

VITALSTIM™ PLUS Software Tutorial



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OPENING SOFTWARE

Click VITALSTIM software icon on your desktop

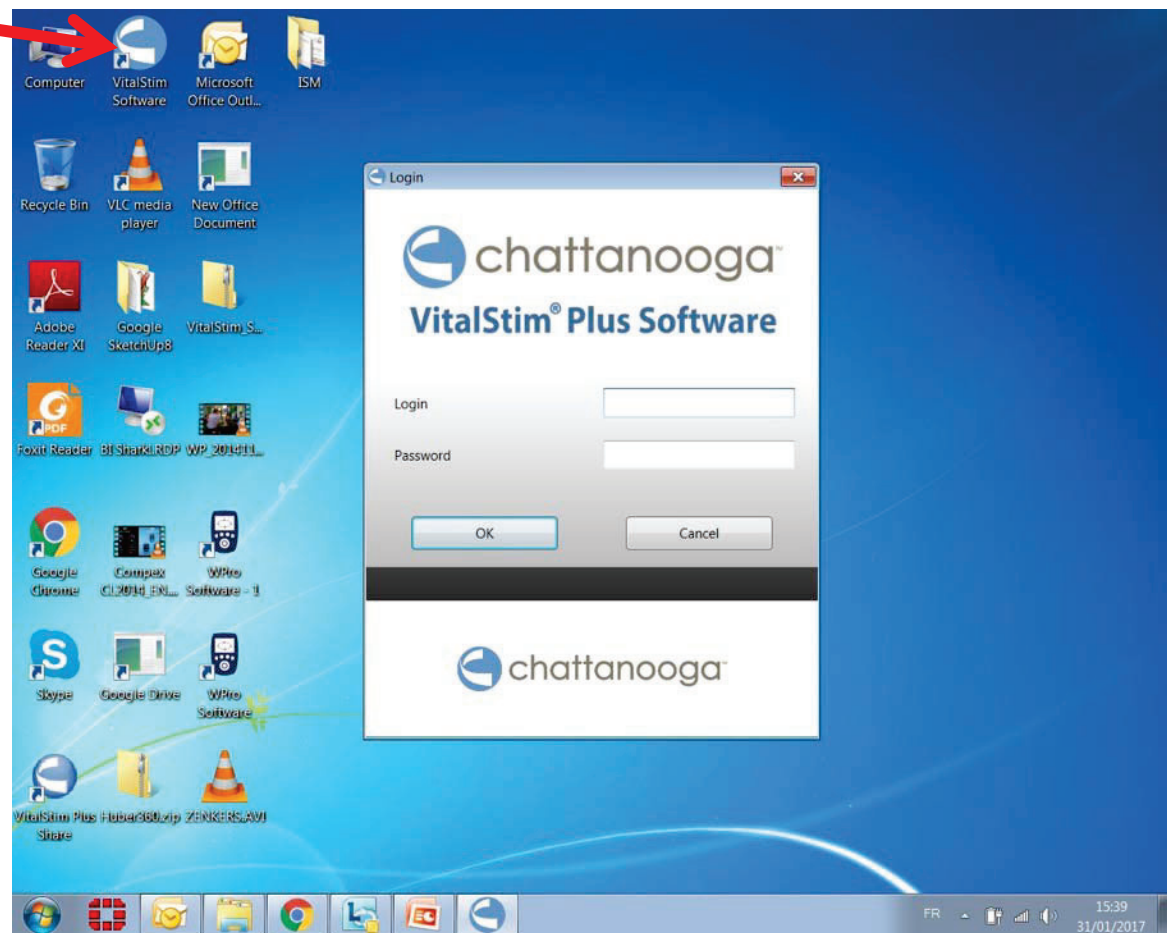




OPENING SOFTWARE

Click VITALSTIM software icon on your desktop

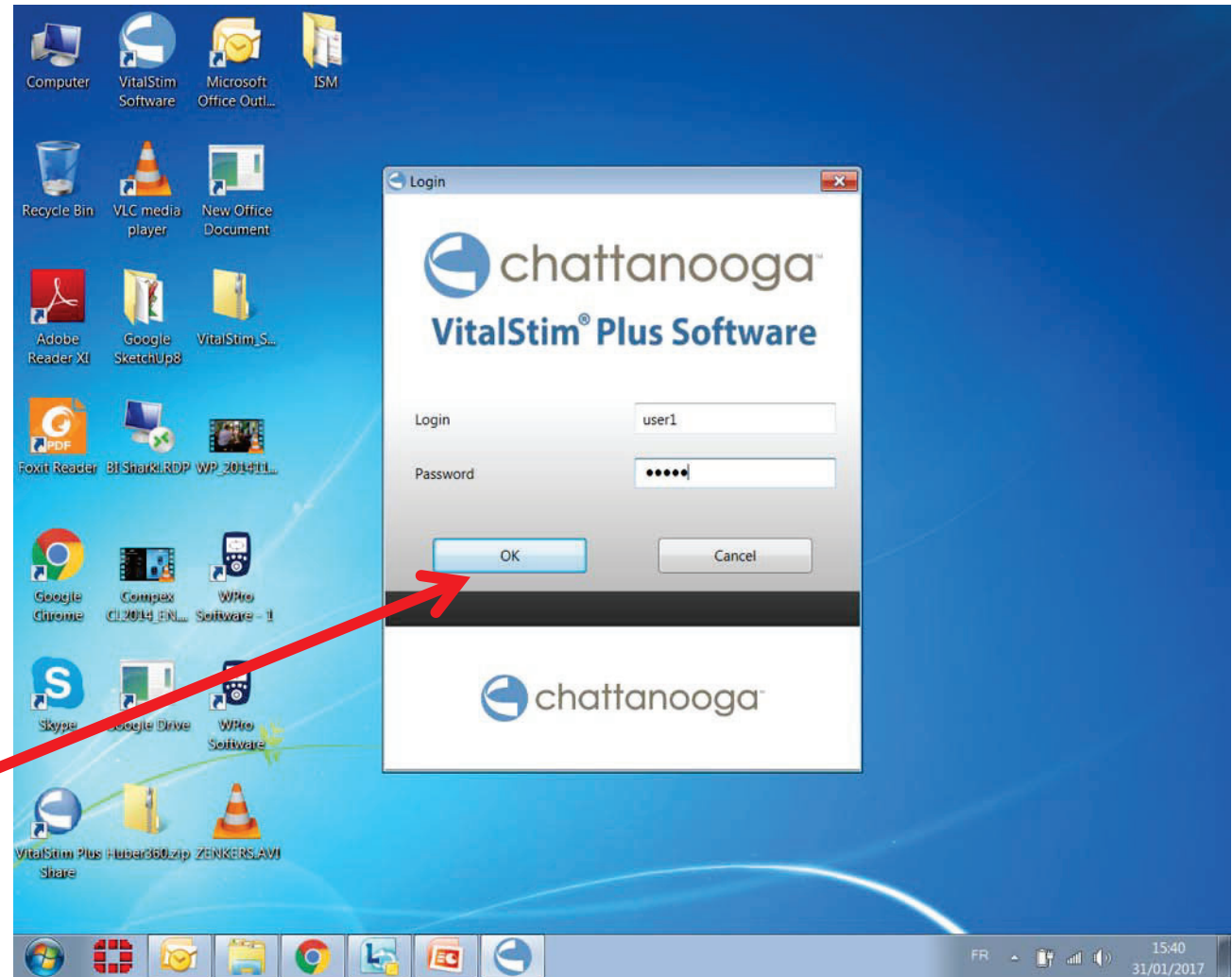
The software window open up with an invite to enter your Login and password (created at the first install)





OPENING SOFTWARE

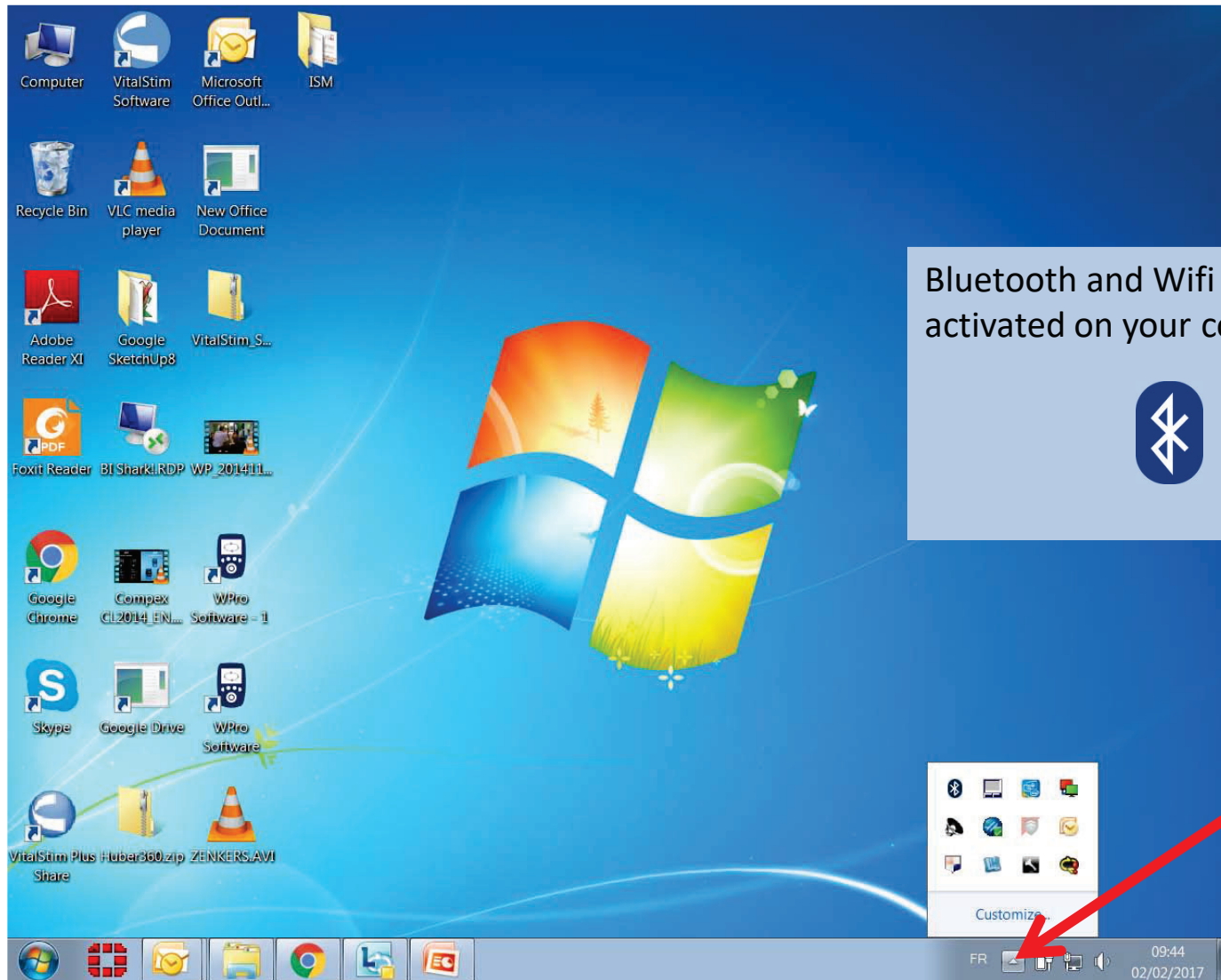
Enter Login and Password



Click OK



Connect VITALSTIM PLUS



Bluetooth and Wifi should be activated on your computer

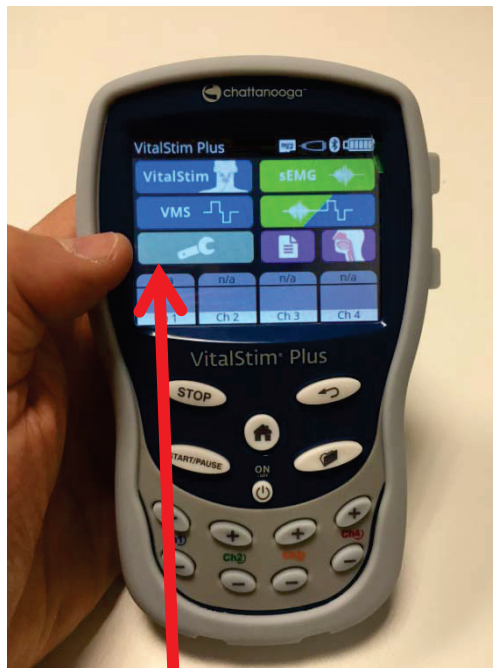


Click on your tool bar to show hidden icons

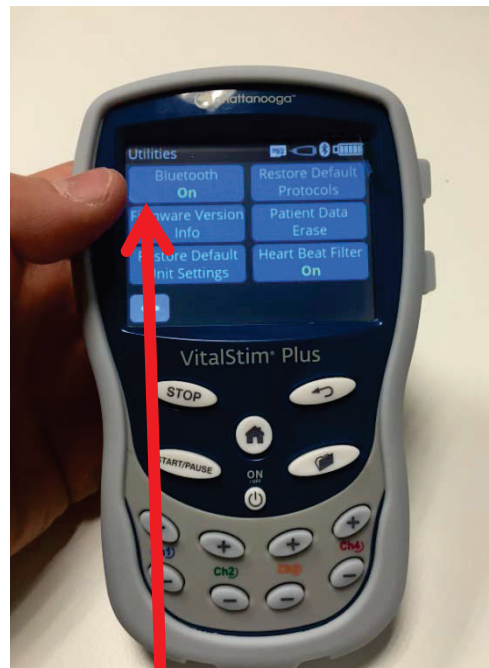


Connect VITALSTIM PLUS

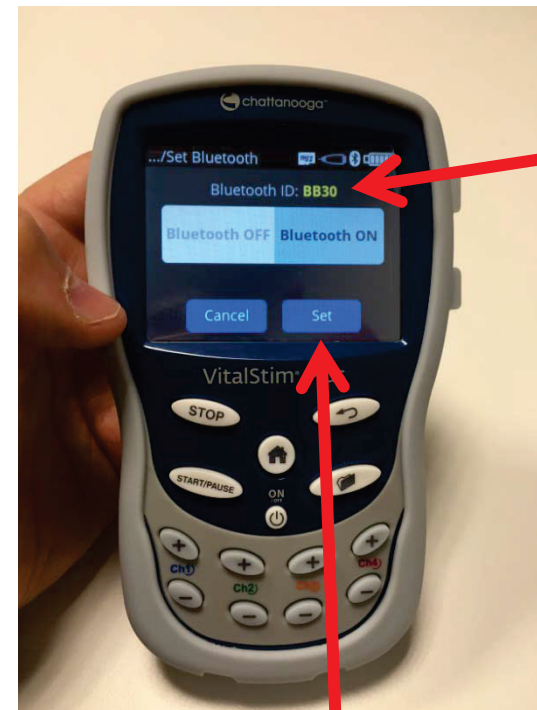
Check on VITALSTIM PLUS device the Bluetooth ID



Press "Tool" menu



Press "Bluetooth"



Press "Set"
Bluetooth should be ON



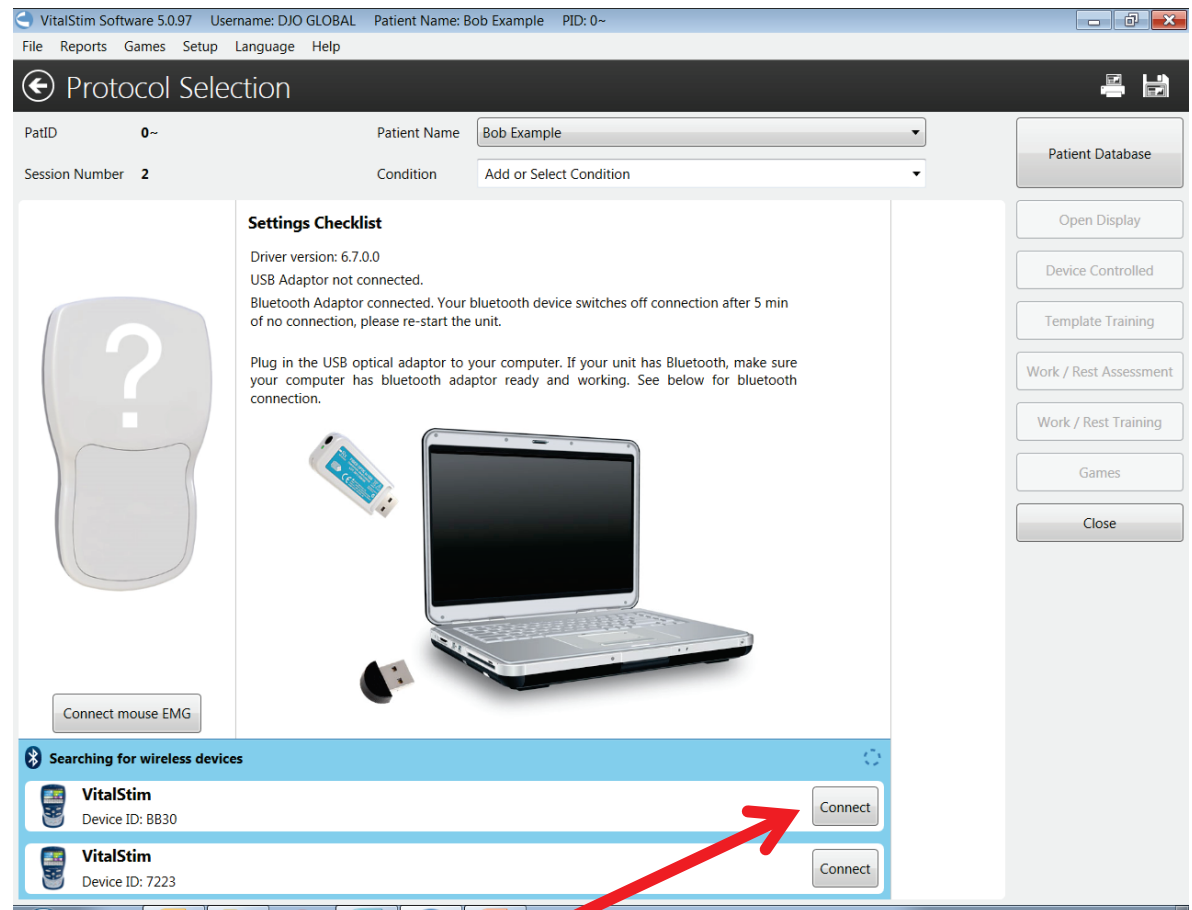
Connect VITALSTIM PLUS

Switch on your VITALSTIM PLUS device. Make sure Bluetooth is "ON" in the device menu

A Searching windows open on the bottom of the page

From the home page You can see which VITALSTIM PLUS devices are activated and reachable in the close environment

If needed Your device Bluetooth ID can be read in the device Blue tooth menu.



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0--

File Reports Games Setup Language Help

Protocol Selection

PatID 0-- Patient Name Bob Example

Session Number 2 Condition Add or Select Condition

Patient Database

Open Display

Device Controlled

Template Training

Work / Rest Assessment

Work / Rest Training

Games

Close

Settings Checklist

Driver version: 6.7.0.0
USB Adaptor not connected.
Bluetooth Adaptor connected. Your bluetooth device switches off connection after 5 min of no connection, please re-start the unit.

Plug in the USB optical adaptor to your computer. If your unit has Bluetooth, make sure your computer has bluetooth adaptor ready and working. See below for bluetooth connection.

Connect mouse EMG

Searching for wireless devices

VitalStim Device ID: BB30 Connect

VitalStim Device ID: 7223 Connect

Click on *Connect* for the device you are going to use.



Connect VITALSTIM PLUS

From the home page
You can see which
VITALSTIM PLUS
devices are activated
and reachable in the
close environment

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0~

File Reports Games Setup Language Help

Protocol Selection

PatID 0~ Patient Name Bob Example

Session Number 2 Condition Add or Select Condition

Settings Checklist

Driver version: 6.7.0.0
USB Adaptor not connected.
Bluetooth Adaptor connected. Your bluetooth device switches off connection after 5 min of no connection, please re-start the unit.

Plug in the USB optical adaptor to your computer. If your unit has Bluetooth, make sure your computer has bluetooth adaptor ready and working. See below for bluetooth connection.

Connect mouse EMG

Searching for wireless devices

- VitalStim Device ID: BB30 Connect
- VitalStim Device ID: 7223 Connect

Click on *Connect*
for the device you
are going to use.



Connect VITALSTIM PLUS

When the device is properly connected to the PC,
The EMG bargraphs are activated
And the blue windows indicate the Device ID

IMPORTANT!

When your device goes on screen saving mode the Connection is interrupted.
To avoid this you should
1/ activate sEMG mode on the device
2/ press "START/PAUSE" button on the device.
Then clock is running, no more blue tooth interruption

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0-

File Reports Games Setup Language Help

Protocol Selection

PatID: 0- Patient Name: Bob Example

Session Number: 2 Condition: Add or Select Condition

Patient Database

Open Display

Device Controlled

Template Training

Work / Rest Assessment

Work / Rest Training

Games

Close

Settings Checklist

Device	VitalStim v3.6
Mode	sEMG
Channel 2	On
Threshold	50.0 μ V / 50.0 μ V
Work	5 secs
Rest	20 secs
Trials	30
Sound feedback	0%
Heart Beat Filter	Off
Target type	Manual

Ch 1: 250.0, 50.0, 0, 1.1 μ V

Ch 2: 250.0, 50.0, 0, 1.1 μ V

Connected to wireless device
Device ID: BB30

Disconnect

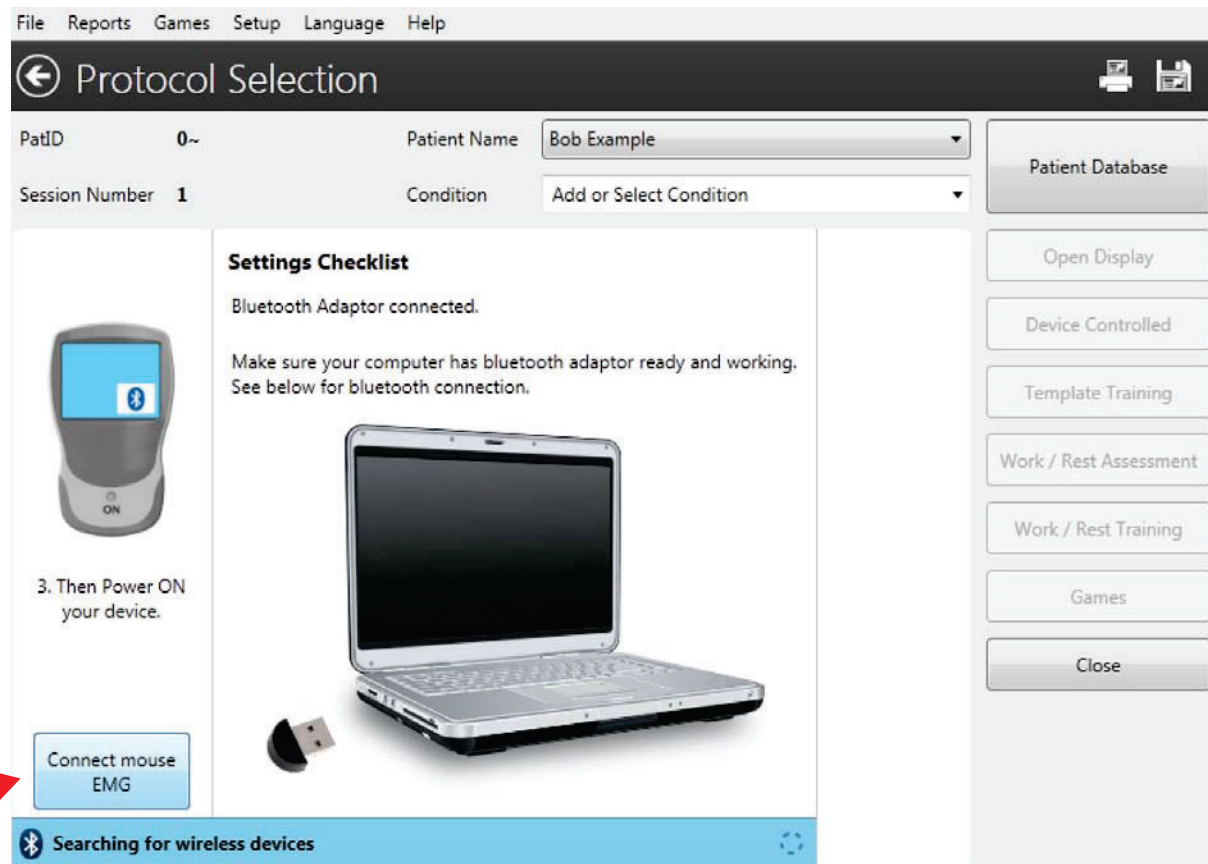


Connect mouse EMG

Connect Mouse EMG allows the user to mimic the EMG signal by using the computer mouse/cursor.

The feature is useful to learn about the software features without having to connect the Vitalstim device.

Click *Connect mouse EMG* button



File Reports Games Setup Language Help

← Protocol Selection

PatID 0~ Patient Name Bob Example

Session Number 1 Condition Add or Select Condition

Settings Checklist

Bluetooth Adaptor connected.

Make sure your computer has bluetooth adaptor ready and working. See below for bluetooth connection.

