

# CAT4 Technical Guide

CAT GUIDES

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# 1 SYSTEM REQUIREMENTS

The minimum and recommended system requirements to be able to run the Clinical Audit Tool 4 are provided in this section.

- [Minimum and Recommended Requirements](#)(see page 5)
- [Install URL](#)(see page 7)
- [Clinical and Billing System Compatibility](#)(see page 7)
- [Best Practice Requirements](#)(see page 30)
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## 1.1 Minimum and Recommended Requirements

 Please note that Pen CS will discontinue support for Windows 7 and Server 2008 R2 from the 1st of July 2020. Microsoft has discontinued support for these products on the 14th of January 2020 and there will be no further security updates available from Microsoft for their discontinued products. Please update as soon as possible to avoid exposing your network to security risks. Updates from Windows 7 to Windows 10 are still available for free through the Microsoft website - here is an article describing the process: [CNET article about Win10 update options](#)<sup>1</sup>

	Server	
Item	Minimum	Recommended
Operating System	Windows Server 2012 (64 bit)	Windows Server 2012 R2 (64 bit) or higher
Processor	Intel Core i3-2100/Core i5-2300/Core i7-920 or AMD equivalents	Intel Core i7-2600/Xeon E5502 or better or AMD equivalents

<sup>1</sup> <https://www.cnet.com/how-to/you-can-still-download-windows-10-free-you-should-because-windows-7-dead/>

RAM	8GB	16GB
Hard Disk	1GB	10GB
Monitor		
.NET	4.6 2.0*	4.6 2.0*
SQL (Topbar only)	Existing installations: Microsoft SQL Server 2008 R2 or SQL Server 2014  New installations: Microsoft SQL Server 2016	Existing Installations: Microsoft SQL Server 2014  New installations: Microsoft SQL Server 2016
Network	100Mbit	1Gbit
	<b>Client</b>	
Item	<b>Minimum</b>	<b>Recommended</b>
Operating System	Windows 8	Windows 10 64 bit
Processor	Intel Core i3-530/Core i5-750/Core i7-860  or AMD equivalents	Intel Core i3-2100/Core i5-2300/Core i7-920  or better or AMD equivalents
RAM	4 GB	8GB
Hard Disk	1 GB	1GB
Monitor	17" running 1080p	22" running 1080p
.NET	4.6 2.0*	4.6 2.0*

Network	100Mbit	1Gbit
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#### Other Requirements

The computer used for data collection through CAT4 needs to have the clinical system installed. 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 CAT4. CAT4 uses a lot of memory and the provided minimum requirements will not be sufficient for larger practices with more than 5000 patients. We strongly recommend a 64 bit operating system and as much RAM as possible.

## 1.2 Install URL

To install PEN CS Clinical Audit you must use Internet Explorer version 9 or any later browser. Clinical Audit can be installed by going to the following URL

<http://install.pencs.com.au/ClickOnce/CAT4/publish.htm>

## 1.3 Clinical and Billing System Compatibility

### 1.3.1 Clinical Systems

CAT4 is compatible with the following clinical application and versions. As new versions are released, PEN CS CAT4 will be validated and, if required, updated to maintain compatibility.

- *Best Practice* - CAT4 is compatible with Best Practice version 1.6.0.395 and later - for full details check [System Requirements Topbar](#)<sup>2</sup>
- *Communicare* - CAT4 is compatible with Communicare Version 11.2 and later.
- *EMR* - CAT4 will create a PIP QI report only.
- *Genie* - CAT4 is compatible with Genie Version 9.0.1 and later.
- *Medical Director* - CAT4 is compatible with Medical Director Versions 3.15 and later.
- *Medinet* - CAT4 is compatible with Medinet Version released July 2011 and later.
- *MedTech* - CAT4 is compatible with MedTech32 Version 9.2 and later including Medtech Evolution.
- *MMEEx* - CAT4 is compatible with MMEEx Version 22.7 and later.
- *Profile* - CAT4 will create a PIP QI report only.
- *Specialist Complete* formerly know as GP Complete.
- *Stathealth* - CAT4 is compatible with Stathealth.
- *The Practice* - CAT4 is compatible with The Practice.
- *Zedmed* - CAT4 is compatible with Zedmed Version 11 and later.

For Topbar requirements and compatibility please check this page: [System Requirements Topbar](#)<sup>3</sup>

<sup>2</sup> <https://help.pencs.com.au/display/TTG/System+Requirements+Topbar>

<sup>3</sup> <https://help.pencs.com.au/display/TTG/System+Requirements+Topbar>

### 1.3.2 CAT Plus Clinical Compatibility Matrix

Clinical Information System	CAT4	Scheduler	Topbar	PIP QI*	LUMOS (NSW only)
Best Practice	Yes	Yes	Yes	Yes	Yes
Communicare	Yes	Yes		Yes	
EMR	Only PIP QI			Yes	
Genie	Yes	Yes		Yes	
Medical Director	Yes	Yes	Yes	Yes	Yes
MedTech32	Yes			Yes	
MMEEx	Yes				
PrimaryClinic (Medinet)	Yes	Beta testing		Yes	
Profile	Only PIP QI			Yes	
Specialist Complete	Yes	Yes		Yes	
StatHealth	Yes	Yes		Yes	
The Practice				Yes	
Zedmed	Yes	Yes	Yes	Yes	Yes

\*PIP QI compatible clinical systems produce an extract containing all required data items for the PIP QI improvement measures

### 1.3.3 Billing Systems



Billing is compatible when the clinical and billing systems are provided by the same vendor and the data extract for the clinical system is version 1\_5 or above. Currently the following billing is supported:

- MD2 or MD3 and Pracsoft OR Mediflex OR Zedmed OR 'The Practice'^ OR Medilink
- BP and BP Management OR Pracsoft 3 OR Mediflex OR Zedmed OR 'The Practice'^ OR Medilink
- Zedmed and Pracsoft OR Mediflex OR Zedmed
- practiX
- Communicare
- MedTech
- MMEx
- Genie

### 1.3.4 CAT Plus Billing Compatibility Matrix

Billing Information System	CAT4	Topbar
Pracsoft	Yes	Yes
BP Management	Yes	Yes
Zedmed	Yes	Yes
Communicare	Yes	
Mediflex	Yes	
MedTech	Yes*	
Medilink	Yes	
MMEX	Yes	
Medinet		
Genie	Yes	
The Practice	Yes^	

^November 2016 release

\*The data extraction process is completed within the clinical system. Please see the relevant Data Mapping document for instructions: <http://help.pencs.com.au/display/ADM/Appendices+Data+Mapping>

### 1.3.5 Compatibility for each clinical system for each report

Report	Tabs	BP	MD Clinical	Zedmed	Gene	CommuniCare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
MedicalMicroData Version		1_27	1_27	1_27	1_27	1_16	1_27	1_27	1_15	1_25
Alcohol										
	Alcohol	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Allergies										
	Allergies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CHA DS VASC Score										
	CHA DS VASC Scores	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
CKD										

<b>Report</b>	<b>Tabs</b>	<b>BP</b>	<b>MD Clinical</b>	<b>Zedmed</b>	<b>Genie</b>	<b>Communicare (details to be confirmed)</b>	<b>Medinet (Primary Clinic) (details to be confirmed)</b>	<b>Medtech (details to be confirmed)</b>	<b>Specialist Complete (details to be confirmed)</b>	<b>StatHealth (details to be confirmed)</b>
	CKD At Risk	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CKD Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Co-morbidities										
	Co-morbidities	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CV Event Risk										
	CV Event Risk	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Cleansing										
	Missing Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

<b>Report</b>	<b>Tabs</b>	<b>BP</b>	<b>MD Clinical</b>	<b>Zedmed</b>	<b>Gene</b>	<b>Commicare (details to be confirmed)</b>	<b>Medinet (Primary Clinic) (details to be confirmed)</b>	<b>Medtech (details to be confirmed)</b>	<b>Specialist Complete (details to be confirmed)</b>	<b>StatHealth (details to be confirmed)</b>
	Missing Clinical/Accreditation Items	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Indicated CKD with no diagnosis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Indicated COPD with no diagnosis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Indicated Diabetes with no diagnosis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Indicated Mental Health with no diagnosis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Indicated Osteoporosis with no diagnosis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Medication Review	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Quality										
	CDSA-Data Completeness Patient Graph	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CDSA-Data Completeness Report	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CDSA-Data Quality Dashboard	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CDSA-Duplicate Name Patient Report	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	CDSA-Duplicate Number Patient Report	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics										
	Population Pyramid	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Age Profile	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Diabetes SIP Items										
	Diabetes SIP-Items Completed Per Patient	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Diabetes SIP-Items Remaining	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Diabetes SIP-Items Recorded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disease										
	Count	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Prevalence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Cancer Conditions	Yes	Yes	Yes	Yes	No?	Yes	Yes	No	Yes
Digital Health										
	MyHealth Record status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	MyHealth Record and SHS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

<b>Report</b>	<b>Tabs</b>	<b>BP</b>	<b>MD Clinical</b>	<b>Zedmed</b>	<b>Gene</b>	<b>Communicare (details to be confirmed)</b>	<b>Medinet (Primary Clinic) (details to be confirmed)</b>	<b>Medtech (details to be confirmed)</b>	<b>Specialist Complete (details to be confirmed)</b>	<b>StatHealth (details to be confirmed)</b>
	SHS Age	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	SHS by Provider	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	SHS Uploads	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	SHS Uploads by PIP Quarterly Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	ES Uploads	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
	ES Age	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
<b>Ethnicity</b>										
	Ethnicity Status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Ethnicity Profile	Yes	Yes	Yes	No	No	No	No	No	No



Report	Tabs	BP	MD Clinical	Zedmed	Genie	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
Immunisations										
	Immunisations-Influenza	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Adult-Pertussis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Adult-Pneumococcal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Adult-Shingles	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	Adolescent-DTP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Adolescent-HPV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Adolescent-VZV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Child Schedule	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Child NKPI Essential Immunisations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Maternal Health Care										
	Baby Birth Weight-Mothers Antenatal Record	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
	Baby Birth Weight-Patient Record	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
	Antenatal Visits-Antenatal Count	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
	Antenatal Visits-Date of First Visit	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
	Antenatal Visits-Number of Visits	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Antenatal Visits- Size in Weeks at First Visit	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes
MBS Eligibility										
	MBS-Diabetes SIP Eligibility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MBS-GPMP/TCA Eligibility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MBS-Health Assessment Eligibility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MBS Items										
	MBS Items-AH Claims	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MBS Items-Count	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Geneie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	MBS Items- Not Recorded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MBS Items - Telehealth and NP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Measures										
	Measures -BMI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Measures -BMI Child (5-18)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Measures -BP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Measures - Spirometry	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
	Measures -Waist	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Measures -Weight/Height(0-4)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Physical Activity	Yes if printed	Yes	Yes	?	?	?	Yes	Yes	?
Medications										
	Medications Not Printed in Last 6 Months	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medications Per Patient	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medications-Count	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medications-Prevalence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
Musculoskeletal										
	Musculoskeletal Risk Factors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pathology										
	Lipids-Cholesterol	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Lipids-HDL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Lipids-LDL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Lipids-Total Chol/HDL Ratio	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Lipids-Triglycerides	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	eGFR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Gene	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	ACR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Microalbumin	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	HbA1c	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	FBG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	RBG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	INR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Creatinin Serum	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Screening										
	Cervical Screening	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Report	Tabs	BP	MD Clinical	Zedmed	Genie	Communicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Pap Smear Done Date	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Pap Smear Recorded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Pap Smear Summary Report Card	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Mammogram	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	FOBT Last Recorded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	FOBT Orders and Results	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
	FOBT Summary Report Card	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sexual Health										



Report	Tabs	BP	MD Clinical	Zedmed	Gene	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	STI Screening Report (16-34yrs)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening Report (All Patients)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening- Chlamydia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening- Gonorrhoea	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening-Hep B	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening-Hep C	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening-HIV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Report	Tabs	BP	MD Clinical	Zed Med	Gene	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	STI Screening- Positive STI Follow up	Yes	Yes	Yes	No	No	No	Yes	No	Yes
	STI Screening- Syphilis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening-Testing Patterns	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
	STI Screening- Trichomoniasis	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Smoking										
	Smoking - Status	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Smoking - Cessation	Yes	Yes	No	Yes	Yes	No	Yes	No	No

<b>Report</b>	<b>Tabs</b>	<b>BP</b>	<b>MD Clinical</b>	<b>Zedmed</b>	<b>Genie</b>	<b>Communicare (details to be confirmed)</b>	<b>Medinet (Primary Clinic) (details to be confirmed)</b>	<b>Medtech (details to be confirmed)</b>	<b>Specialist Complete (details to be confirmed)</b>	<b>StatHealth (details to be confirmed)</b>
Standard Reports										
	PIP QI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	APCC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	QAIHC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Healthy For Life	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	National KPI Report	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	National KPI-Adult Preventative Health	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	National KPI-Child Health	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	National KPI-Chronic Disease Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

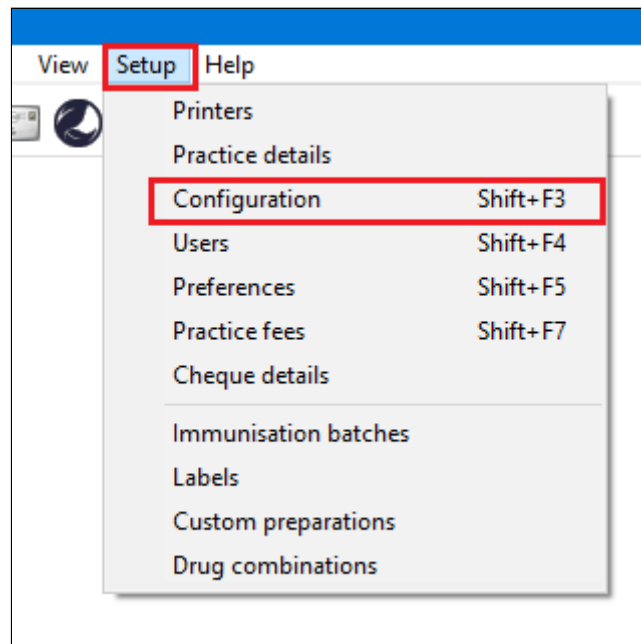
Report	Tabs	BP	MD Clinical	Zedmed	Genie	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	National KPI- Chronic Disease Risk Factors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	National KPI- Maternal Health	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	OSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	eHealth	Yes	Yes	Yes	Yes	Yes?	Yes	Yes	Yes	Yes?
	Health Care Providers	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Visits										
	Visits- Last Visit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Visits- Visits Last Week(New Patients)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Report	Tabs	BP	MD Clinical	Zed Med	Genie	Commicare (details to be confirmed)	Medinet (Primary Clinic) (details to be confirmed)	Medtech (details to be confirmed)	Specialist Complete (details to be confirmed)	StatHealth (details to be confirmed)
	Assigned Provider	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Visit Types	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No?
	Episode Count	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Contact by OSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No?
	Age Gender Visit Count	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No?
	Disease Visit Count	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No?
Viral Hepatitis										
	Hep B at risk screening	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No?
	Hep B management	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No?

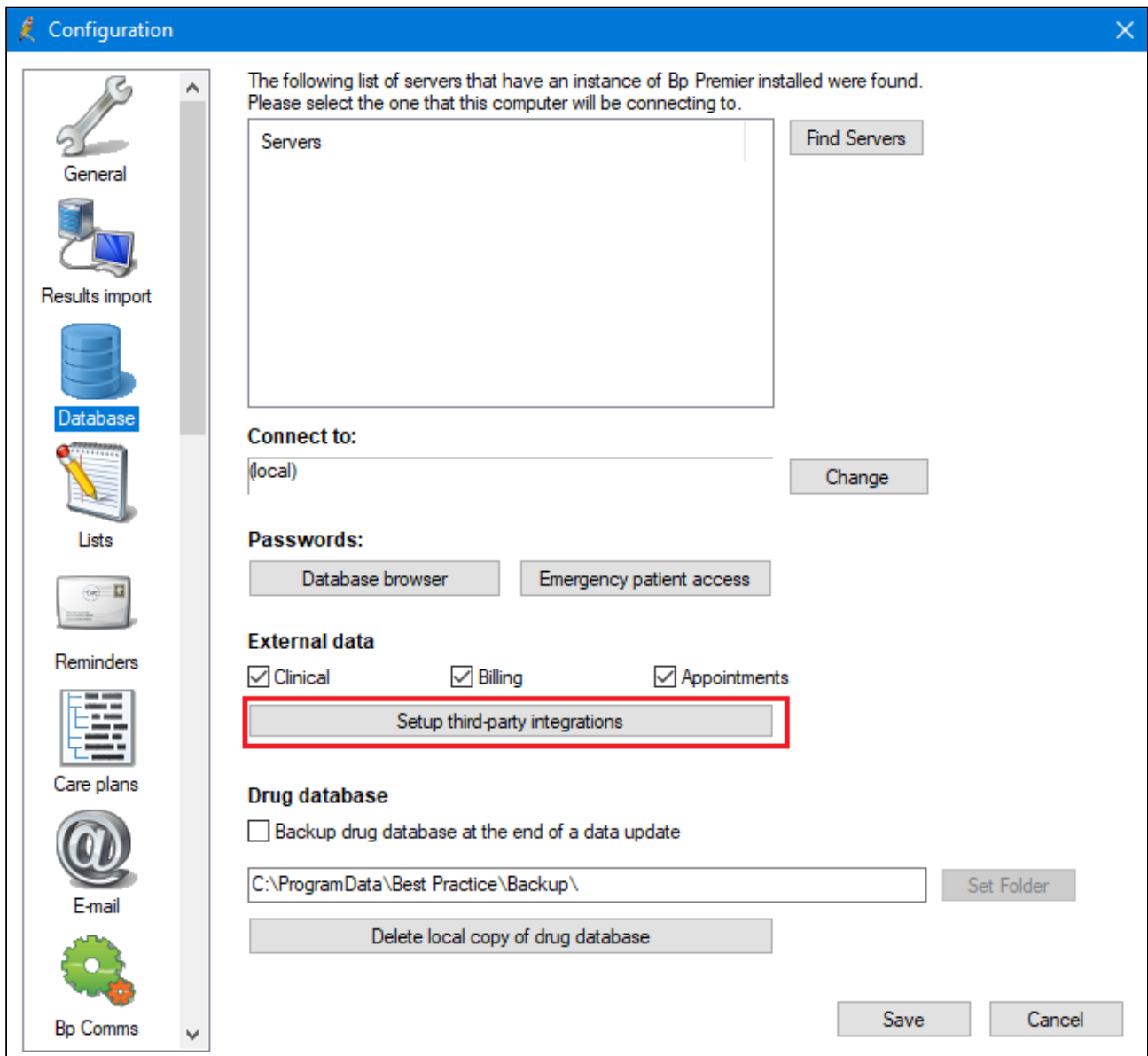
## 1.4 Best Practice Requirements

With the JADE release BP has introduced a partner program where the partner details have to be configured in BP.

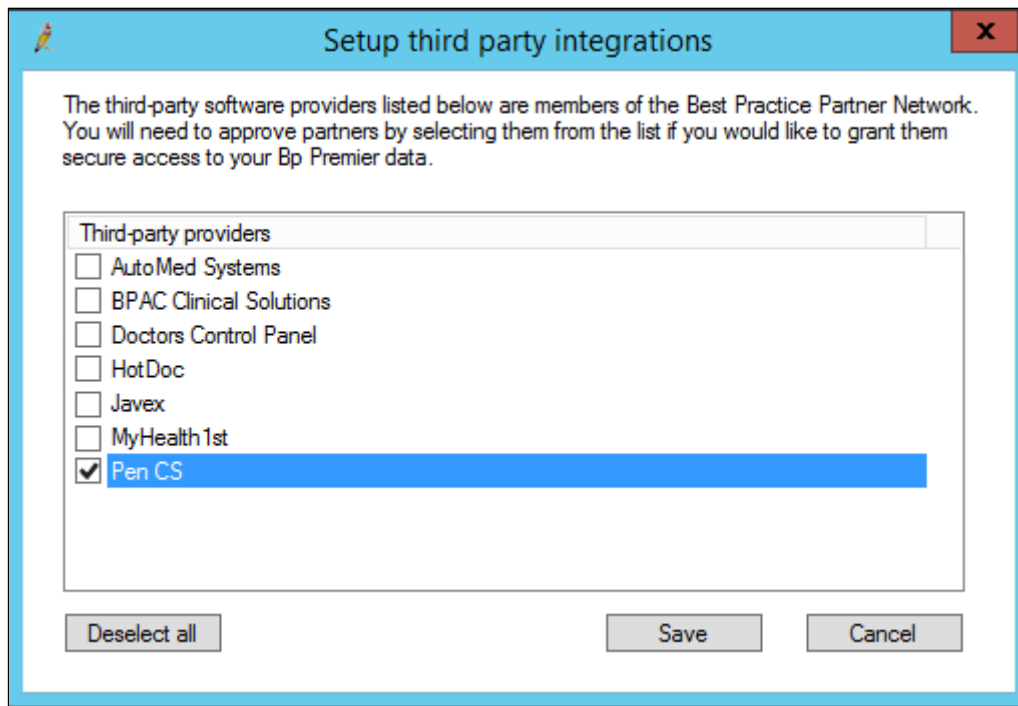
Under Setup/Configuration:



Got to Database and pick the 'Setup third-party integrations' button:



The following screen will show a list of third party providers (subject to change):  
 Tick the box next to PEN CS to setup the integration with CAT4, then click on 'Save'.



For older versions of BP (prior to the JADE Edition):

Option 1: Configuring a BP Database Browser password -> Enter that password in the preferences

Option 2: Ticking the 'External data access' checkboxes in **Best Practice** -> Leave the password preference field empty

You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the [NKPI report](#)<sup>4</sup>. The Location list settings is relevant for clinics that share one server for multiple locations - more details are described here: [Best Practice Data Collection by Location](#)<sup>5</sup>

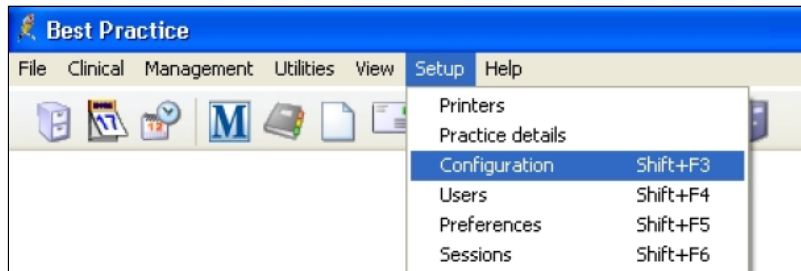
In Best Practice:

Select Setup > Configuration from the top menu bar.

