Testing ICM+ data collection

Draeger WinAccess module

Location of the Draeger Gateway access configuration file

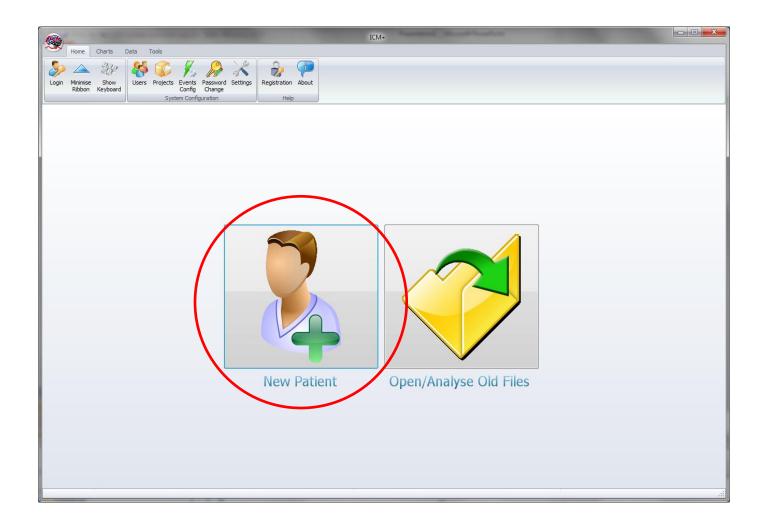
1 2 4 - 2 4			() #	22.20	-		x
🔾 🗢 📔 « Program Fil	es (x86) ▶ University of Cambridge ▶ IC	M+ ► Monitors ► Draeger ► W	/inAccess ► V9	▼ 49	Search V9)
Organize 👻 🦳 Open 🔻	Print Burn New folder					:≡ ▼	?
🔆 Favorites	Name	Date modified	Туре	Size			
📃 Desktop	🚳 DraegerWvApiModule.dll	22/04/2016 09:42	Application extens	158 KB			
👠 Google Drive	IGAcsMsg.dⅡ	26/06/2014 15:19	Application extens	97 KB			
🗐 Recent Places	WvAPI.dll	26/06/2014 15:20	Application extens	494 KB			
禒 Dropbox	WvAPI.ini	03/04/2016 09:11	Configuration sett	1 KB			
iCloud Drive	WVResources_en.dll	26/06/2014 15:21	Application extens	196 KB			
🔹 iCloud Photos	🚳 WvSvc.dll	20/10/2014 11:07	Application extens	117 KB			
	🚳 WWIGAcsMsg.dll	26/06/2014 15:20	Application extens	97 KB			
🛜 Libraries							
Documents							
👌 Music							
Pictures	-						
WvAPI.ini Configuration sett	Date modified: 03/04/2016 09:11 ings Size: 69 bytes	Date created: 03/04/2016 09:11	L				

The Draeger gateway configuration file

Needs to be edited with the correct values!

WvAPI.ini - Notepad	-	-	-	
<u>File Edit Format View</u>	<u>H</u> elp			
[gateway] ServerName=localho UserName=quest Password= Domain=	-			*
				Ŧ

Starting new data collection session



Clear previously loaded configuration for a fresh start

roject :	Generic Wew Project				
ata File:	C:\Users\peter\Docu	iments\ICM+\Data\generic_2016042	2094413_HEX.icmp		
Patient's ir	nformation				
First Nar	ne	Middle Initial	Date Of Birth	22/04/2016 🗐 🖛	00:00
Surname	e		Date Of Ictus	22/04/2016 🗐 🔻	00:00 🚔
Hospital	ID		Date Of Admission	22/04/2016 🔲 🔻	00:00 🚔
Room/Be	ed No		Gender	🖲 Male 🛛 🔘 Fer	nale
Anonymi	sed ID				
Clinical t	background				
Clinical t	packground				
		raphics From			
Re	etrieve Demog	raphics From			•
Re Data Acqui	etrieve Demog		inAccess simul test :	2 wv 2 num with	• time • Es
Data Acqui C:\VCN	etrieve Demog	onfiguration Profile		2 wv 2 num with	• time • • 📲