3. Then Power ON your device.

Connect mouse EMG

Searching for wireless devices

Patient Database

Open Display

Device Controlled

Template Training

Work / Rest Assessment

Work / Rest Training

Games

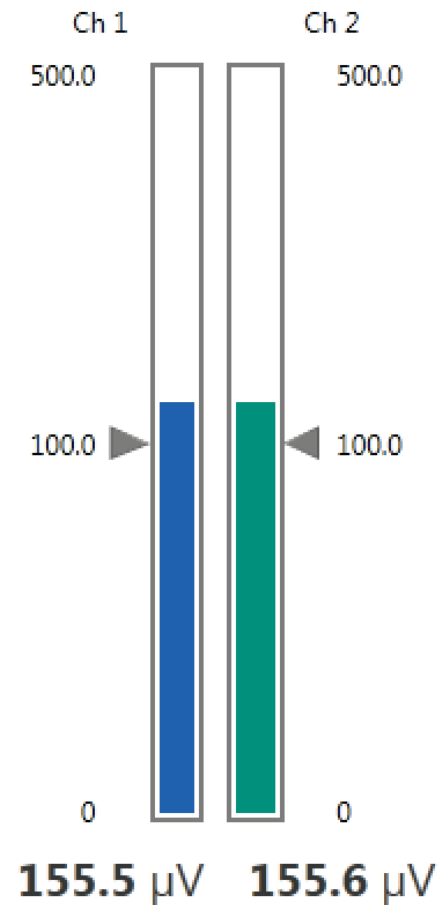
Close



Controlling EMG signal with mouse

Scroll mouse or cursor up/down to control EMG signal for Channel 1.

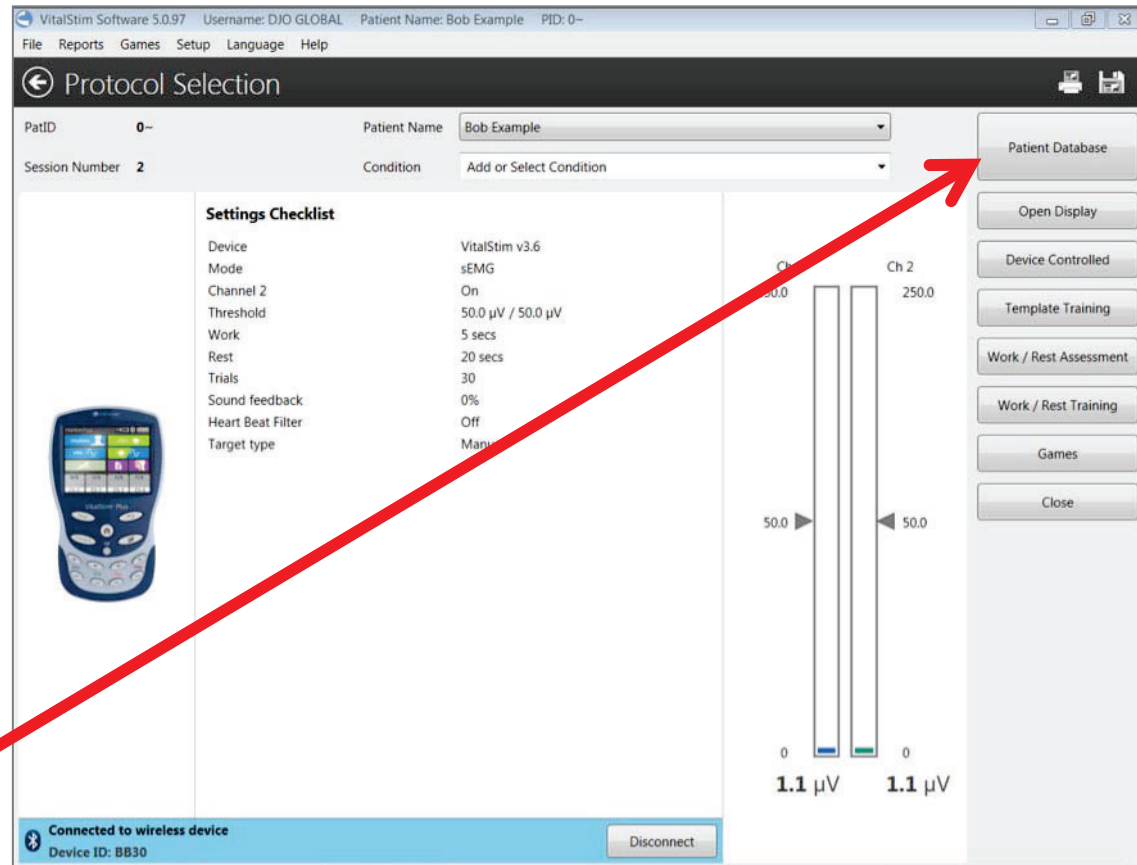
Scroll left/right to control EMG signal for Channel 2.





Create a new patient

Starting from the Home page



The screenshot shows the 'Protocol Selection' window of VitalStim Software 5.0.97. The window title bar includes 'VitalStim Software 5.0.97', 'Username: DJO GLOBAL', 'Patient Name: Bob Example', and 'PID: 0~'. The menu bar contains 'File', 'Reports', 'Games', 'Setup', 'Language', and 'Help'. The main interface features a 'Settings Checklist' on the left, a 'Patient Database' button on the right, and a 'Device Controlled' section with various training and assessment options. A red arrow points from the 'Patient Database' button to a text box at the bottom left.

Parameter	Value
Device	VitalStim v3.6
Mode	sEMG
Channel 2	On
Threshold	50.0 μ V / 50.0 μ V
Work	5 secs
Rest	20 secs
Trials	30
Sound feedback	0%
Heart Beat Filter	Off
Target type	Manu

Ch 1: 50.0, 50.0 μ V
Ch 2: 250.0, 50.0 μ V

1.1 μ V 1.1 μ V

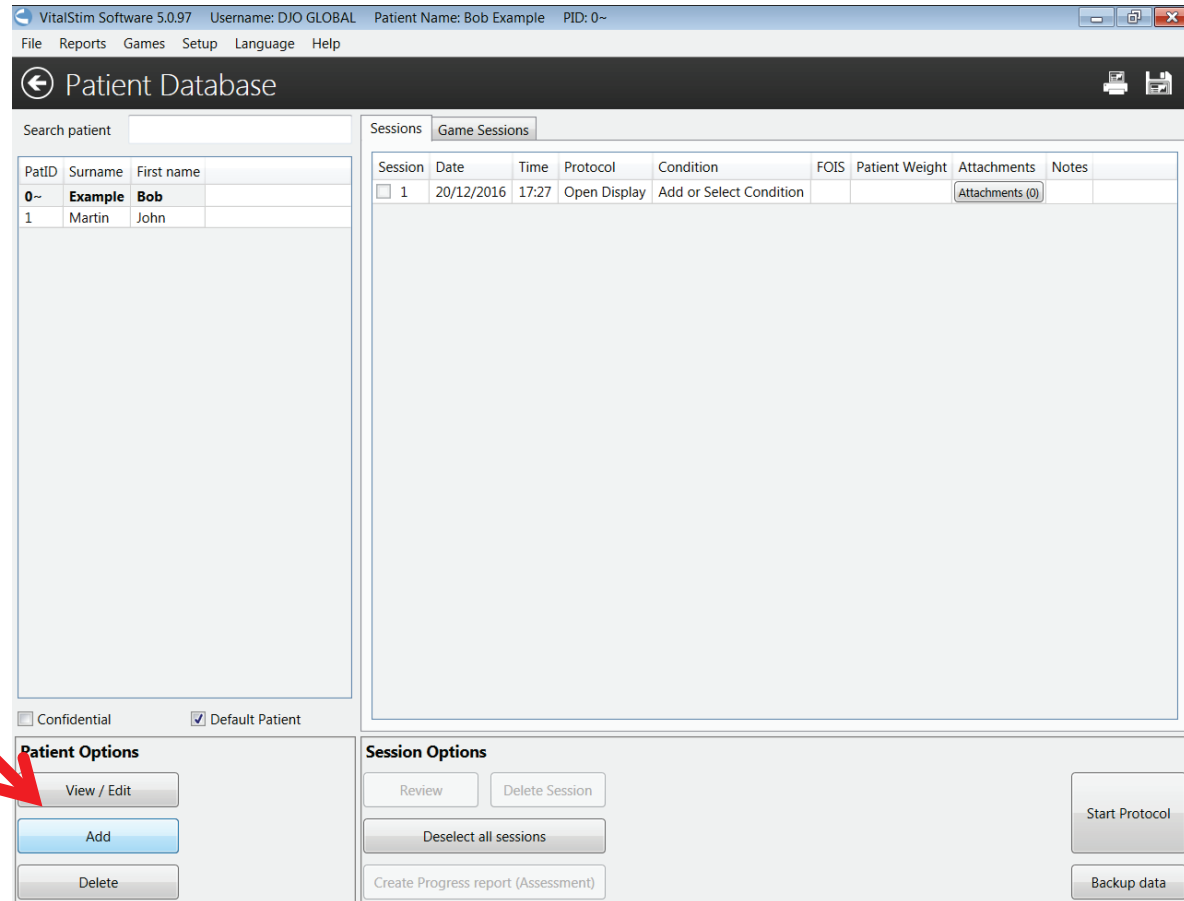
Connected to wireless device
Device ID: BB30

Click on Patient Database



Create a new patient

Click *Add* to create a new patient profile



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0~

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name
0~	Example	Bob
1	Martin	John

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	20/12/2016	17:27	Open Display	Add or Select Condition			Attachments (0)	

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

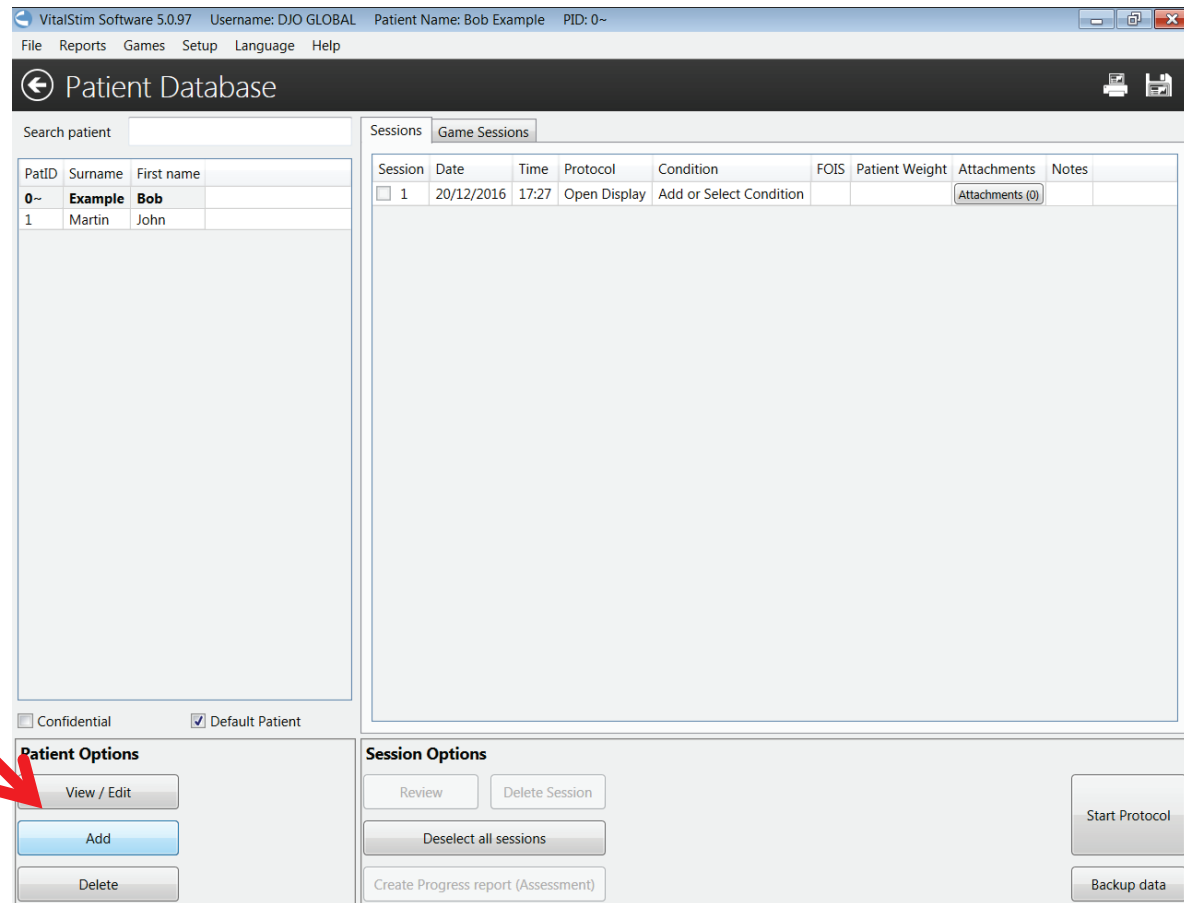
Start Protocol

Backup data



Create a new patient

Click *Add* to create a new patient profile



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0~

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name
0~	Example	Bob
1	Martin	John

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Session Options

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

Start Protocol

Backup data

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	20/12/2016	17:27	Open Display	Add or Select Condition			Attachments (0)	



Create a new patient

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Bob Example PID: 0~

File Reports Games Setup Language Help

← Patient Record

PatID: 2 D of B: 06/12/1983
Format "dd/mm/yyyy"

First name: James
Surname: Winter
Sex: M F
Insurance info:
Insurance info:

Address: new york Street Post code:
Country: USA
Home phone no:
Work phone no:

Notes
Patient was sent by Dr Spring on Jan 02 2017

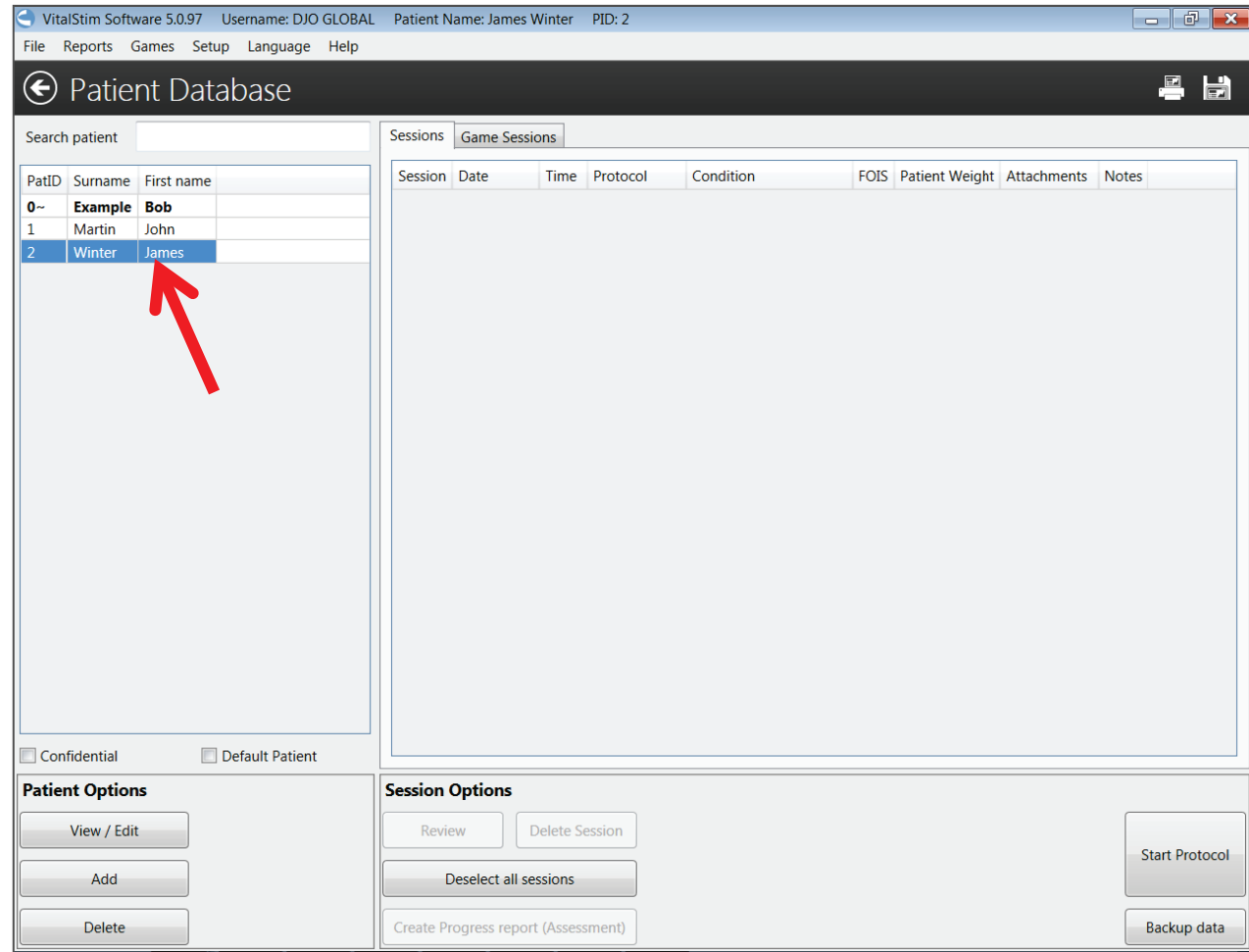
Fill in patients
details, then click
Add



Create a new patient

New patients are listed in the database. All past patient sessions can be retrieved here.

Double-click on *patient name* to start a session



The screenshot shows the 'Patient Database' window in VitalStim Software 5.0.97. The window title bar includes 'VitalStim Software 5.0.97', 'Username: DJO GLOBAL', 'Patient Name: James Winter', and 'PID: 2'. The menu bar contains 'File', 'Reports', 'Games', 'Setup', 'Language', and 'Help'. The main area is divided into two panes. The left pane, titled 'Patient Database', contains a search field and a table with columns 'PatID', 'Surname', and 'First name'. The table has three rows: '0~ Example Bob', '1 Martin John', and '2 Winter James'. A red arrow points to the name 'James' in the third row. The right pane, titled 'Game Sessions', has a tab labeled 'Game Sessions' and a table with columns 'Session', 'Date', 'Time', 'Protocol', 'Condition', 'FOIS', 'Patient Weight', 'Attachments', and 'Notes'. The table is currently empty. At the bottom of the window, there are two sections: 'Patient Options' with buttons for 'View / Edit', 'Add', and 'Delete'; and 'Session Options' with buttons for 'Review', 'Delete Session', 'Deselect all sessions', 'Create Progress report (Assessment)', 'Start Protocol', and 'Backup data'. There are also checkboxes for 'Confidential' and 'Default Patient'.

PatID	Surname	First name
0~	Example	Bob
1	Martin	John
2	Winter	James



Open Display – Start session

Select patient
Condition, then
click *Open Display*

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID 2 Patient Name James Winter

Session Number 1 Condition Other

Settings Checklist

Device	EmgSimulator
Mode	sEMG
Channel 2	On
Threshold	100.0 μ V / 100.0 μ V
Work	5 secs
Rest	5 secs
Trials	5
Sound feedback	0%
Heart Beat Filter	Off
Target type	Manual

EMG

Disconnect mouse EMG

Ch 1 500.0 100.0 0 309.8 μ V

Ch 2 500.0 100.0 0 373.1 μ V

Patient Database

Open Display

Device Controlled

Template Training

Work / Rest Assessment

Work / Rest Training

Games

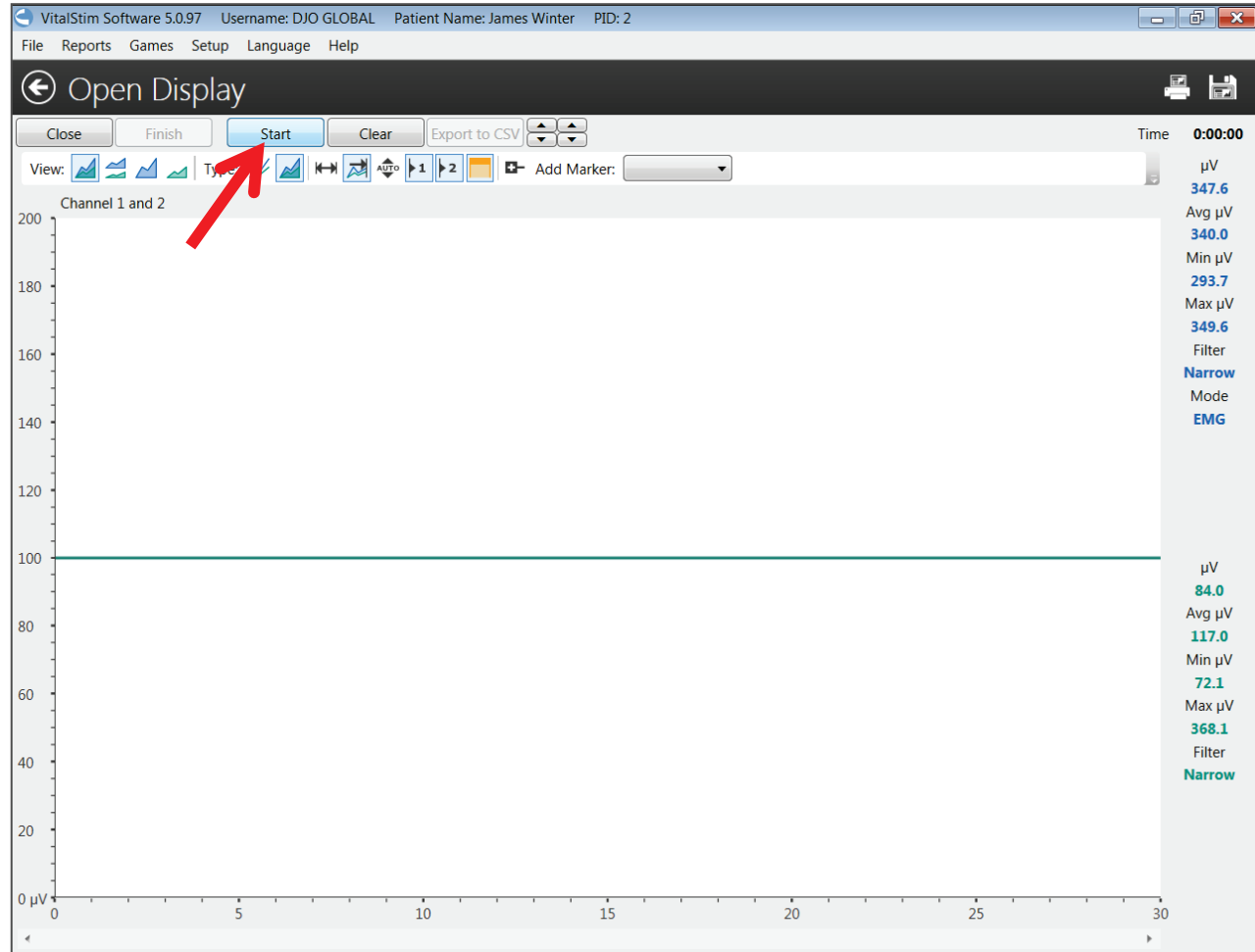
Close



Open Display – Start session

The Open Display screen allows the user to record a session without any predefined template or Work/Rest protocol

Click *Start* to begin displaying the EMG signal

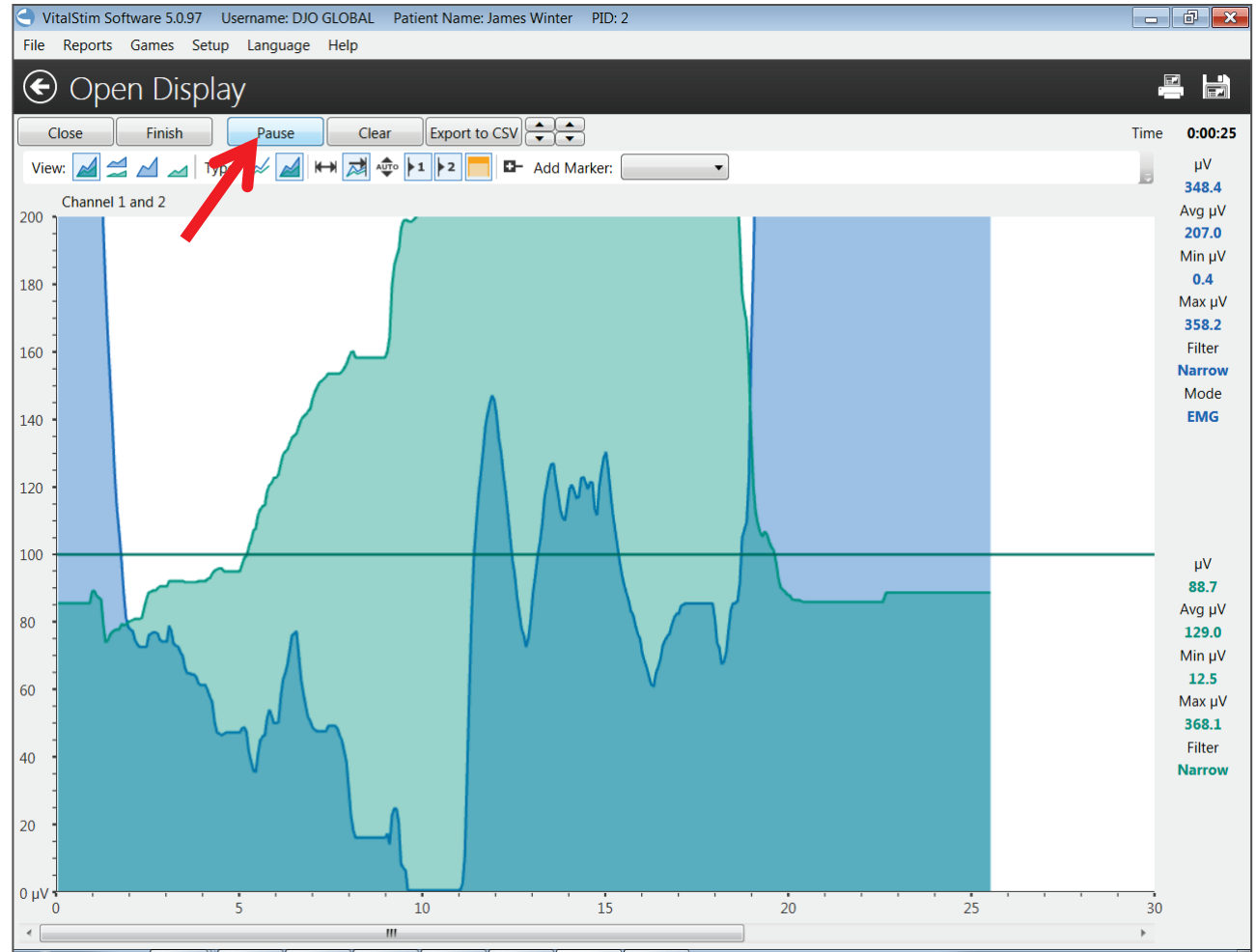




Open Display – Channel view

Graph lines for channels 1 and 2 are automatically displayed. Numerical and statistical values are displayed on the right.