<sup>4</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>

<sup>5</sup> <https://help.pencs.com.au/display/CG/Best+Practice+Data+Collection+by+Location>



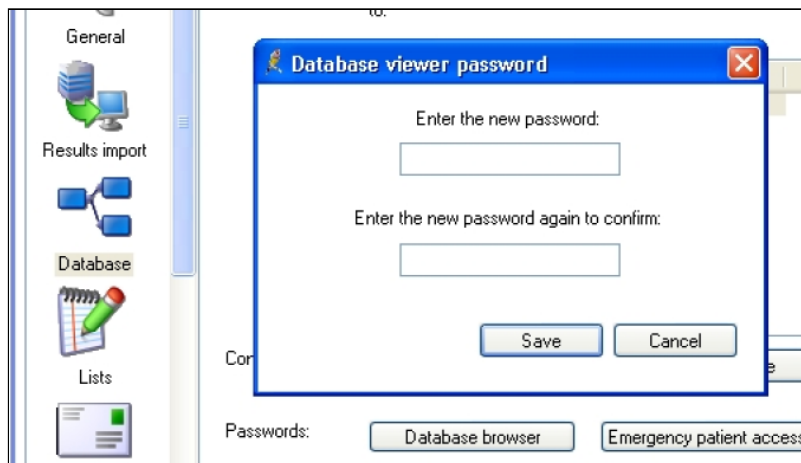


Select the 'Database' option from the left hand tool bar

**Option 1:** Set the database browser password

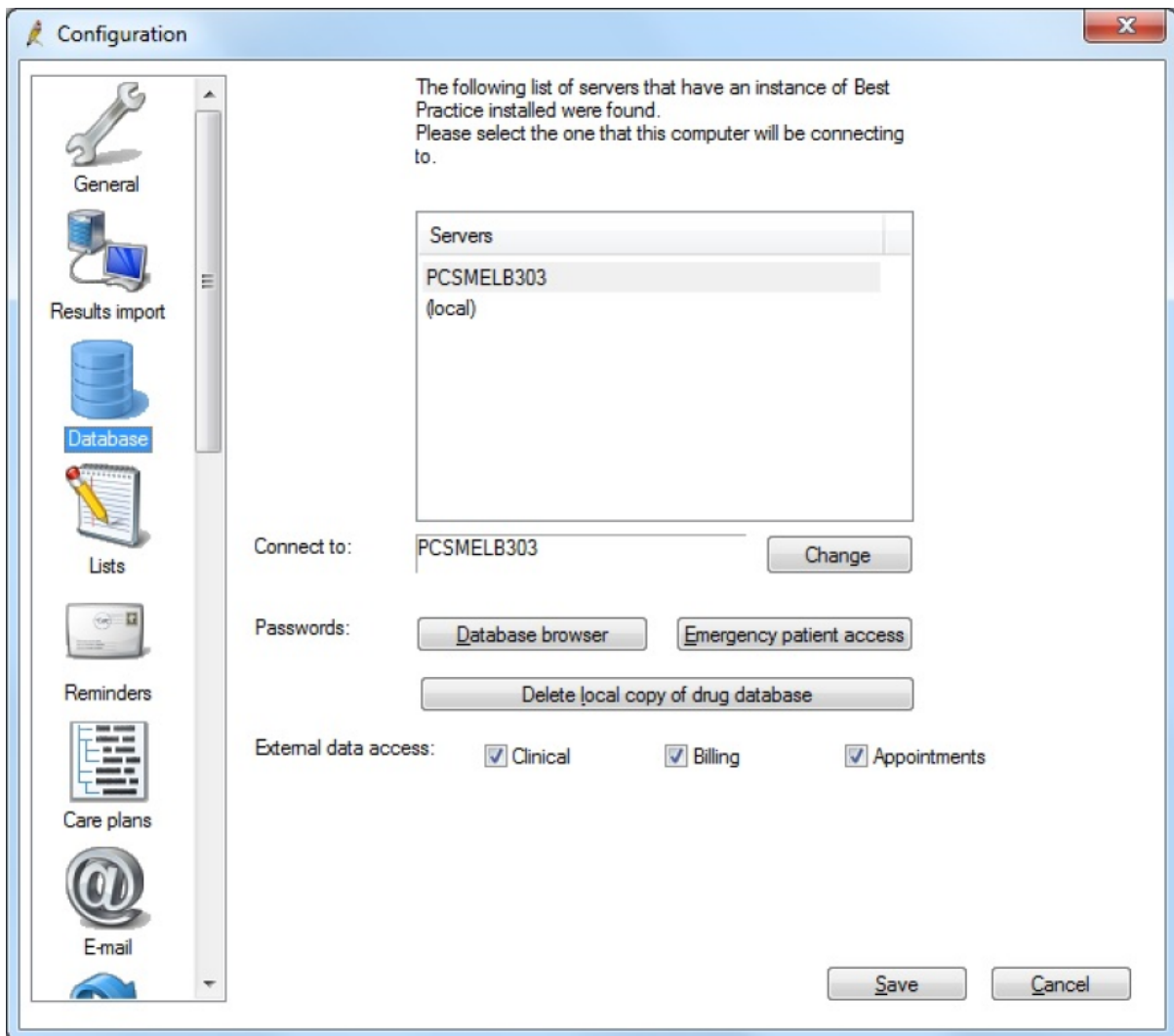
- Click the 'Database browser' button
- Enter and confirm a password of your choice
- If a password has previously been configured you will be required to enter the current password as well

NOTE: If a password has been configured and you do not know what it is you will need to contact Best Practice Support for assistance to reset the password.



{color}

**Option 2:** Tick ALL the 'External data access' checkboxes and Save



**In Clinical Audit:**

- Option 1: Enter the browser password you have set up in the CAT4 Best Practice Preferences.
- Option 2: Leave the password field empty in the CAT4 Best Practice Preferences.

Refer to the section in this document 'Setting Your Preferences'.

## 1.5 Genie Requirements

Since the release of the integrated Genie extractor in 2019 CAT4 scheduler is compatible with Genie. There are a number of requirements to install Scheduler in a Genie environment:

Here is a list of those requirements:

❗ OS is 64 bit Windows 7 or higher, not Mac OS. CAT4 and Scheduler are not compatible with Mac OS!

- The version of Genie has to be 9 or higher
- No Genie Client is required in the computer where CAT Scheduler going to be installed
- .NET 4 installed, preferably .net 4.6 or higher
- Make sure the computer is having minimum recommend requirements for CAT4 / Scheduler as listed here: <https://help.pencs.com.au/display/CG/Minimum+and+Recommended+Requirements>(see page 5)
- SQL server component of Genie has to be running; This has to be verified within the Genie Server
- Genie Database server IP Address and port are known (default port is 19812)
- A Genie username and password is known (This doesn't have to be a Genie admin user)

## 1.6 Zedmed Requirements

The Zedmed and Zedmed data directory should have populated with your install locations, if the locations are not correct you can change the folder to match your settings. We recommend to leave the default settings unless you are experiencing problems with the data collection. To enable CAT4 to extract pathology results it needs to access the Blobs folder. This folder is used by Zedmed to store HL7 based data. The default location is c:

\zedmeddata\blobs but this can vary depending on your installation – to verify the location you can check **CRS\_App\_Server.ini** (which may be in a folder called ZedmedServer) which should have an entry called \*BLOBFilesPath=C:\ZedmedData\Blobs\*

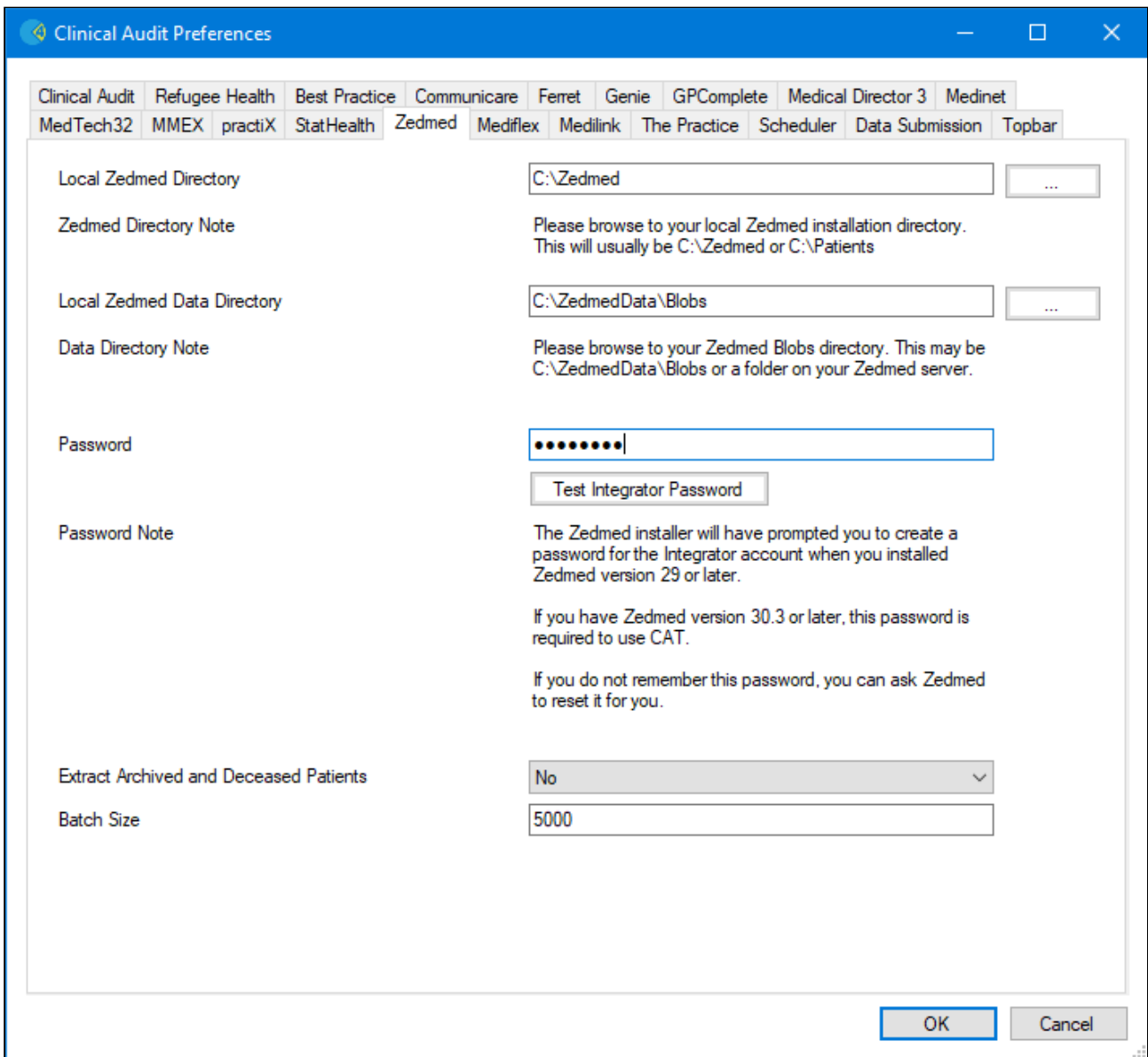
From version 29 and later Zedmed will require an 'Integrator Password' for CAT4 to access the patient data in Zedmed. This password is set up in Zedmed first and will then have to be updated/entered in the CAT4/Edit/Preferences/Zedmed screen.

Use the 'Test Integrator Password' button to check if your password is valid.

You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the NKPI report<sup>6</sup>.

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<sup>6</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>



**⚠** Zedmed has advised Pen CS that they have made some changes in Zedmed v29 to improve data security by introducing an Integrator Account. What this means is that the current connections strings Pen CS uses to access the Zedmed database for data collections need to be replaced to use the new Integrator Account.

Pen CS will be making changes in CAT4 and Topbar to enable this change.

What will practices need to do?

1. 1. **Practices will need to set up their Integrator Password as required by Zedmed.**
1. 2. **Practices will need to update their CAT4 configuration settings with the Integrator Password.**

In order for CAT4 and Topbar to continue functioning, there is a transition window for practices to update their configuration but they must have updated before they upgrade to Zedmed v30.3.

**⚠ CAT4 and Topbar will not work in Zedmed v30.3 if the configuration has NOT been updated.**

## 1.7 practiX Requirements

The practiX software application requires practiX Support to upgrade the practiX application to provide the Custom PENEXTRACT Administration option. The data extraction process is described in the practiX Mappings document available from <http://help.pencs.com.au/Cat.htm>.<sup>7</sup>



Image 5: PratiX Configuration<sup>8</sup>

## 1.8 Communicare Requirements

Communicare provides an executable file (cccatExport.exe) that must exist in your local Communicare installation directory in order for Clinical Audit to be able to collect data. The local Communicare installation directory is usually C:\Program Files\Communicare.

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

<sup>7</sup> <http://help.pencs.com.au/cat.htm>

<sup>8</sup> <http://help.pencs.com.au/cat.htm>

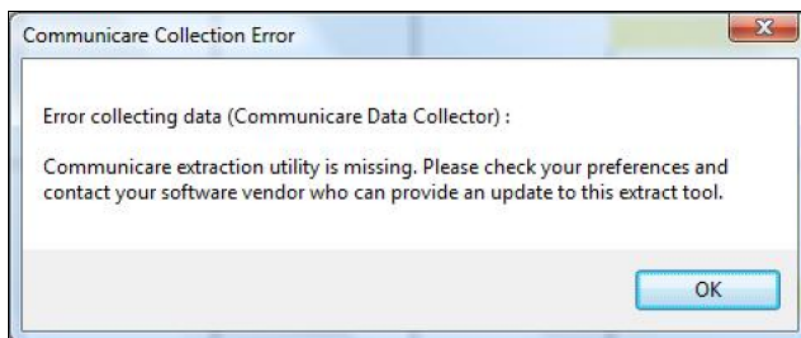


Image 6: Communicare Collection Error

If you receive this message contact Communicare for assistance.

## 1.9 Medinet Requirements

The Medinet software application provides a new Reports menu option that performs the data extraction for Clinical Audit. The data extraction process is described in the Medinet Mappings document available from [Medinet Data Mapping](#)<sup>9</sup>

## 1.10 MedTech32 Requirements

MedTech32 provides an executable file (MT2PenCAT4.exe) that must exist in a special MedTech32 CAT4 extractor installation directory in order for Clinical Audit to be able to collect data. The installation directory is usually C:\Program Files\Medtech Global Limited\MT2PENCAT4.

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

If you receive this message contact MedTech32 for assistance.

## 1.11 Scheduler Requirements

Scheduler allows automatic data collections and, if required, automatic data de-identification and upload. Scheduler only works with Medical Director Clinical, BestPractice, Zedmed, Communicare, Genie and Specialist Complete. It is a windows service and runs under the local system account. This account needs a number of permissions including access to specific local folders and internet access to check for updates.

Clinical Information System	CAT4	Scheduler
Medical Director	Yes	Yes

<sup>9</sup> <https://help.pencs.com.au/display/ADM/Medinet+Data+Mapping>

Clinical Information System	CAT4	Scheduler
Best Practice	Yes	Yes
Zedmed	Yes	Yes
Communicare	Yes	Yes
Genie	Yes	Yes
Specialist Complete (formerly GP Complete)	Yes	Yes
PrimaryClinic (Medinet)	Yes	
MedTech32	Yes	
MMEX	Yes	
practiX	Yes	
StatHealth	Yes	Yes

## 1.12 Outdated CAT4 versions

We are not supporting older versions of CAT4 any more and you will receive an error message if you try to log on to an outdated version of CAT4:

Supported:

[CAT4 V4.14 November 2018<sup>10</sup>](#)

[CAT4 V4.13 October 2018<sup>11</sup>](#)

[CAT4 V4.12.1 September 2018<sup>12</sup>](#)

[CAT4 V4.11 July 2018<sup>13</sup>](#)

<sup>10</sup> <https://help.pencs.com.au/display/CG/CAT4+Release+Notes+V4.14+November+2018>

<sup>11</sup> <https://help.pencs.com.au/display/CG/CAT4+Release+Notes+V4.13++October+2018>

<sup>12</sup> <https://help.pencs.com.au/display/CG/CAT4+Release+Notes+V4.12.1+September+2018>

<sup>13</sup> <https://help.pencs.com.au/display/CG/CAT4+Release+Notes+V4.11+July+2018>

## 1.13 Medical Director Requirements

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. You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the [NKPI report](#)<sup>14</sup>. The Location list settings is relevant for clinics that share one server for multiple locations - more details are described here: [CAT4 MD3 Collection by Location](#)<sup>15</sup>

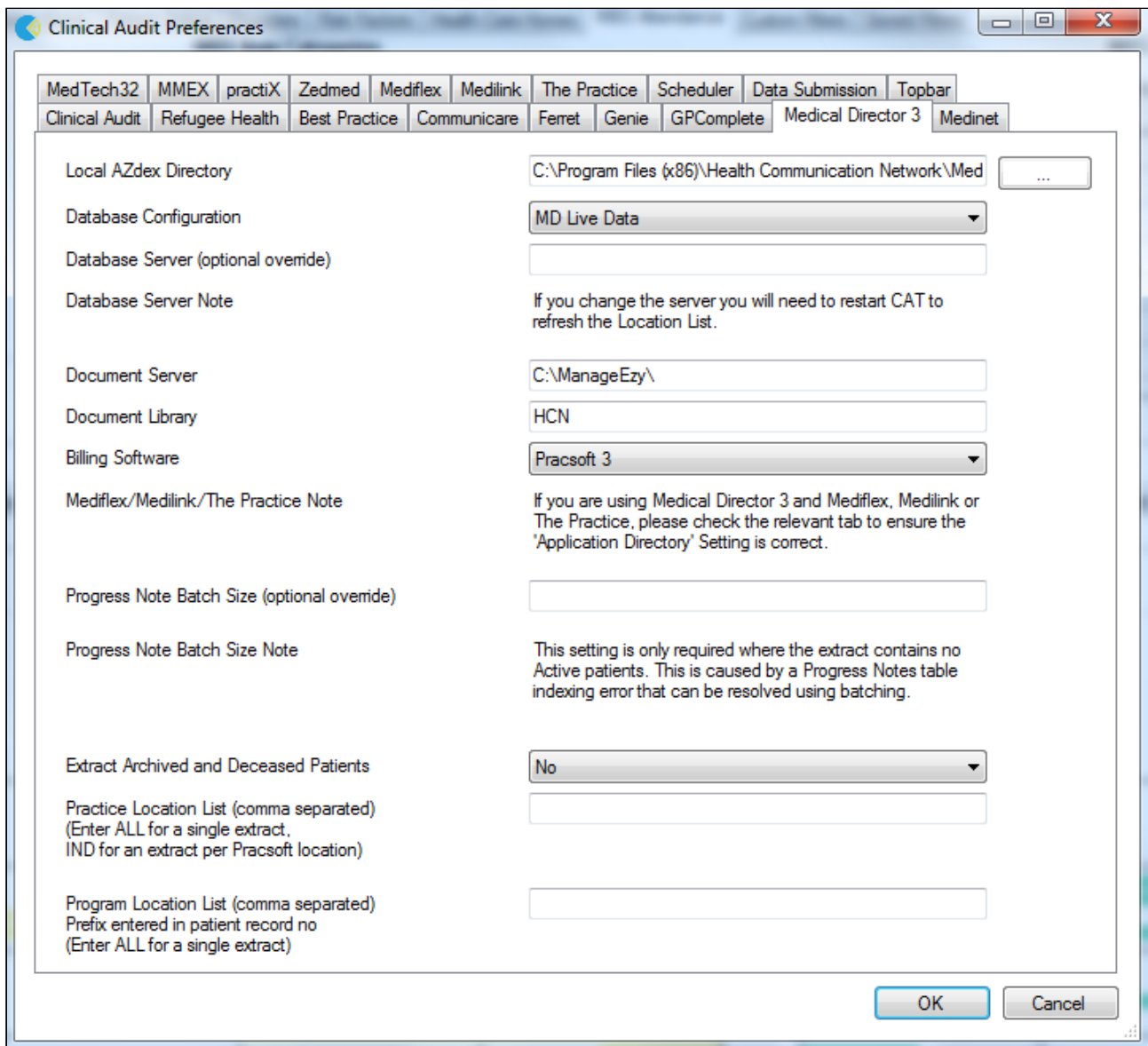
Please note that the "Progress Note Batch Size" settings are only required if there is a problem with corrupt tables in your MD3 installation. Please contact Pen CS support to assist if you are experiencing issues with no active patients showing in your CAT4.

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<sup>14</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>

<sup>15</sup> <https://help.pencs.com.au/display/CG/MD3+Data+Collection+by+Location>





## 1.14 Profile Requirements

Profile is creating an extract of the patient data that contains the required information for PIP QI reporting only. Once the extract is created by following the steps in the Profile guides below, CAT4 can read the data, show the relevant report and can upload the de-identified data to their PHN.

### Profile Integration With CAT4<sup>16</sup>

<sup>16</sup> <https://help.pencs.com.au/download/attachments/131268611/Profile%20Integration%20With%20CAT4.pdf?api=v2&modificationDate=1595986102643&version=1>

[PIP QI Reporting](#)<sup>17</sup>

[PIP QI Reporting - Release Notes V1.0](#)<sup>18</sup>

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<sup>17</sup><https://help.pencs.com.au/download/attachments/131268611/PIP%20QI%20Reporting%20V%201.0.pdf?api=v2&modificationDate=1595986099927&version=1>

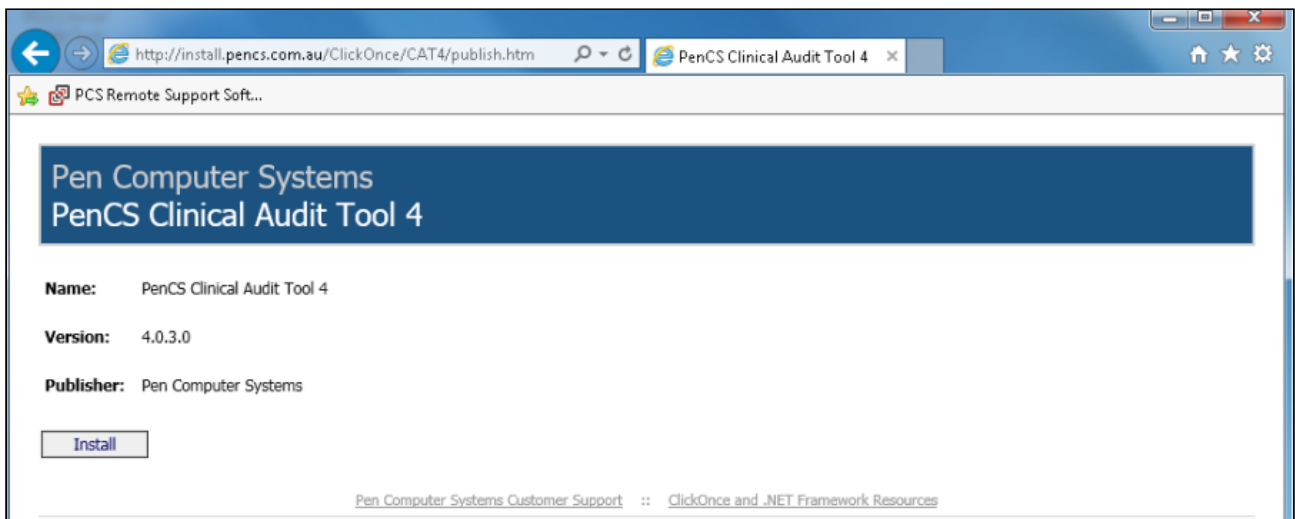
<sup>18</sup><https://help.pencs.com.au/download/attachments/131268611/PIP%20QI%20Reporting%20-%20Release%20Notes%20V1.0.pdf?api=v2&modificationDate=1595986107407&version=1>

## 2 INSTALLATION

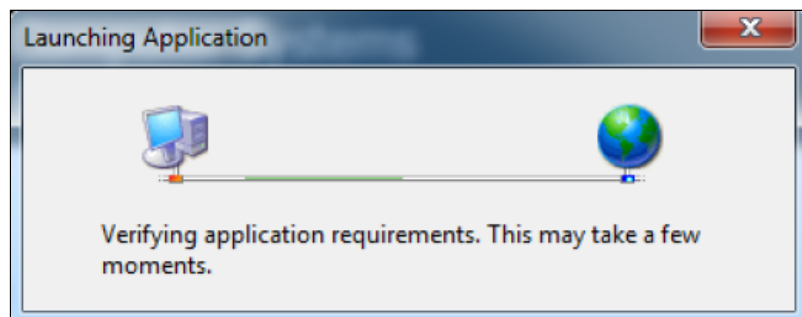
The Clinical Audit Tool 4 is available using Microsoft Click-Once technology and can be installed by using **your web browser** with the following URL

<http://install.pencs.com.au/ClickOnce/CAT4/publish.htm>

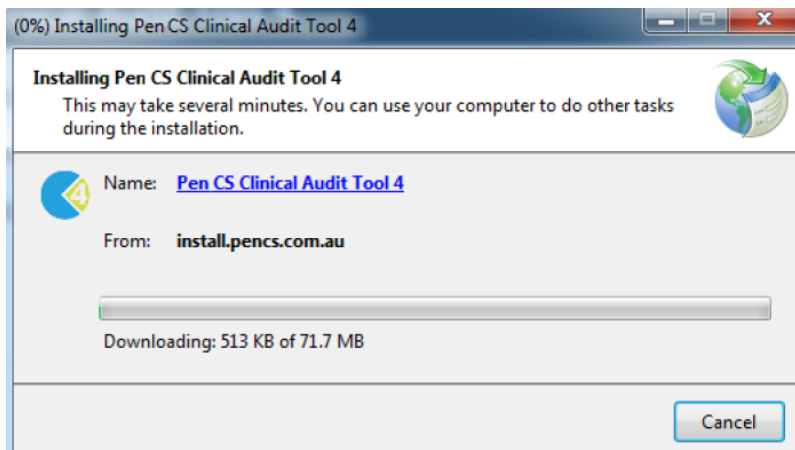
Click the 'Install' button



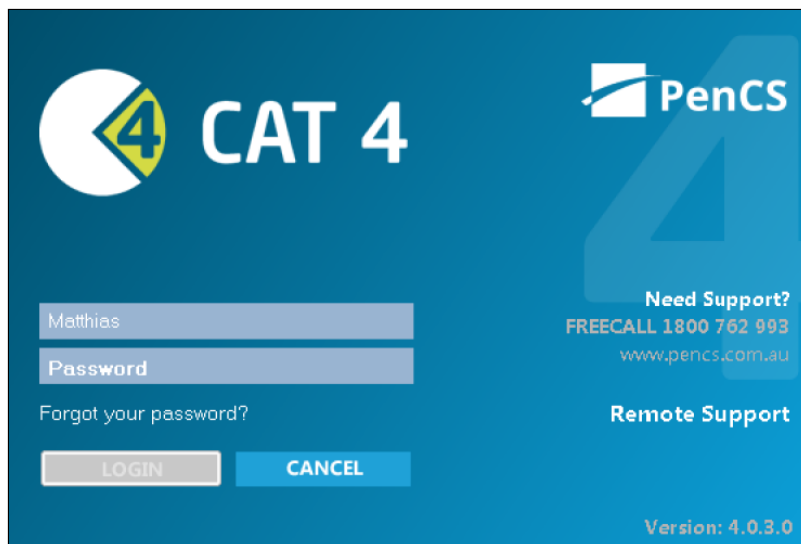
The application will be launched.