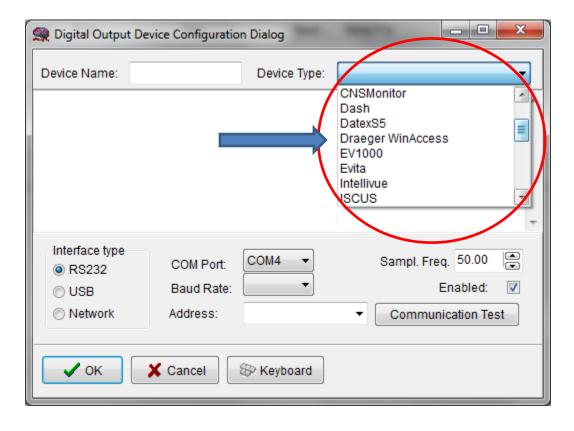
New Data Acquistion Form Signal Sources configuration

New Data Acc	quisition S	Session Form			×
Project :	Gene	ric		•	New Project
Data File:	C:\Users	\peter\Documents\ICM+\Data\generic_20160422	2094413_HEX.icmp		
Patient's	informati	on			
First Na	ame	Middle Initial	Date Of Birth	22/04/2016 🔲 🔻	00:00 🚔
Surnan	ne		Date Of Ictus	22/04/2016 🗐 🗸	00:00
Hospita	al ID		Date Of Admission	22/04/2016 💷 🔻	00:00
Room/E	Bed No		Gender	🖲 Male 🛛 🔘 Fei	male
Anonyn	nised ID				
Clinical	l backgroi	und			
R	letrieve	Demographics From			
-Data Acq	uisition/A	nalysis Configuration Profile			
					 ▼ [2]
Custor	nise the p	rofile 🛛 💊 Clear All 🔹 Sign	als Sources 🔰 ∑ On	Line Analysis	
				Line Analysis	
	² OK	🗶 Cancel 🛞 On Se	creen Keyboard		

Signal sources configuration Adding new device

🙊 Sampler Configur	ation Dialog				<u> </u>
Digital output devices	Analogue output devices	RS232 ASCII streaming dev	ices		
Name	Туре	Port Baud	I Sampl Frq	Enabled	
Modify	+ <u>A</u> dd	elete			
Name	Units Device	Waveform Min V	Max Enabled		
Modify	+ <u>A</u> dd	elete			
🗸 ок 🗙	Cancel	ave 🗎 Load	Advanced	Stevenson Keyboard	

New Device configuration Select Draeger module



Refreshing the beds list

🤵 Digital Outpu	t Device Configuration	Dialog		x
Device Name:	Draeger WinAccess	Device Type:	Draeger WinAccess	•
WvAPI library ver	sion 9.0			~
Monitors/beds li WvAPI library ver				Ŧ
Interface type		esh bed list ICU.Bed1	Sampl. Freq. 200.00 Enabled:	
• ок	🗶 Cancel 😫	> Keyboard		

Test of communication with the chosen bed monitor

🤵 Digital Outpu	t Device Configuration	Dialog	See and	- O -X	
Device Name:	Draeger WinAccess	Device Type:	Draeger WinAcces	s •	-
WvAPI library ve	rsion 9.0				~
Monitors/beds li WvAPI library ve					
					-
Interface type		esh bed list	Sampl. Free	q. 200.00 📄	
Network	Address:	CU.Bed1	Commun	ication Test	
🗸 ок	X Cancel	> Keyboard			

Response from the bed Click OK to close if all fine

ſ	🤵 Digital Outpu	t Device Configuration	n Dialog		_		×	
	Device Name:	Draeger WinAccess	Device Type:	Draeger V	VinAccess		•]
	Connection esta	ablished						^
	List of available Available waves Connection clos	numerics list: ART,"E	CG II",DBGRTIMI	E,DBGCF,SI	002,HR			+
	Interface type			Sa	mpl. Freq.	200.00		
	Network	Ref	resh bed list			abled:		
	C Hoursen	Address:	ICU.Bed1	•	Communica	ation Tes	st	
	• ок	🗶 Cancel 🗧	Exercise Keyboard					