Click *Pause* to pause the display



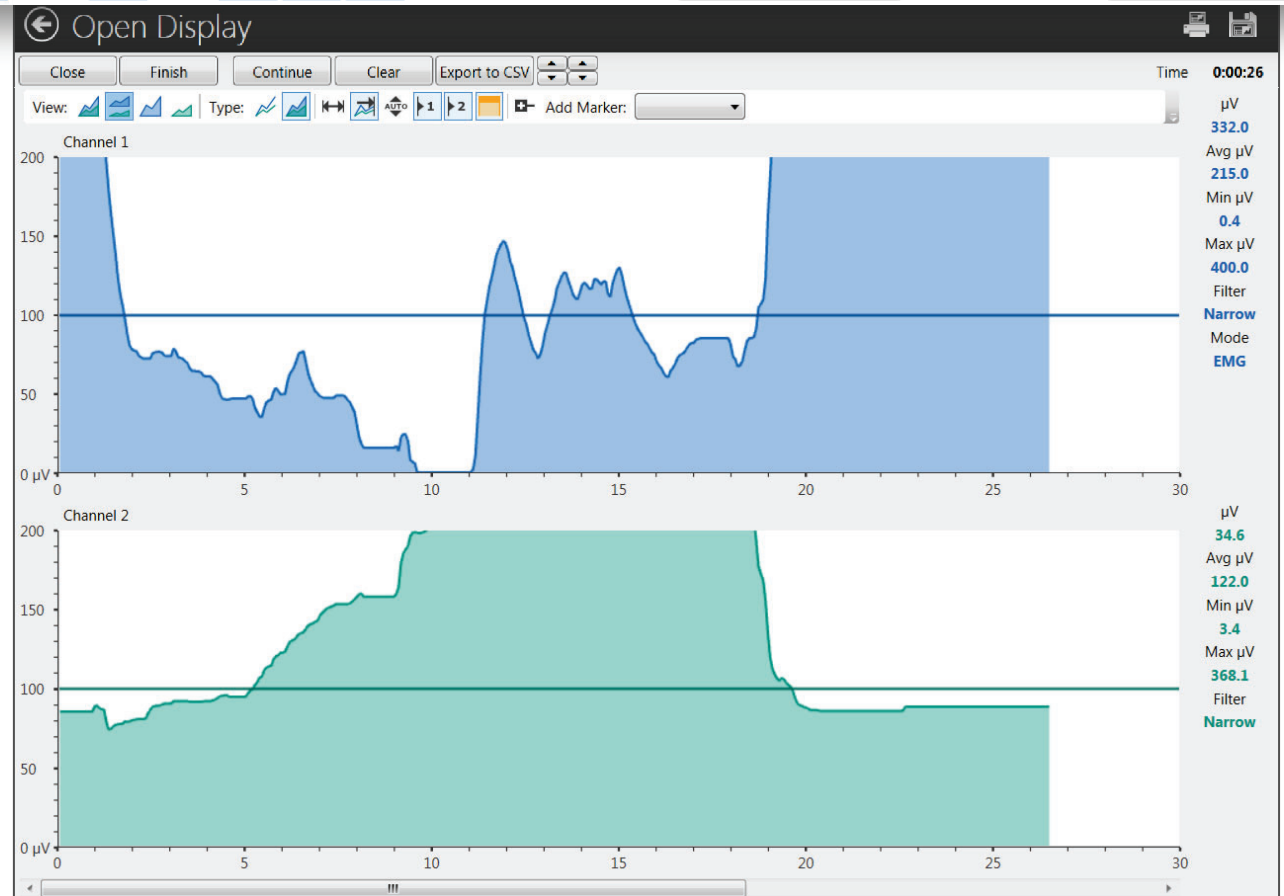


Open Display – Channel view

View: Type: Add Marker: Add Artifact:



Channels can be viewed together or individually.

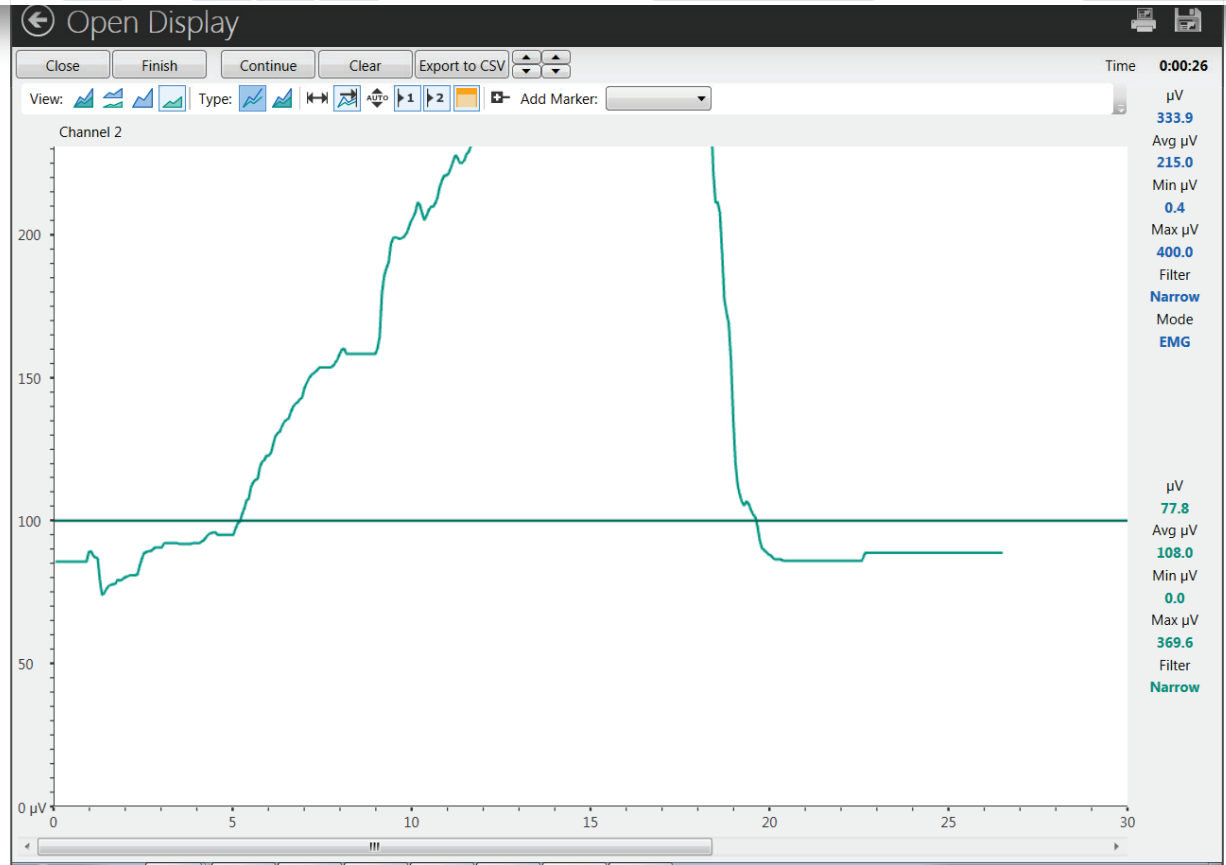




Open Display – Graph fill

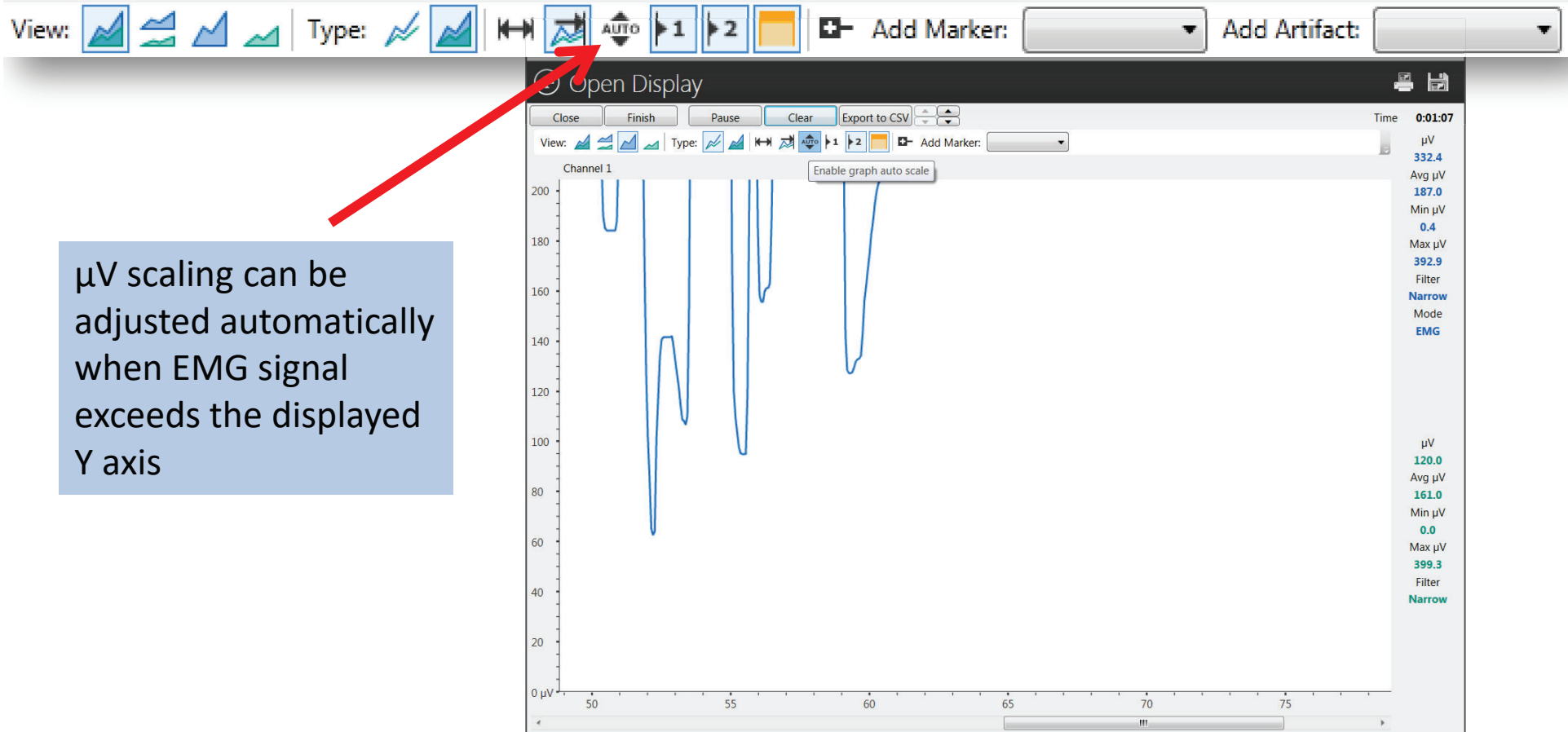


Area under graph line can be viewed filled or not filled.





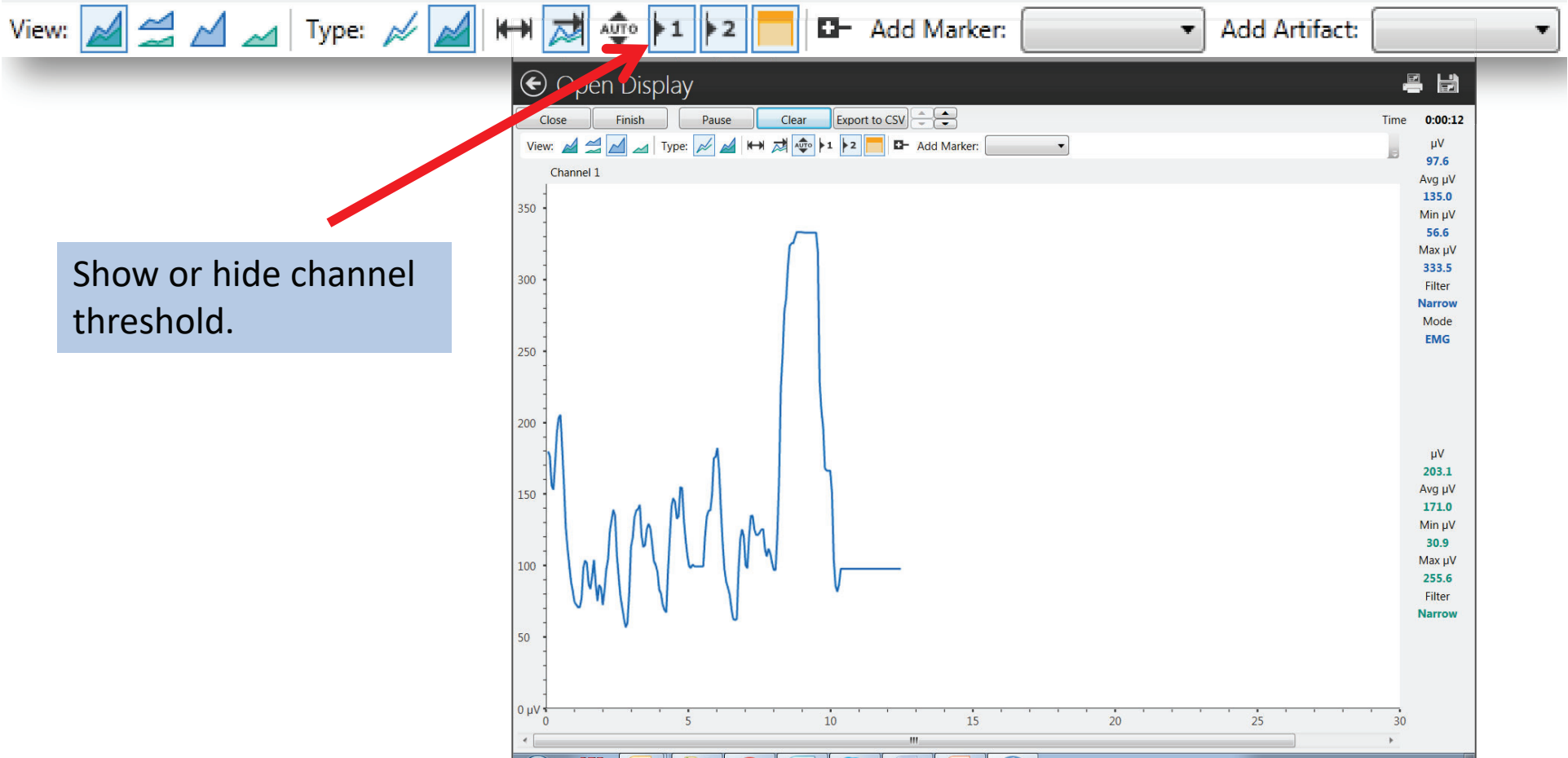
Open Display – Automatic scaling



μV scaling can be adjusted automatically when EMG signal exceeds the displayed Y axis



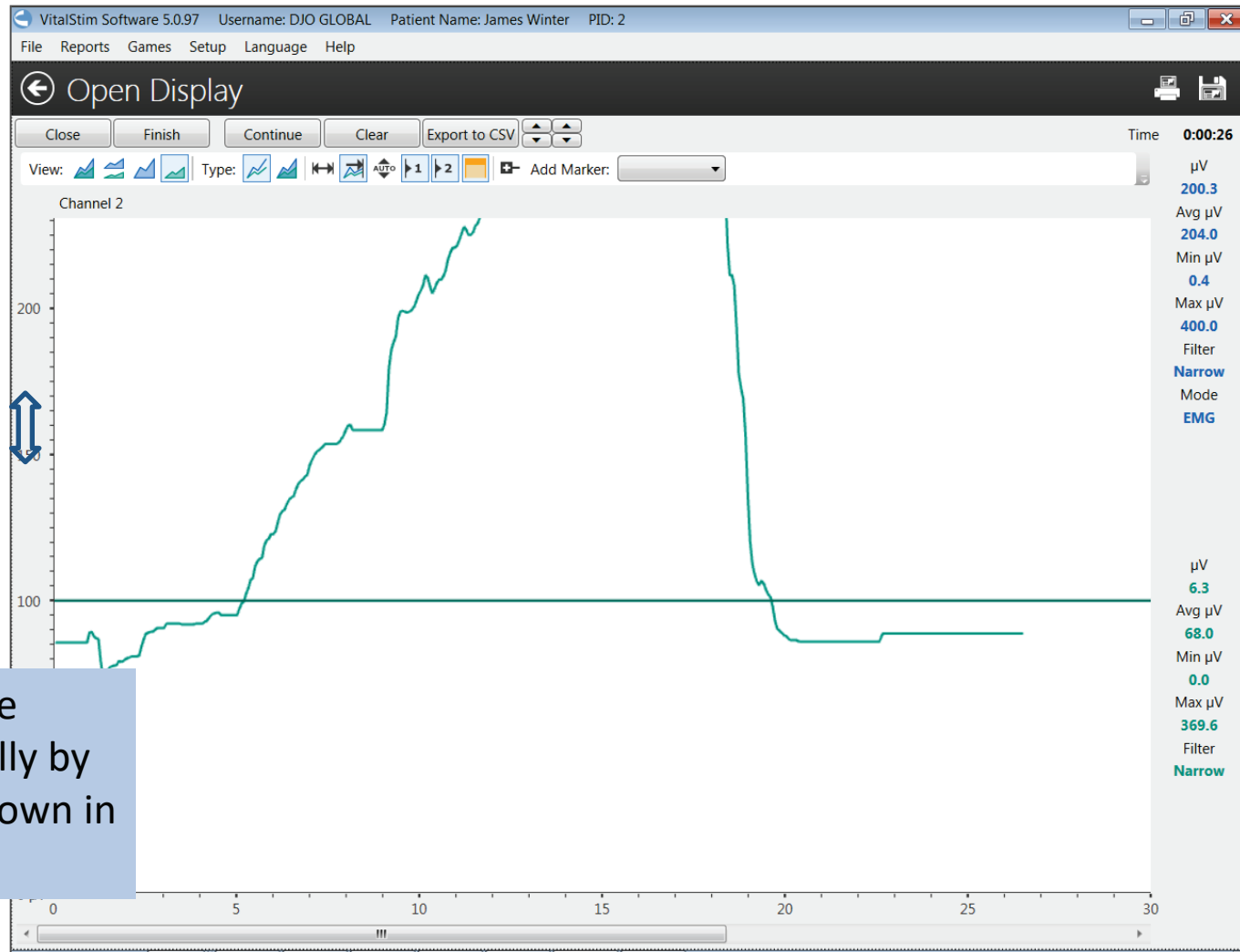
Open Display – Show/Hide threshold



Show or hide channel threshold.



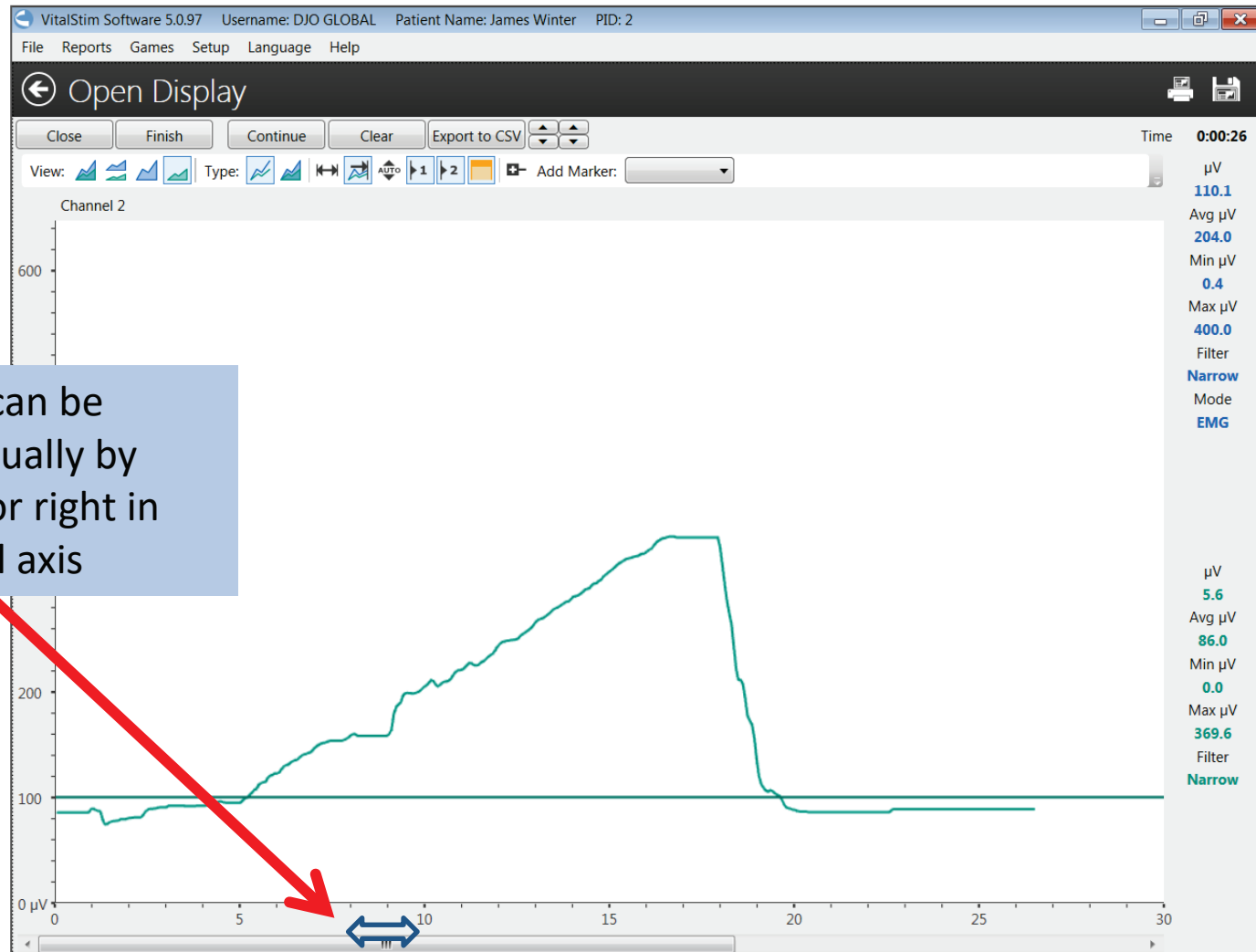
Open Display – Adjust μV scale



μV scaling can be adjusted manually by scrolling up or down in the vertical axis



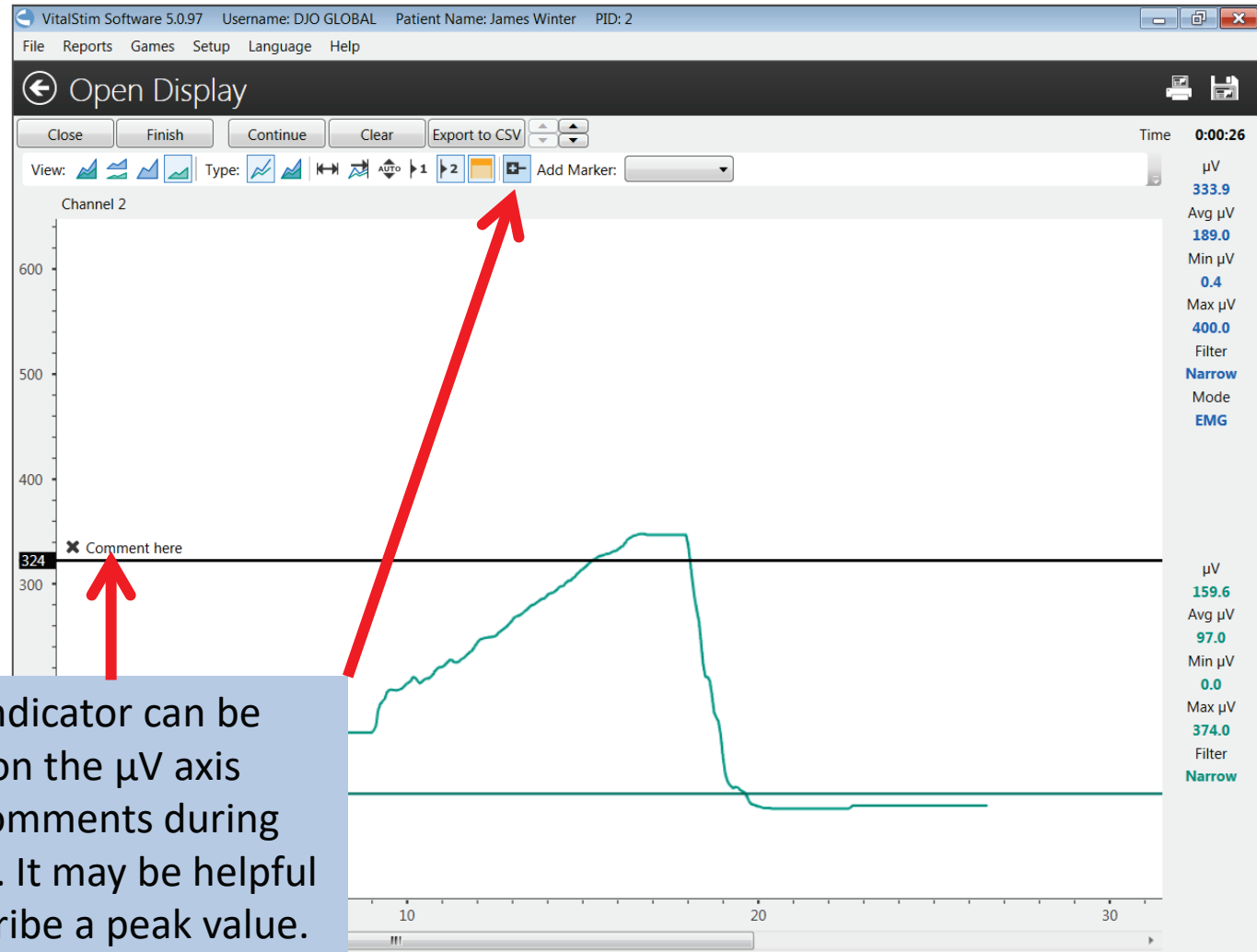
Open Display – Adjust Time scale



Time scaling can be adjusted manually by scrolling left or right in the horizontal axis