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

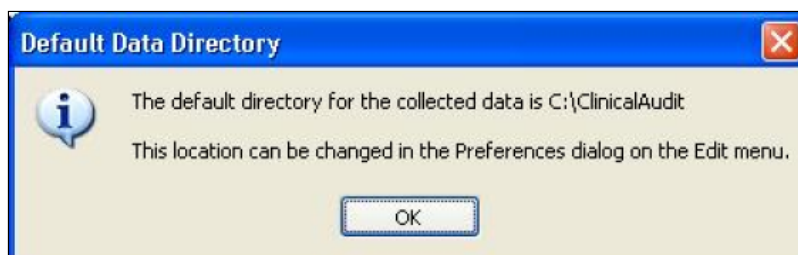


Once the install has completed the Clinical Audit Tool 4 Login screen will appear.



**Username** and **Password** – enter the details provided to you. You can also reset your password by using the 'Forgot your password' link. This requires you to have registered with a valid email address. Please see part 2 – Functionality for details.

Click 'OK'. The first time you login the Default Data Directory 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 4. If you prefer to store them somewhere else you can change this by selecting Edit > Preferences on the 'Clinical Audit' tab. Setting your preferences is explained in the next section: 'Setting Your Preferences'.

Click 'Ok'

Each time you install a new update of Clinical Audit a Disclaimer dialogue box will be displayed.

Tick that you accept the disclaimer (the 'OK' button will become active)

Click 'OK' to continue or 'Cancel'

Each time you install a new release of Clinical Audit a Release Notes dialogue box will be displayed.

Click 'OK' to continue

## 2.1 Installing on 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.

## 2.2 Installing to Terminal Services or Citrix

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

### **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.

### **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 CAT4 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.*

## 2.3 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 CAT4 without being connected to the Internet for a period of one month.

When you are connected to the Internet CAT4 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 CAT4 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 CAT4 installation URL to download an update.

**Note: If you have a Desktop Shortcut to CAT4 and it does not work offline you simply need to delete and recreate it.**

## 2.4 Installing in a Citrix Environment

 Please note that while you can install and configure CAT4 as a remote app/in a Citrix environment PEN CS is not officially supporting this method of deployment. We can try and assist to make this work, but will not be able to guarantee that CAT4 will work in your specific Citrix setup!

In the Citrix environment all users are logging into **their profile on the Citrix Server** to access applications. The Clinical System is installed on the Citrix Server and therefore CAT4 needs to be installed here as well.

The applications are not running on the users local machine so CAT4 will not be able to connect to the Clinical System from the local machine if installed locally.

The CAT4 Settings are stored in the C:\ProgramData\Pen CS folder on the Citrix Server and will be accessible to all users.

Once CAT4 is installed on the Citrix Server it can be configured once and then the practice IT can publish the CAT4 application to all user profiles. All CAT4 instances will access the same CAT4 Settings file.

### 3 CONFIGURATION

- [Setting Your Preferences](#)(see page 48)
- [Setting up CAT4 for Scheduler](#)(see page 73)

Once the CAT4 software has been installed it is available from your Programs List.

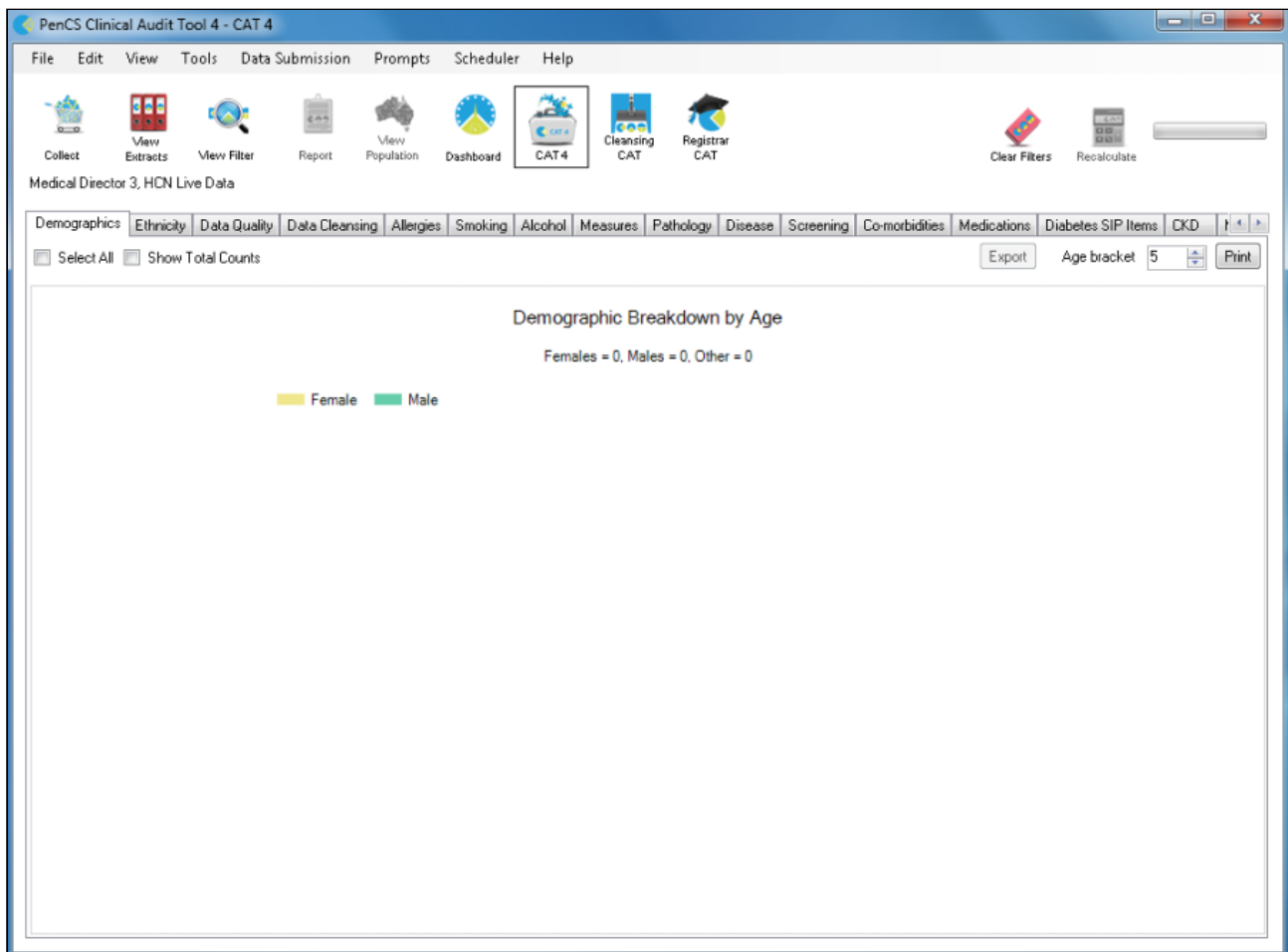
Click Start > All Programs > Pen CS > PEN CS Clinical Audit 4

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

Once you have logged in the screen below will display. From the dashboard you can choose which view of CAT4 you want to open – the CAT 4 icon on top will load the full suite of reports.



You will see the population figure is initially 0 because you have not yet collected data from your clinical desktop system.

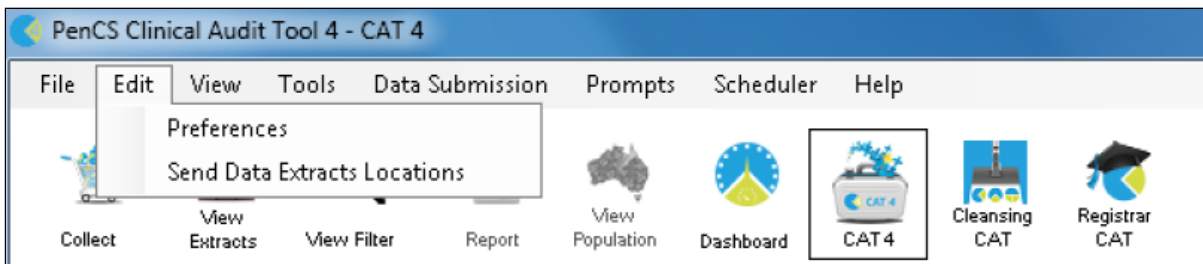


### 3.1 Setting Your Preferences

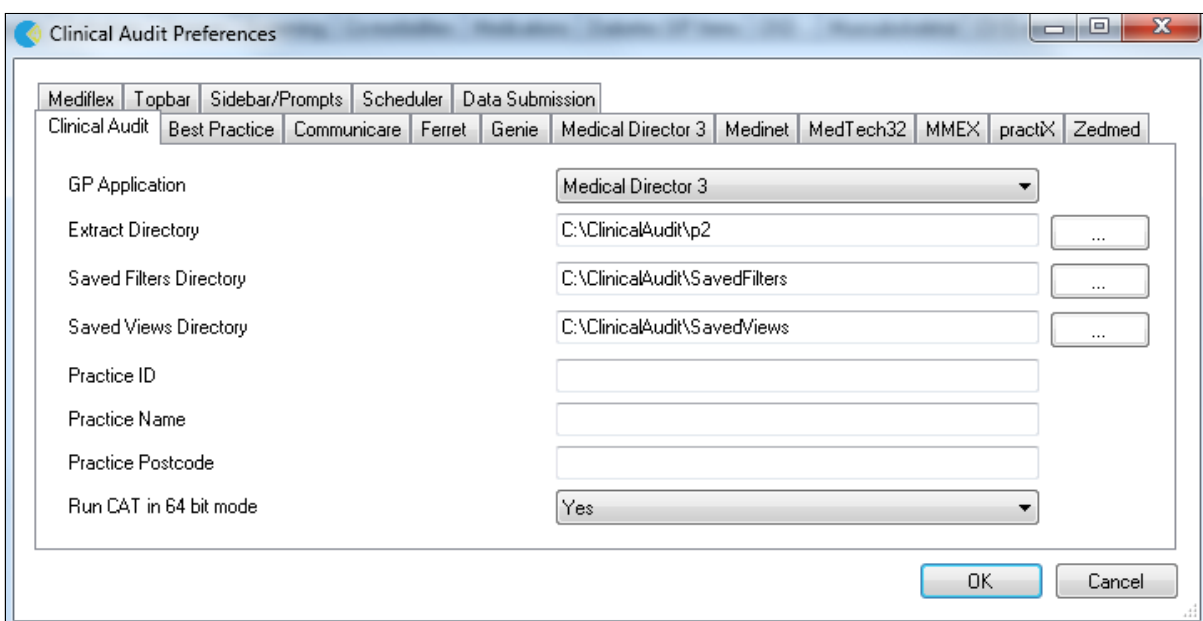
- [Choosing your Clinical Desktop System](#)(see page 50)
- [Choosing a preferred Data Extract Directory](#)(see page 61)
- [Choosing and configuring your Billing System](#)(see page 63)
- [Linking CAT4 to Topbar](#)(see page 67)
- [Patient Consent Withdrawn Settings](#)(see page 71)

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.

**Extract Directory**

This folder is used to store the 'snap-shots' of your data for analysis by the Clinical Audit Tool 4. By default the data will be stored in the folder 'C:\ClinicalAudit' on your PC. Pen CS recommends to store the data on a shared drive that is included in your regular backup. 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 uses to store your saved filter criteria. Saved filters can be reloaded and run at a later time. Details are provided in the 'PEN CS Clinical Audit User Guide Part 2'.

**Saved Views Directory**

This folder is uses to store your saved views. Saved views can be reloaded and run at a later time. They can be created through the My CAT Wizard from the dashboard. Details are provided in the 'My CAT Wizard Quick Reference Guide'.

**Practice Name, ID Number and Postcode**

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. The postcode is used to establish the public holidays for your state which are used in the after hours report.

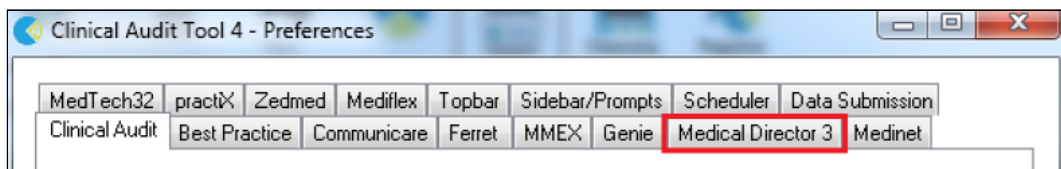
**Run CAT in 64 bit mode**

This option will only show on 64 bit operating systems and the default setting is 'Yes'. In some instances this might have to be set to 'No' by Pen CS support if there problems are occurring. Don't change unless advised to do so.

### 3.1.1 Choosing your Clinical Desktop System

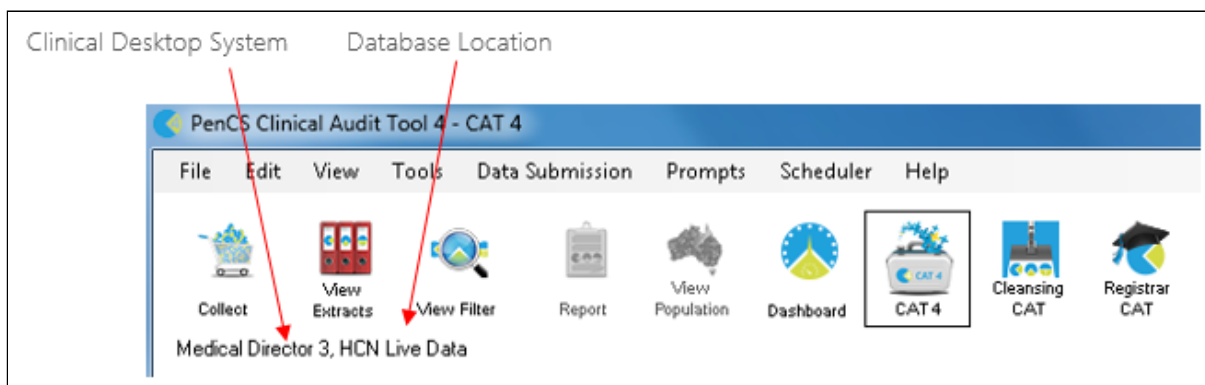
Once you have selected your Clinical Desktop System from the 'Clinical Audit' tab, click the corresponding tab for that Clinical Desktop System to enter further configuration options.

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**



There are a number of clinical systems that can work with third party billing systems. The billing system can be configured on the respective tab of the clinical system to match the setup at the clinic. If no billing system is

configured, CAT4 will not display any MBS item reports. This is explained further in the section 4.1.3.

### 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. You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the NKPI report<sup>19</sup>. The Location list settings is relevant for clinics that share one server for multiple locations - more details are described here: CAT4 MD3 Collection by Location<sup>20</sup>

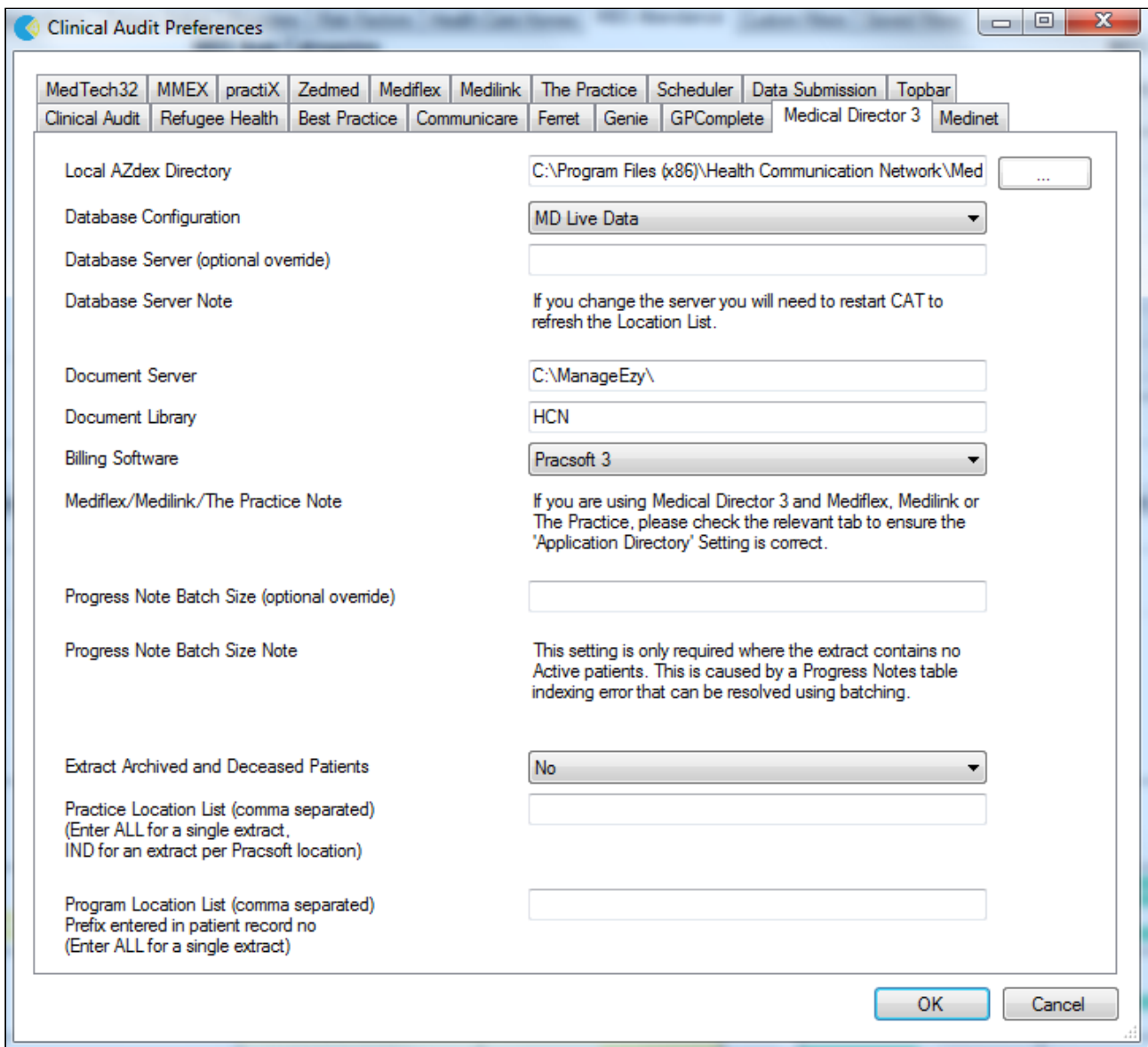


Please note that the "Progress Note Batch Size" settings are only required if there is a problem with corrupt tables in your MD3 installation. Please contact Pen CS support to assist if you are experiencing issues with no active patients showing in your CAT4.

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<sup>19</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>

<sup>20</sup> <https://help.pencs.com.au/display/CG/MD3+Data+Collection+by+Location>



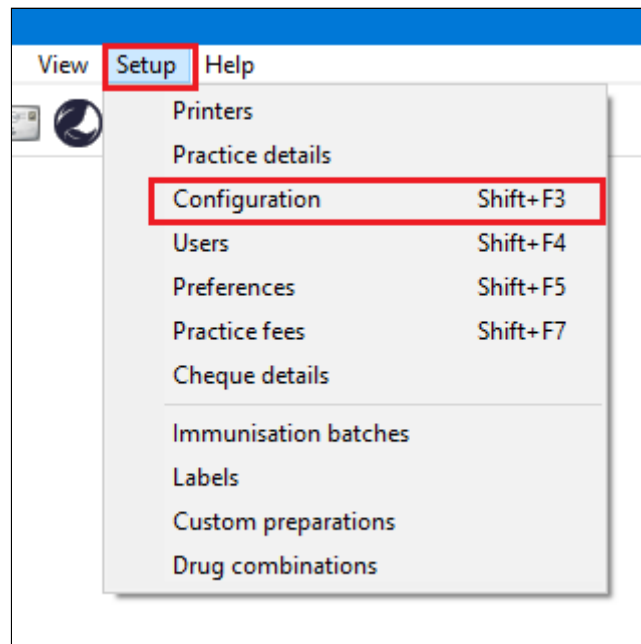
**Best Practice**

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

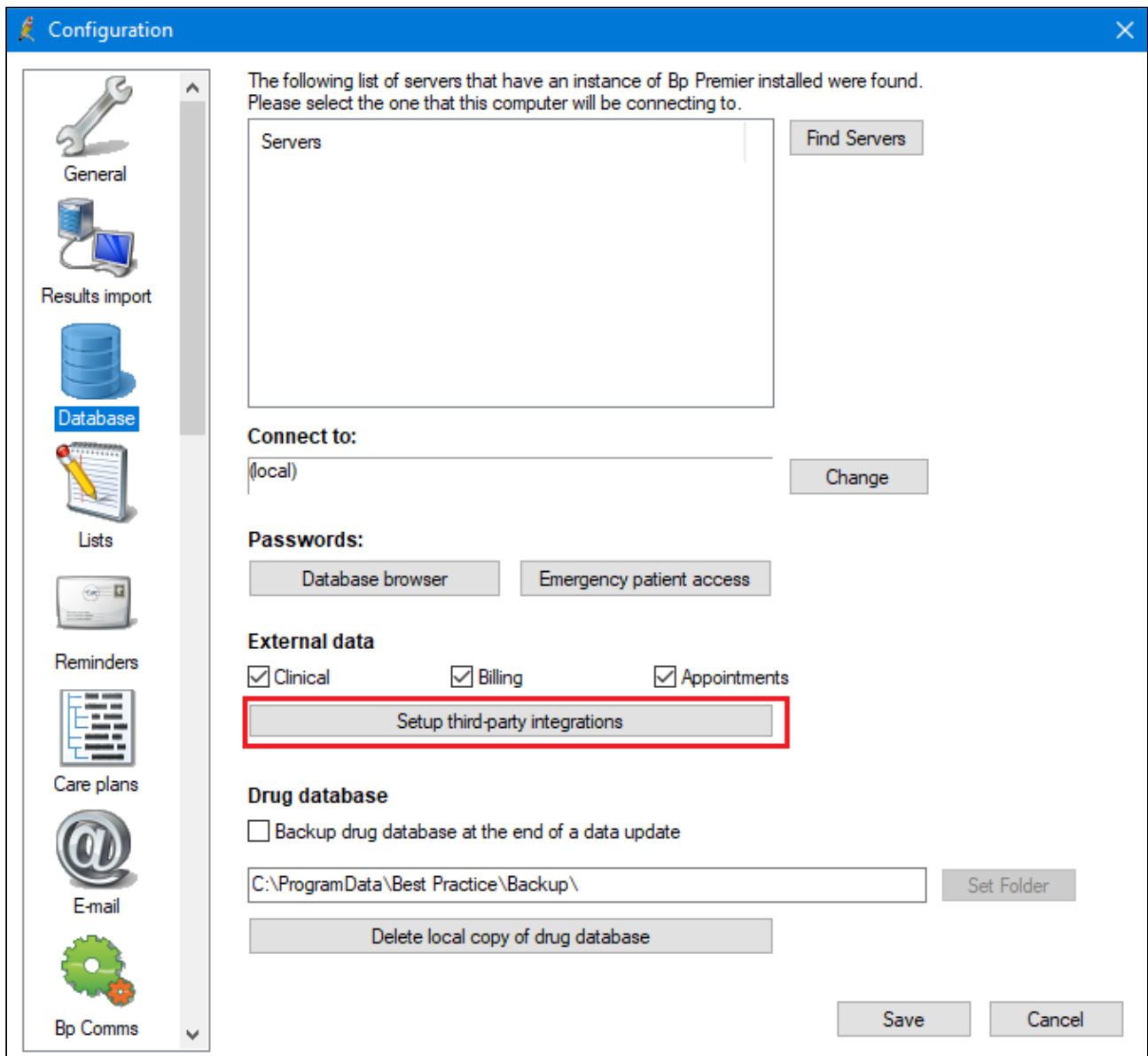
In Best Practice you need to have allowed database access using one of the following options:

With the JADE release BP has introduced a partner program where the partner details have to be configured in BP.