Adding new modalities to data collection

🙊 Sampler Configur	ation Dialog					- O X
Digital output devices	Analogue output devices	RS232 ASCII streami	ng devices			
Name	Туре	Port	Baud	Sampl Frq	Enabled	
Draeger_WinAcce	ess Draeger WinAccess	ICU.Bed1	0	200.00	Υ	
Modify	+ <u>A</u> dd - <u>D</u>	elete 🤇 Clea	ar			
Name	Units Device	Waveform N	lin V M	ax Enabled		
Modily	+ Add	elete 🖄 Clea	a <u>r</u>			
🗸 ок 🗙	Cancel	Save 📔 Load		Advanced	SP Keyboard	

Signal selection dialog Retrieving list of available waves

👷 Digital Output Device Signals Selection Dialog
Device : Draeger_WinAc
Signal Name :
Signal Units :
Waveform :
Enabled 🔽
Physiological Values Range
Min Value : 0
Max Value : 300 Start Stop
V OK X Cancel 🛞 Keyboard

Select wave/parameter to collect

🤵 Digital Output Device	-		
Device : Draeger	Signal selection dialog		
Diacy i_	List of available signals		
Signar warne .	ECG II		
Signal Units :	DBGRTIME DBGCF		
Waveform :	SpO2 HR		
Enabled 🔽			
Physiological Values Ra			
Min Value : 0			
Max Value : 300	Refresh the list	rt Stop	
	V OK X Cancel		
🗸 ок 🗶 са]	

Testing collection

🤵 Digital Output Device Signals Select	tion Dialog
Device : Draeger_WinAc 👻	Preview
Signal Name : ART	
Signal Units :	
Waveform : ART	0
Enabled 🔽	
Physiological Values Range	
Min Value : 0	
Max Value : 300	Start Stop
V OK X Cancel	Keyboard

Accept the wave to add to data collection

👷 Digital Output Device Signals Selec	ction Dialog
Device : Draeger_WinAc 🔻	Preview
Signal Name : ART	10.28 10.26
Signal Units :	10.24 10.22
Waveform : ART	10.2
Enabled 🔽	10.16 10.14 10.12
Physiological Values Range Min Value : 0	10.12
Max Value : 300	Start Stop
✓ ОК Х Cancel (8)	⊳ Keyboard

Add another parameter

🙀 Sampler Configura	ation Dialog					_ 0 X
Digital output devices	Analogue output devices	RS232 ASCII strea	ming devices	i		
Name	Туре	Port	Baud	Sampl Frq	Enabled	
Draeger_WinAcce	ss Draeger WinAccess	ICU.Bed1	0	200.00	Y	
Modify			lea <u>r</u>			
ART	Units Device	Waveform		lax Enabled		
ART Draeger_WinAcce ART 0 300 Y						
Modify + Add - Delete M Clear ✓ OK X Cancel Save Load So Keyboard						
				_		

Completed configuration

tal output devices	Analogue output device		reaming device				
an output dovidea	Analogue output device	es RS232 ASCII st	rearning device	5			
Name	Туре	Port	Baud	Sampl Fro	Enab	led	
Draeger_WinAcce	ss Draeger WinAcces	s ICU.Bed1	0	200.00	Y		
🕅 <u>M</u> odify	<u>+ A</u> dd –	Delete	Clea <u>r</u>				
Name	Units Device	Waveform	Min V	Max Er	abled		
ART	Draeger_V	VinAcce ART	0	300 Y			
HR	Draeger_V	VinAcce HR	0	300 Y			
Modify	+ <u>A</u> dd –	Delete	Clea <u>r</u>				
\frown							
🖊 ок	Cancel	Save 🐴 L	oad	🔊 Adva	nced 8	Keyboard	
			o a a		1000	/ Roybourd	

Retrieve demographics

New Data Acquisition Session Form							
Project :	Generic	2		•	New Project		
Data File:	C:\Users\pe	eter\Documents\ICM+\Data\generic_2016042	2094413_HEX.icmp				
-Patient's i	information						
First Na	me	Middle Initial	Date Of Birth	22/04/2016 🗐 🔻	00:00		
Surnam	e		Date Of Ictus	22/04/2016 🔲 🔻	00:00		
Hospita	IID		Date Of Admission	22/04/2016 🗐 🔻	00:00		
Room/B	ed No		Gender	🖲 Male i 🔘 Fer	male		
Anonym	ised ID						
Clinical	background	d					
		-					
			107 0				
R	etrieve D	emographics From Dra	eger_WinAccess		•		
-Data Acqu	Data Acquisition/Analysis Configuration Profile						
					- €		
Customise the profile 🛛 💊 Clear All 💦 Signals Sources 🔀 On Line Analysis							
	ОК	🗙 Cancel 🛞 On S	creen Keyboard				