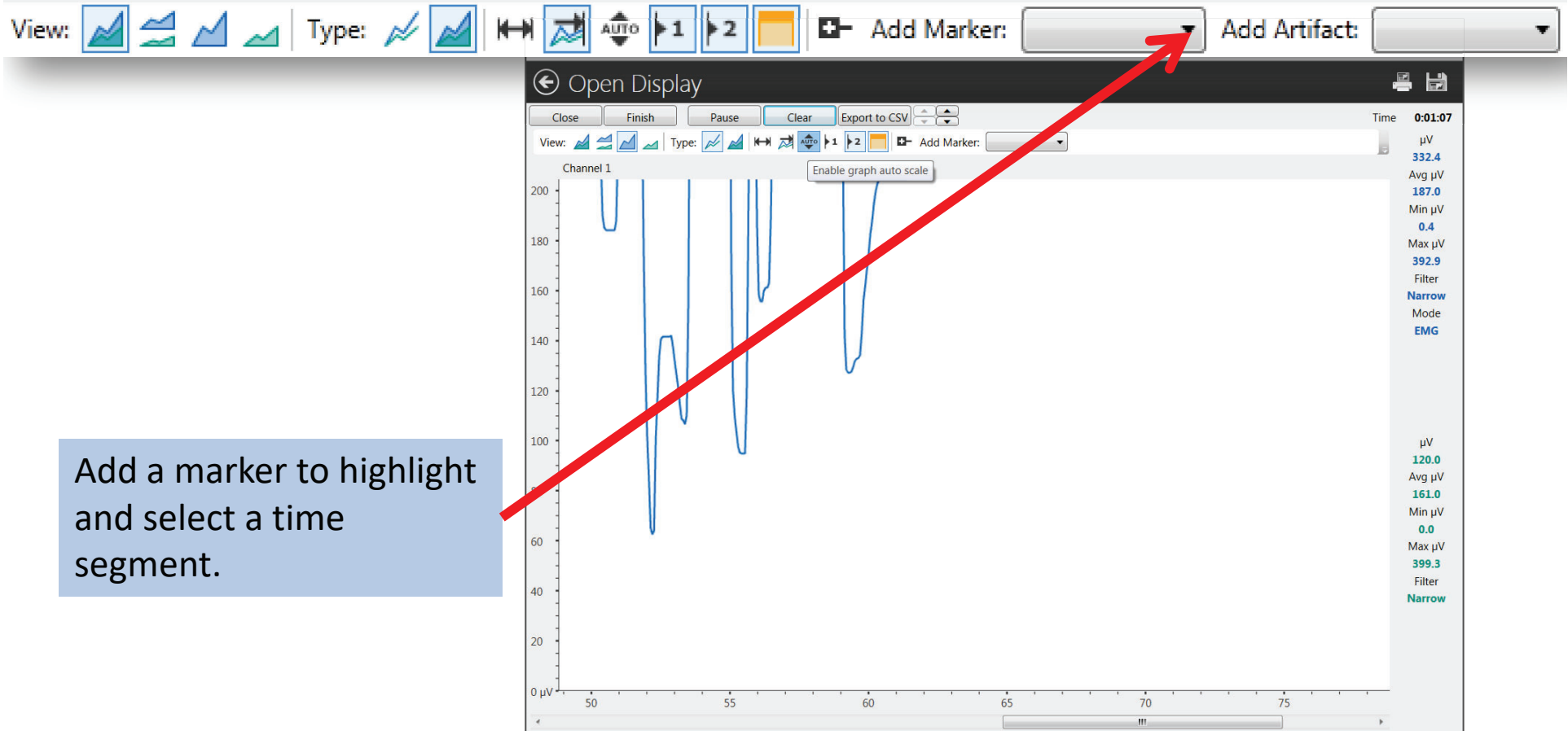


Open Display – Event indicator





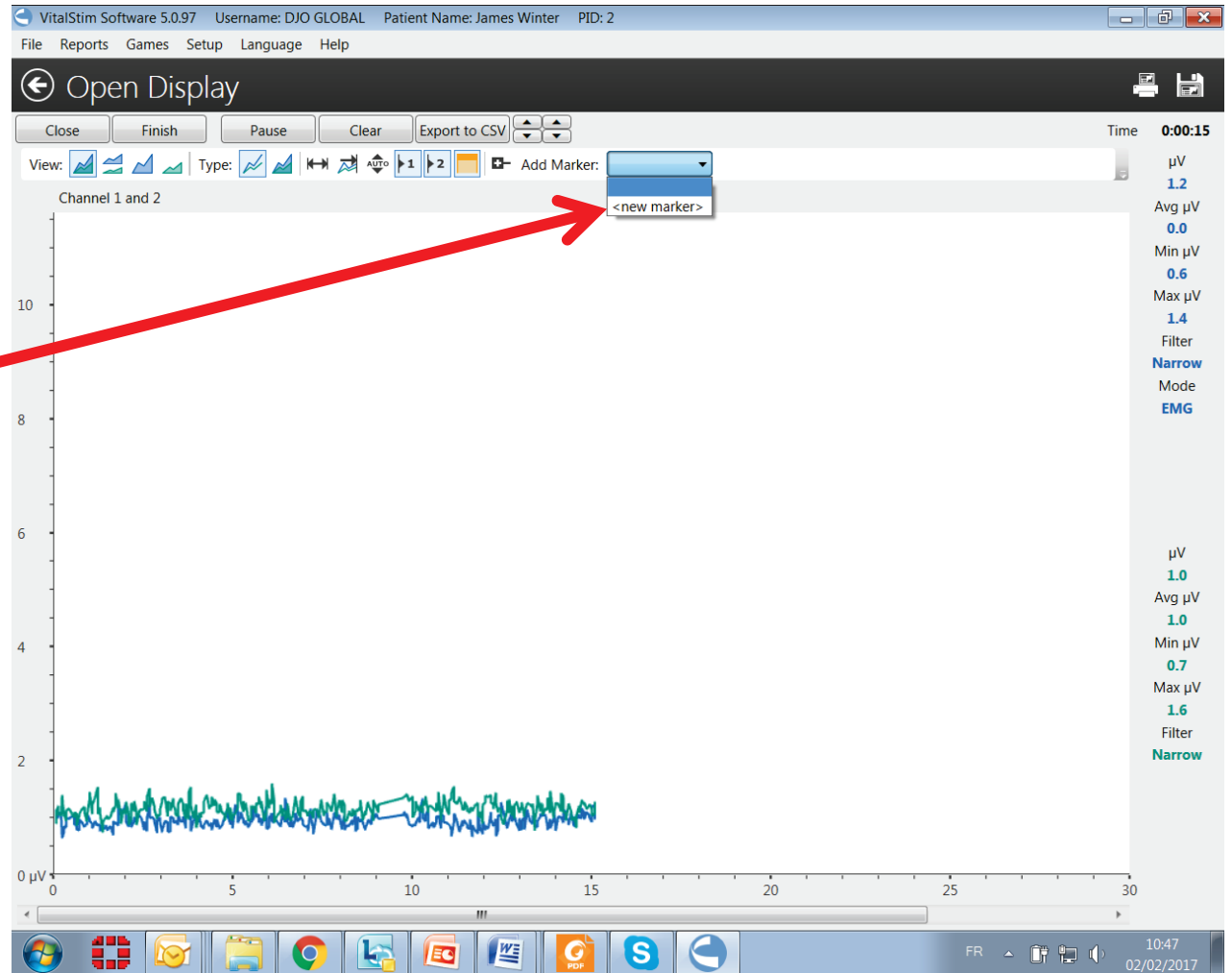
Open Display – Add Marker



Add a marker to highlight and select a time segment.



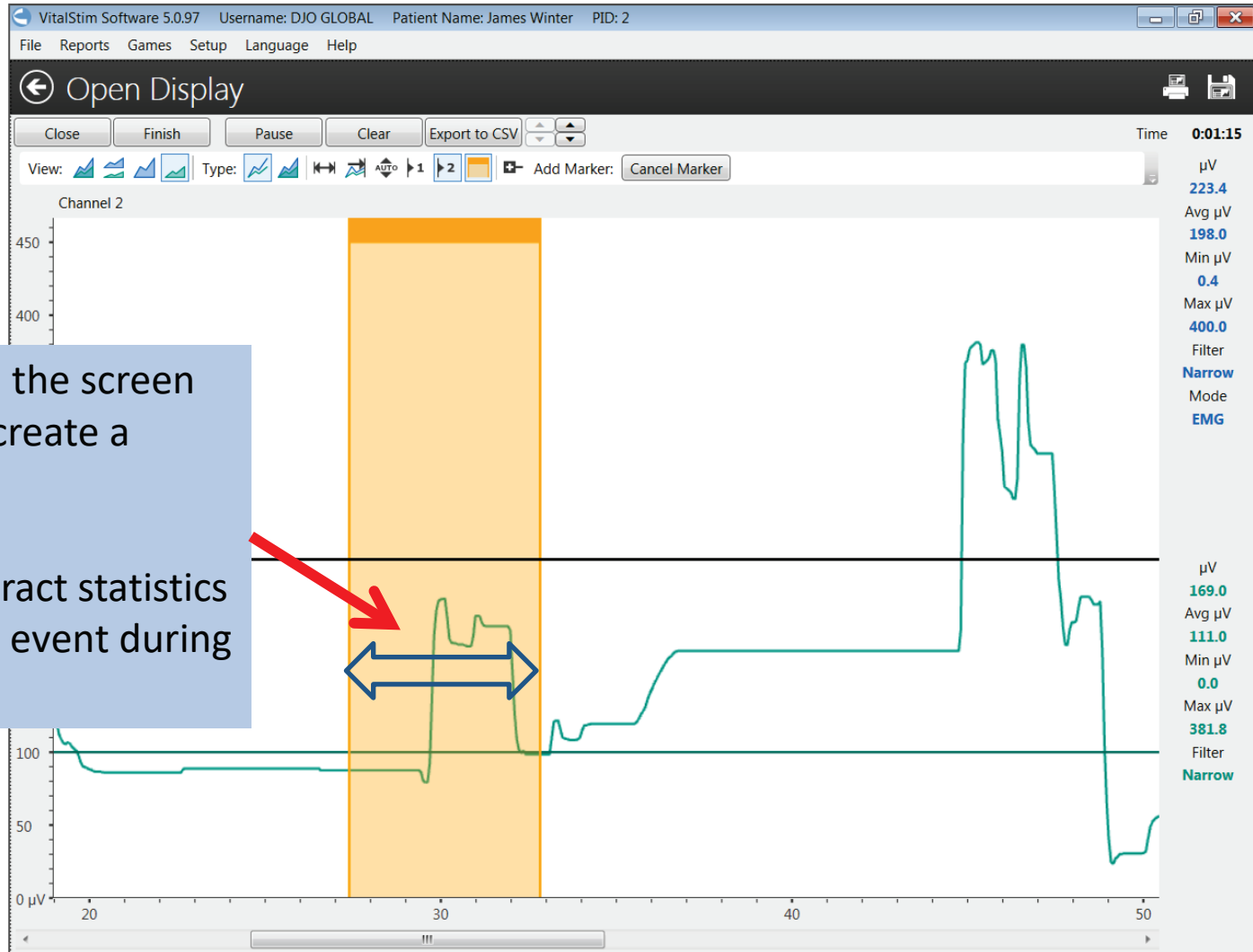
Open Display – Add Marker



Select "new marker"



Open Display – Add Marker

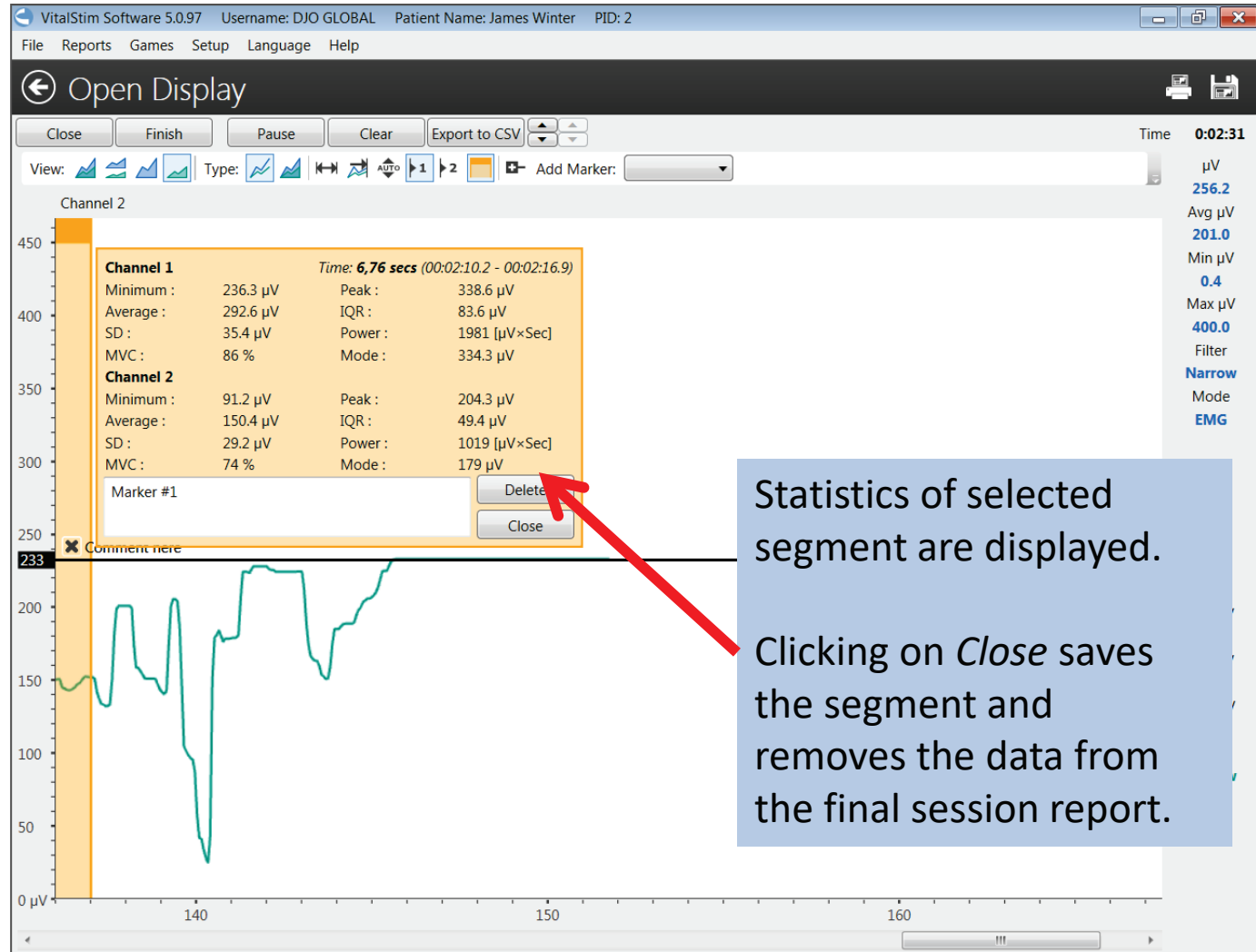


Left Click on the screen and drag to create a segment.

Useful to extract statistics for a specific event during the session



Open Display – Segment data

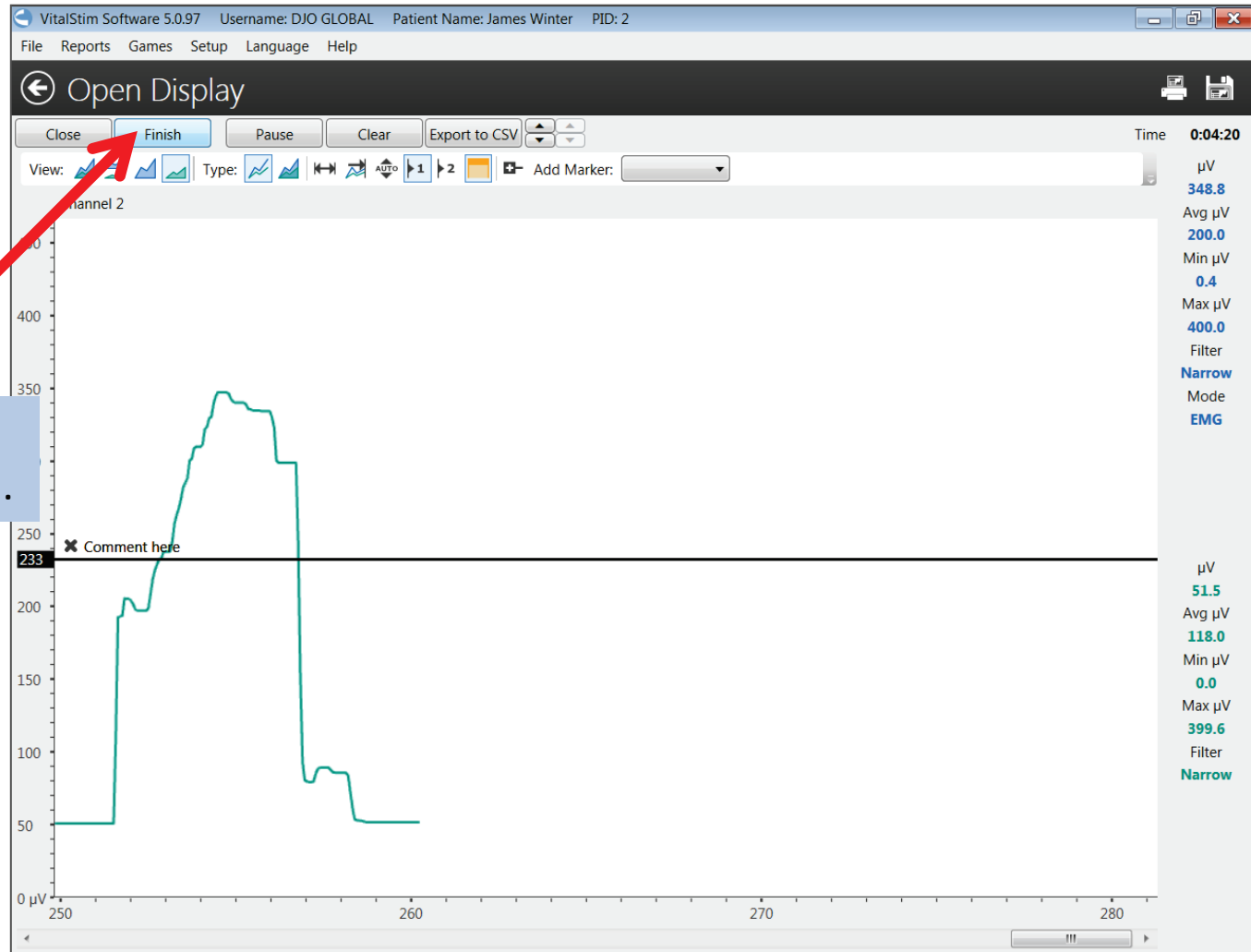


Statistics of selected segment are displayed.

Clicking on *Close* saves the segment and removes the data from the final session report.



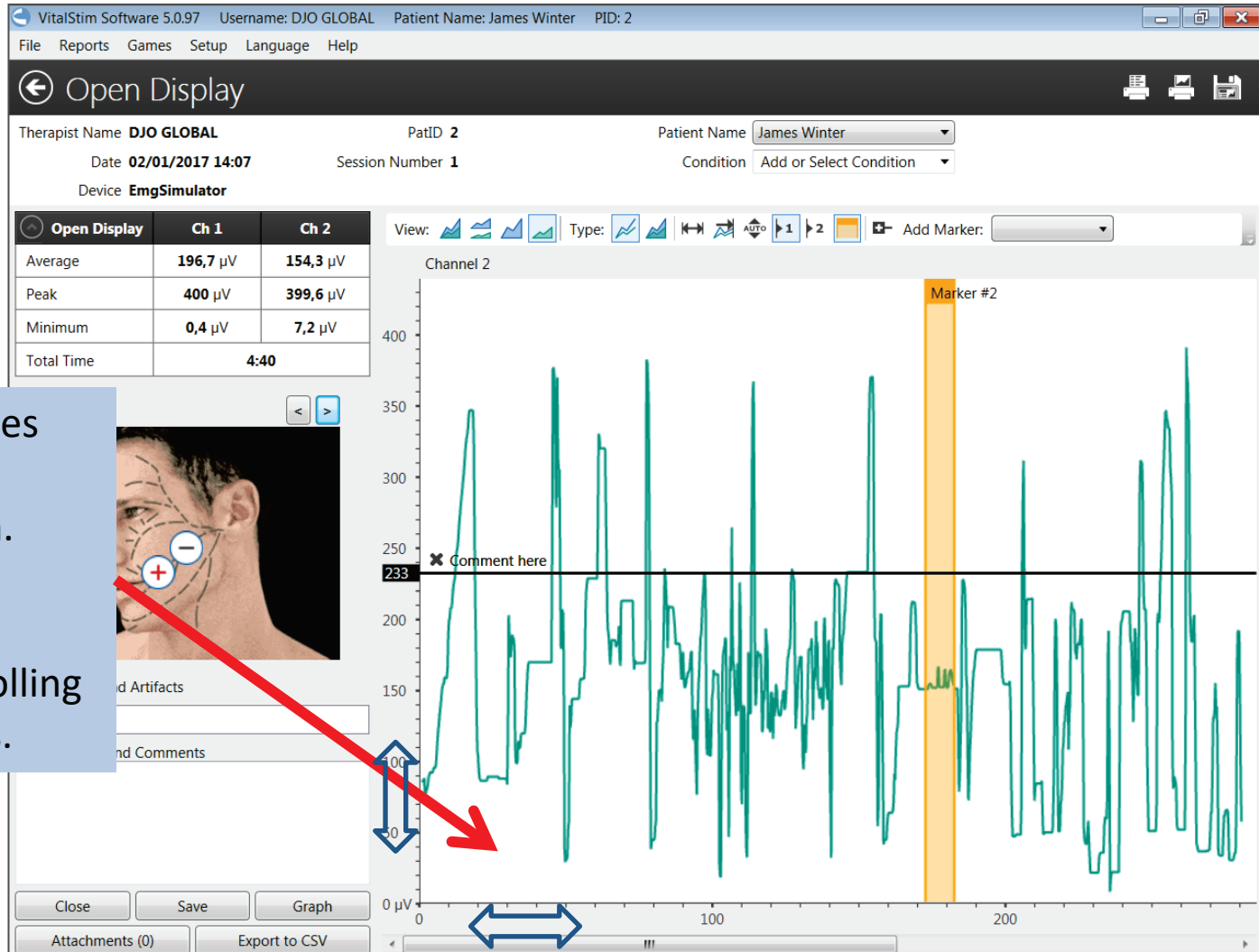
Open Display – End Session



Click *Finish* to end the session.

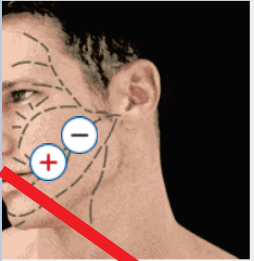


Open Display – Session Report



Report includes data and full session graph.

Graph can be scaled by scrolling on either axis.





Open Display – Session Report

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Open Display

Therapist Name **DJO GLOBAL** PatID **2** Patient Name **James Winter**
Date **02/01/2017 14:07** Session Number **1** Condition **Add or Select Condition**
Device **EmgSimulator**

Open Display	Ch 1	Ch 2
Average	196,7 μ V	154,3 μ V
Peak	400 μ V	399,6 μ V
Minimum	0,4 μ V	7,2 μ V
Total Time	4:40	

View: [Icons] Type: [Icons] Add Marker: [Dropdown]

Channel 2

Marker #2

233 ✕ Comment here

Screen can be print or saved as a .jpeg picture format
Statistics or graph only can be printed

Close Save Graph

Attachments (0) Export to CSV



Open Display – Session Export

Session data can be exported for further analysis.