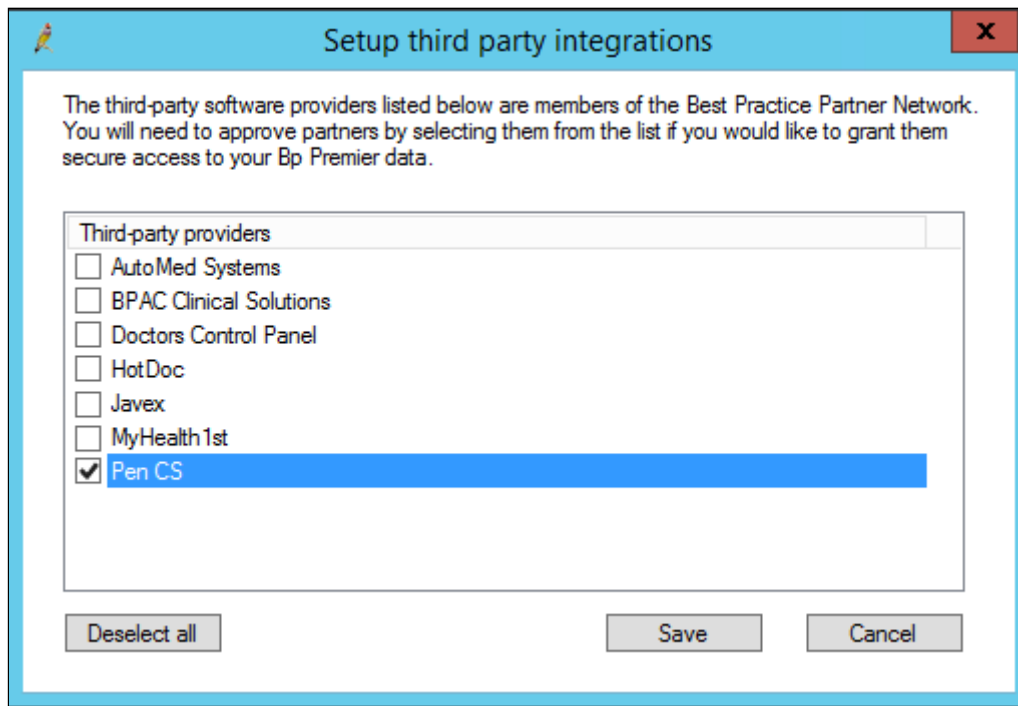
Under Setup/Configuration:



Got to Database and pick the 'Setup third-party integrations' button:



The following screen will show a list of third party providers (subject to change):  
 Tick the box next to PEN CS to setup the integration with CAT4, then click on 'Save'.



⚠ For older versions of BP (prior to the JADE Edition):

Option 1: Configuring a BP Database Browser password -> Enter that password in the preferences

Option 2: Ticking the 'External data access' checkboxes in Best Practice -> Leave the password preference field empty

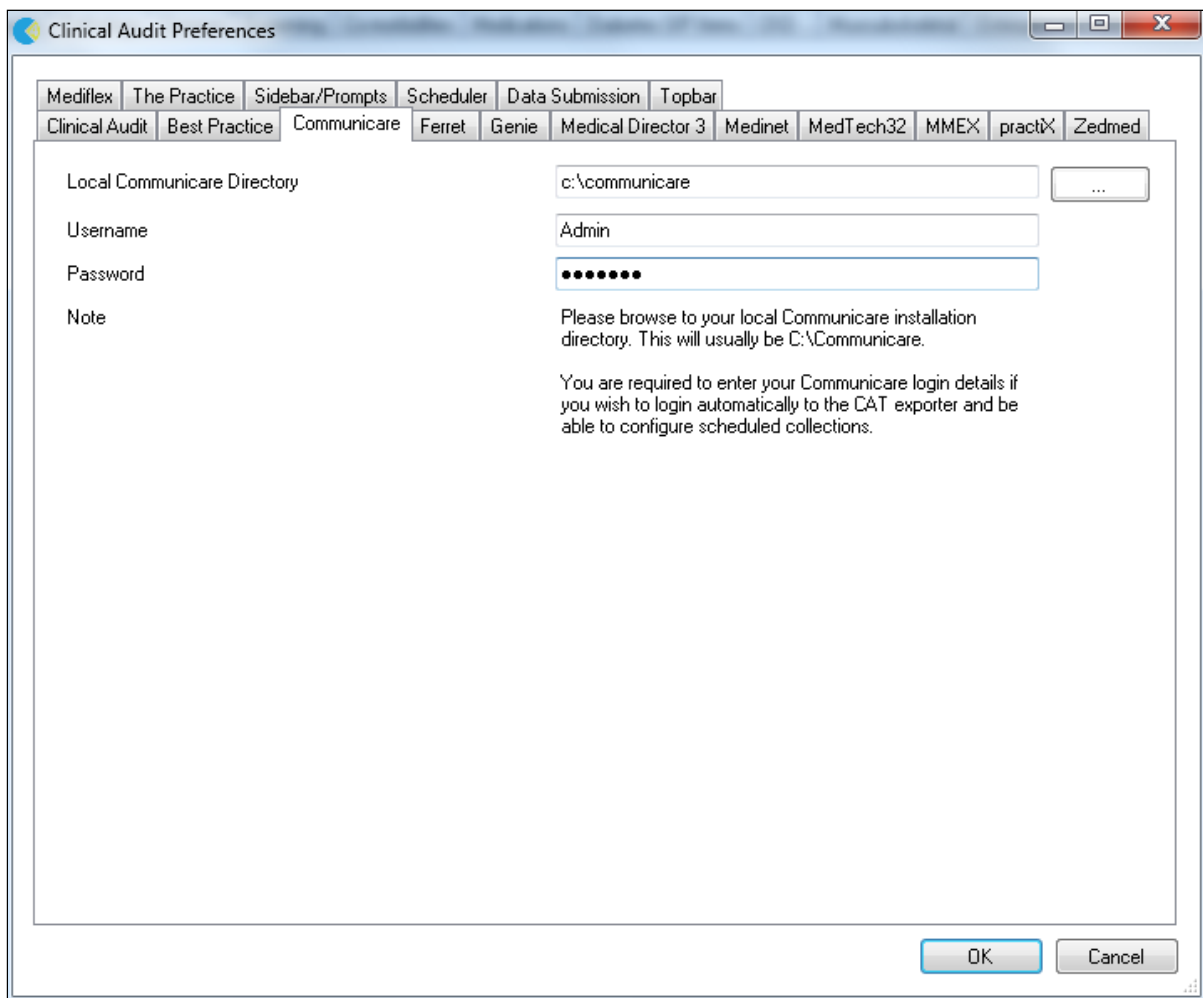
You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the NKPI report<sup>21</sup>. The Location list settings is relevant for clinics that share one server for multiple locations - more details are described here: Best Practice Data Collection by Location<sup>22</sup>

### Communicare

On the Communicare tab under Edit/Preferences you will need to configure the Communicare directory (usually C:\Communicare) and you will need to enter the login details of a Communicare administrator account to be able to run the data collection. The extractor needs to be present in your Communicare folder - please also see here: Communicare Requirements(see page 37)

<sup>21</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>

<sup>22</sup> <https://help.pencs.com.au/display/CG/Best+Practice+Data+Collection+by+Location>



### 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 Genie Mappings document available from Genie Mapping<sup>23</sup>

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

The Zedmed and Zedmed data directory should have populated with your install locations, if the locations are not correct you can change the folder to match your settings. We recommend to leave the default settings unless you are experiencing problems with the data collection. To enable CAT4 to extract pathology results it needs to access the Blobs folder. This folder is used by Zedmed to store HL7 based data. The default location is c:\zedmeddata\blobs but this can vary depending on your installation – to verify the location you can check

<sup>23</sup> <https://help.pencs.com.au/display/ADM/Genie+Data+Mapping>




**CRS\_App\_Server.ini** (which may be in a folder called ZedmedServer) which should have an entry called \*BLOBFilesPath=C:\ZedmedData\Blobs\*

Zedmed has advised Pen CS that they have made some changes in Zedmed v29 to improve data security by introducing an Integrator Account. What this means is that the current connections strings Pen CS uses to access the Zedmed database for data collections need to be replaced to use the new Integrator Account.

Pen CS will be making changes in CAT4 and Topbar to enable this change.

What will practices need to do?

1. **Practices will need to set up their Integrator Password as required by Zedmed.**
2. **Practices will need to update their CAT4 configuration settings with the Integrator Password.**

 In order for CAT4 and Topbar to continue functioning, there is a transition window for practices to update their configuration but they must have updated before they upgrade to Zedmed v30.3.

Use the 'Test Integrator Password' button to check if your password is valid.

You can also change the settings for extracting archived and deceased patients which by default is set to 'No'. This is generally not needed in General Practice but is required for the NKPI report<sup>24</sup>.

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<sup>24</sup> <https://help.pencs.com.au/display/CG/National+KPI+Report>

The screenshot shows the 'Clinical Audit Preferences' dialog box with the 'Zedmed' tab selected. The dialog has a blue title bar and a tabbed interface at the top. The 'Zedmed' tab is active, showing the following settings:

- Local Zedmed Directory:** C:\Zedmed
- Zedmed Directory Note:** Please browse to your local Zedmed installation directory. This will usually be C:\Zedmed or C:\Patients
- Local Zedmed Data Directory:** C:\ZedmedData\Blobs
- Data Directory Note:** Please browse to your Zedmed Blobs directory. This may be C:\ZedmedData\Blobs or a folder on your Zedmed server.
- Password:** [Masked with 8 dots]
- Password Note:** The Zedmed installer will have prompted you to create a password for the Integrator account when you installed Zedmed version 29 or later. If you have Zedmed version 30.3 or later, this password is required to use CAT. If you do not remember this password, you can ask Zedmed to reset it for you.
- Test Integrator Password:** [Button]
- Extract Archived and Deceased Patients:** No
- Batch Size:** 5000

At the bottom right, there are 'OK' and 'Cancel' buttons.

### practiX

There is no further set up for practiX.

The practiX software application itself provides a new Administration menu option that performs the data extraction for Clinical Audit. This is described in the practiX Mappings document available from PractiX Mapping<sup>25</sup>. The practiX preference tab summarises the steps you should follow.

Ensure the **Extract Directory** on the 'Clinical Audit' tab matches the extract folder determined by practiX.

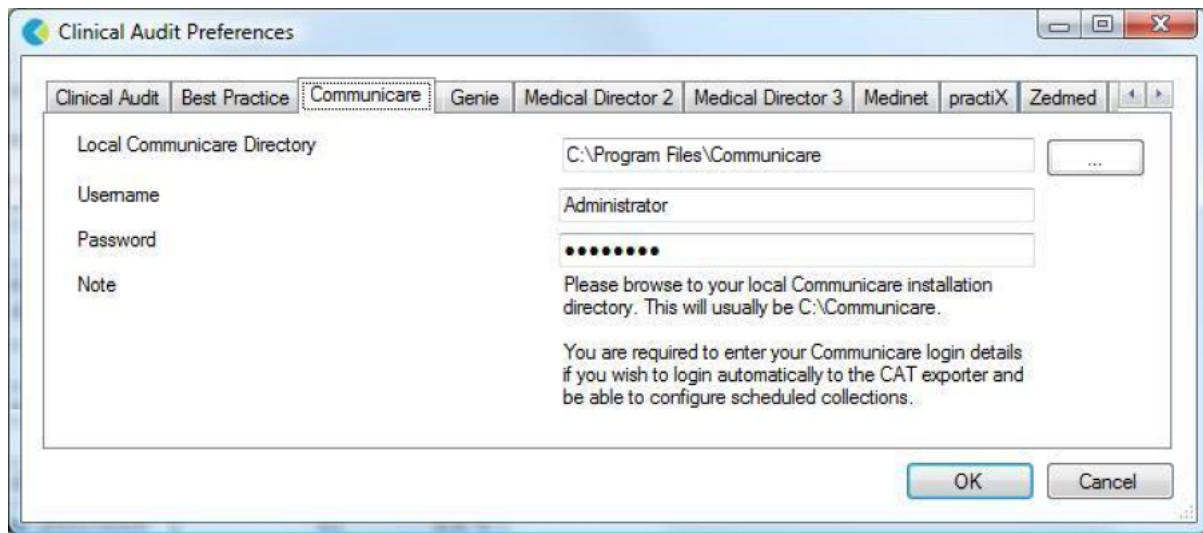
### Communicare

Browse to the local Communicare installation directory.

Enter your Communicare login details to allow automatic login to the exporter.

<sup>25</sup> <https://help.pencs.com.au/display/ADM/practiX+Data+Mapping>

⚠ Please note that this needs to be a Communicare user with administrator privileges!



### Medinet

There is no further set up for Medinet.

The Medinet software application itself provides a new Resources menu option that performs the data extraction for Clinical Audit. This is described in the Medinet Mappings document available from Medinet Mapping<sup>26</sup>.

The Medinet preference tab summarises the steps you should follow.

### MedTech32

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

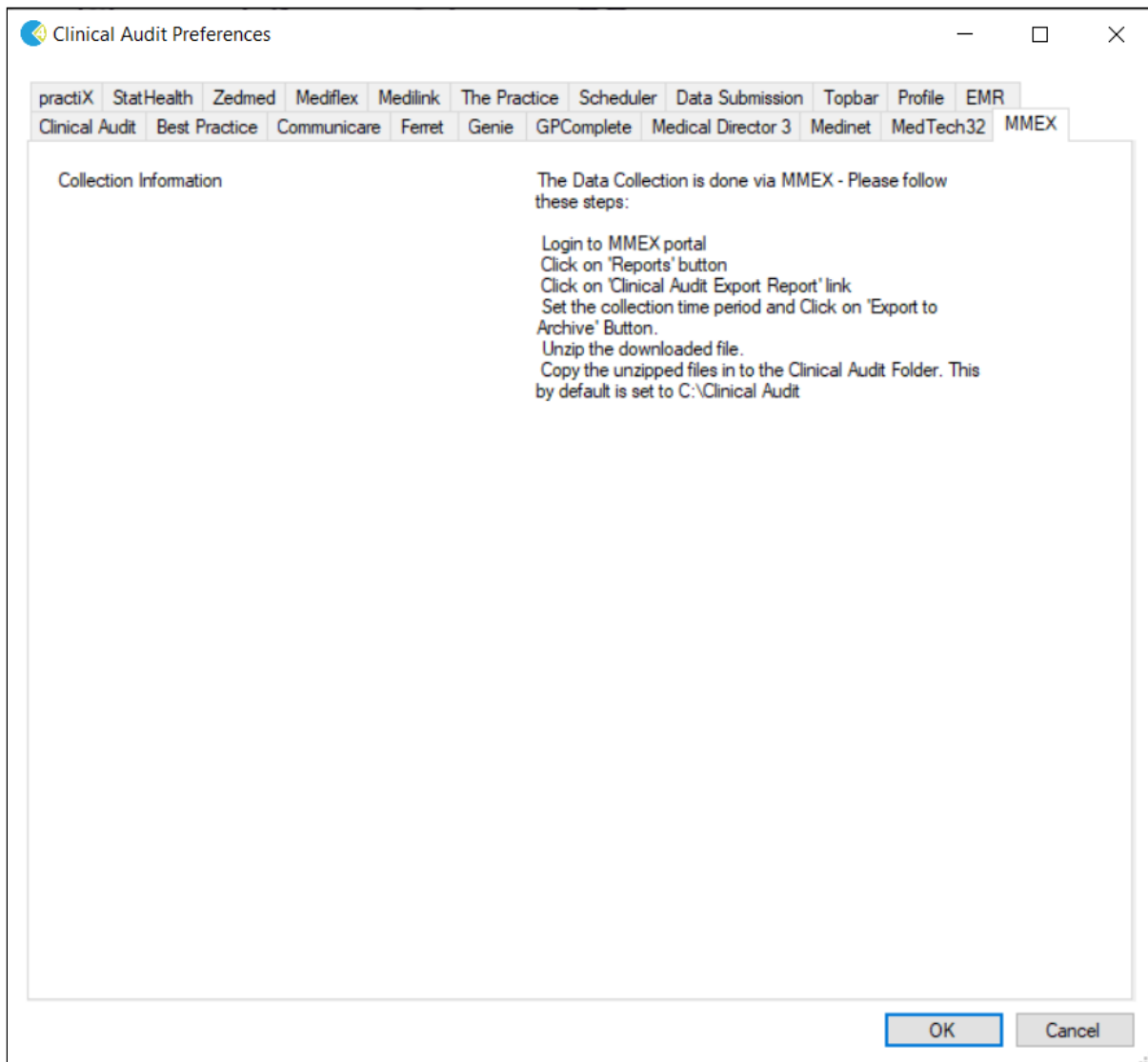
Browse to the MedTech32 CAT4 extractor installation directory.

<sup>26</sup> <https://help.pencs.com.au/display/ADM/Medinet+Data+Mapping>



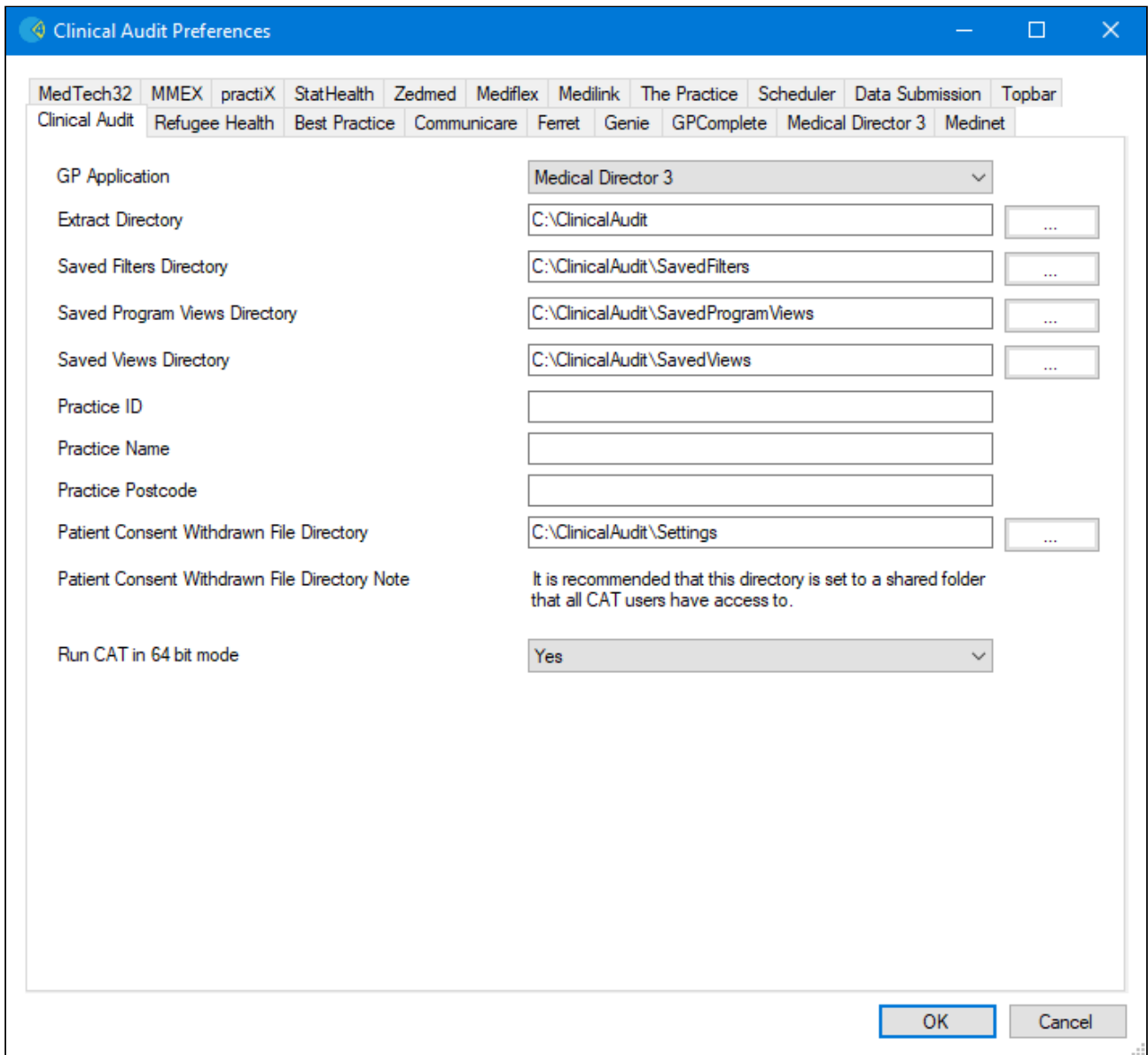
**MMEx**

Following the CAT installation for MMEx practice, perform the manual collection within MMEx. Practice can follow the steps listed in the CAT configuration window.



### 3.1.2 Choosing a preferred Data Extract Directory

If there are more than one CAT4 user in the practice then choose a **network drive** that is accessible to all. We recommend to use a network or shared drive that is included in your routine backups even if there is only one CAT4 user. If there are more than one user ensure that the selected location is accessible to all users. 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.

All directories should be configured to be on the server where CAT4 is installed and extracts are saved. Please make sure that all CAT4 users have access to the extract folder, as otherwise no data will be visible on the workstation.

Genie/practiX users will need to make sure this folder matches the folder they select from the Genie/practiX application when they do the extract.

### 3.1.3 Choosing and configuring your Billing System

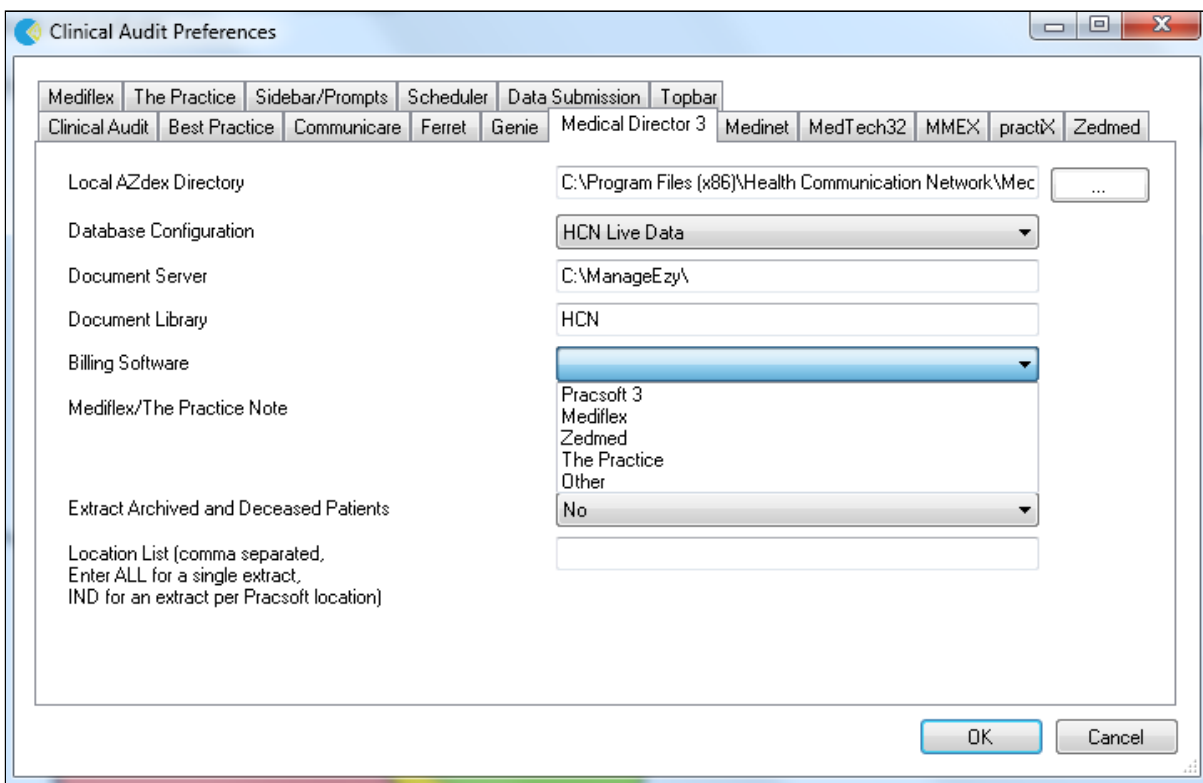
The following billing systems are supported:

- MD3 and Pracsoft OR Best Practice Management OR Mediflex OR Zedmed OR 'The Practice'
- BP and BP Management OR Pracsoft OR Mediflex OR Zedmed OR 'The Practice'
- practiX
- Communicare
- Zedmed
- MedTech32
- MMEEx

MD and BP users will need to configure their preferences for their Billing Software.