Accept the import

New Data Acq	quisition S	ession Form	×
Project :	Gener	ic 🔹	New Project
Data File:	C:\Users\	peter\Documents\ICM+\Data\generic_20160422094413_HEX.icmp	
Patient's First Na Surnam Hospita Room/B Anonym Clinical	ame ne al ID Bed No	Info received: Bed Location: ICU.Bed1 First Name: John First Name: John Last Name: Dow ID: 12345 DOB: 02/01/2000 Sex: Male Other:	
Data Acqu	etrieve uisition/Ar	OK X Cancel	•
	ОК	Cancel 😵 On Screen Keyboard	

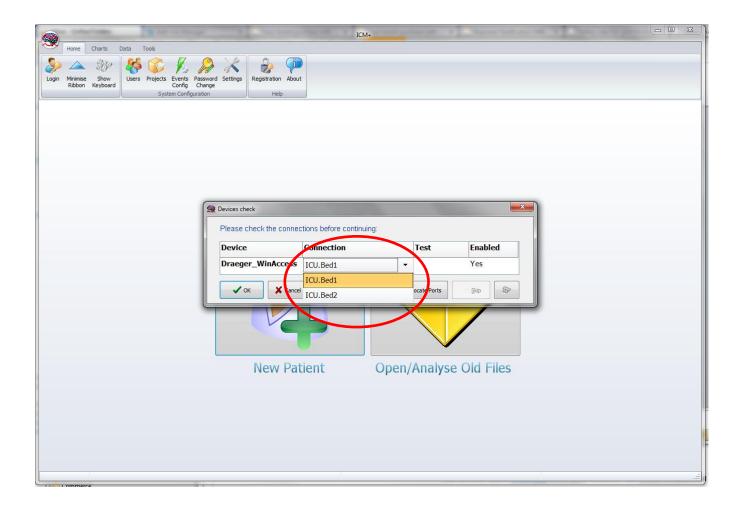
OK to start new session

New Data Acquisition Session Form											
Project :	Project : Generic New Project										
Data File:	C:\Users\	\peter\Docur	ments\ICM+	\Data\ger	neric_201604	22094	413_HEX.icmp				
-Patient's i	informatio	on									
First Na	me			Midd	e Initial		Date Of Birth	22/04/2016		00:00	
Surnam	e					1	Date Of Ictus			00:00	
Hospita	I ID						Date Of Admission	22/04/2016		00:00	
Room/B	ed No						Gender	Male () Fer	nale	
Anonym	ised ID										
Clinical	backgrou	und									
	Detrieve Demographics From							-			
	Retrieve Demographics From Draeger_WinAccess										
Data Acquisition/Analysis Configuration Profile											
											• 🗄
Customise the profile 🛛 💊 Clear All 🛛 🔪 Signals Sources 🖉 🔀 On Line Analysis											
	OK		🗙 Cance	el	🕾 On	Scree	n Keyboard				
		/									

Analysis trends will be configured automatically

New Data Acquisition Session Form								
Project :	Generic Wew Project							
Data File:	C:\User	s\peter\Documents\ICM	//+\Data\generic_20160422	101920_HEX.icmp				
Patient's i	nformat	tion						
First Na	me	John	Middle Initial	Date Of Birth	02/01/2000 🗐 🖛	00:00		
Surnam	е	Dow		Date Of Ictus	22/04/2016 🗐 🔻	00:00		
Hospital	ID	12345		Date Of Admission	22/04/2016 🔲 🔻	00:00		
Room/B	ed No	ICU.Bed1 Gender O Male Female						
Anonym	Anonymised ID							
Clinical	Confirm Example Confirm							
	There are no final time trends configured - they will be generated automatically							
R	OK Cancel							
Data Acquisition/Analysis Configuration Profile								
C:\\ICM+\Configs\Testing\Profile - Draeger WinAccess simul test 2 wv 2 num with time -								
Customise the profile 🛛 💊 Clear All 🔍 Signals Sources 🔀 On Line Analysis								
✓ OK X Cancel 😵 On Screen Keyboard								