Click on *Export to CSV*.

Spreadsheet is generated with raw data averaged at 16 samples per second

The screenshot shows the VitalStim Software 5.0.97 interface. The main window is titled "Open Display" and shows session information for Patient ID 2, Session Number 1, and Therapist Name DJO GLOBAL. A graph displays Channel 2 data with a peak at 233. An overlaid spreadsheet window shows session statistics and markers.

SESSION STATISTICS										
PatID	Patient Surname	Patient First Name	Date	Session Num	Protocol	Condition	Symptoms an	Channel 1 Ave	Channel 1 Pea	Channel 2
2	Winter	James	02/01/2017	1	Open Display			196,66577	400	154,329971

MARKERS										
Number	Name	Start Time	Duration	Channel 1 Mir	Channel 1 Fea	Channel 1 Rar	Channel 1 Me	Channel 1 De	Channel 1 Lev	Channel 1
1	Marker #2	00:02:52.481	00:00:09.730	192,1	334,3	142,2	296,787251	328,5	0,14%	288,2

EMG		
Time	Channel 1	Channel 2
12 Dh: 0m: 0sec	349,2	85,6
13	349,2	85,6
14	349,2	85,6
15	349,2	85,6
16	349,2	85,6
17	349,2	85,6
18	349,2	85,6
19	349,2	85,6
20	349,2	85,6
21	349,2	85,6
22	349,2	85,6
23	349,2	85,6
24	349,2	85,6
25	349,2	85,6
26	349,2	85,6
27	321,8	89
28 Dh: 0m: 1sec	236,7	89,3
29	226,5	87,8

At the bottom of the software window, there are buttons for "Close", "Save", "Graph", "Attachments (0)", and "Export to CSV". A red dashed arrow points from the "Export to CSV" button to the spreadsheet window.



Open Display – Session Review

The screenshot shows the VitalStim Software 5.0.97 interface. The top window displays the Patient Database with a table of patients:

PatID	Surname	First name
0-	Example	Bob
1	Martin	John
2	Winter	James

A red arrow points to the patient 'James Winter' (PatID 2). The middle window shows the Sessions table with a table of sessions:

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
1	02/01/2017	14:07	Open Display	Add or Select Condition			Attachments (0)	

A red arrow points to the session '1' on '02/01/2017' at '14:07'. The bottom window shows the 'Open Display' graph for Patient ID 2, Session Number 1. The graph displays a signal over time with a peak at 400 µV. A red arrow points to the 'Review' button in the 'Session Options' panel.

Session Options

- Review
- Delete Session
- Deselect all sessions
- Create Progress report (Assessment)

Open Display Data Table:

	Ch 1	Ch 2
Average	196,7 µV	154,3 µV
Peak	400 µV	399,6 µV
Minimum	0,4 µV	7,2 µV
Total Time	4:40	

The graph shows a signal with a peak at 400 µV. A vertical yellow line marks 'Marker #2' at approximately 180 seconds. The y-axis is labeled 'Channel 2' and ranges from 0 to 400 µV. The x-axis ranges from 0 to 200 seconds.

To review a previous session, click on patient name, then select the session and click *Review*.



Template Training

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID 2 Patient Name James Winter

Session Number 2 Condition Add or Select Condition

Settings Checklist

Device	EmgSimulator
Mode	sEMG
Channel 2	On
Threshold	100.0 μ V / 100.0 μ V
Work	5 secs
Rest	5 secs
Trials	5
Sound feedback	0%
Heart Beat Filter	Off

Ch 1 500.0 Ch 2 500.0

100.0 100.0

0 0

263.7 μ V 369.7 μ V

Buttons: Patient Database, Open Display, Device Controlled, **Template Training**, Work / Rest Assessment, Work / Rest Training, Games, Close

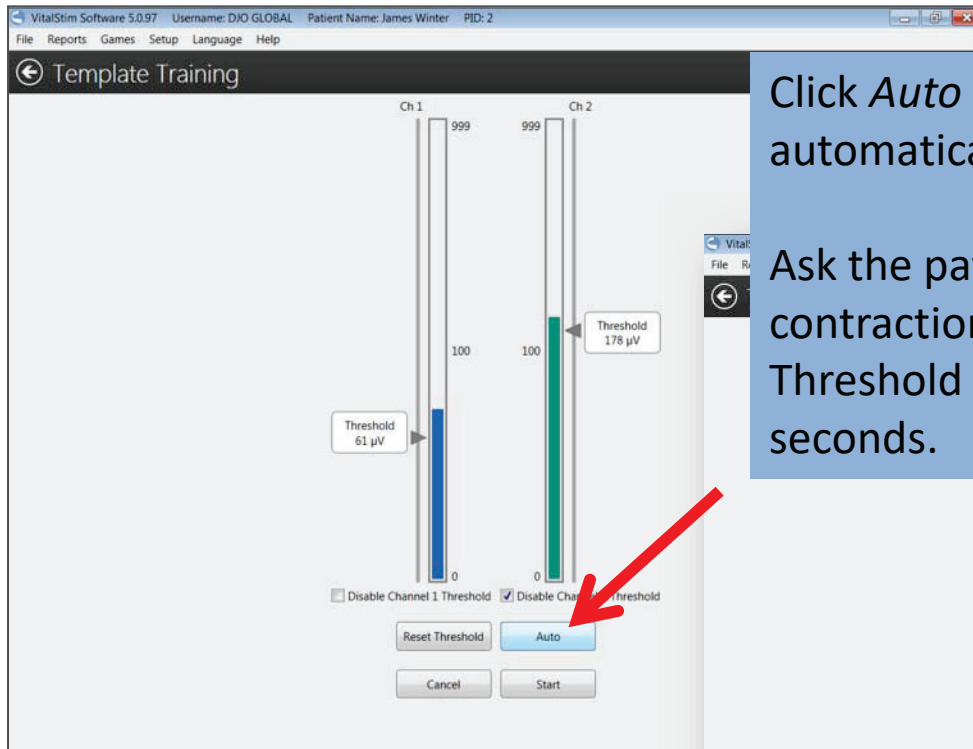
Disconnect mouse EMG

Template training allows the clinician to create a visual template for the EMG activity to guide the patient activity.

Click *Template Training* to start.

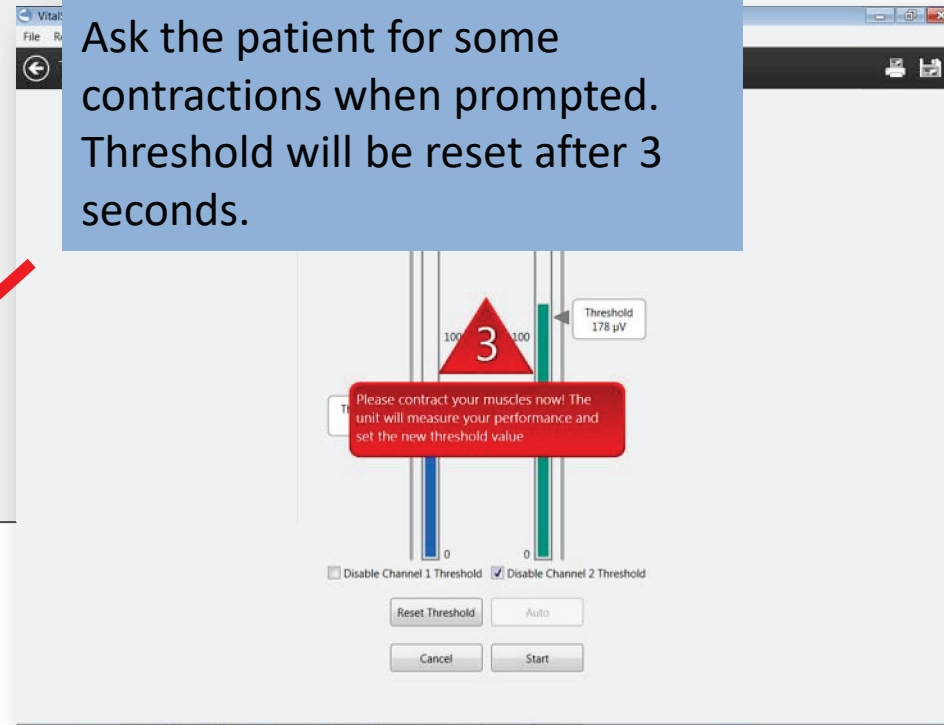


Template Training – Setting Threshold



Click *Auto* to set the threshold automatically.

Ask the patient for some contractions when prompted. Threshold will be reset after 3 seconds.





Template Training – Setting Threshold

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Template Training

Ch 1 999 100 0 Threshold 202 μ V

Ch 2 999 100 0 Threshold 144 μ V

Disable Channel 1 Threshold Disable Channel 2 Threshold

Reset Threshold Auto

Cancel Start

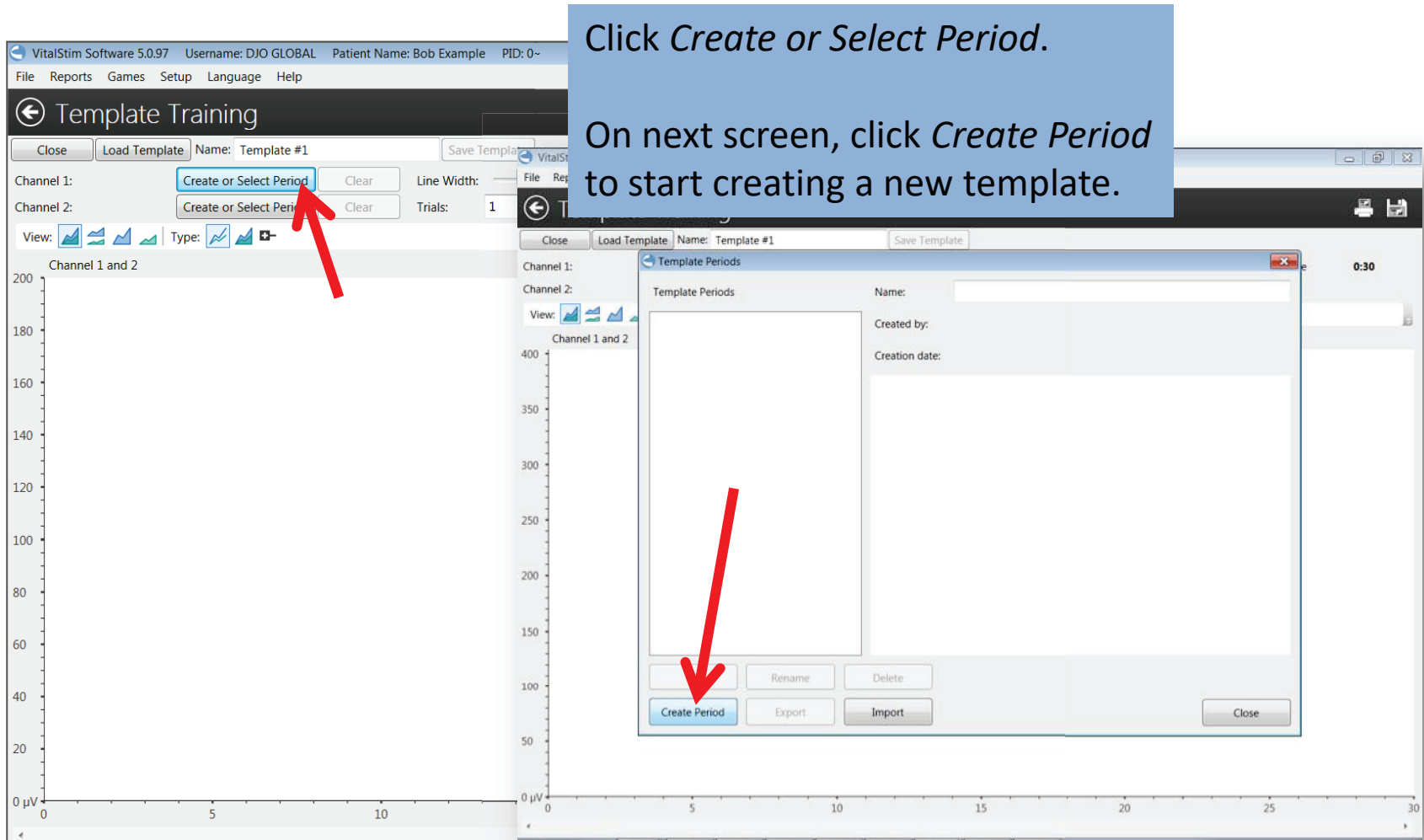
Click *Start* when the new threshold value is set.



Template Training – Create Period

Click *Create or Select Period*.

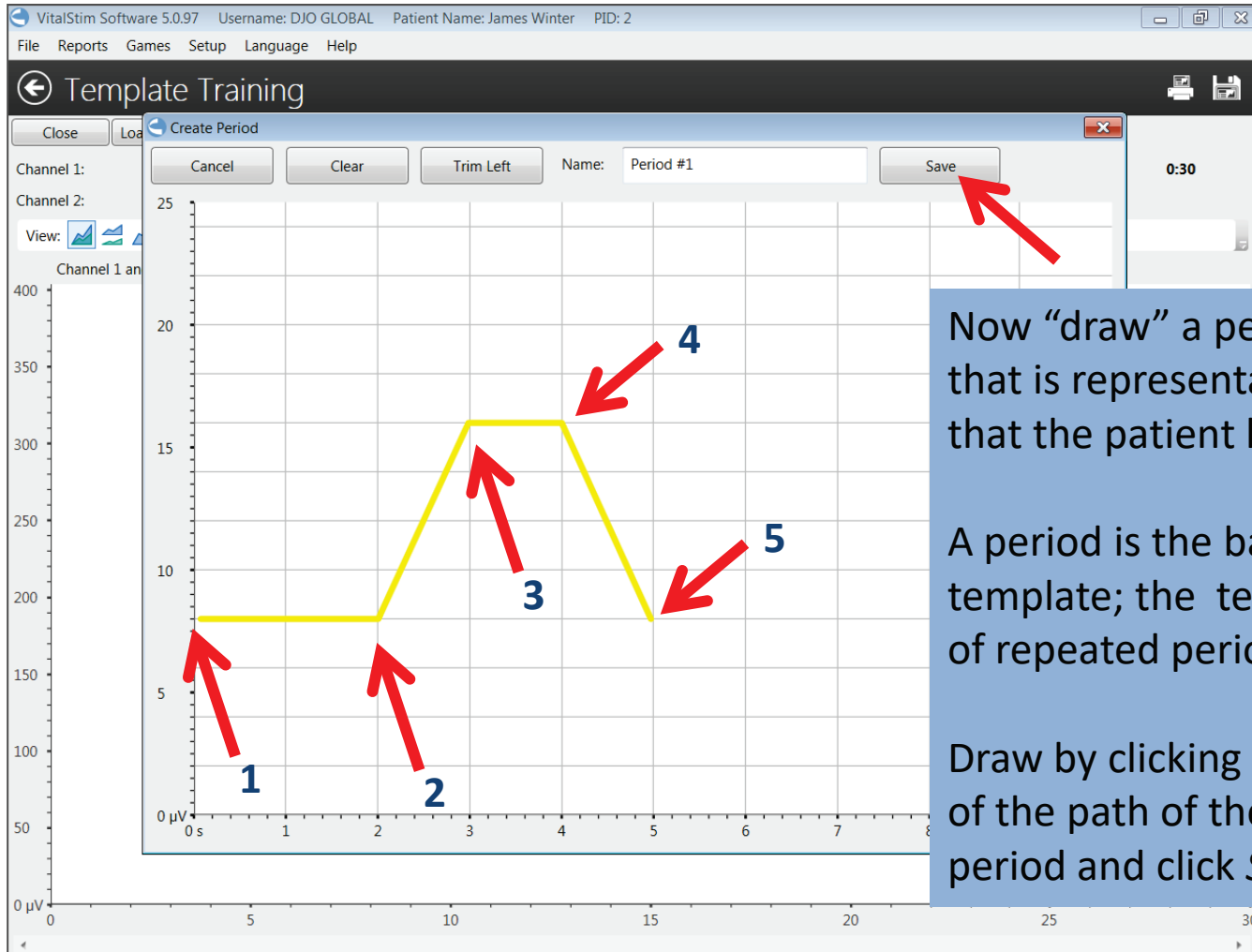
On next screen, click *Create Period* to start creating a new template.



The screenshot displays the VitalStim Software 5.0.97 interface. The main window is titled 'Template Training' and shows a graph for 'Channel 1 and 2' with a y-axis from 0 to 200 μV and an x-axis from 0 to 10. The 'Template Training' window has a 'Name: Template #1' field and buttons for 'Close', 'Load Template', 'Save Template', 'Create or Select Period', and 'Clear'. A red arrow points to the 'Create or Select Period' button. The 'Template Periods' dialog box is open, showing a 'Name:' field, 'Created by:', and 'Creation date:' fields. The 'Template Periods' dialog box has a 'Create Period' button highlighted with a red arrow, along with 'Rename', 'Delete', 'Export', 'Import', and 'Close' buttons.



Template Training – Create Period



Now “draw” a period on the graph that is representative of the action that the patient has to follow.

A period is the base element of the template; the template will consist of repeated periods.

Draw by clicking on different points of the path of the line. Name the period and click *Save* when done.



Template Training – Create Template

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Template Training

Close Load Template Name: Template #1 Save Template

Channel 1:
Channel 2:
View: Channel 1 and 2

0:30

Template Periods

Name: Period #1
Created by: DJO GLOBAL
Creation date: Monday, January 02, 2017

Period #1

OK Rename Delete
Create Period Export Import Close

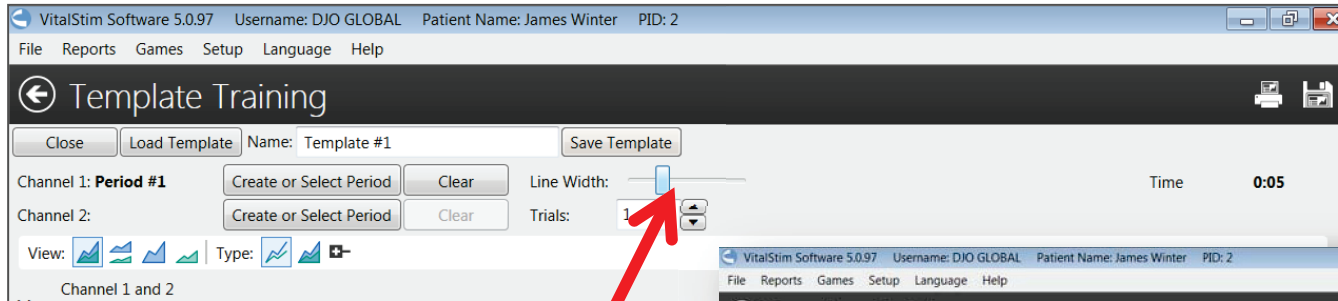
250
200
150
100
50
0 μV

0 5 10 15 20 25 30

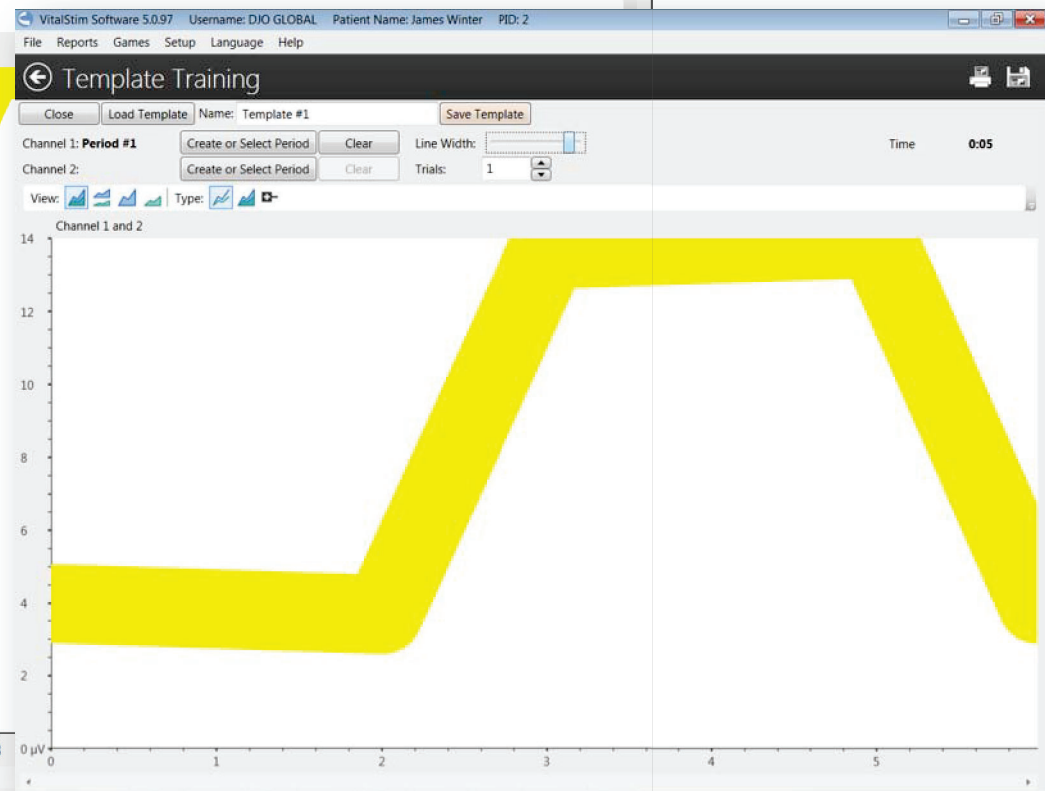
Select the period and click *OK*.



Template Training – Create Template

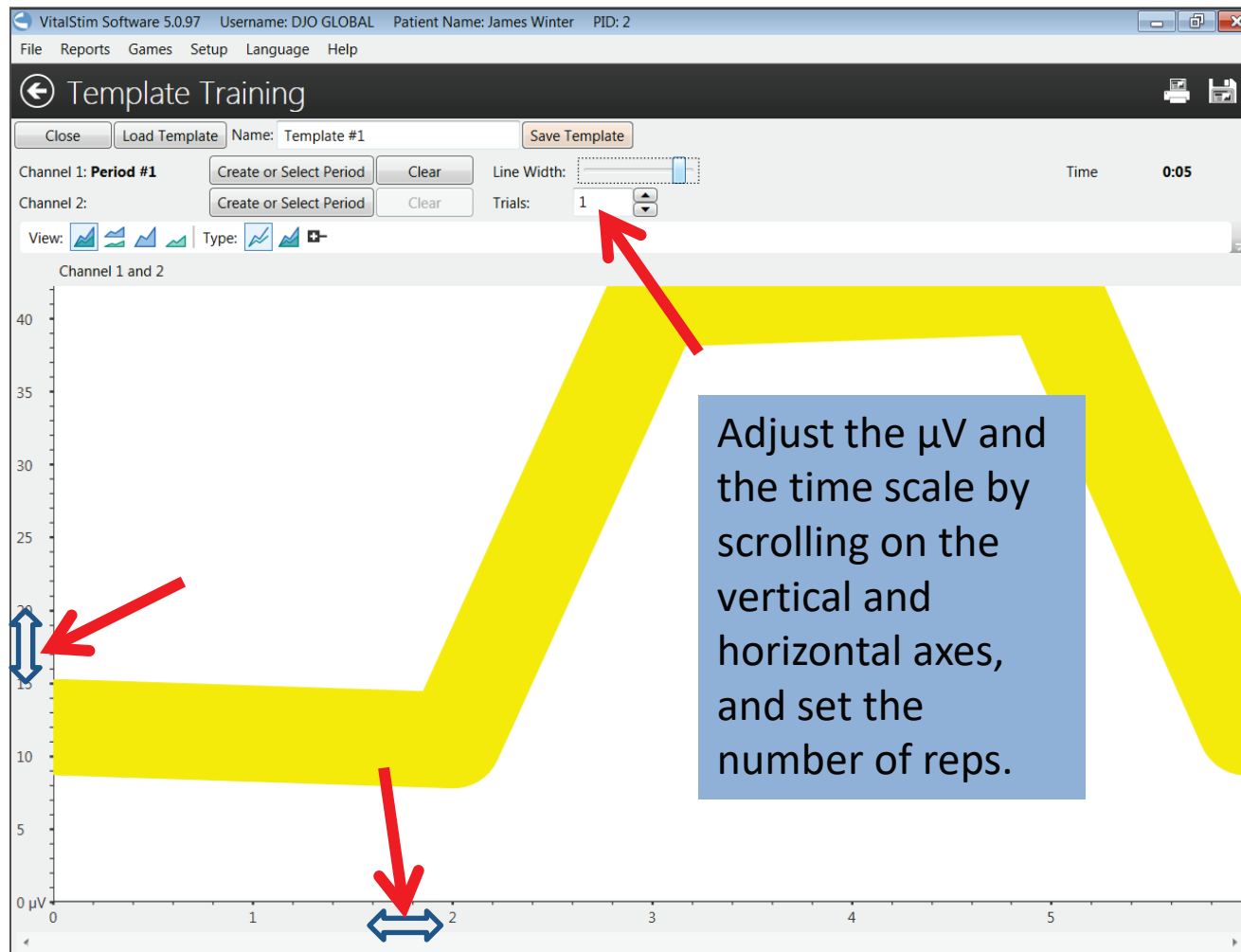


Adjust the width of the line as needed. A thicker band will create a wider band or path for the patient to follow.