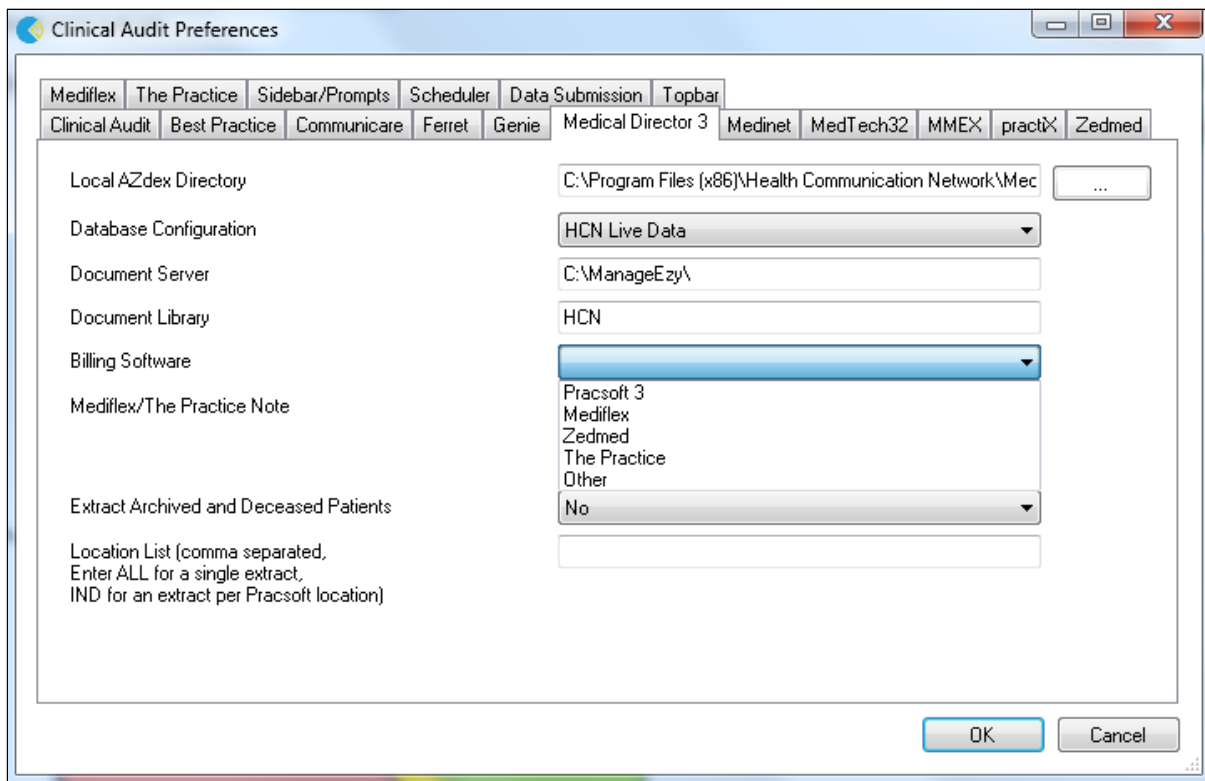
#### Medical Director 3

Go to the Medical Director 3 tab. Choose your billing system from the Billing Software drop-down list



#### BestPractice

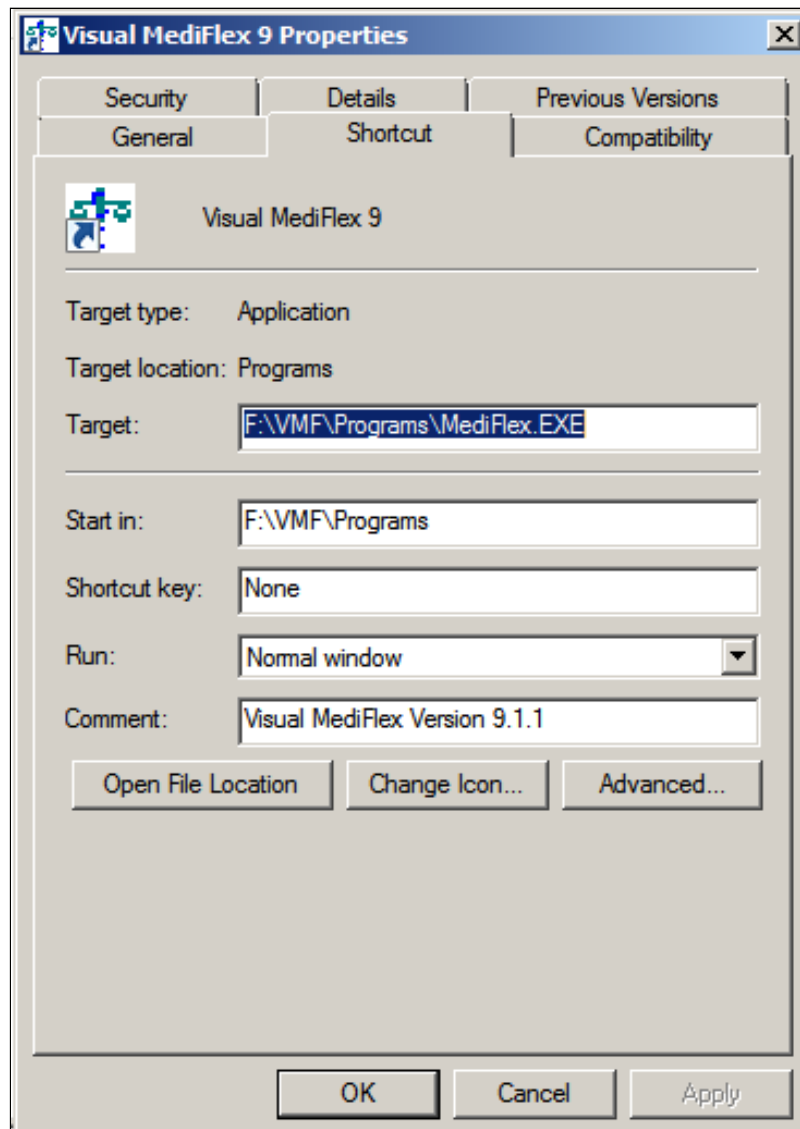
Go to the BestPractice tab. Choose your billing system from the Billing Software drop-down list



**Mediflex users**

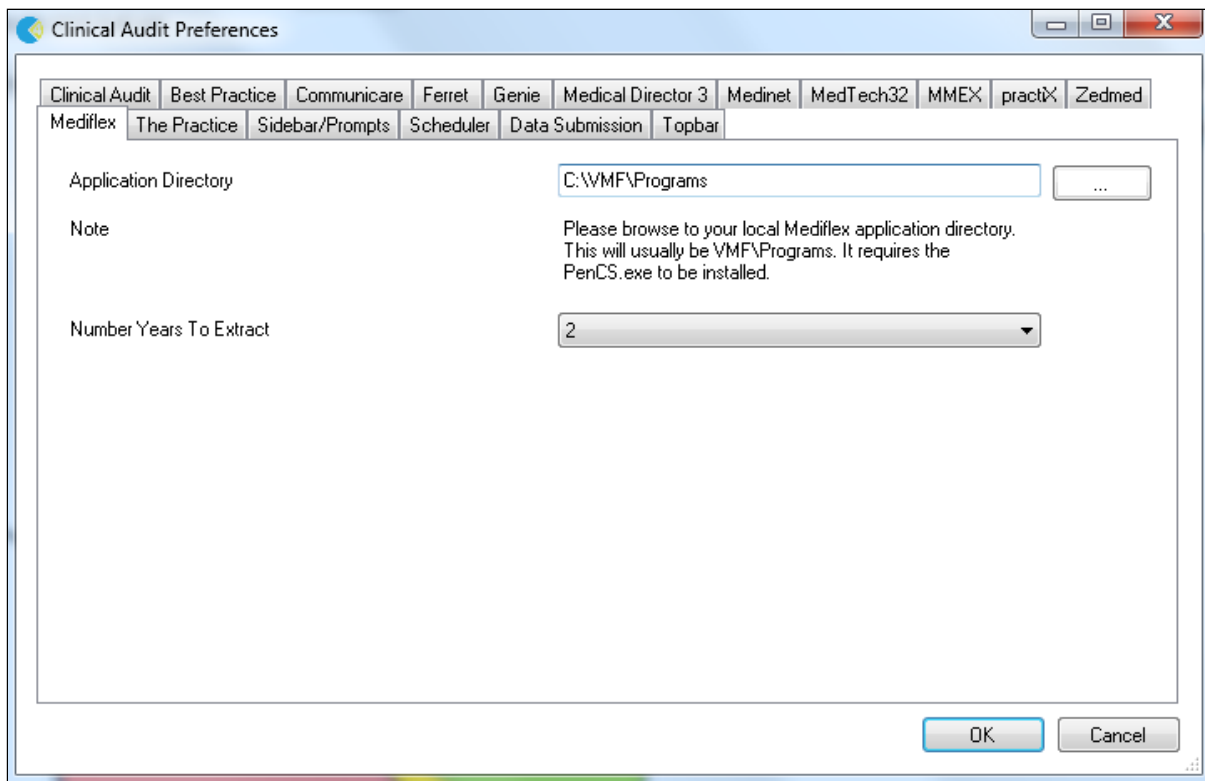
From the Mediflex tab: Configure the 'Application Directory' to point to the Mediflex folder which will usually be C:\VMF\Programs. This can be different depending on your setup and the VMF folder might be in a different location. You can locate the VMF folder by right-clicking on the Mediflex icon and then on 'Properties' - in the example below it is on the F: drive



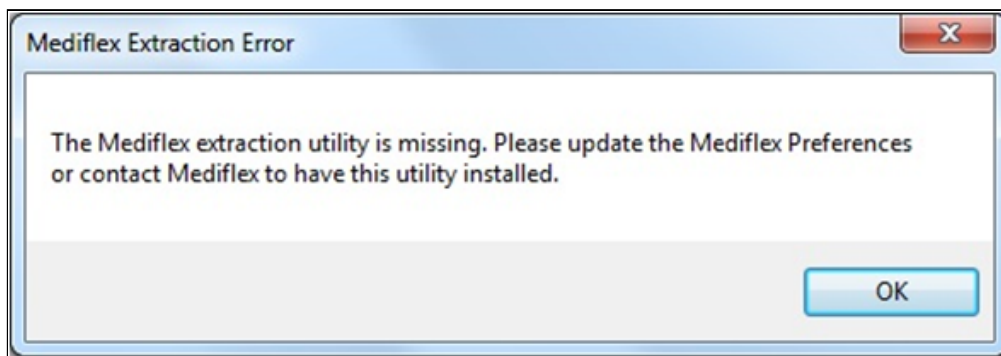


. We don't recommend to extract more than 2 years due to the memory requirements of the extraction.

Please ensure that you set the correct billing system for your clinical system, i.e. for MD3 or BestPractice on the respective configuration tab in the CAT4 preferences.



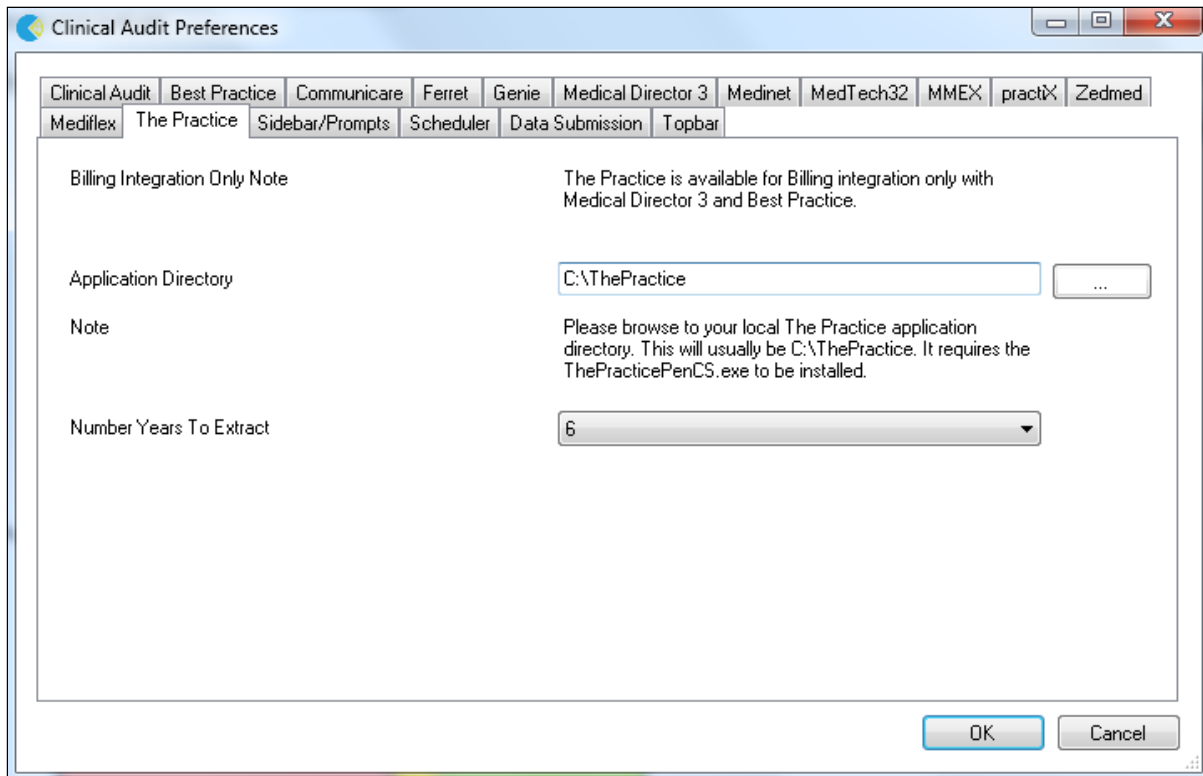
If the Mediflex extractor is missing from your system or the folder is not configured correctly, the following error message will be displayed. Please contact Mediflex so they can install the utility for you.



**'The Practice' users**

From the 'The Practice' tab: Configure the 'Application Directory' to point to the correct folder which will usually be C:\ThePractice. To be able to extract Medicare information from 'The Practice' you have to have the file 'ThePracticePenCS.exe' installed which you can obtain from the software vendor.

Please ensure that you set the correct billing system for your clinical system, i.e. for MD3 or BestPractice on the respective configuration tab in the CAT4 preferences.



### 3.1.4 Linking CAT4 to Topbar

If you are using Topbar, our decision support tool for General Practice, you can link CAT4 to Topbar. This will allow for future functionality and currently enables a link between the Topbar Cleansing App and the Cleansing View in CAT4. The Cleansing App in Topbar applies the same rules and algorithms as the Cleansing View in CAT4 to the patient currently open in the clinical system (currently MD3 and BestPractice).

The Cleansing App in Topbar and the Cleansing View in CAT4 display indicated conditions without a coded diagnosis, currently these conditions are checked:

- Diabetes
- COPD
- Chronic Kidney Disease (CKD)
- Mental Health

CAT4 shows a report for all patients in the practice meeting the criteria and Topbar applies the same criteria only for the patient currently open in the clinical system.

A clinician can use the Cleansing App in Topbar or the Cleansing View in CAT4 to mark a patient as NOT having an indicated condition – this will be stored in the Topbar system and will prevent the patient to be displayed again in either CAT4 or Topbar as being indicated for the selected condition. Please refer to the Cleansing View QRG and the Cleansing App QRG, available respectively from [help.pencs.com.au/cat.htm](http://help.pencs.com.au/cat.htm)<sup>27</sup> and from [help.pencs.com.au/topbar.htm](http://help.pencs.com.au/topbar.htm)<sup>28</sup> for full details.

To configure CAT4 to work with Topbar click on the Topbar tab in the preferences, then click on 'Edit'.

<sup>27</sup> <http://help.pencs.com.au/cat.htm>

<sup>28</sup> <http://help.pencs.com.au/topbar.htm>

Please note that you have to have Topbar installed and running on the machine you are configuring the link between the two applications.

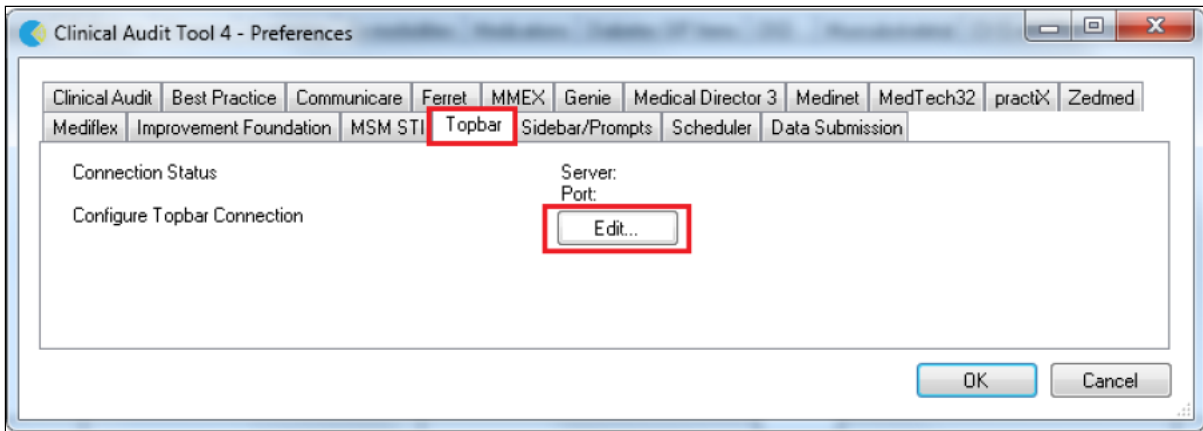


Image 26: Configure CAT4 and Topbar link

Clicking on the 'Edit' button will open a new window:

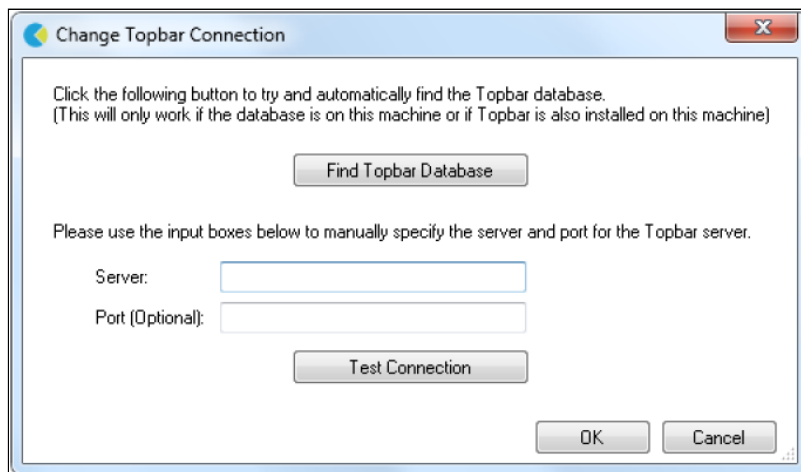
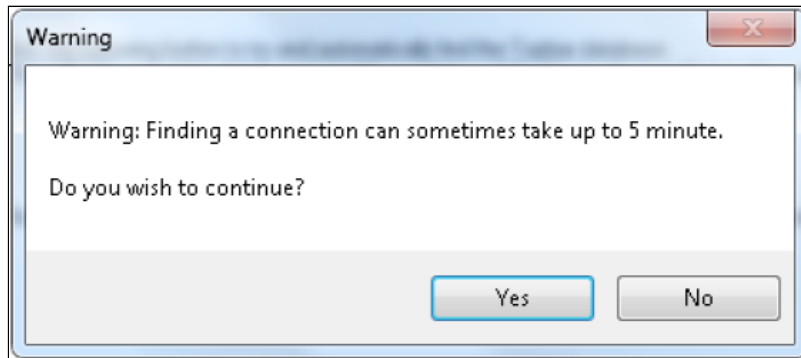


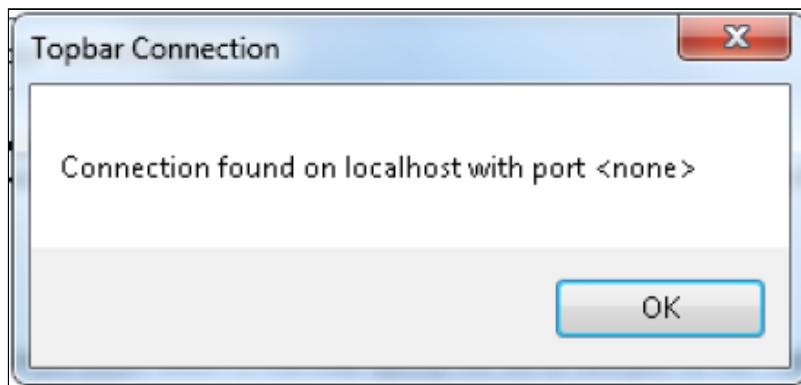
Image 27: CAT4 Topbar Details

For standard installations the 'Find Topbar Database' button should work and automatically locate the Topbar database. If your installation is not standard you might have to manually configure the server name/IP address and port – please contact our support desk if you problems connecting to your Topbar database. Depending on network and computer speed the search can take some time – the following message will alert you to this. Click on Yes to start the search.



*Image 28: CAT4 Topbar Connection Warning*

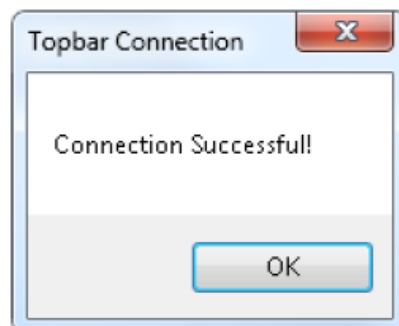
Once the Topbar server is found a new message will display the server name and port (if configured). In this example the default settings were used when installing Topbar so the server is called 'localhost' and no specific port was configured. Click on 'OK' to continue.



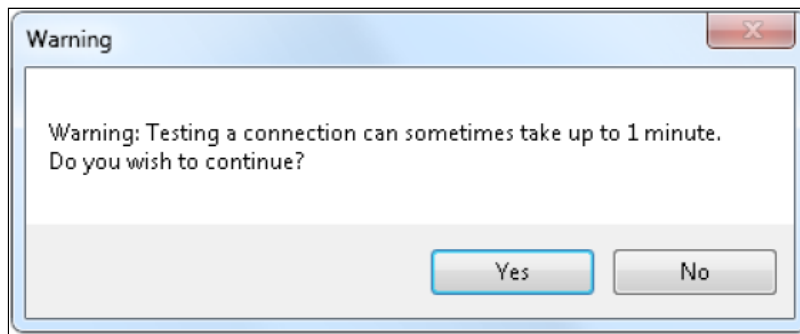
*Image 29: CAT4 Topbar Server Found*

You can test the connection by clicking on 'Test Connection' – a new message will pop up that it could take some time, followed by a success message if your server has been located and the connection established.

If the connection is established you will see this message after clicking on the 'Yes' button

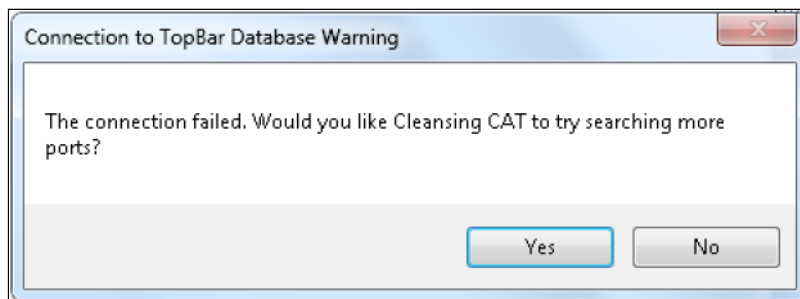


*Image 30: Topbar Connection Success*



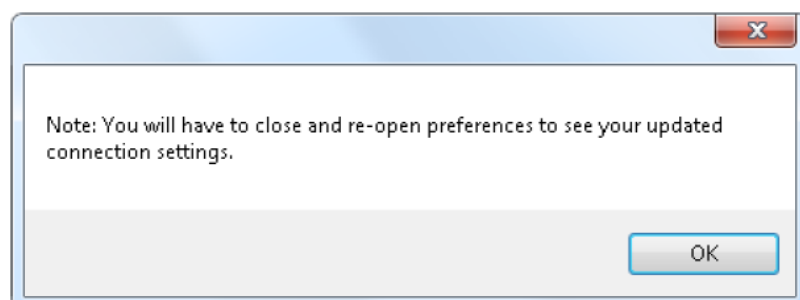
*Image 31: Testing Connection Warning*

If the connection fails, the message below will be displayed – please contact our support team for assistance.