Bed selection/confirmation



Connection test

	owner, be weeken	ICM+	State Street Street Street		
Home Charts Data Tool	ojects Events Password Settings Config Change	on About ep			
	Devices check Please check the connec	tions before continuing:	-	X	
	Device	Connection	Test	Enabled	
	Draeger_WinAccess	ICU.Bed1		Yes	
	V OK	Test Connections	à Auto Allocate Ports	Skip	
		7			
	Nev	v Patient Ope	n/Analyse Old File	S	
		history			

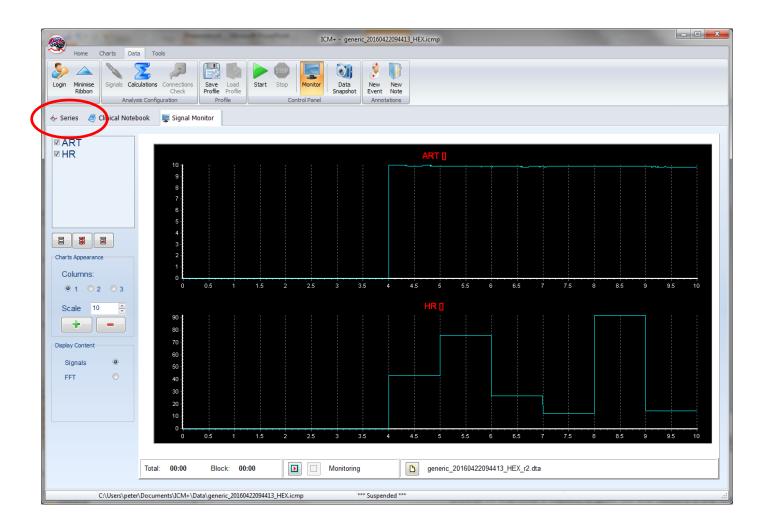
All good – start the session

Weine Charts Data Tods Joing Weininge Show Weininge Show Weininge Show Login Weininge Show Weininge Show Weininge Show System Configuration Help Help Help Help	
Logn Mrimise Show Ribbon Keyboard Users Projects Events Password Settings System Configuration Repstration About Help Wrimise Show Ribbon Keyboard Users Projects Events Password Settings System Configuration Repstration About Help Wrimise Show Ribbon Keyboard Users Projects Events Password Settings System Configuration Repstration About Help Wrimise Show Ribbon Keyboard Users Projects Events Password Settings System Configuration Repstration About Help Please check the connections before continuing: X	
System Configuration Help	
Please check the connections before continuing:	
Please check the connections before continuing:	
Please check the connections before continuing:	
Please check the connections before continuing:	
Please check the connections before continuing:	
During Competing Test Fachlad	
Device Connection Test Enabled	
Draeger_WinAccess ICU.Bed1 / Yes	
✓ OK Cancel OTest Connections Auto Allocate Ports Skip &	
New Patient Open/Analyse Old Files	
New Fatient Open/Analyse Old Thes	

Charts screen Monitor available raw data

ICM+ - generic_20160422094413_HEX.icmp	- 0 ×
Mome Charts Data Tools	
Image: Signals Calculations Connections Check Save Load Profile Save Load Profile Save Load Control of Profile Save Load Data Shapshot Save Load Profile New New Event Note Annotations Series Image: Configuration Image: Configuration Save Load Profile Save Load Profile Save Load Save Load Profile Save Load Save Load Profile New New Event Note Annotations	
	_
22/4 11:00 22/4 12:00 22/4 13:00	22/4 14:00
4 Hours : 12/03/2004 12:30 - 12/03/2004 16:30	
	٩
C:\Users\peter\Documents\ICM+\Data\generic_20160422094413_HEX.icmp	.::