Template Training – Create Template





Template Training – Create Template

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Template Training

Close Load Template Name: Template #1 Save Template

Channel 1: **Period #1** Create or Select Period Clear Line Width: Time 0:23

Channel 2: Create or Select Period Clear Trials: 4

View: Type:

Channel 1 and 2

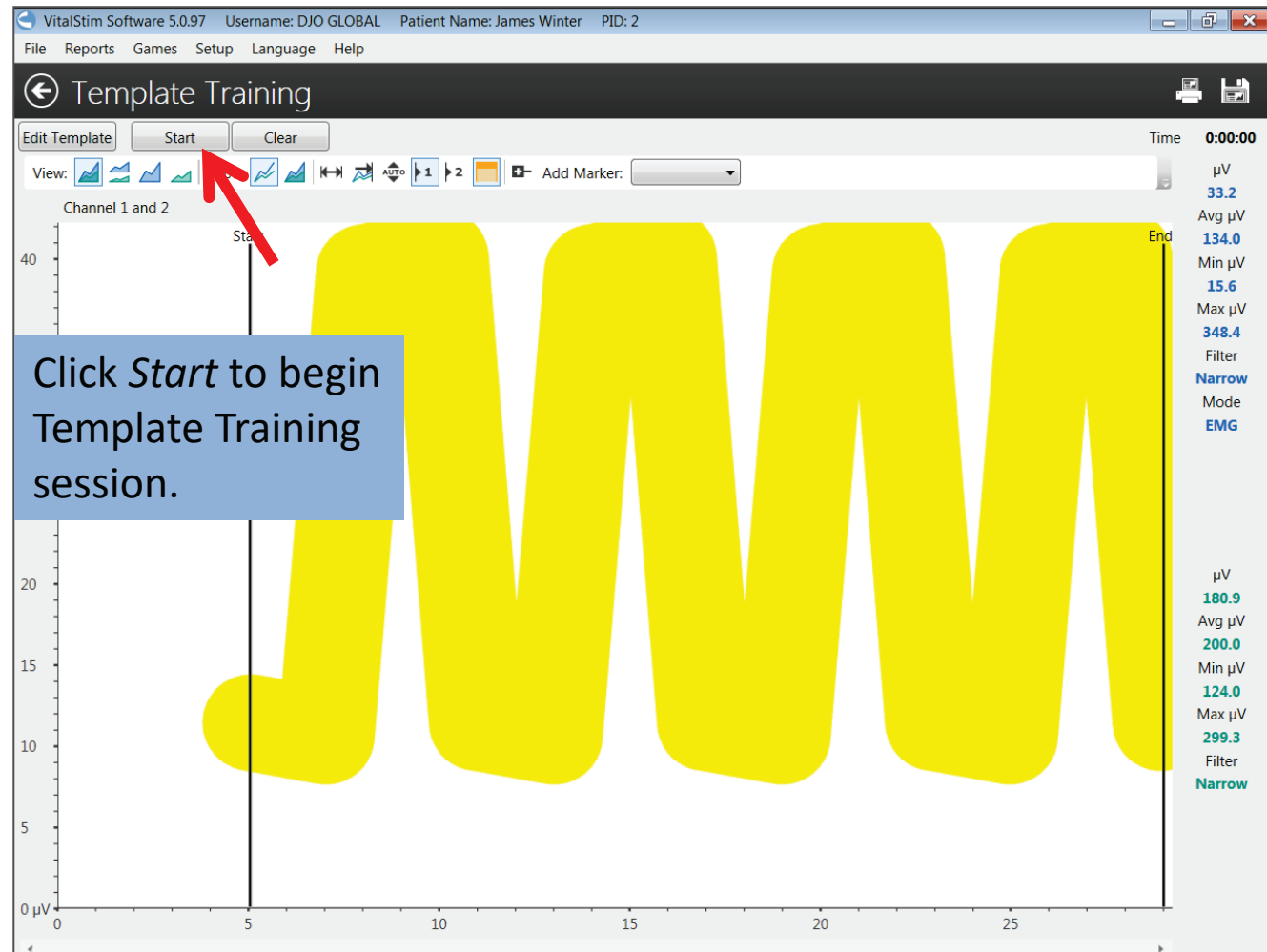
40
35
30
25
20
15
10
5
0 μ V

0 5 10 15 20

Name the template and click *Save Template* when done.

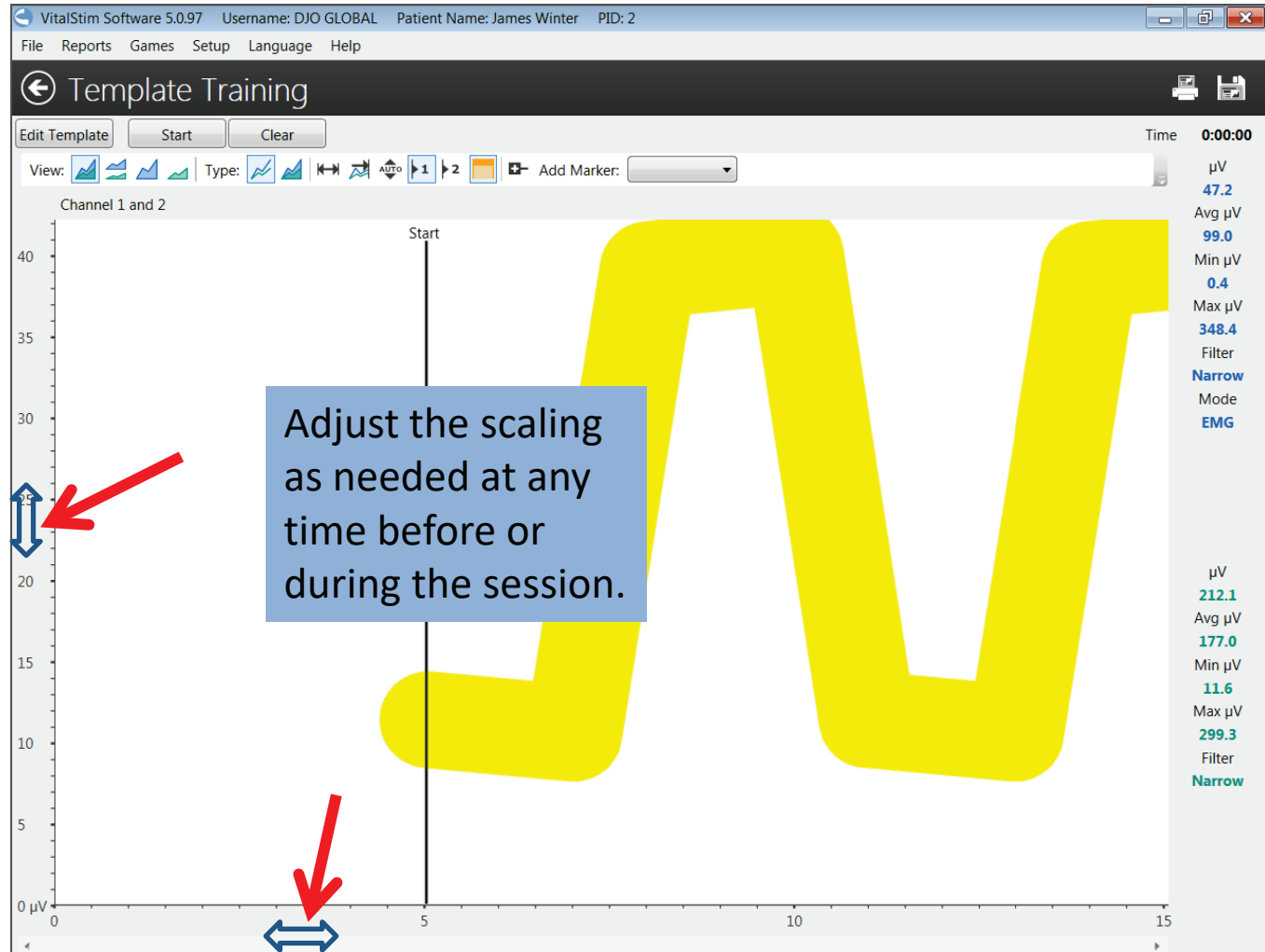


Template Training – Run session



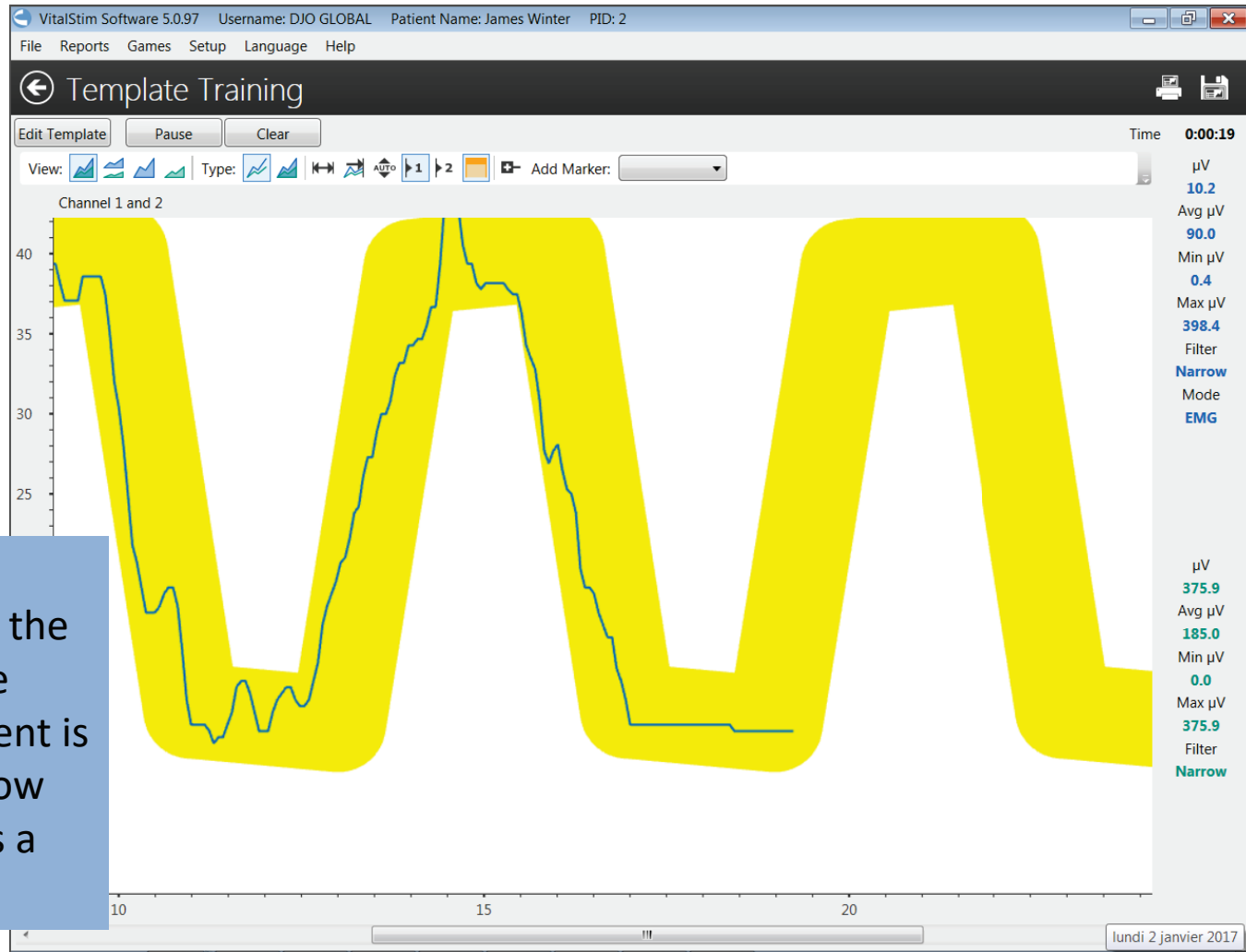


Template Training – Run session





Template Training – Run session



The patient EMG graph will run on the screen during the session. The patient is instructed to follow the yellow line as a guide.



Template Training – Run session

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Template Training

Therapist Name: **DJO GLOBAL** PatID: **2** Patient Name: **James Winter**
 Date: **02/01/2017 14:31** Session Number: **2** Condition: **Add or Select Condition**
 Device: **EmgSimulator**

	Ch 1	Ch 2
Average	72,6 μ V	230,3 μ V
Peak	398,4 μ V	399,6 μ V
Minimum	0,4 μ V	0 μ V
Total Time	0:33	
Avg. Deviation	51,7 μ V	NA

View: [Icons] Type: [Icons] Add Marker: [Dropdown]

Channel 1

Markers and Artifacts

Observations and Comments

Close Save Graph

Attachments (0) Export to CSV

Report page will be displayed at the completion of the session.

Click *Save* to save the session to the patient record.



Template Training – Review session

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name
0~	Example	Bob
1	Martin	John
2	Winter	James

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	02/01/2017	14:07	Open Display	Add or Select Condition			Attachments (0)	
<input type="checkbox"/> 2	02/01/2017	14:31	Template Training	Add or Select Condition			Attachments (0)	

Saved sessions are listed in the patient profile for review.

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Session Options

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

Start Protocol

Backup data



Work/Rest Assessment

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID: 2 Patient Name: James Winter

Session Number: 3 Condition: Add or Select Condition

Settings Checklist

Device	EmgSimulator
Mode	sEMG
Channel 2	On
Threshold	100.0 μ V / 100.0 μ V
Work	5 secs
Rest	5 secs
Stimuli	
Sound feedback	
Heart Beat Filter	
Target type	

Error

Add or Select Condition

OK

Ch 1: 245.7 μ V

Ch 2: 375.0 μ V

Buttons: Patient Database, Open Display, Device Controlled, Template Training, Work / Rest Assessment, Work / Rest Training, Games, Close

Disconnect mouse EMG

A Work/Rest Assessment is a standardized test that can be performed at regular intervals to quantify patient improvement.

Select the Condition in the dropdown and click *Work / Rest Assessment*.



Work/Rest Assessment

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Work / Rest Assessment

Quality of Life Factor 1

Work 5 secs

Rest 5 secs

Trials 5

Ch 1 999 100 0 Threshold 97 µV

Ch 2 999 100 0 Threshold 100 µV

Disable Channel 1 Threshold Disable Channel 2 Threshold

Reset Threshold Auto Cancel Start

Select the number of reps, and Work and Rest time.

Click on *Auto* to set the Threshold automatically.



Work/Rest Assessment

Ask the patient to swallow normally when prompted. After 3 seconds, the threshold is automatically set.

Click *Start* when done.

Username: DJO GLOBAL Patient Name: James Winter PID: 2

Work/Rest Assessment

Quality of Life Factor 1

Work 5 secs

Rest 5 secs

Trials 5

Ch 1 999 999 Ch 2

Threshold 97 μ V 100 3 100 Threshold 100 μ V

Please contract your muscles now! The unit will measure your performance and set the new threshold value

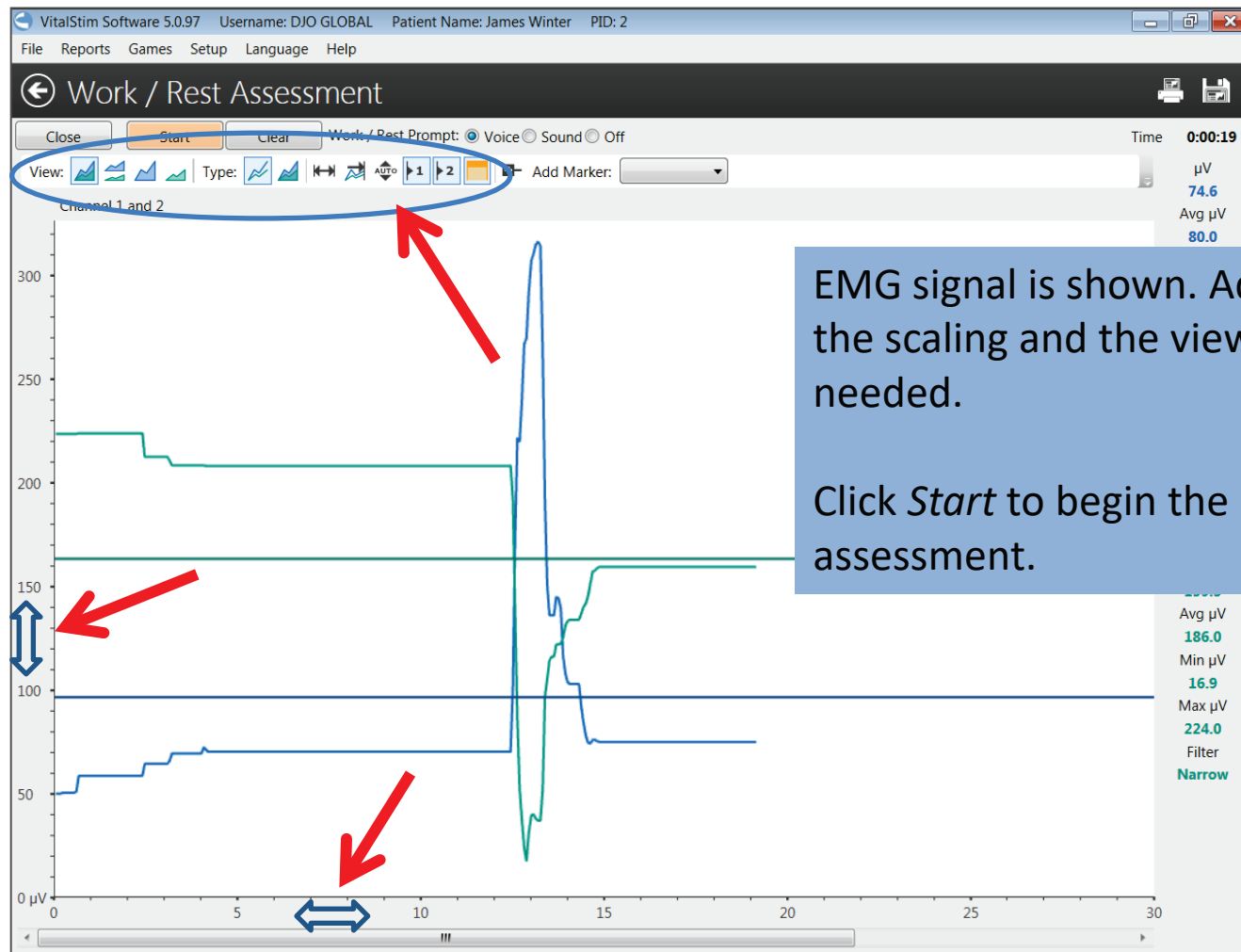
Disable Channel 1 Threshold Disable Channel 2 Threshold

Reset Threshold Auto

Cancel Start



Work/Rest Assessment





Work/Rest Assessment



Patient is instructed by the Work and Rest voice prompts and visually by the vertical lines on the graph.

The Voice prompts can be turned off.



Work/Rest Assessment

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Work / Rest Assessment

Therapist Name **DJO GLOBAL** PatID **2** Patient Name **James Winter**

Date **02/01/2017 15:01** Session Number **3** Condition **Stroke**

Device **EmgSimulator** Symptoms and Signs

Quality of Life Factor **1** Force (kgs) **0** Angle (degrees) **0**

Work	Ch 1	Ch 2
Average	199,5 μ V	223,9 μ V
Avg. Deviation	9,9 μ V	52,8 μ V
Avg. Deviation	4,9 %	23,6 %
Peak	350,3 μ V	335,6 μ V
Average Onset	0 sec	0 sec
Valid Onsets	5	5
Work Time	5 sec	

Rest	Ch 1	Ch 2
Average	82 μ V	252 μ V
Avg. Deviation	22 μ V	46,4 μ V
Avg. Deviation	26,9 %	18,4 %
Minimum	5,5 μ V	25,9 μ V
Average Release	0,9 sec	> 2 sec
Valid Releases	1	0
Rest Time	5 sec	

Channel 1

View: [Icons] Type: [Icons] Add Marker: [Dropdown]

Observations and Comments

Close Save Graph

Attachments (0) Export to CSV

The report is shown at the end of the assessment.

The report can be saved.



Work/Rest Assessment – Reporting

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	02/01/2017	14:07	Open Display	Add or Select Condition			Attachments (0)	
<input type="checkbox"/> 2	02/01/2017	14:31	Template Training	Add or Select Condition			Attachments (0)	
<input checked="" type="checkbox"/> 3	02/01/2017	15:01	Work / Rest Assessment	Stroke			Attachments (0)	
<input checked="" type="checkbox"/> 4	02/01/2017	15:03	Work / Rest Assessment	Stroke			Attachments (0)	
<input checked="" type="checkbox"/> 5	02/01/2017	15:05	Work / Rest Assessment	Stroke			Attachments (0)	

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Session Options

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

Start Protocol

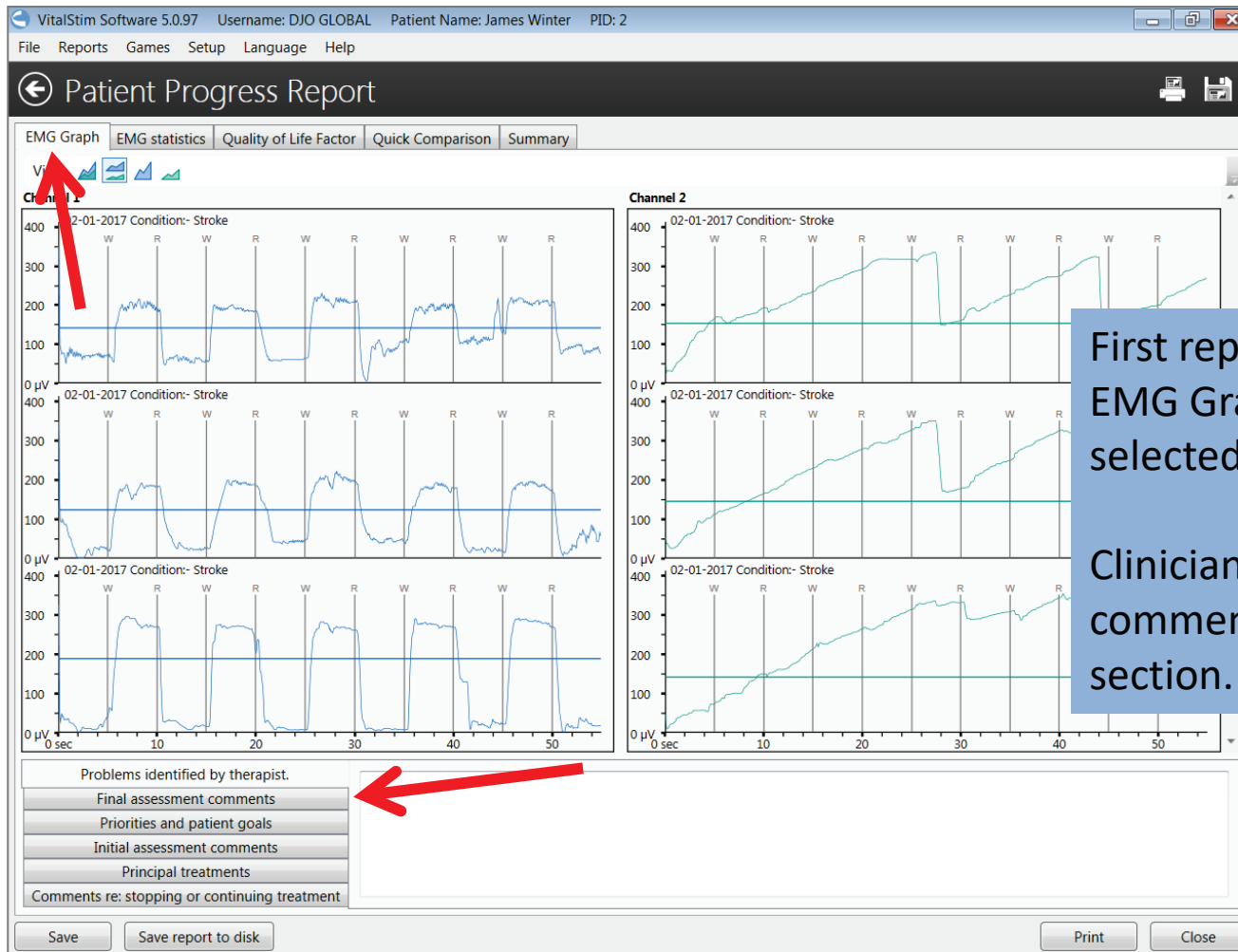
Backup data

A progress report can be generated when a minimum of 2 Work/Rest Assessments have been performed.

Select the Work/Rest Assessment sessions to report on and click *Create Progress report (Assessment)*.