*Image 32: Topbar Connection Failure*

After successful configuration you will see another message about the need to open and close the CAT4 preferences window to see the changed settings:



*Image 33: Topbar Link Updated Settings*

After closing and re-opening the preferences window the Topbar tab will now show the server name and, if configured, the port.

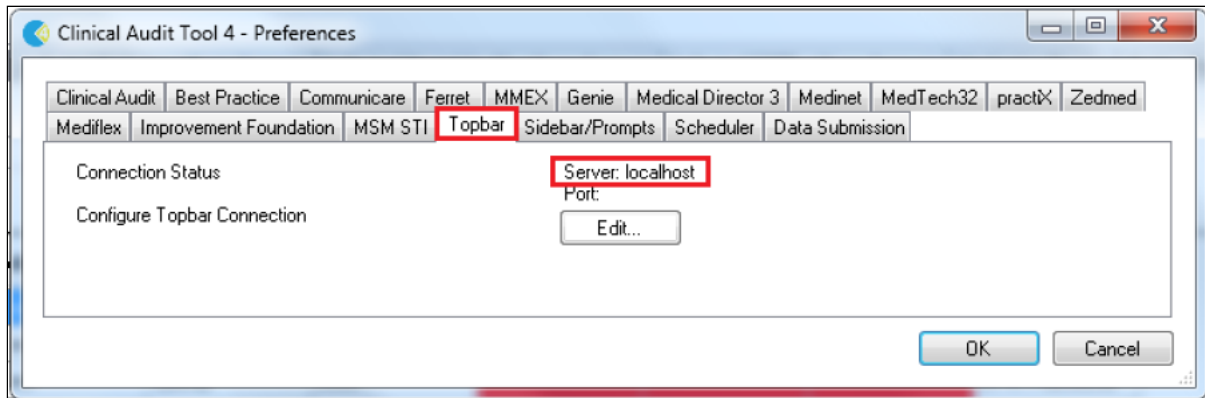
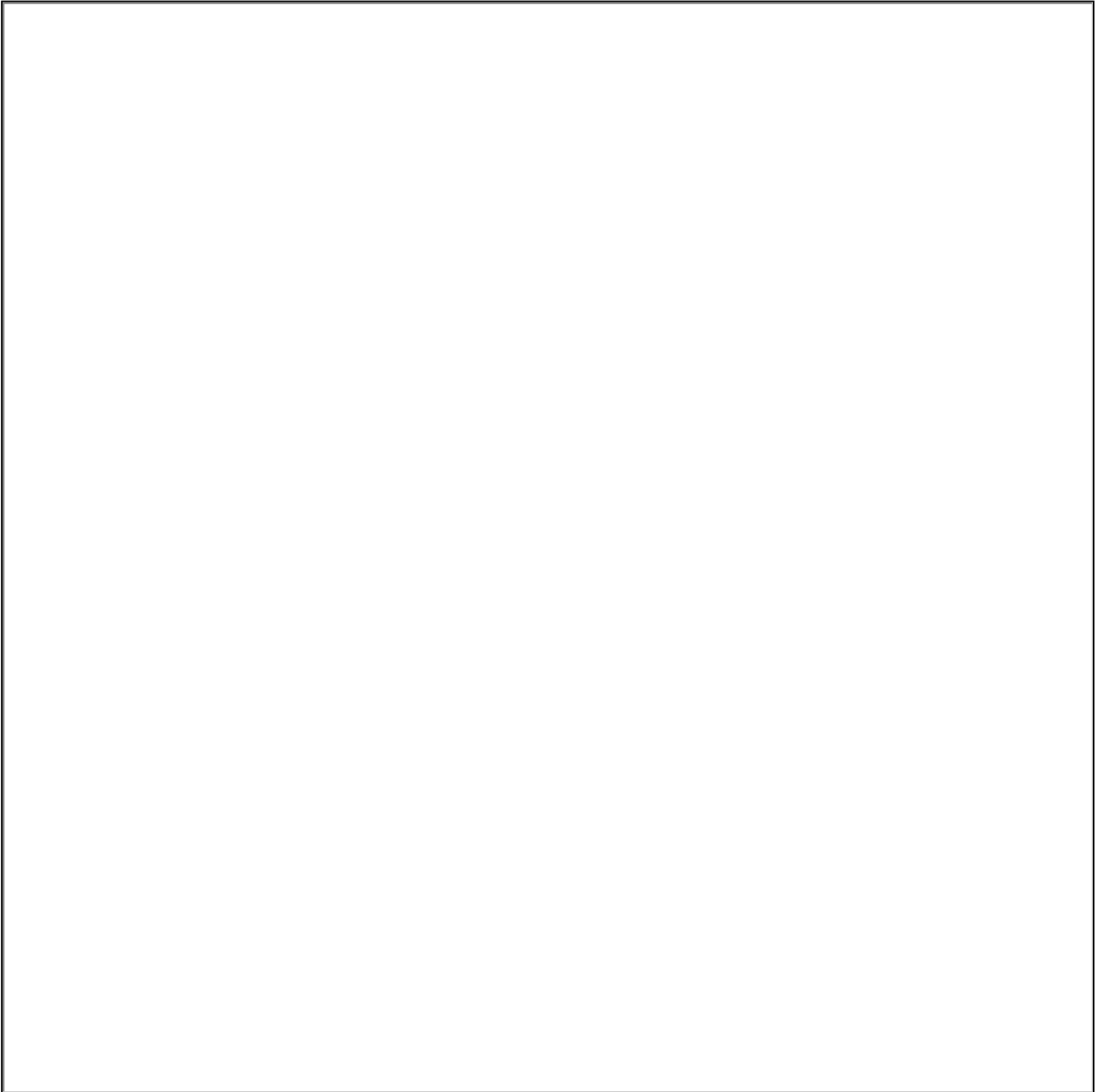


Image 34: CAT4 Topbar Link Configured

### 3.1.5 Patient Consent Withdrawn Settings

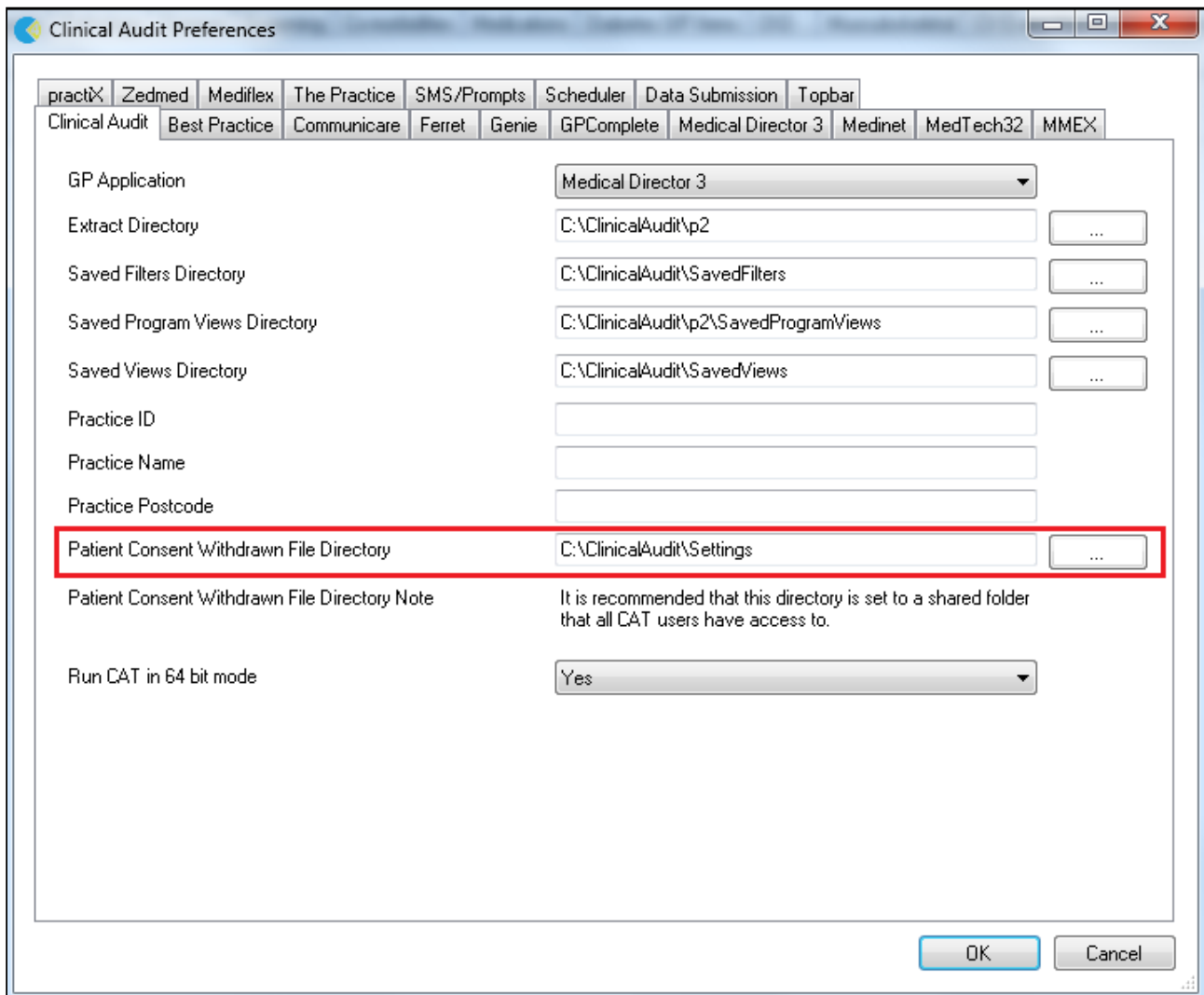
To configure CAT4 correctly for patients who withdraw consent in sharing their data with anyone outside the clinic, the location for the file that contains this data needs to be configured.

This is done through the Edit/Preference menu:



Then click on the 'Data Submission' tab where the 'Patient Consent Withdrawn File Directory' settings are located. Set the location to a folder that is accessible for all CAT4 users at the practice.





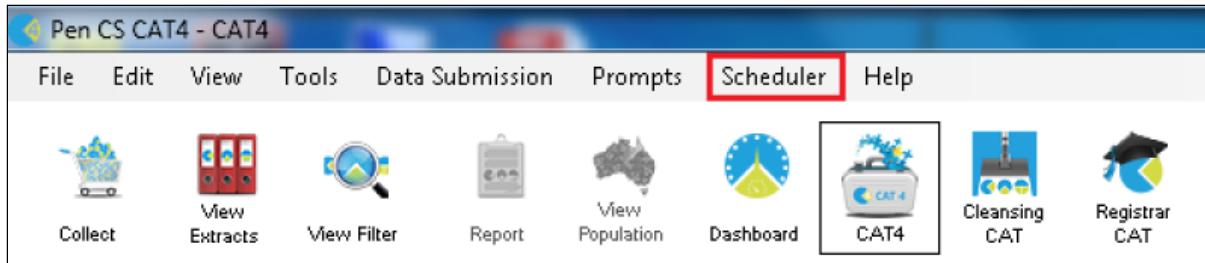
⚠ If this folder location is not identical for all CAT4 instances at the clinic (this includes the CAT4 install for scheduled collections which might be installed on your server) the information about withdrawn consent might be inconsistent, as each CAT4 instance can only use the one location specified. Please make sure that this setting is identical for all CAT4 users!

### 3.2 Setting up CAT4 for Scheduler

The CAT4 scheduler preferences allow users to set the working folder. This folder is where CAT4 can update scheduled tasks and retrieve the scheduler history. It is monitored by the 'PEN CS Scheduler Service' so that scheduled tasks are run when required.

- CAT4 will automatically look for the default folder '**C:\Program Files\Pen Computer Systems\PEN CS Scheduler Service**'. If this folder is found and the preferences working folder is empty CAT4 will pre-populate the preference. If you are working on a 64bit system the folder will be called C:\Program Files (x86)\Pen Computer Systems\PEN CS Scheduler Service

If you do not have Scheduler as a CAT4 menu option as shown below, you will need to configure the CAT4 Scheduler Preferences screen.

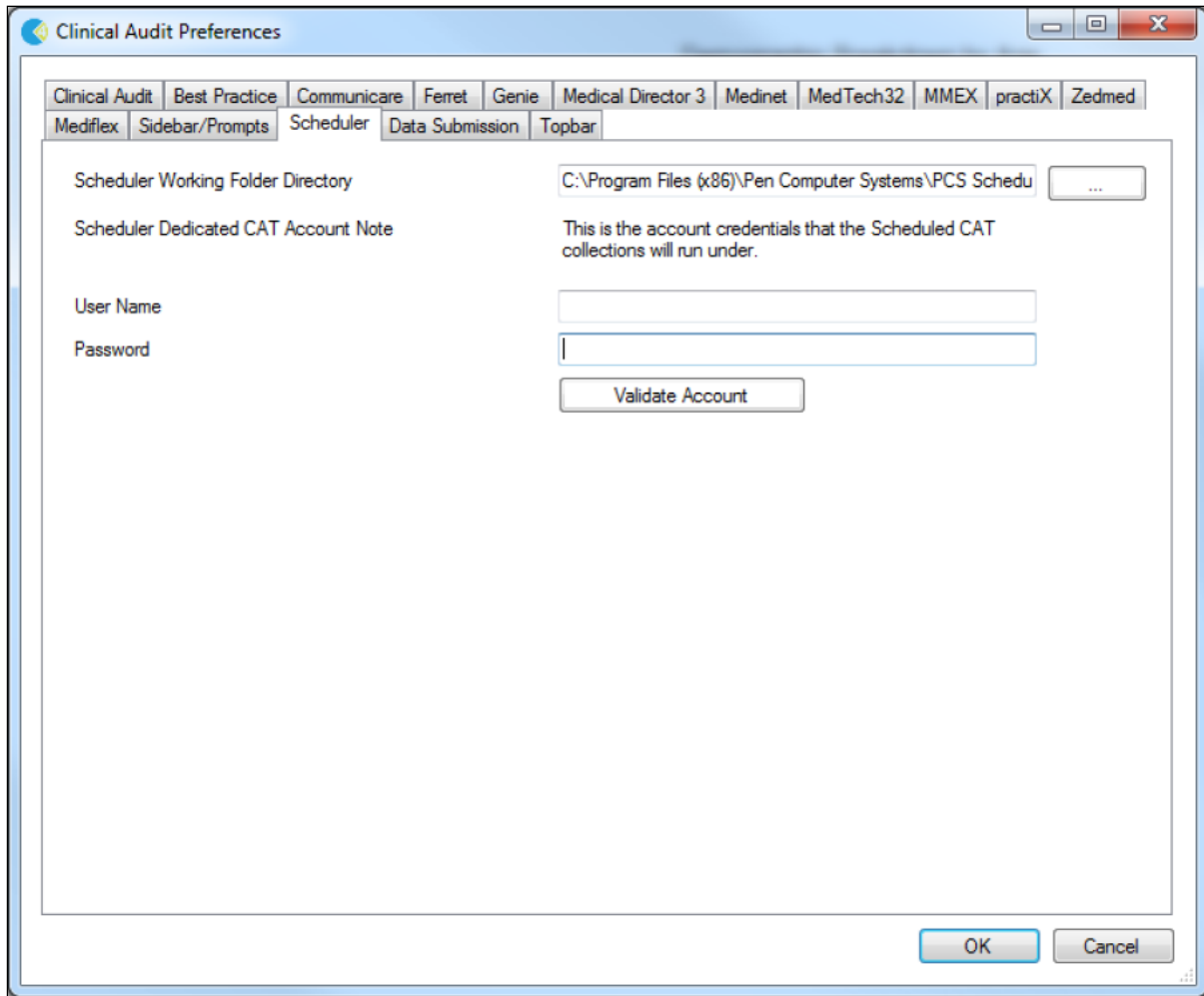


Follow the steps below to set up CAT4 for Scheduler

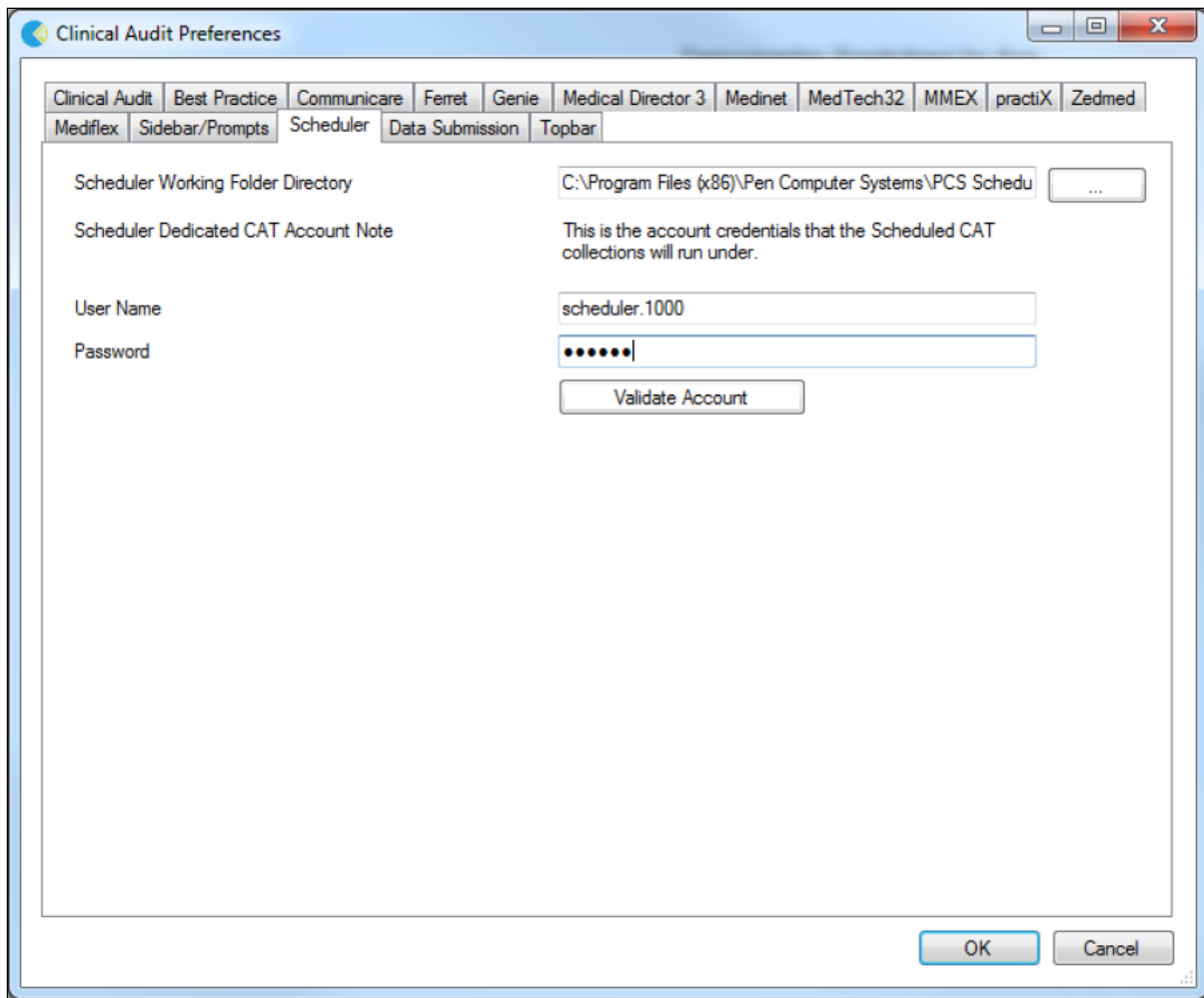
1. Open CAT4
2. Click the **Edit > Preferences** menu
3. From the **Clinical Audit Preferences** dialog choose the **Scheduler** tab
4. Note: If the Scheduler tab is not visible (due to your window size) a right arrow key will be available to scroll across. Alternatively, you can widen the window.

Scheduler Working Folder Directory should be automatically populated as *C:\Program files(x86)\Pen Computer Systems\PCS Scheduler*.

The specific **User Name** and **Password** for a practice is to be obtained from Pen CS Support for installation purpose only.

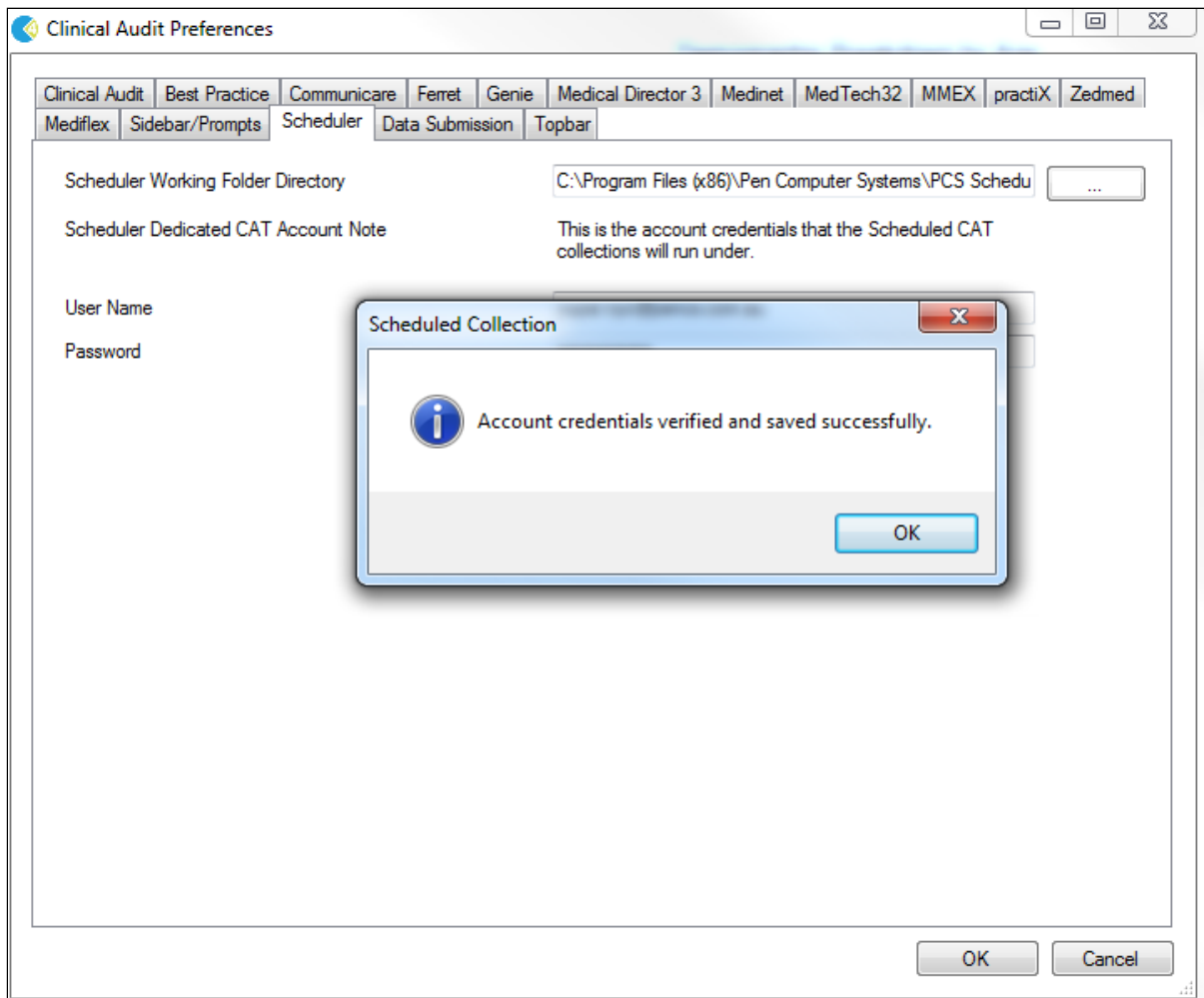


Once User Name and Password are filled in here, click the **Validate Account** button.