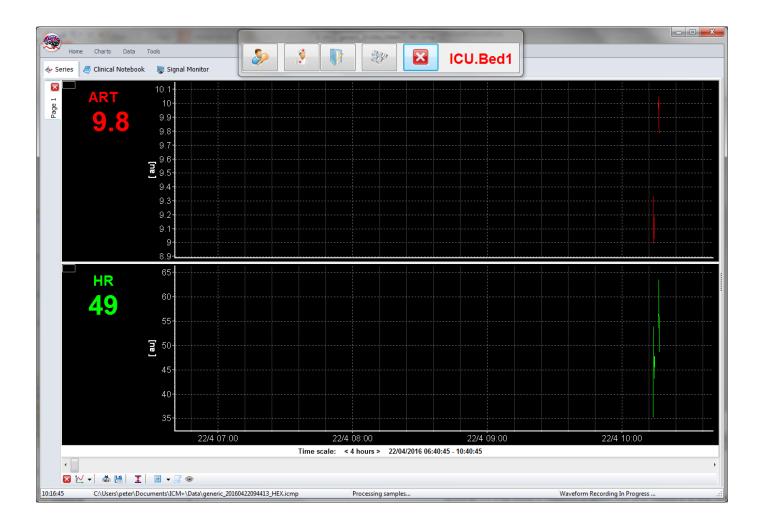
Changing back to trends charts



Starting data collection

ICM+ - generic_20160422094413_HEX.icmp	
Login Minimise Ribbon Ribbon Ribbon Riguration Connections Analysis Configuration Profile Profile Control Panel	
🔄 Series 🧧 Clinical Notebook	
22/4 11:00 22/4 12:00 22/4 13:00 4 Hours: 12/03/2004 16:30	22/4 14:00
	F
C:\Users\peter\Documents\ICM+\Data\generic_20160422094413_HEX.icmp	

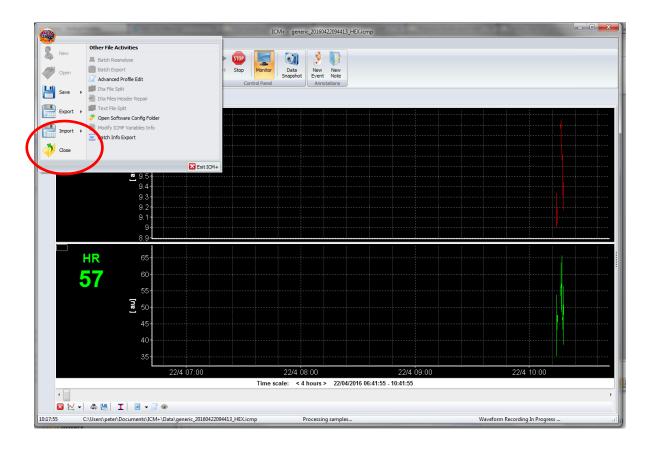
Data collection in progress



Terminating the session show the full menu

Home Charts Data Tools		U.Bed1
Series Clinical Notebook Signal Monitor		
9.6 9.5 9.4 9.3 9.2 9.1		
9 8.9 HR 65 49 60		
55 a 50 45 40		
3522/4 07:0	0 22/4 08:00 Time scale: < 4 hours > 22/04/2016 06:40:45 - 10:	22/4 09:00 22/4 10:00 40:45
Image: Second state Image: Second state 10:16:45 C:\Users\peter\Documents\JCM+\Data\generic_201	60422094413_HEX.icmp Processing samples	Waveform Recording In Progress:

Close the session



New session Loading preconfigured profile

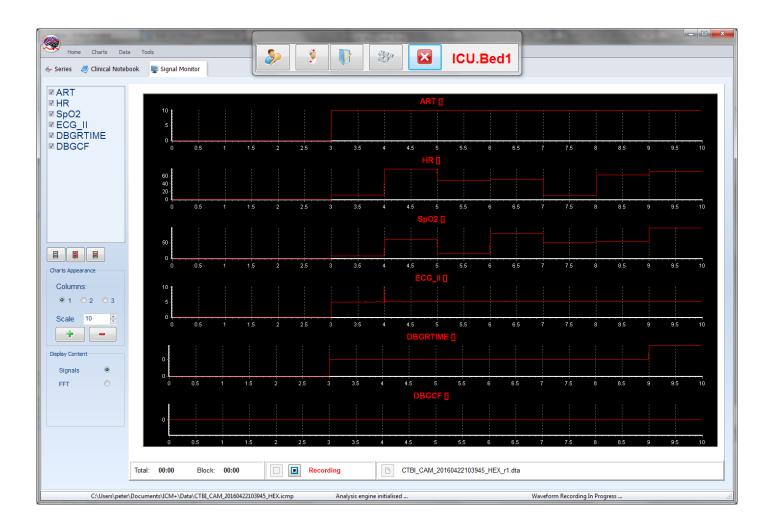
	ICM+	- • ×			
Home Charts Data Tools					
Login Minimise Show Ribbon Keyboard Users Projects Events Password Sett Config Change System Configuration	ettings Registration About Help				
	cquisition Session Form				
Project :	CENTER-TBI				
Data File:	C:\Users\peter\Documents\CM+\Data\CTBL_CAM_20160422103945_HEX.icmp				
Patients	's information				
First Na	Name Middle Initial Date Of Birth 22/04/2016				
Surnam					
Hospita Room/B					
	mised ID				
Clinical	al background				
Retrieve Demographics From					
Data Acqu	equisition/Analysis Configuration Profile				
Customise the profile View Clear All					

Get demographics

New Data Acquisition Session Form							
Project :	CENTER-TBI						
Data File:	C:\Users	\peter\Documents\ICM+\Data\CTBI_CAM_201604	422103945_HEX.icmp				
-Patient's i	informati	on					
First Na	me	Middle Initial	Date Of Birth	22/04/2016 💷	00:00		
Surnam	e		Date Of Ictus	22/04/2016 🔲 🔻	00:00		
Hospita	IID		Date Of Admission	22/04/2016 🗐 🔻	00:00		
Room/B	Room/Bed No		Gender	🖲 Male 🛛 💿 Fer	nale		
Anonym	ised ID						
Clinical	backgrou	und					
			107 0				
Retrieve Demographics From Draeger_WinAccess							
Data Acquisition/Analysis Configuration Profile							
C:\Users\peter\Dropbox\ICM+\Configs\Profile - Draeger WinAccess simul test 2 wv 2 nu 🕶 🔚							
Customise the profile Clear All Signals Sources Sources							
	OK	X Cancel 😵 On Sc	reen Keyboard				

New Data Acquisition Session Form								
Project :	CEN	NTER-TBI						
Data File:	Data File: C:\Users\peter\Documents\ICM+\Data\CTBI_CAM_20160422103945_HEX.icmp							
Patient	's informat	ion						
First	First Name John Middle Initial Date Of Birth 02/01/2000 🗐 🗸 00:00							
Surna	ame	Dow		Date Of Ictus	22/04/2016 🔲 🔻	00:00		
Hosp	ital ID	12345		Date Of Admission	22/04/2016 💷 🔻	00:00 🚔		
Room	/Bed No	ICU.Bed1		Gender	🖲 Male 🛛 🔘 Fei	male		
Anony	/mised ID							
Clinic	Clinical background							
Proger WinAccosc								
Retrieve Demographics From Draeger_WinAccess								
Data Acquisition/Analysis Configuration Profile								
C:\Users\peter\Dropbox\ICM+\Configs\Profile - Draeger WinAccess simul test 2 wv 2 nu 🕶								
Customise the profile 🛛 💊 Clear All 💦 Signals Sources 🔀 On Line Analysis								
	🗸 ok		X Cancel	😵 On S	creen Keyboard			

Raw waveforms view



Charts view

Home Charts Data Tools	 >> > >> <!--</th--><th>ICU.Bed1</th><th></th>	ICU.Bed1	
Series Clinical Notebook Signal Monitor			
HR 53			
SpO2 60 50 40 30			
ECG_II			
0.005 0.005 0.005 0.005 0.005			
DBGCF 0.05 0.05 0.00 -0.1 22/4 07:00 22/4 07:	30 22/4 08:00 22/4 08:30 22/4	09.00 22/4 09.30 22/4 10.00 22/4 10	0:30 22/4 11:00
		2016 06:58:35 - 11:10:35 Waveform Recording In Progress	•