Work/Rest Assessment – Reporting

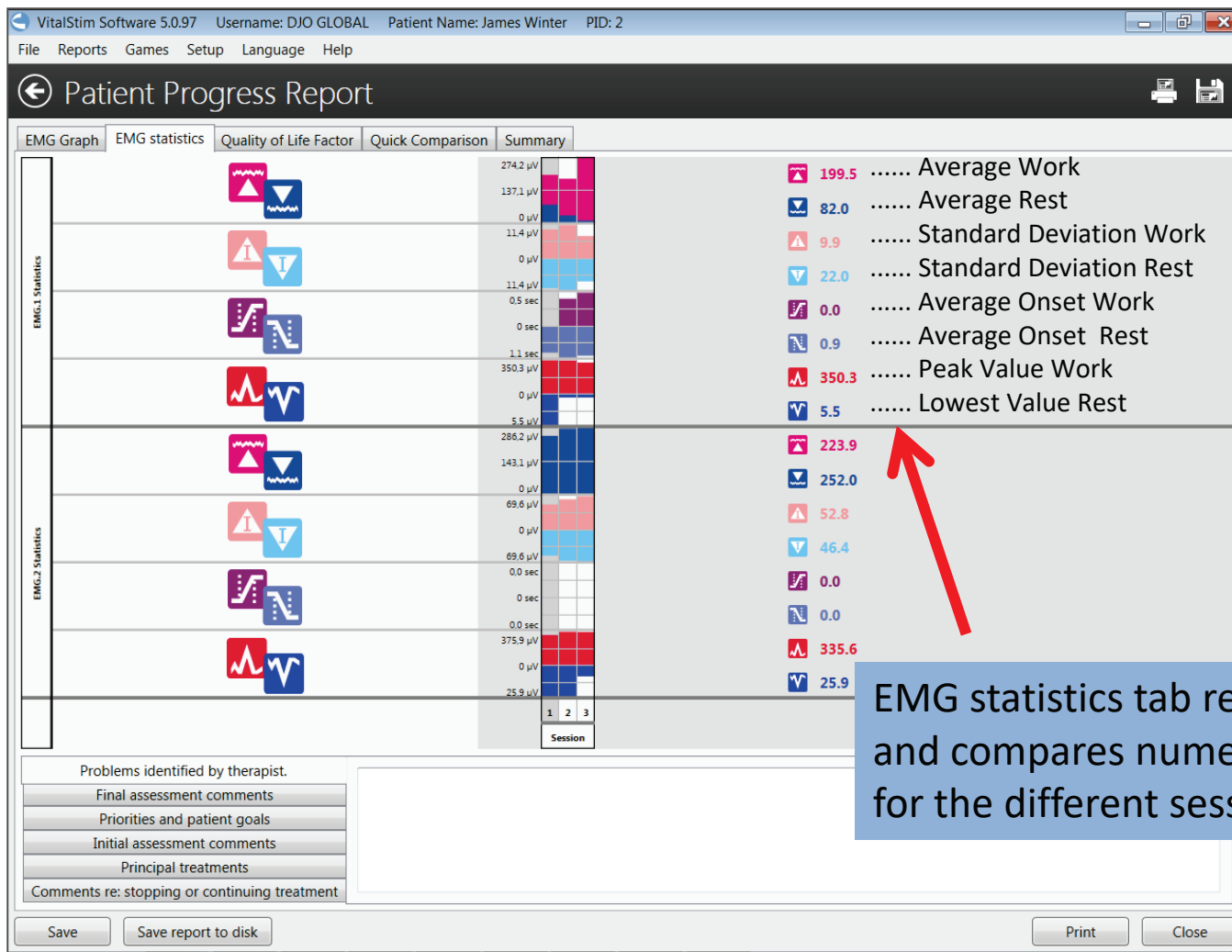


First report tab shows EMG Graphs for the selected sessions.

Clinician can add comments in bottom section.



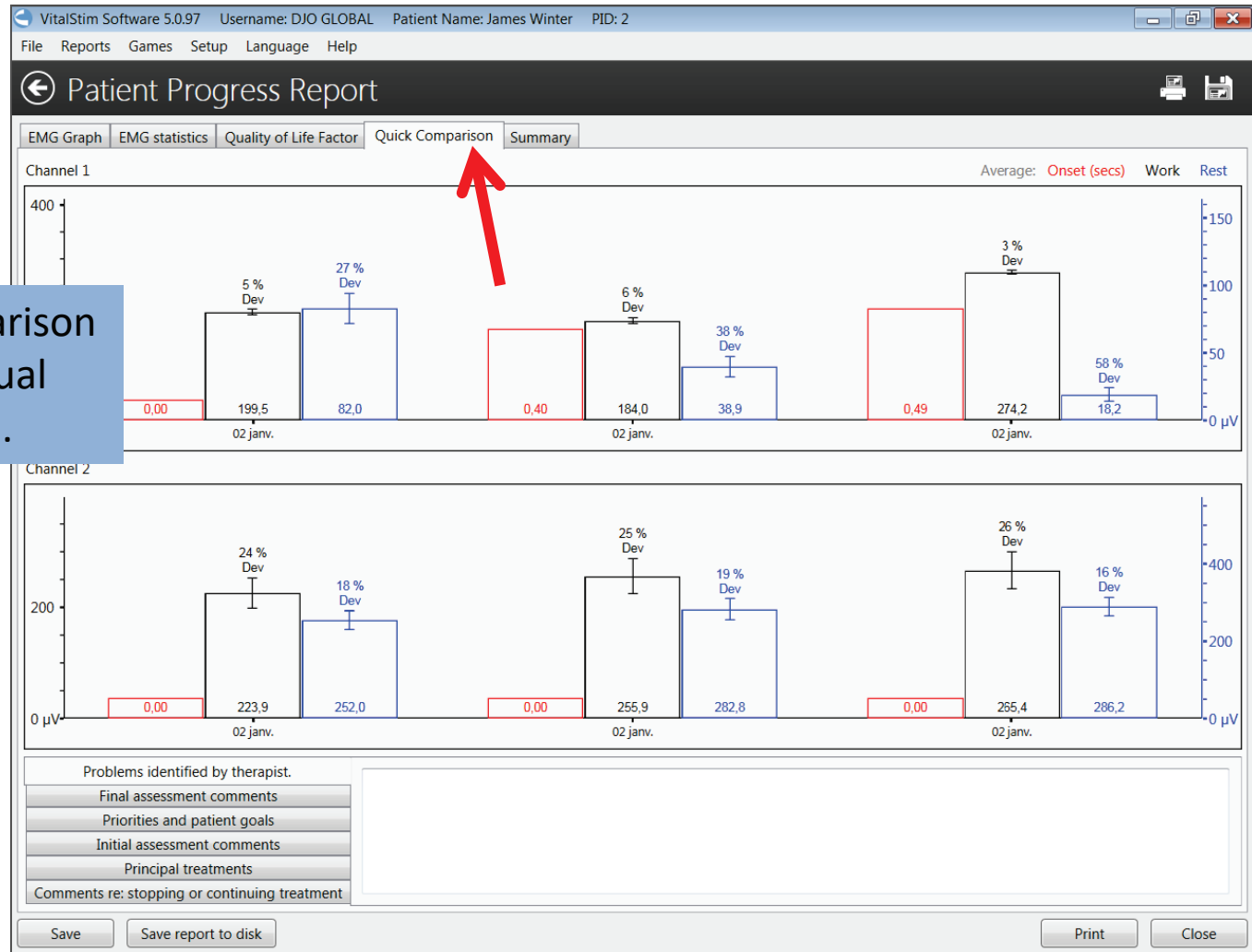
Work/Rest Assessment – Reporting



EMG statistics tab reports on and compares numerical values for the different sessions.



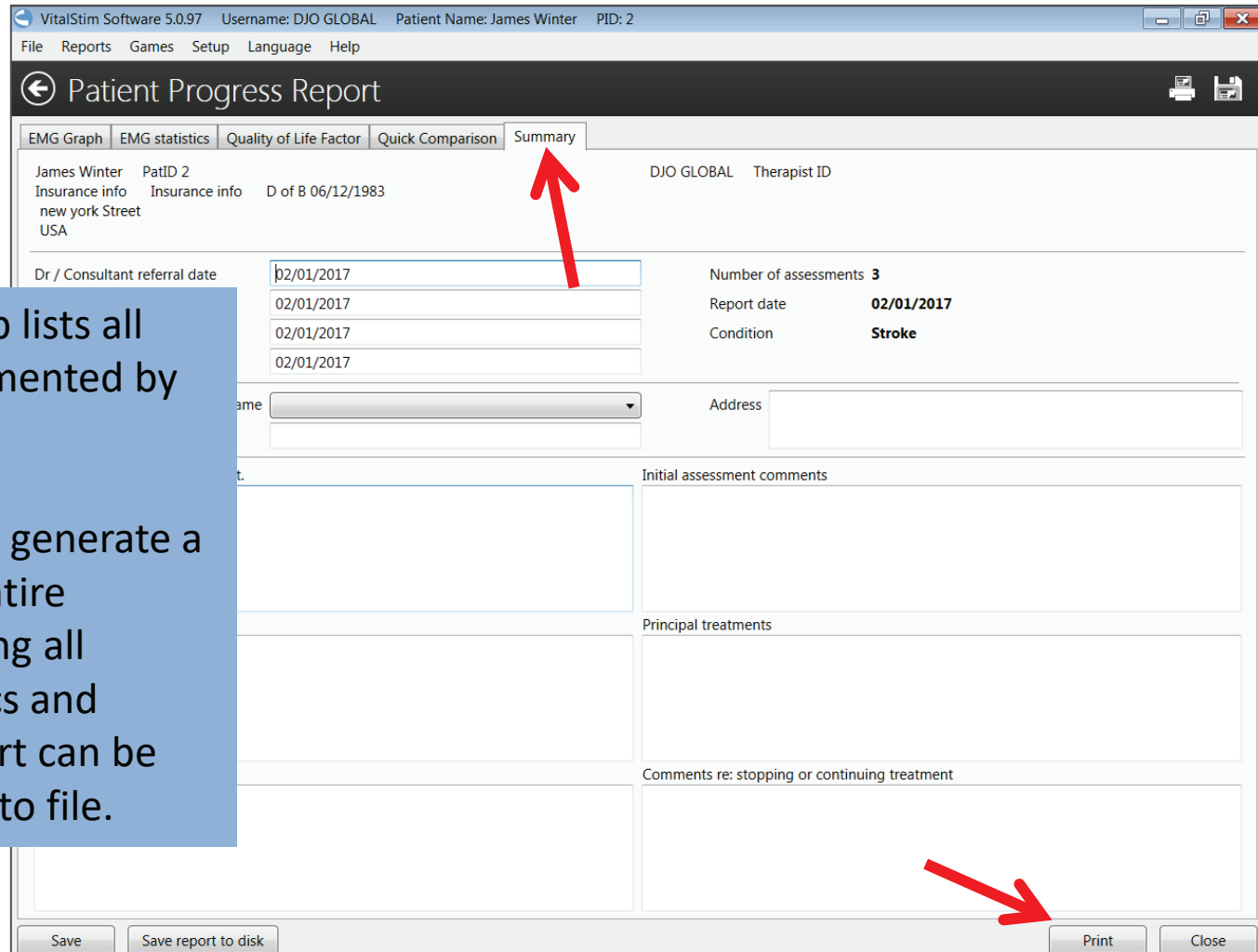
Work/Rest Assessment – Reporting



The Quick Comparison tab provides a visual report of the data.



Work/Rest Assessment – Reporting



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

← Patient Progress Report

EMG Graph EMG statistics Quality of Life Factor Quick Comparison **Summary**

James Winter PatID 2 DJO GLOBAL Therapist ID
Insurance info Insurance info D of B 06/12/1983
new york Street
USA

Dr / Consultant referral date 02/01/2017
02/01/2017
02/01/2017
02/01/2017

Number of assessments **3**
Report date **02/01/2017**
Condition **Stroke**

Name Address

Initial assessment comments

Principal treatments

Comments re: stopping or continuing treatment

Save Save report to disk Print Close

The Summary tab lists all comments documented by the clinician.

Clicking Print will generate a PDF file of the entire progress, including all graphics, statistics and comments. Report can be printed or saved to file.



Work/Rest Training

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID: 2 Patient Name: James Winter
Session Number: 6 Condition: Stroke

Settings Checklist

Device	EmgSimulator
Mode	sEMG
Channel 2	On
Threshold	100.0 μ V / 100.0 μ V
Work	5 secs
Rest	5 secs
Trials	5
Sound feedback	0%
Heart Beat Filter	Off
Target type	Manual

EMG

Click on Work/Rest Training

Ch 1: 222.7 μ V
Ch 2: 375.3 μ V

Buttons: Patient Database, Open Display, Device Controlled, Template Training, Work / Rest Assessment, Work / Rest Training, Games, Close

Disconnect mouse EMG



Work/Rest Training

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Work / Rest Training

Quality of Life Factor 1

Work 5 secs

Rest 5 secs

Trials 5

Ch 1 999 100 0 Threshold 157 μ V

Ch 2 999 100 0 Threshold 179 μ V

Disable Channel 1 Threshold Disable Channel 2 Threshold

Reset Threshold Auto Cancel Start

Select the number of reps, and Work and Rest time.

Click on *Auto* to set the Threshold automatically.



Work/Rest Training

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Work / Rest Training

Quality of Life Factor 1

Work 10 secs

Rest 4 secs

Trials 10

Ch 1 999 100 0 Threshold 166 μ V

Ch 2 999 100 0 Threshold 138 μ V

3

Please contract your muscles now! The unit will measure your performance and set the new threshold value

Disable Channel 1 Threshold Disable Channel 2 Threshold

Reset Threshold Auto

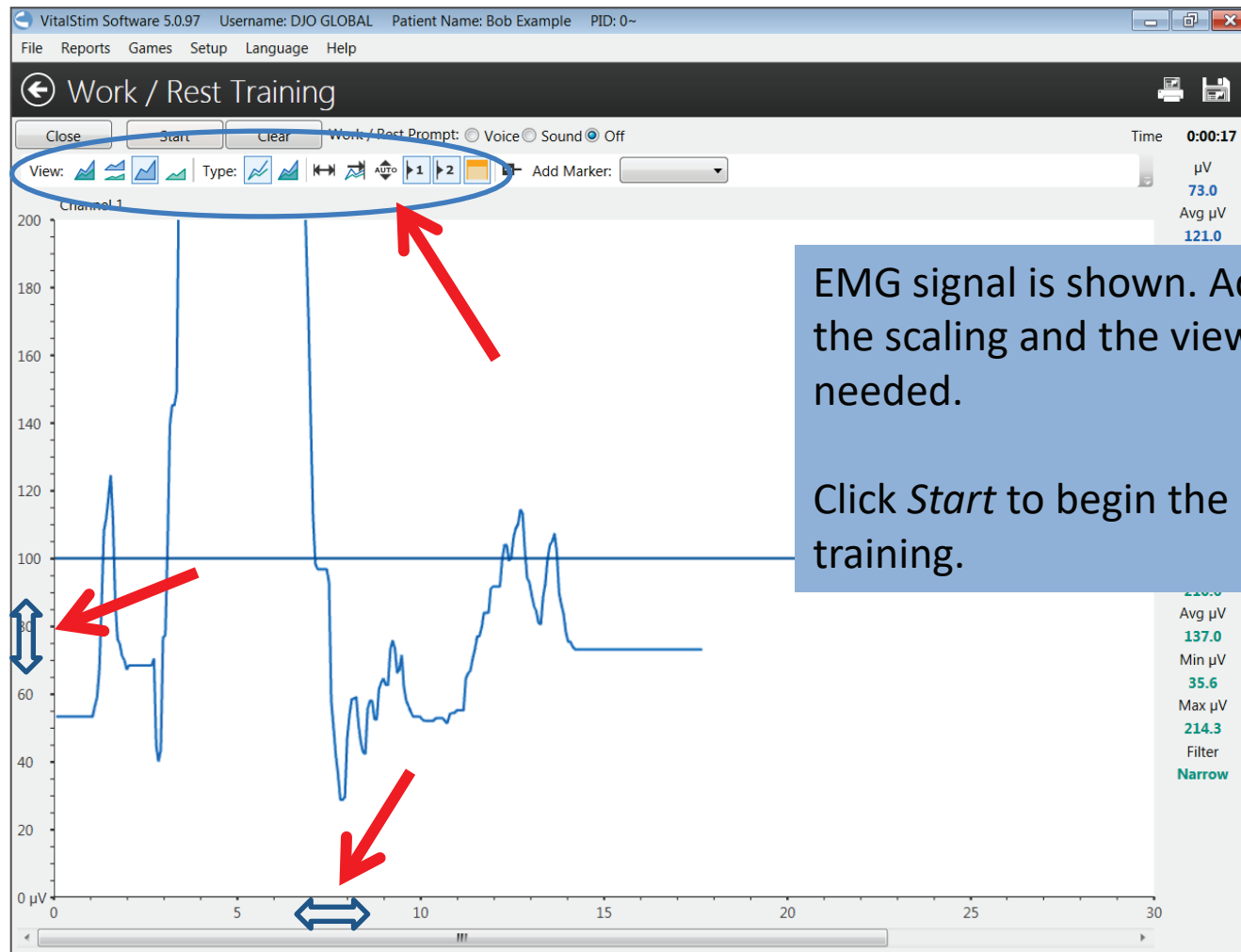
Cancel Start

Ask the patient to swallow normally when prompted. After 3 seconds, the threshold is automatically set.

Click *Start* when done.



Work/Rest Training

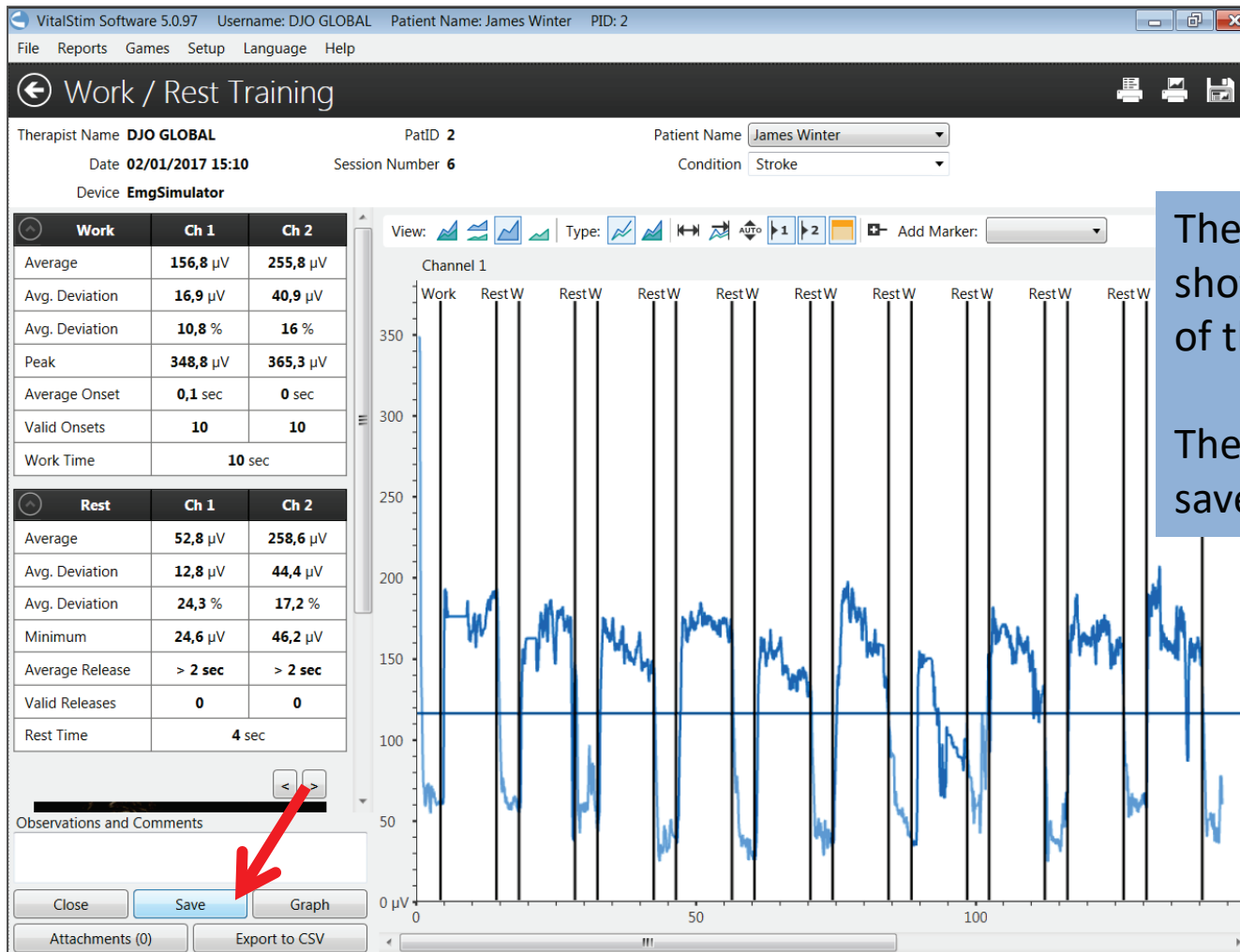


EMG signal is shown. Adjust the scaling and the view as needed.

Click *Start* to begin the training.



Work/Rest Training



The report is shown at the end of the training.

The report can be saved.



Work/Rest Training – Reporting

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Patient Database

Search patient

PatID	Surname	First name
0~	Example	Bob
1	Martin	John
2	Winter	James

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	02/01/2017	14:07	Open Display	Add or Select Condition			Attachments (0)	
<input type="checkbox"/> 2	02/01/2017	14:31	Template Training	Add or Select Condition			Attachments (0)	
<input checked="" type="checkbox"/> 3	02/01/2017	15:01	Work / Rest Assessment	Stroke			Attachments (0)	
<input checked="" type="checkbox"/> 4	02/01/2017	15:03	Work / Rest Assessment	Stroke			Attachments (0)	
<input checked="" type="checkbox"/> 5	02/01/2017	15:05	Work / Rest Assessment	Stroke			Attachments (0)	
<input type="checkbox"/> 6	02/01/2017	15:10	Work / Rest Training	Stroke			Attachments (0)	

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Session Options

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

Start Protocol

Backup data

Saved sessions are listed on the patient page.

Click on *Start Protocol* to start a new session.





Games

Click *Games* in Protocol Selection page

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID 2 Patient Name James Winter

Session Number 7 Condition Stroke

Settings Checklist

Device	EmgSimulator
Mode	sEMG
Channel 2	On
Threshold	100.0 μ V / 100.0 μ V
Work	5 secs
Rest	5 secs
Trials	5
Sound feedback	0%
Heart Beat Filter	Off
Target type	Manual