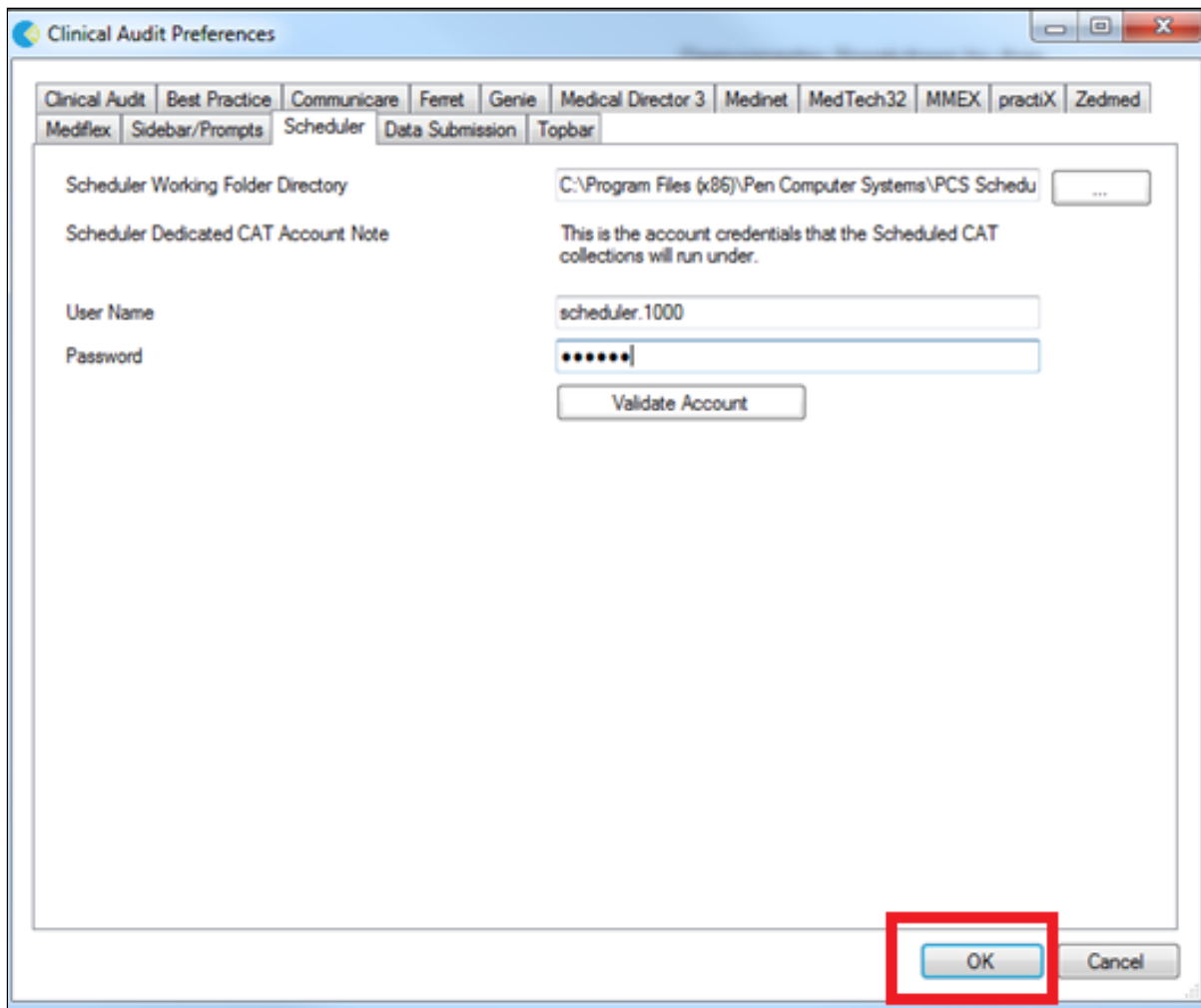


Click **OK** to close the Scheduled Collection message box, which displays that the *Account credentials verified and saved successfully*.

If the account details can't be verified please contact Pen CS support.



Click **OK** for the *Clinical Audit Preferences* dialog box to close.



### 3.2.1 Using Scheduler for Multiple Locations on one Server

This configuration is for sending location filtered extracts to ACCHOs/PHNs that have the new PAT CAT (version 3.2). It allows you to be logged in to CAT4 as a single user and send different location files to their correct PAT CAT practice account. These accounts may span more than one PAT CAT.

For each ACCHO/PHN there will need to be a 'Send to PAT' location set up. Only the webservice needs to be entered. PAT 3.2 is aligned with our Licencing database and recognises which OrganisationIDs belong to it. Locations based on your clinical system as described here: BestPractice: [CAT4 Best Practice Collection by Location](#) (see page 78) and MD3: [CAT4 MD Pracsoft Collection by Location](#)<sup>29</sup> have to be configured prior to setting up the scheduled uploads and collections.

- Under the CAT Preferences > Scheduler there is now the ability to enter the user credentials for one or more locations
- The locations already configured in CAT4 under Edit/Preferences will appear as check boxes within the Location selection box
- Tick a location and enter the Account and Password details for the associated practice – the designated scheduler credentials for a practice should be used – these are unique for each practice

<sup>29</sup> <https://help.pencs.com.au/display/CG/CAT4+MD+Pracsoft+Collection+by+Location>

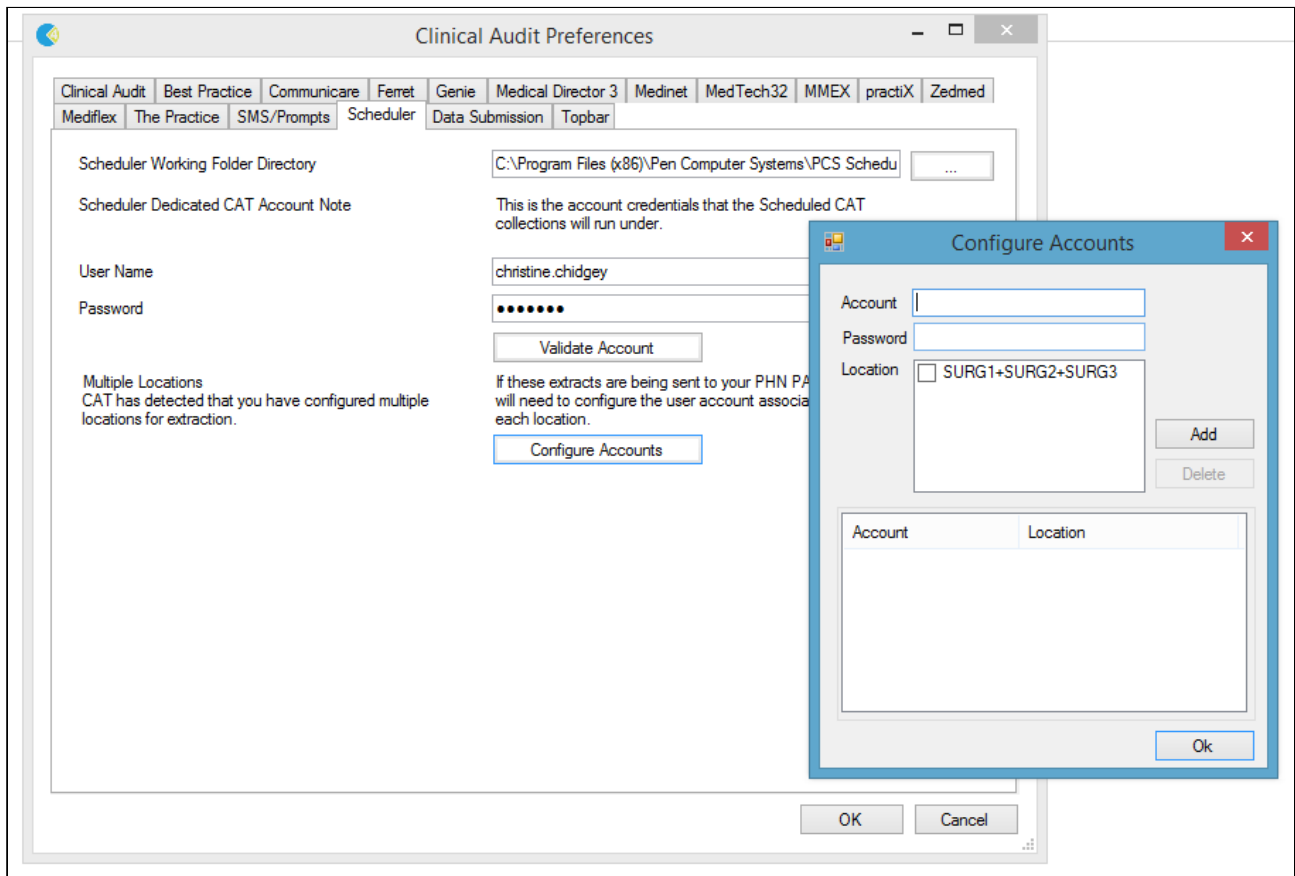
- Click Add

For manual upload, load the extract you want to send to PAT CAT from the extracts panel in CAT4 and Right-click on the extract name and choose the PHN PAT CAT the practice belongs to.

CAT will send the extract with the OrganisationID for the credentials you have configured for that location.

PAT CAT will check it has the OrganisationID and only accept the extract if does (so if you accidentally send to the wrong PHN it will be rejected).

**⚠** Setting up collections for multiple accounts can get a bit complicated and we strongly recommend to contact our support team to assist with this process.



## 4 USER INTERFACE

Once the CAT4 software has been installed it is available from your Programs List.

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

Please use the links below for the details of the user interface.

[Starting CAT4<sup>30</sup>](#)

[Password retrieval<sup>31</sup>](#)

[Users working at multiple locations<sup>32</sup>](#)

[License lock-down<sup>33</sup>](#)

[CAT4 Dashboard<sup>34</sup>](#)

[Navigating the CAT4 User Interface<sup>35</sup>](#)

[Switching Views<sup>36</sup>](#)

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<sup>30</sup> <https://help.pencs.com.au/display/CG/Starting+CAT4>

<sup>31</sup> <https://help.pencs.com.au/display/CG/Password+retrieval>

<sup>32</sup> <https://help.pencs.com.au/display/CG/Users+working+at+multiple+locations>

<sup>33</sup> <https://help.pencs.com.au/display/CG/Licence+lockdown>

<sup>34</sup> <https://help.pencs.com.au/display/CG/CAT4+Dashboard>

<sup>35</sup> <https://help.pencs.com.au/display/CG/Navigating+the+CAT4+User+Interface>

<sup>36</sup> <https://help.pencs.com.au/display/CG/Switching+Views>



## 5 COLLECTING DATA SETS

**NOTE:** Before you start collecting data ensure you have set up your preferences to point to the correct clinical desktop system for your practice

See [Setting Your Preferences](#)(see page 48) for details about how to do this.

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, practiX, Medinet, Medtech and MMEEx users please note that the data collection is performed from within your clinical application. Clicking the CAT4 'Collect' button at the top left of the screen will provide you with the summary steps on how this is done for your system. Step by step details are provided here: [Choosing your Clinical Desktop System](#)(see page 50)
- Zedmed users please note that to enable CAT4 to extract this data it needs to access the Blobs folder. This folder is used by Zedmed to store HL7 based data. The default location is c:\zedmeddata\blobs but this can vary depending on your installation – to verify the location you can check CRS\_App\_Server.ini (which may be in a folder called ZedmedServer) which should have an entry called BLOBFilePath=C:\ZedmedData\Blobs{color}

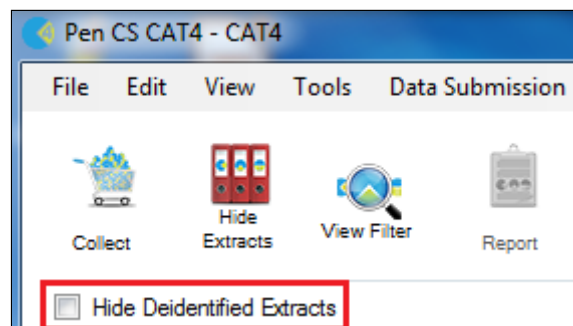
The data set collected is saved in your preferred data folder (see 'Setting Your Preferences' for more information).

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.

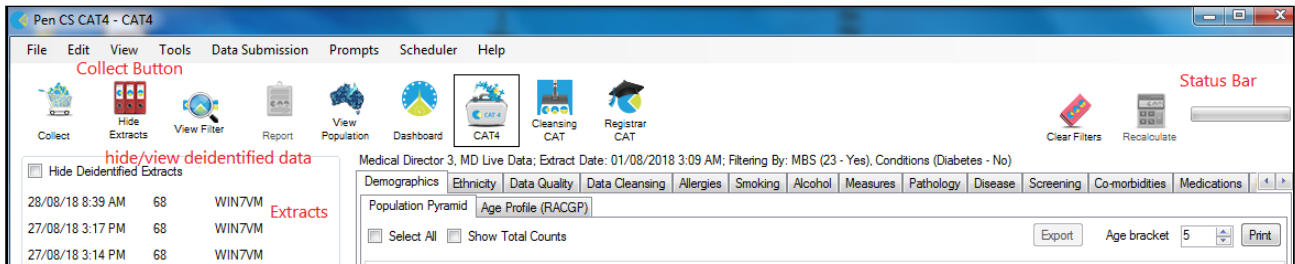
**Tip:** To refresh the list of 'snap-shots' toggle the 'hide/view Extracts' button.

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

The tick box on top of the panel allows you to hide deidentified extracts to only show extracts containing your patient details.



**Tip:** To refresh the list of 'snapshots' toggle the Hide/View Extracts button.



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

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

There is no limit to the number of data sets you can collect. Each data set will be listed as an entry in the left hand panel.

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 'snapshot' into CAT4.

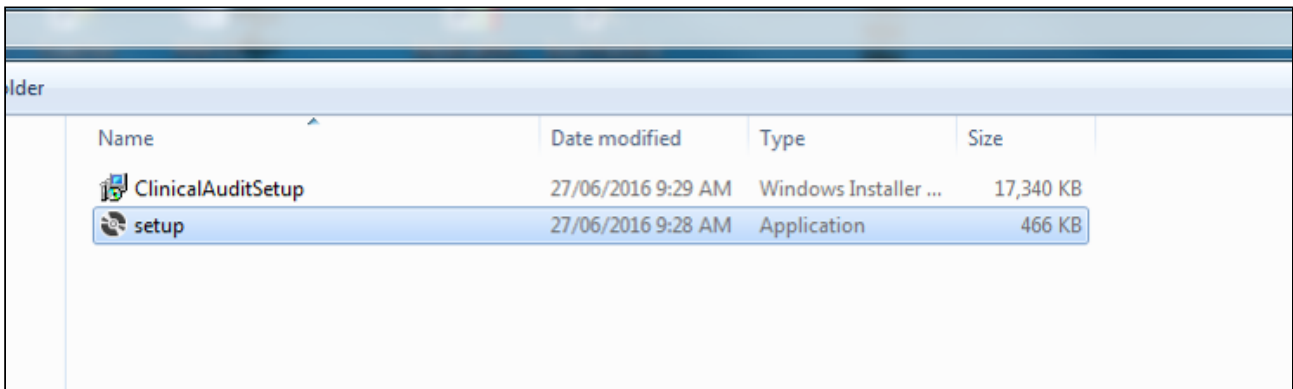
## 6 INSTALL FROM MSI INSTALLER

This installer is provided upon request by PEN CS for users with non standard system setups such as Citrix or large terminal server or similar environments. Unlike the standard click-once CAT4 installer, this installer requires administrator privileges and can be installed for all users. Particularly in larger organisations this will save time for the IT support team and enable the creation of application links in Citrix.

However there are some disadvantages with the main one being that the MSI installer doesn't auto-update. Pen CS is emailing a notification with a download link to all registered MSI CAT4 users, usually shortly after the release of an update to the click-once version. This update needs to be manually installed following the steps below.

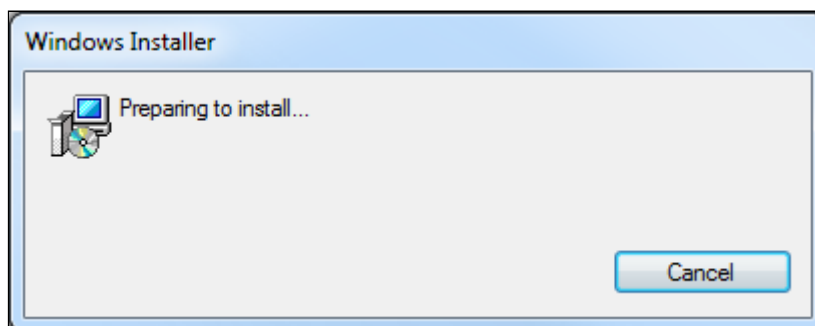
**i** Pen CS does not explicitly support Citrix or other custom environments, but from our experience those organisations using custom setups normally are easily able to install CAT4 from the MSI installer.

To install CAT4 from MSI please download the latest version of the installer as per the update email. The installer will be a compressed (zipped) file containing two files, one called ClinicalAuditSetup.msi and one called Setup.exe

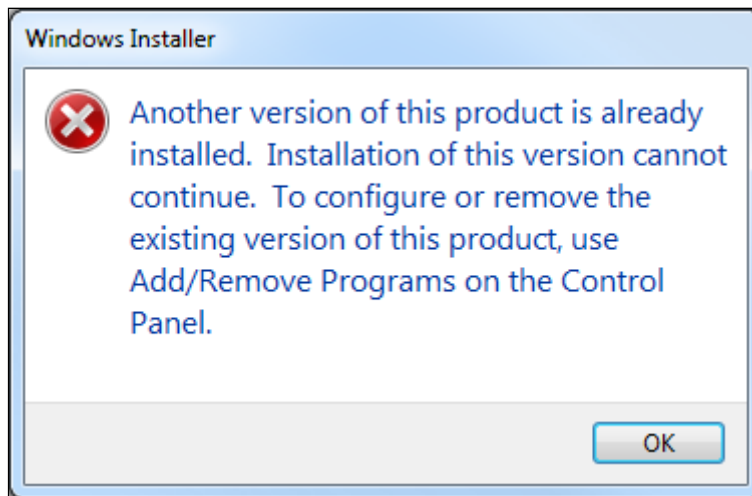


After the successful download uninstall the old version through the control panel/add or remove programs, then install CAT4 by running the Setup.exe.

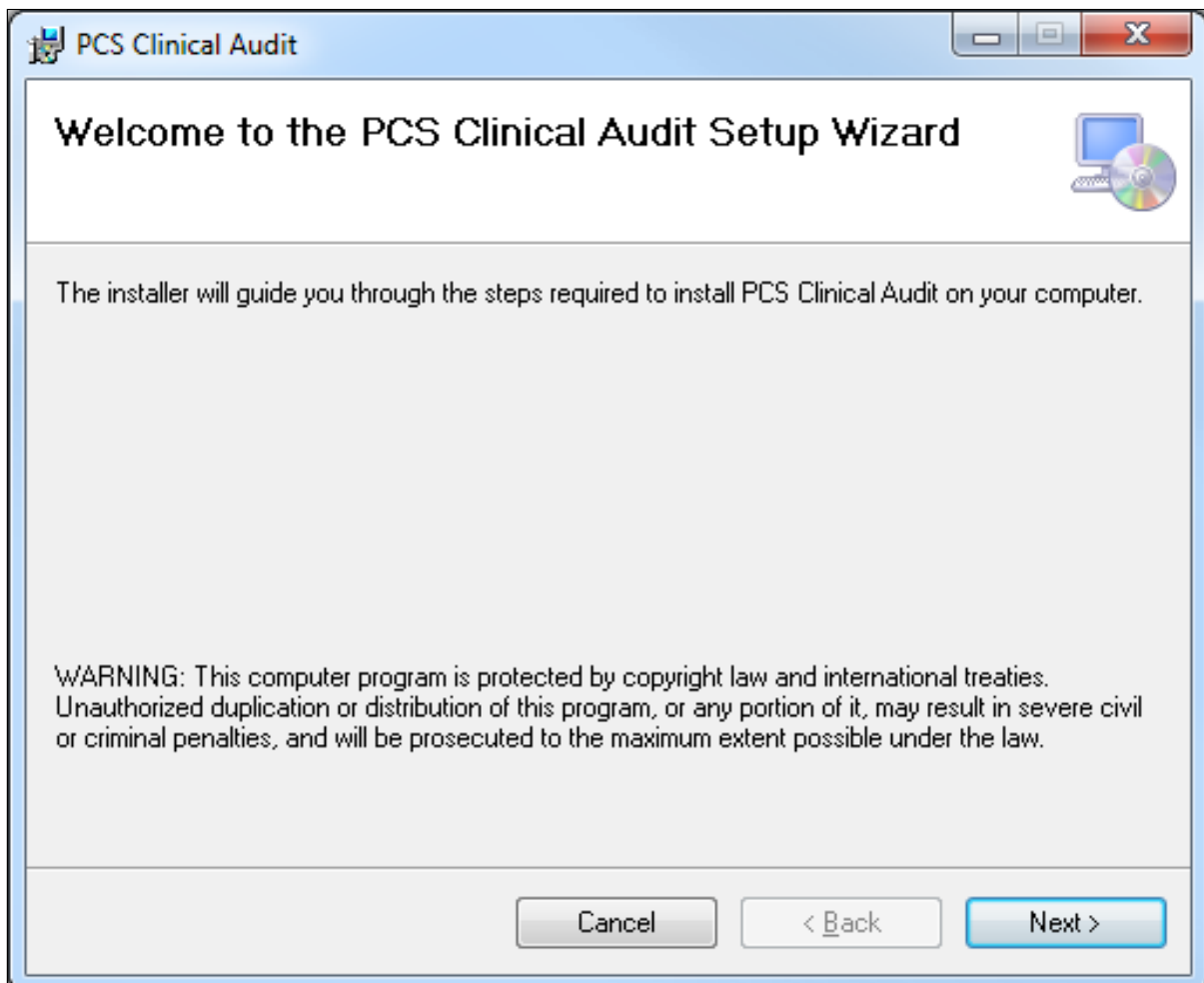
Clicking on 'Setup.exe' will display a number of windows:



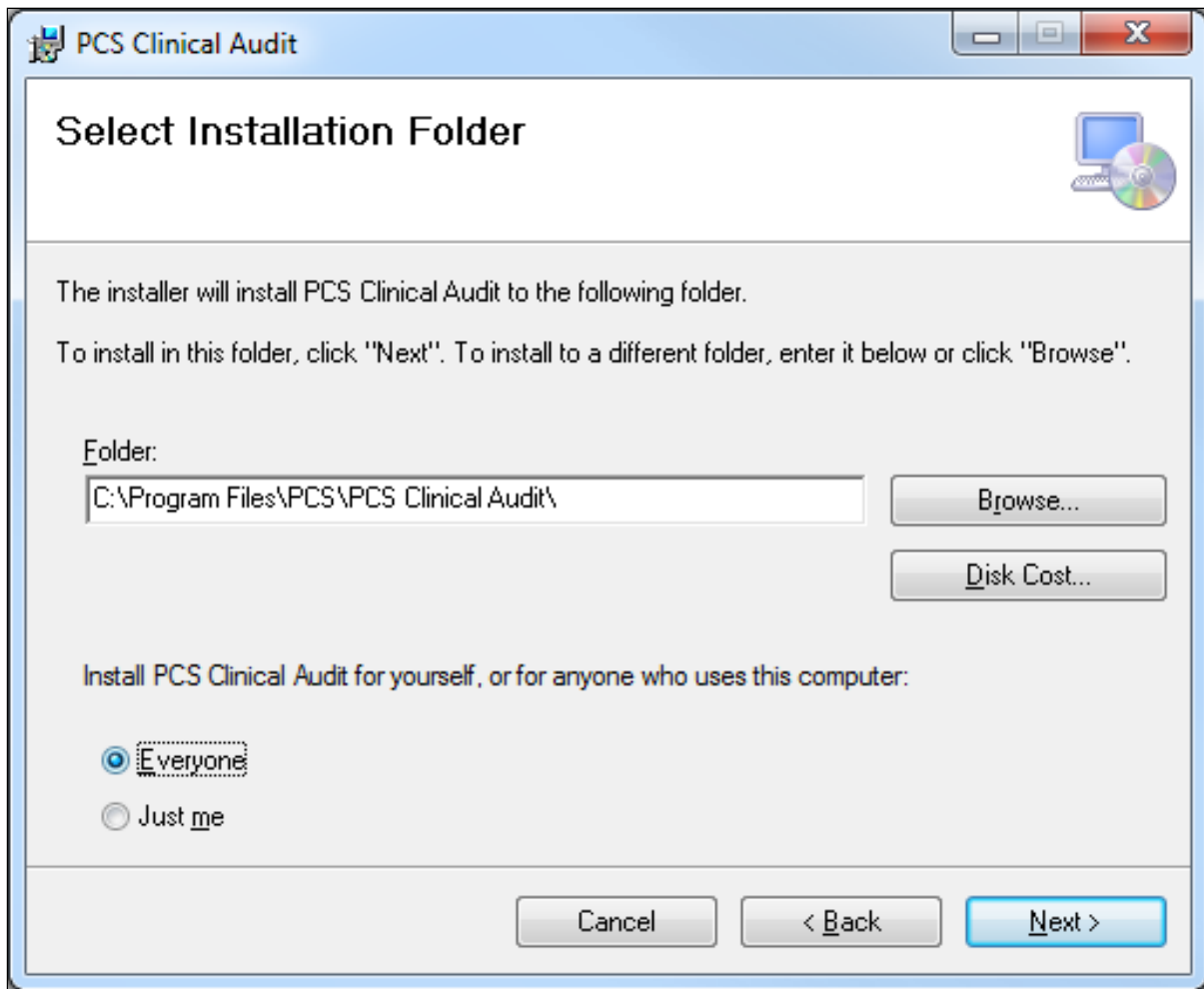
The installer will check if you have uninstalled the previous version and will display a warning if that is not the case:



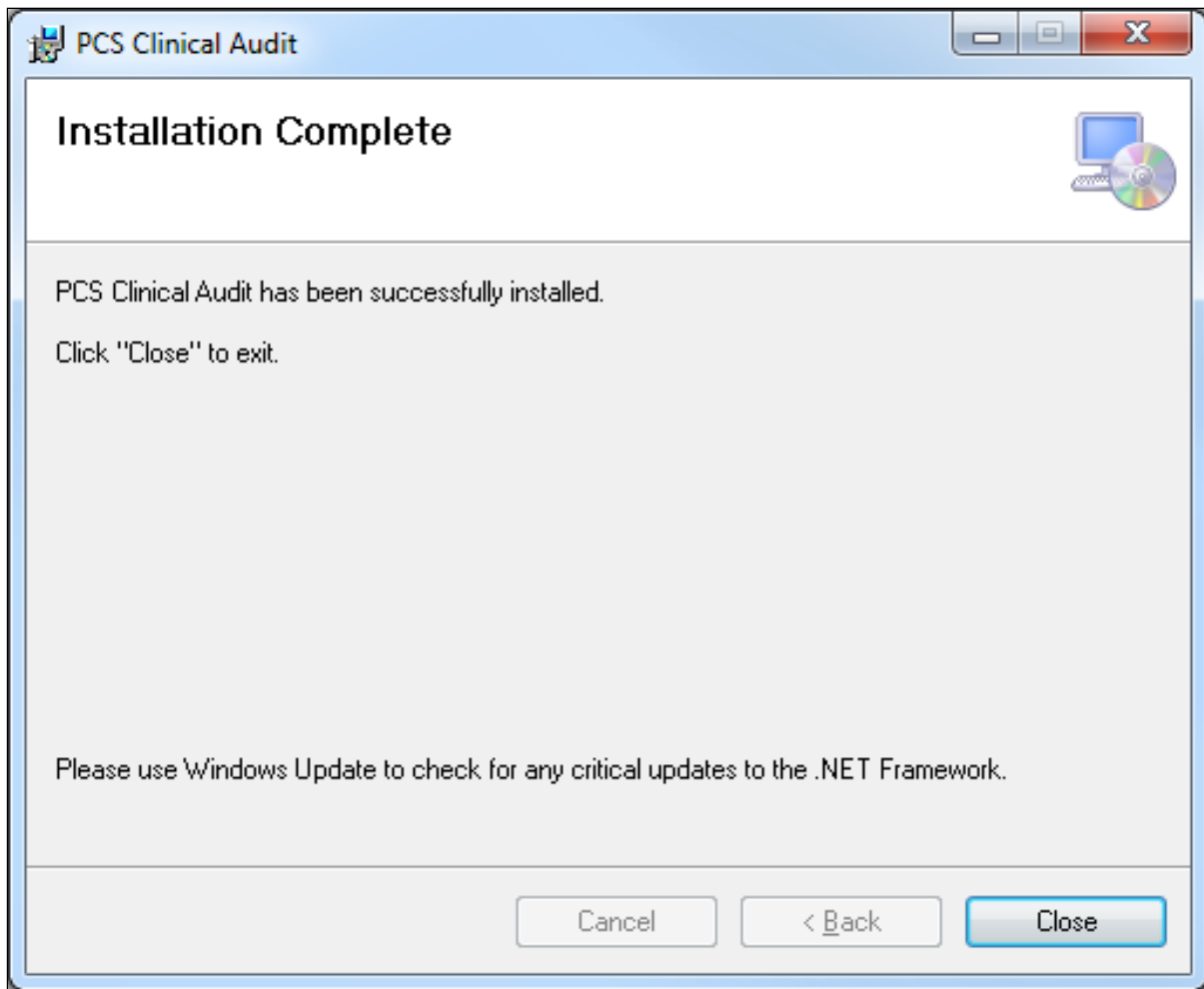
Then the installation will start when you click on 'Next':



Select your preferred installation folder or leave the default folder (recommended) and select the appropriate users, either just for yourself or for all users (Everyone):



Keep clicking the 'Next' button to complete the installation. Once completed, the installer will display the following window:



To finalise the installation you will need to configure CAT4 - please use this guide to set up the preferences for the clinical and billing system as well as the CAT4 settings: [Setting Your Preferences](#)(see page 48)

## 7 FREQUENTLY ASKED QUESTIONS CAT4 INSTALLATION

## 8 CAT4 Scheduler Offline Troubleshooting



PenCS CAT 4 Scheduler can go offline due to a number of reasons. This document is meant for IT support or staff with administrator access and an understanding of their IT infrastructure and will show you how to restart Scheduler.

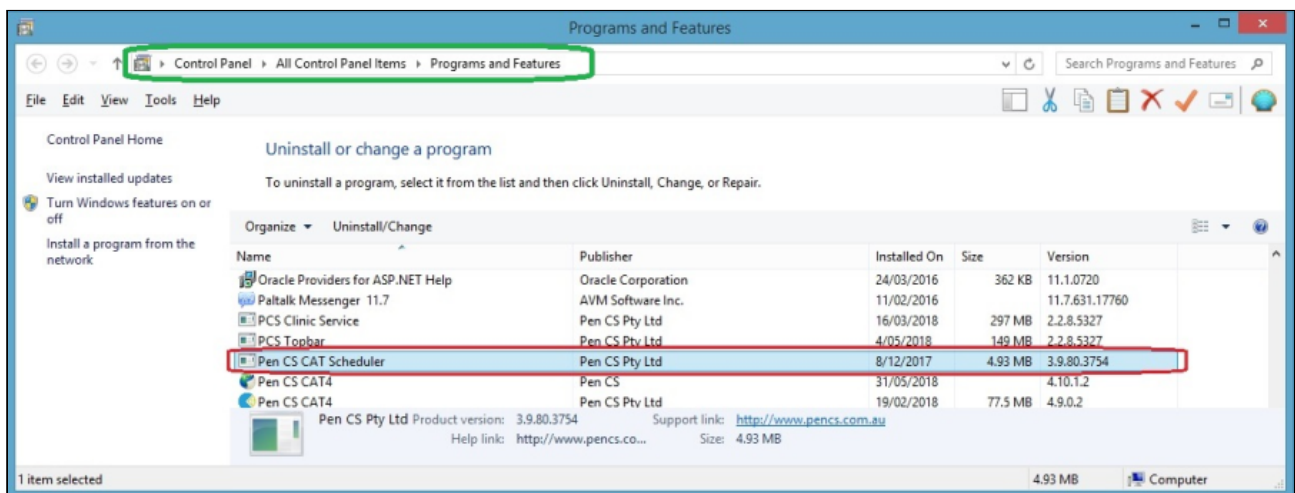
The main causes for Scheduler not working are:

- Pen CS CAT Scheduler Service has been either **disabled** or **removed** (*uninstalled or Server decommissioned etc.*).
- Pen CS CAT Scheduler Service is being **blocked** by Antivirus software
- Local System user has **no permission** to run the service.

### Steps to restart the Scheduler service

Find the computer that has Pen CS CAT Scheduler installed. In most cases this will be the server running the clinical software, but it could also be a workstation. This can be done by checking installed programs on the computer or server.

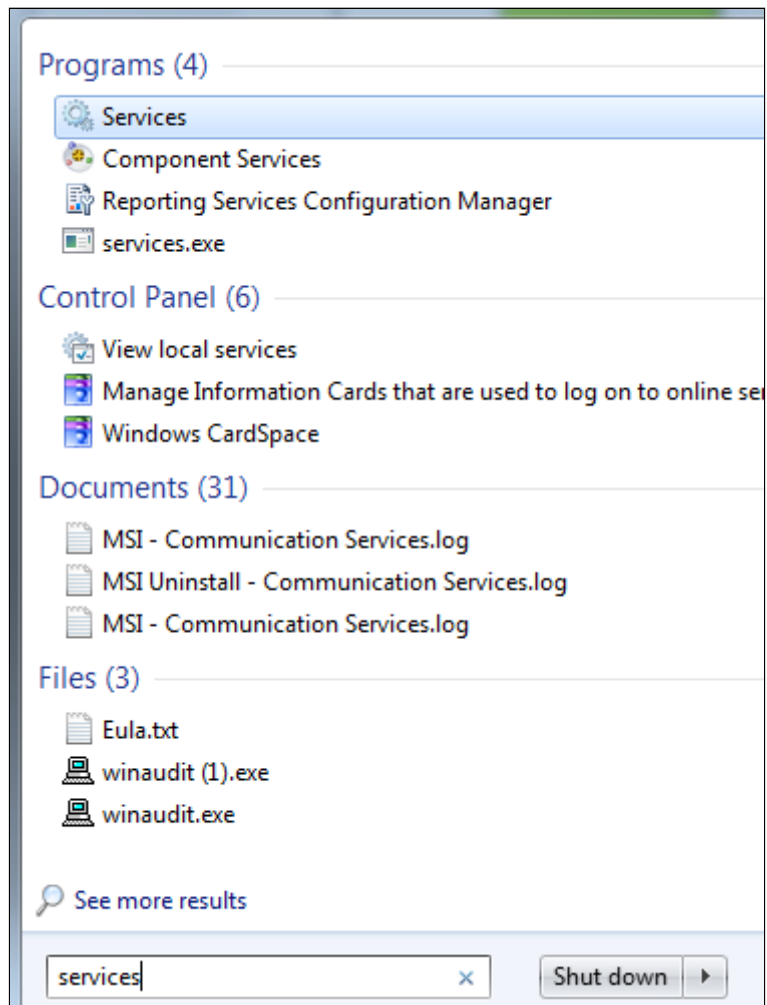
*There should be at least one computer running with Pen CS CAT Scheduler in the practice to send data to the PHN or other organisation; if there is no machine with scheduler installed please book a new installation using this link: <http://www.pencs.com.au/support/online-booking/>*



Make sure CAT 4 Scheduler is running on the computer/ server under windows **Services**. You can access Services by typing 'Services' in the Windows start menu.

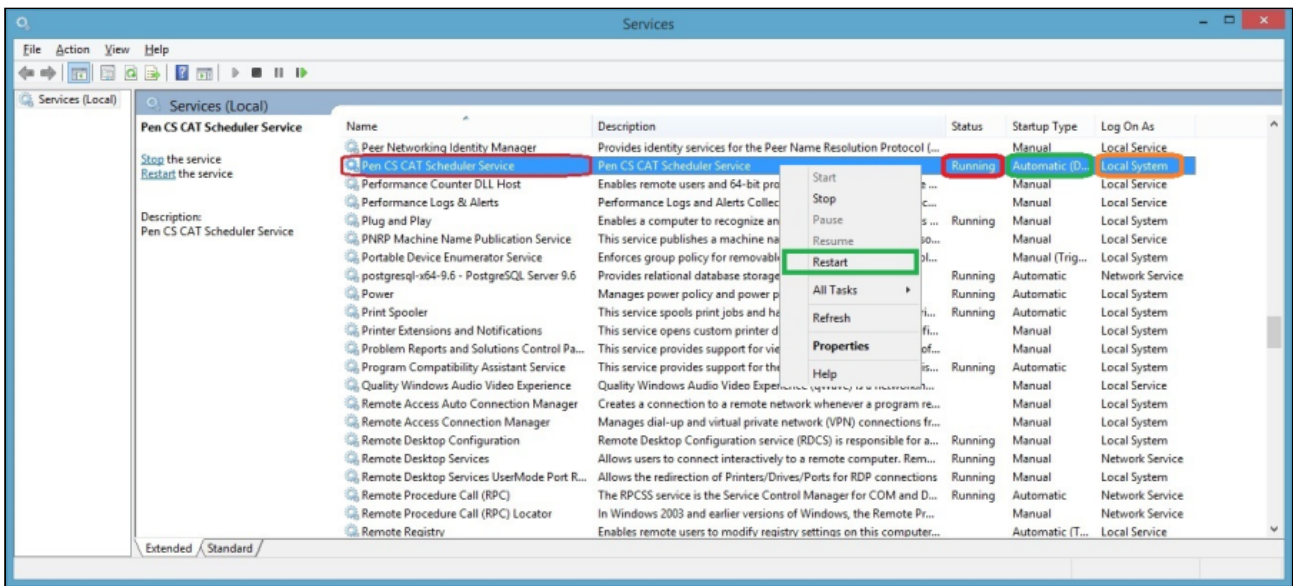
**Please note:** To change Windows services windows logged in user needs the right permissions; if the user does not have the required rights to change windows services; need to request ICT support to do this step.



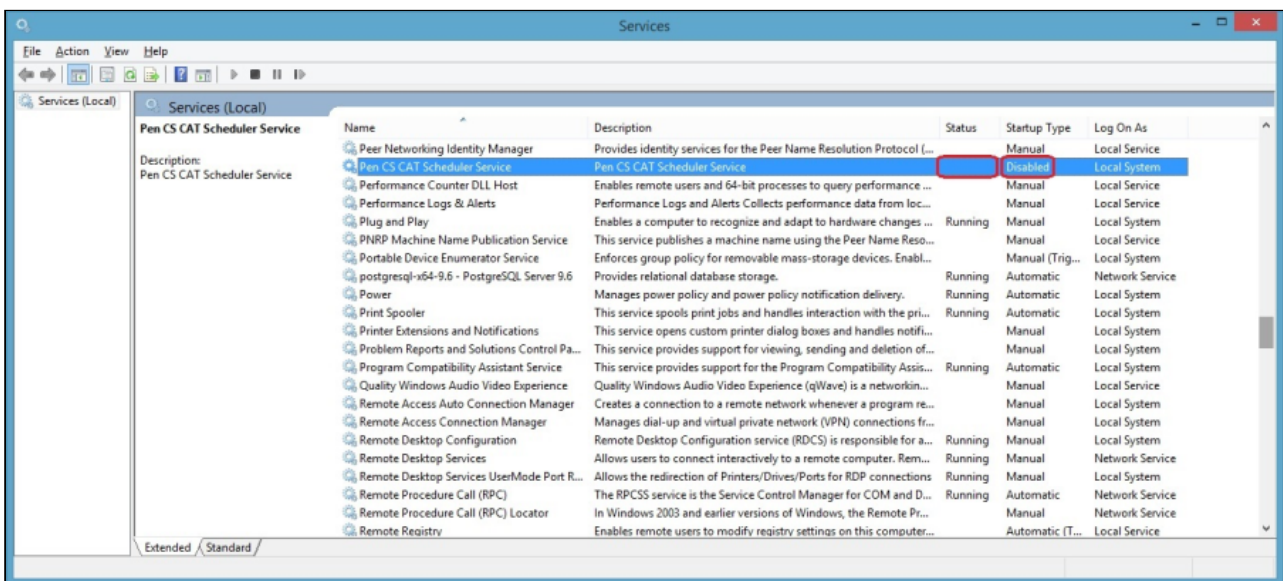


Check the **Status & Start-up Type**

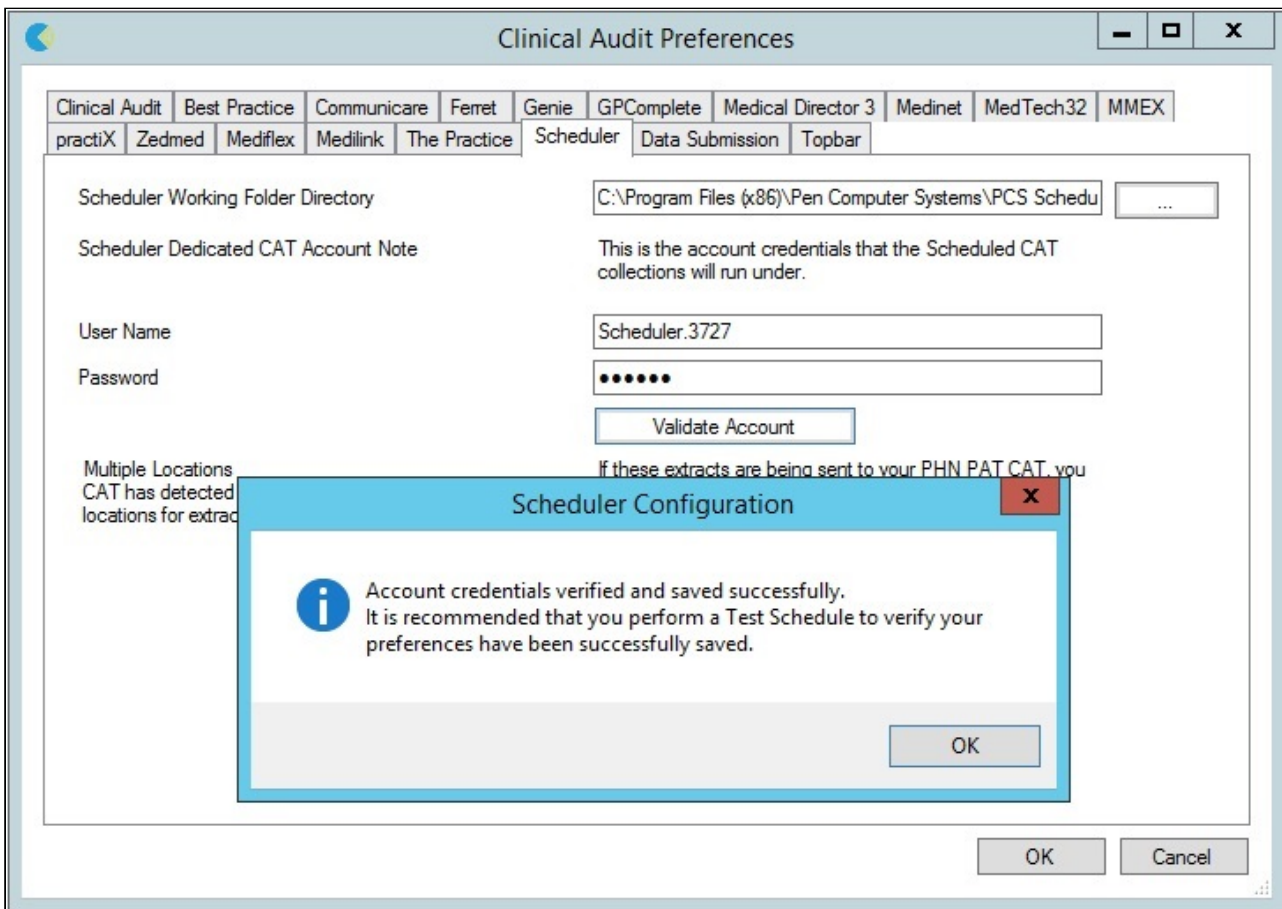
If Service Status is **Running** & Start-up is **Automatic** then restart the service



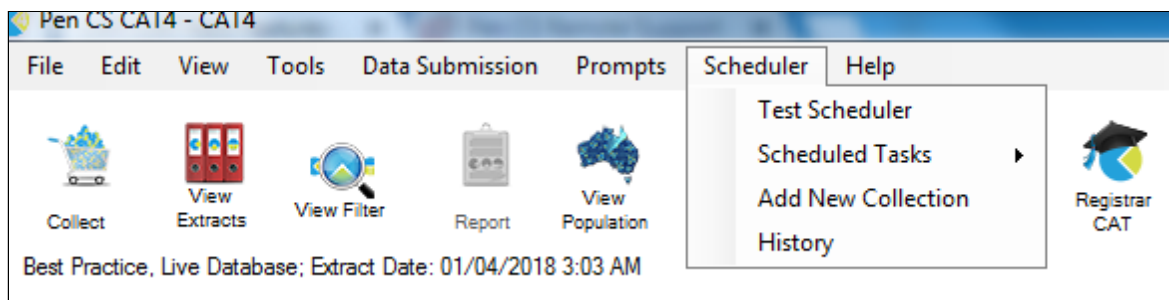
If the Service Status is either not **Running** or Start-up Type is **Disabled**; then Enable & Start the service.

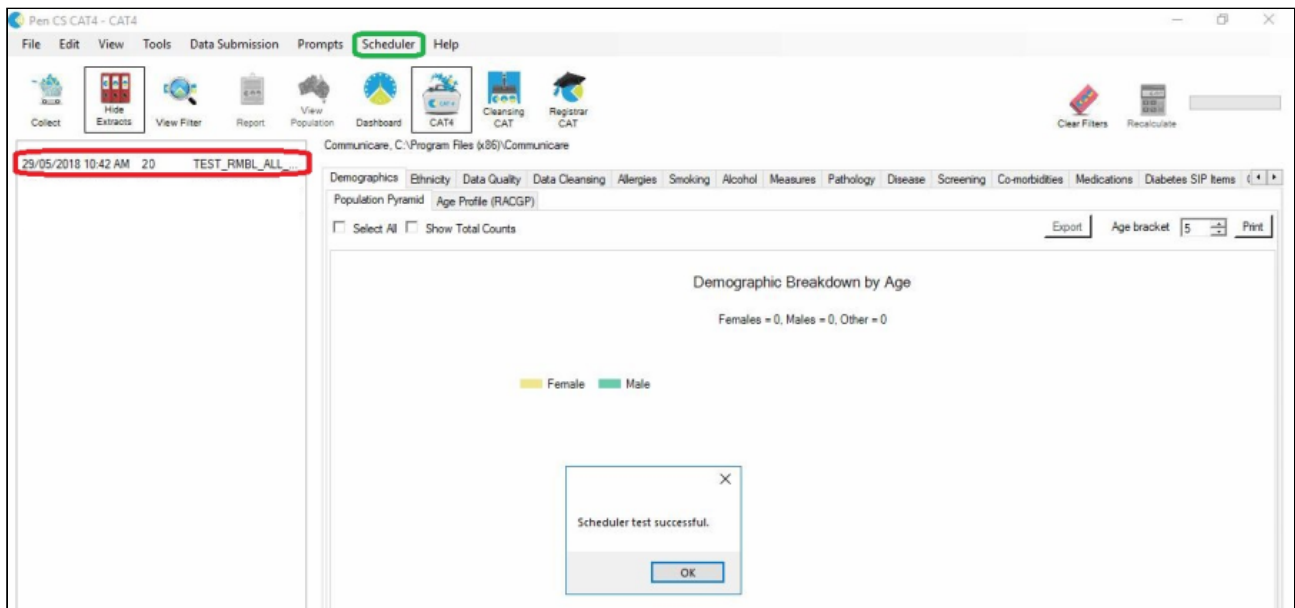


Then validate the scheduler in CAT 4 under Edit/ Preferences/Scheduler



For the verification purpose of CAT 4 Scheduler; 20 Patients test collection can be done using Test **Scheduler** in Scheduler in Menu bar.





If the Test Scheduler runs successfully the PEN CS CAT4 Scheduler is ready to do a full extract. Use **Scheduler** in menu bar to get access to Scheduled tasks.

More information on the set-up of Scheduler can be found here:

<http://help.pencs.com.au/display/CG/Setting+up+CAT4+for+Scheduler>

To upload de-identified data, a location needs to be specified in CAT4. The details on how to configure a 'send to location' can be found here:

<http://help.pencs.com.au/display/CG/Configure+Send+to+PATCAT>

If the Scheduler Test failed please contact Pen CS Support on 1800 762 993