become highlighted and you will see the 'status bar' in the top right hand corner of the screen flashing while the data is reloaded from the 'snap-shot' into Clinical Audit.

6.1 What data is collected

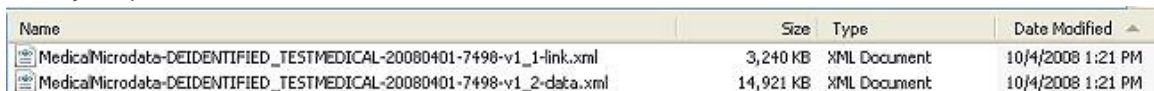
Data is only collected for **patients who are active in your Clinical system**. Data for patients who are deceased or have been made inactive is not collected.

This means when you are analysing your data using CAT you are only seeing patients who are currently marked as active in your Clinical system. You may find patients in CAT that you know are no longer active at your practice. If you inactivate them in your Clinical system they will be excluded from future data collections.

6.2 How is the data stored

The collect saves 2 xml data files to your preferred data folder. One file is pure Clinical data and has no identifiable patient information. This is called the DATA file. The other file is the LINK file and contains all the patient identifiable data. The LINK file is only used when you want to re-identify a list of patients that make up a segment of a graph.

In your preferred data folder the files look like this:



Name	Size	Type	Date Modified
MedicalMicrodata-DEIDENTIFIED_TESTMEDICAL-20080401-7498-v1_1-link.xml	3,240 KB	XML Document	10/4/2008 1:21 PM
MedicalMicrodata-DEIDENTIFIED_TESTMEDICAL-20080401-7498-v1_2-data.xml	14,921 KB	XML Document	10/4/2008 1:21 PM

6.3 Existing data set compatibility with changes to CAT

CAT version 2 has new filters and reports. Additional data is collected by version 2 for these new functions. Your CAT version 1 extracts will not have the additional data needed to make these functions work.

You can load up your version 1 extracts and analyse them as before - the new functionality will be inactivated for these extracts by being greyed out.

7 DATA FILTERING AND DATA SET ANALYSIS

These sections are included in the 'PCS Clinical Audit User Guide Part 2'.