Ch 1 500.0 Ch 2 500.0

100.0 100.0

0 0

200.0 μ V 383.4 μ V

EMG

Disconnect mouse EMG

Patient Database

Open Display

Device Controlled

Template Training

Work / Rest Assessment

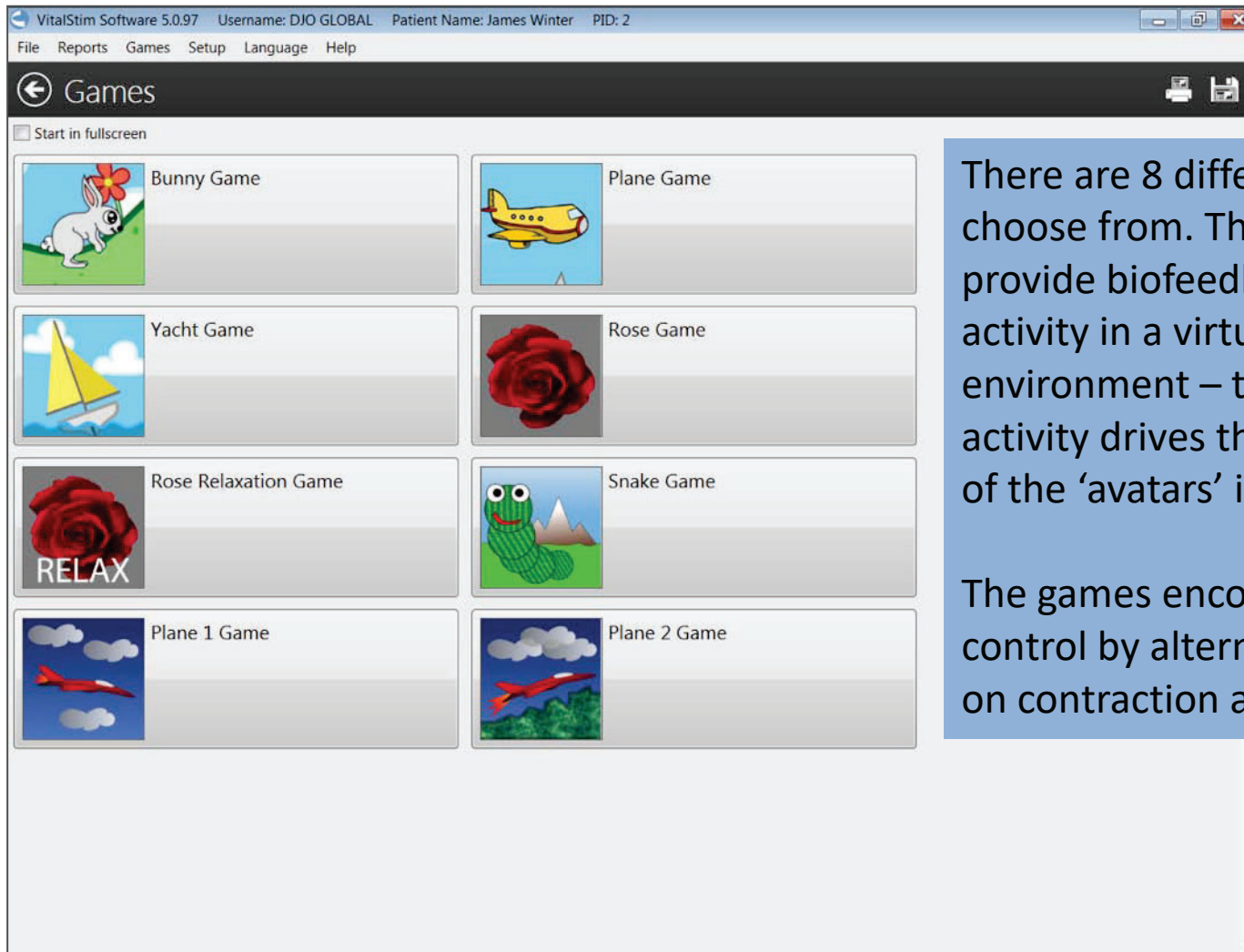
Work / Rest Training

Games

Close



Games

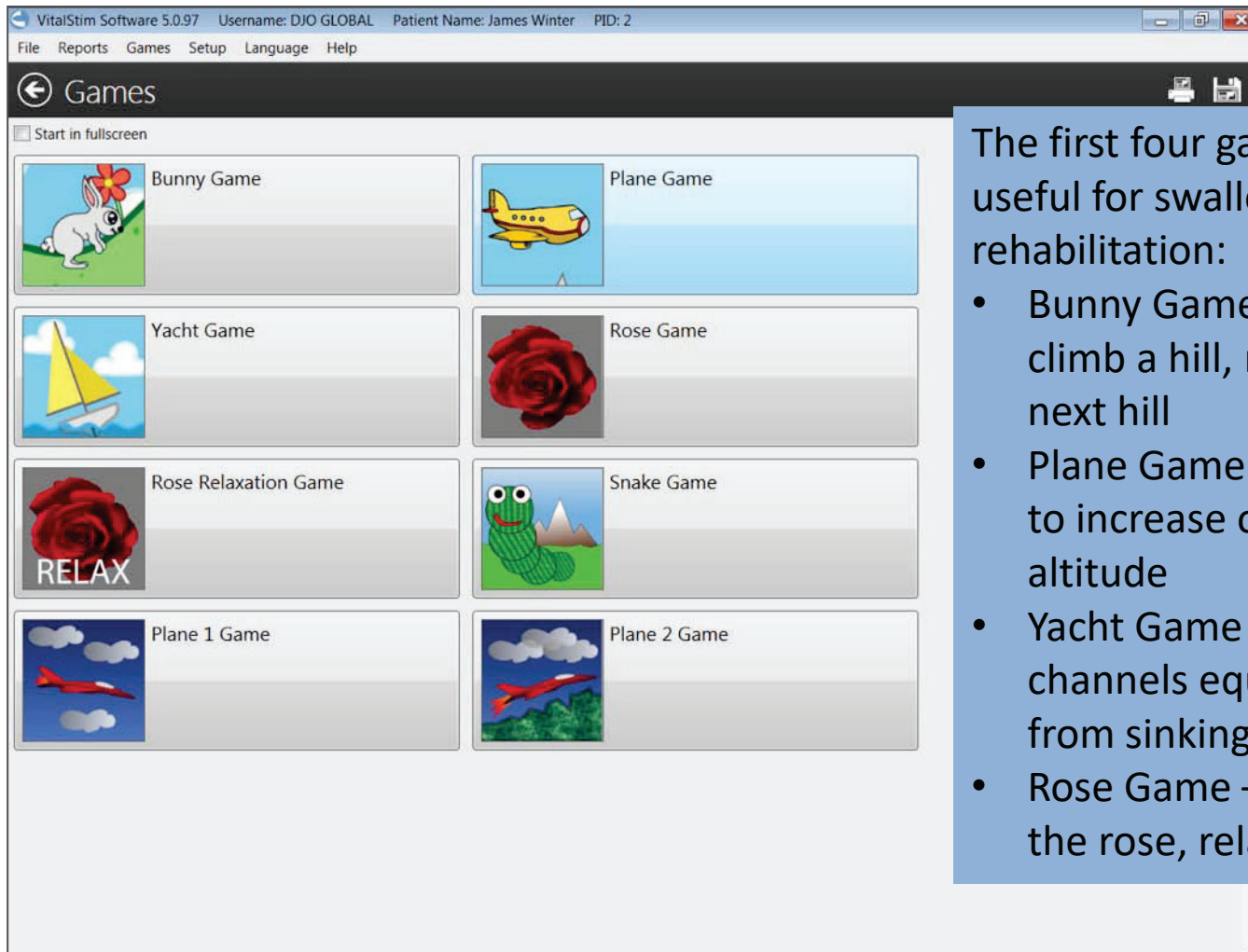


There are 8 different games to choose from. The games provide biofeedback of muscle activity in a virtual environment – the muscle activity drives the movements of the ‘avatars’ in the game.

The games encourage muscle control by alternately focusing on contraction and relaxation.



Games

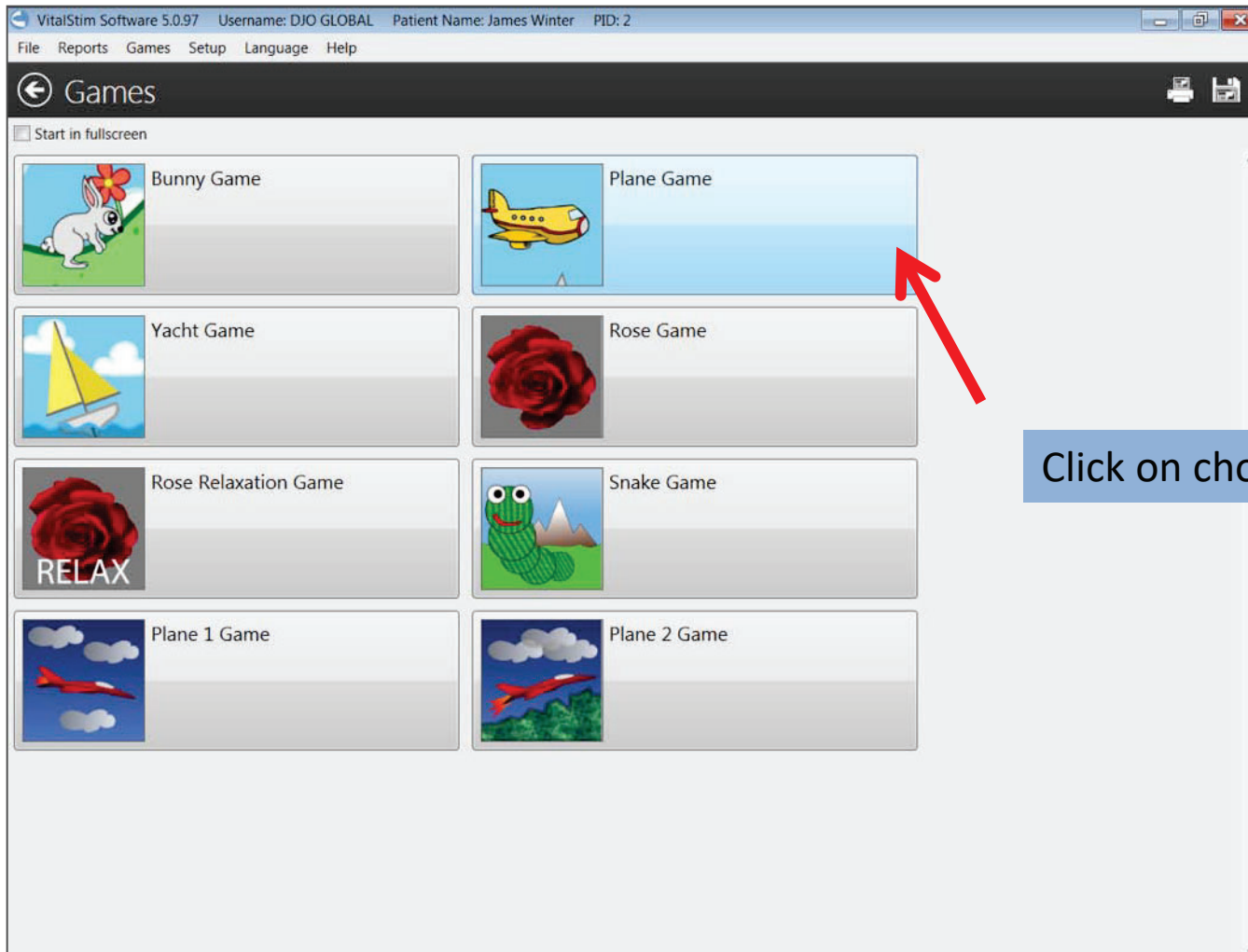


The first four games are most useful for swallowing rehabilitation:

- Bunny Game – Contract to climb a hill, relax to proceed to next hill
- Plane Game – Contract or relax to increase or decrease altitude
- Yacht Game – Keep tone in 2 channels equal to keep yacht from sinking
- Rose Game – Contract to close the rose, relax to open

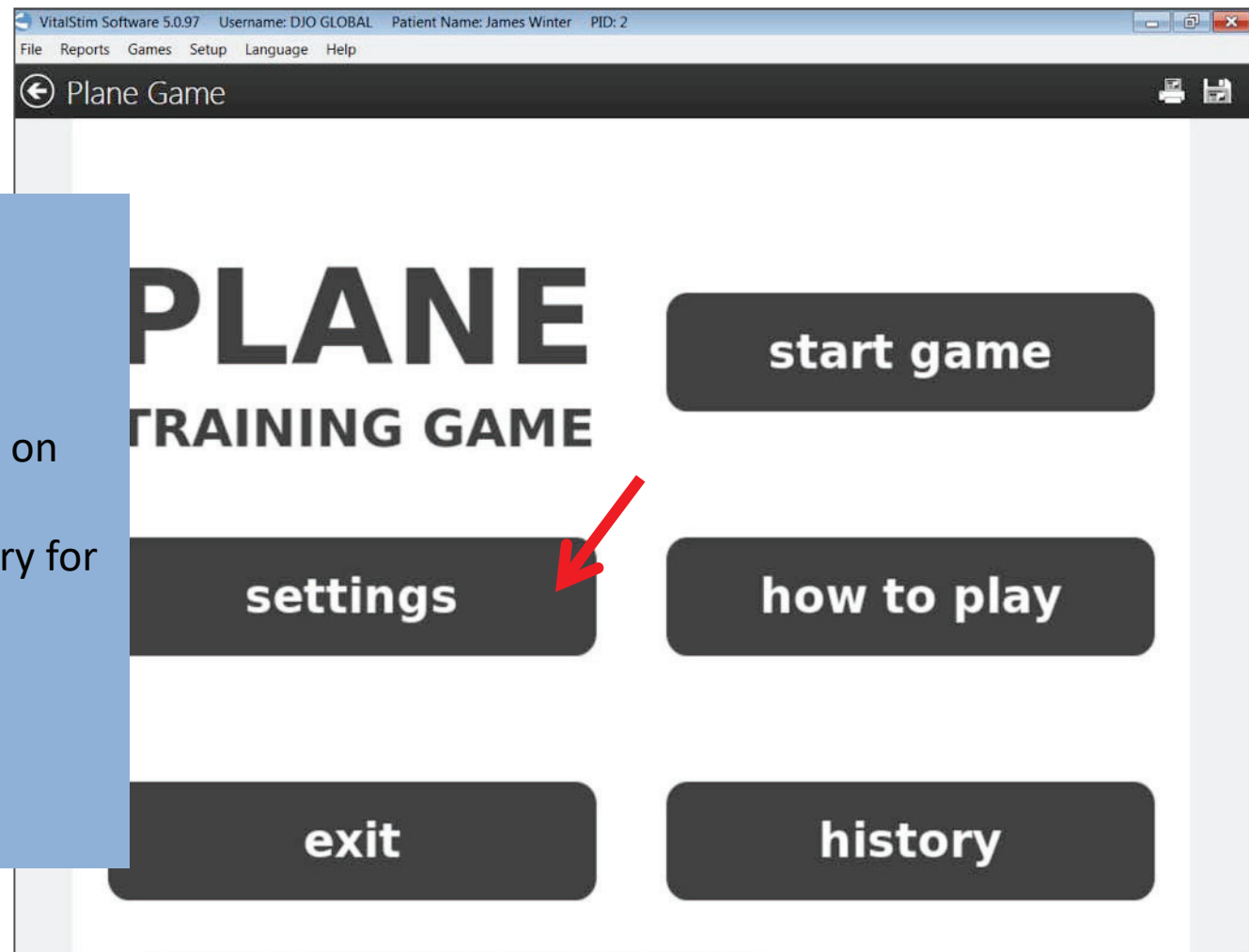


Games





Games – Setup



Game Options:

- Start the game
- Adjust the game settings
- Get explanations on how to play
- Get scoring history for the patient

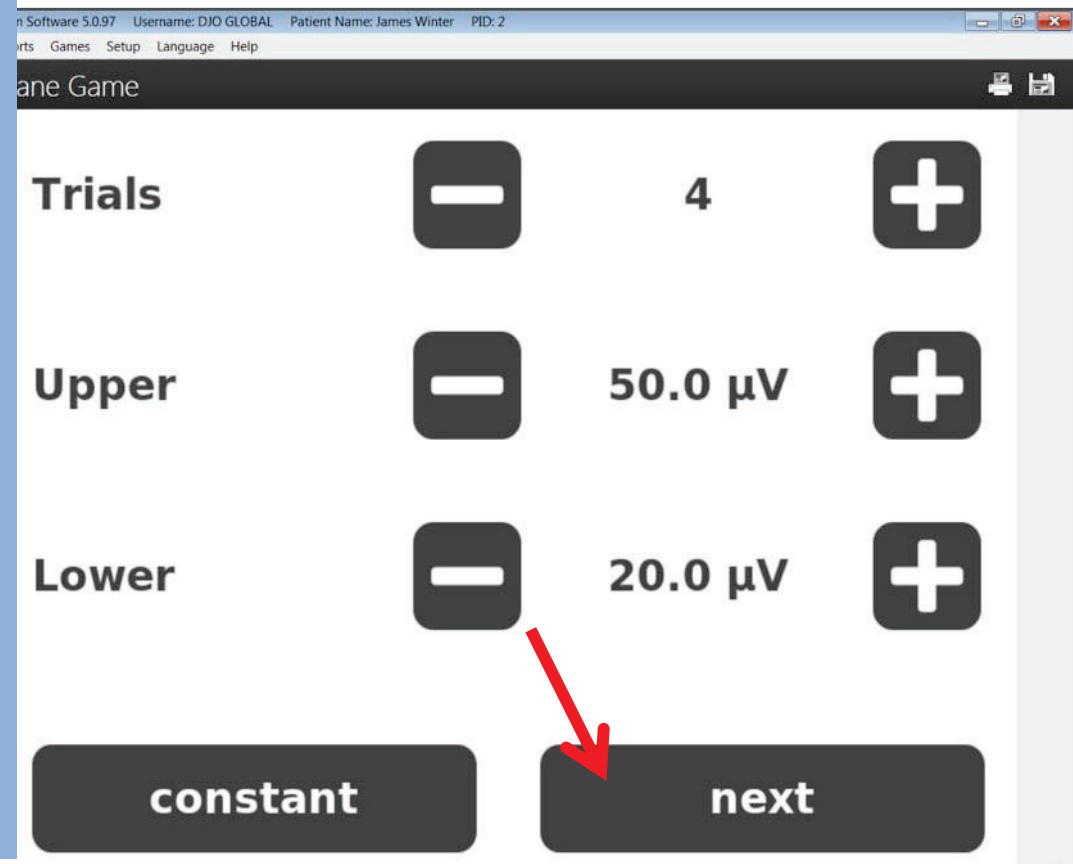
Click *Settings* to customize for the individual patient.



Games – Setup

- Set the number of trials based on patient tolerance
- Upper threshold: Patient must contract above this level to progress
- Lower threshold: Patient must relax to below this level to progress
- Constant or Adaptive to keep the threshold the same or have it automatically adjust to patient performance

Click *next* when done.



The screenshot shows a software window titled 'Game Setup' with the following configuration options:

Parameter	Decrease	Value	Increase
Trials	[-]	4	[+]
Upper	[-]	50.0 μ V	[+]
Lower	[-]	20.0 μ V	[+]

At the bottom, there are two buttons: 'constant' and 'next'. A red arrow points to the 'next' button.



Games – Setup



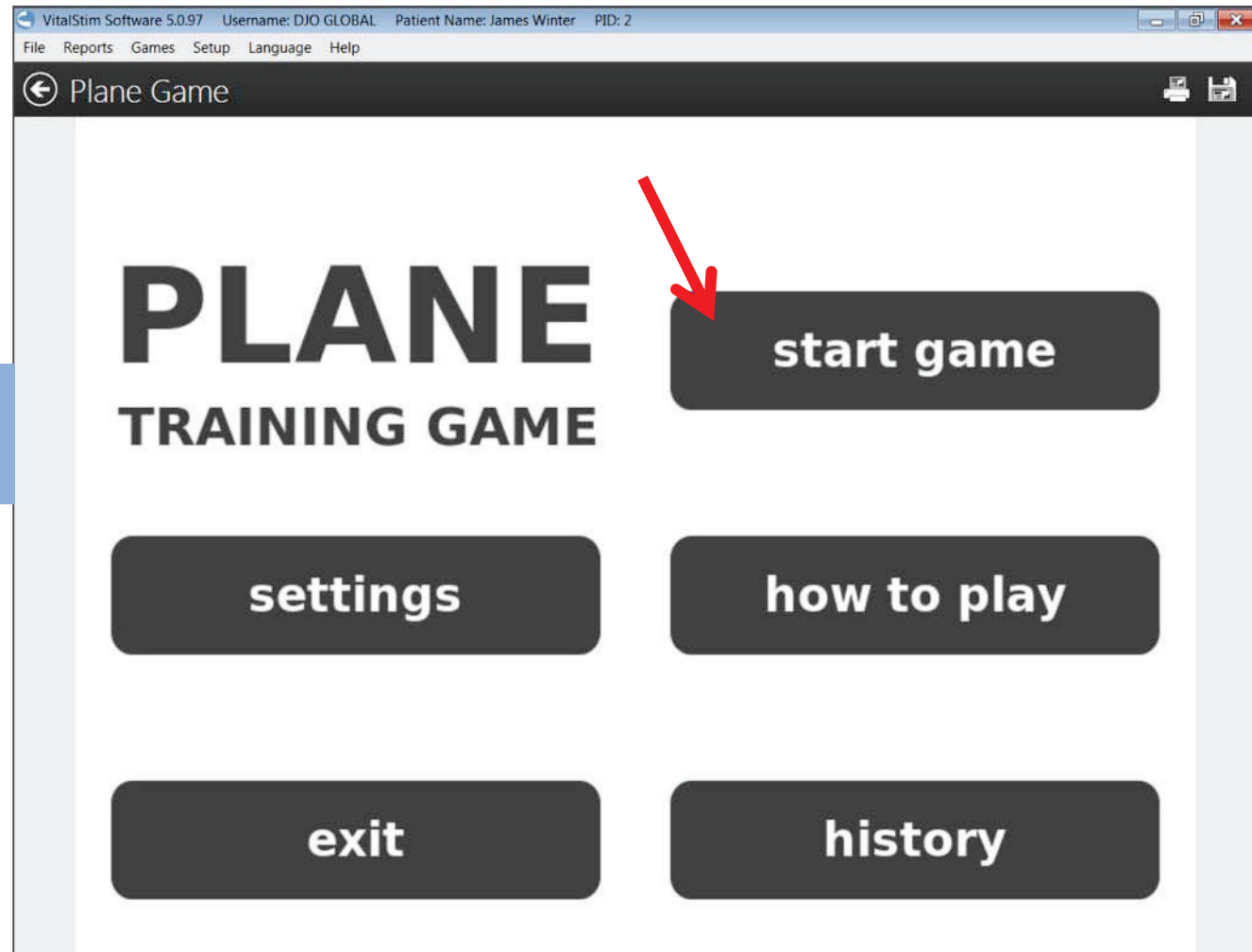
- Work Time: Amount of time to hold a contraction
- Rest: Amount of time to allow muscle relaxation

Click *done* when ready.



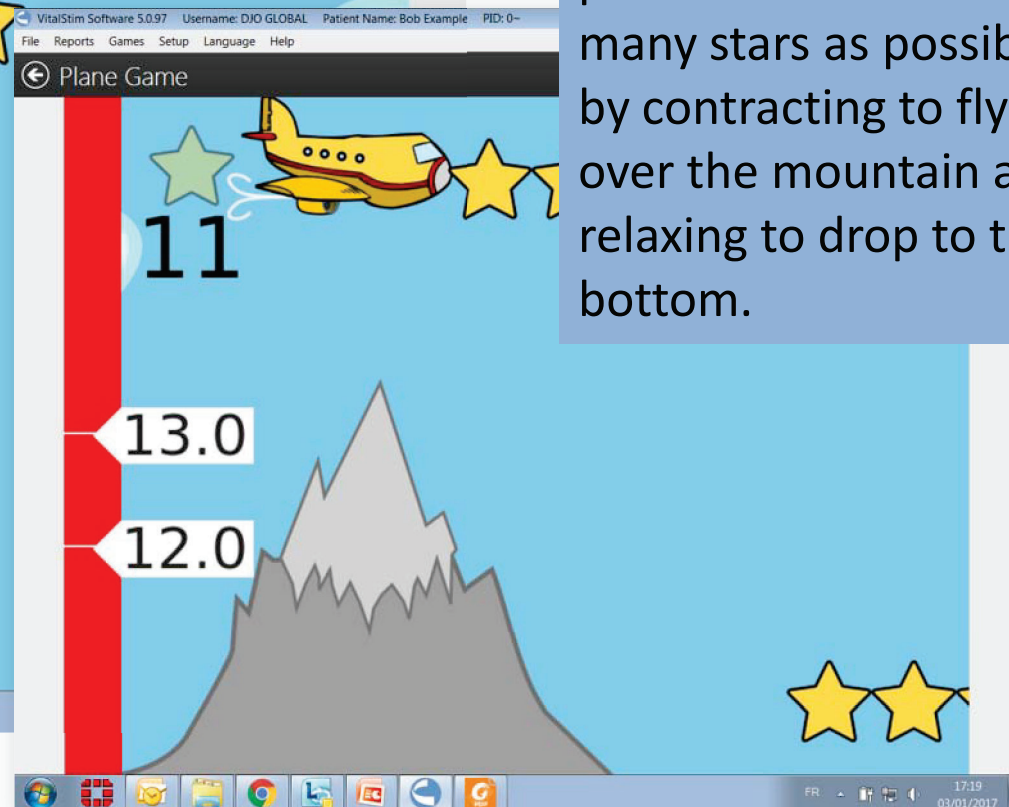
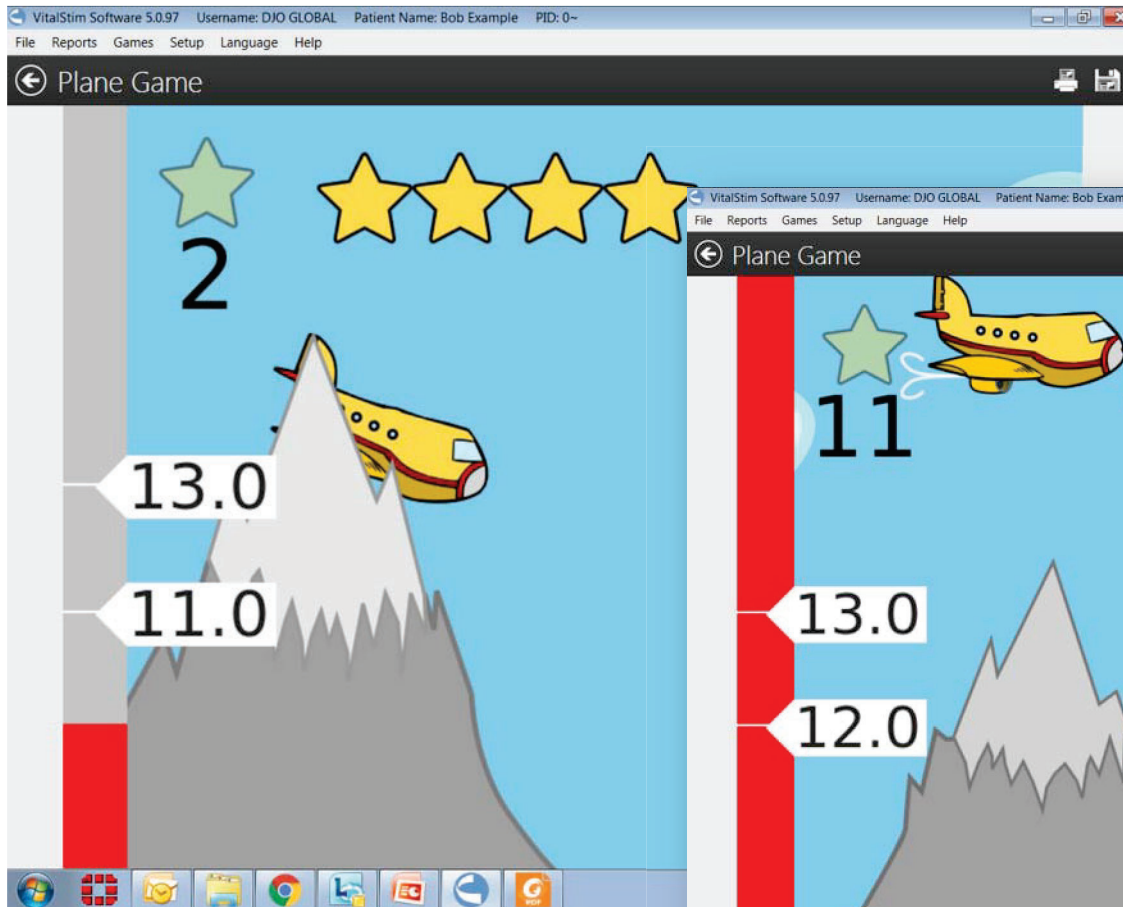
Games – Setup

Click *start game* to begin.





Games – Display



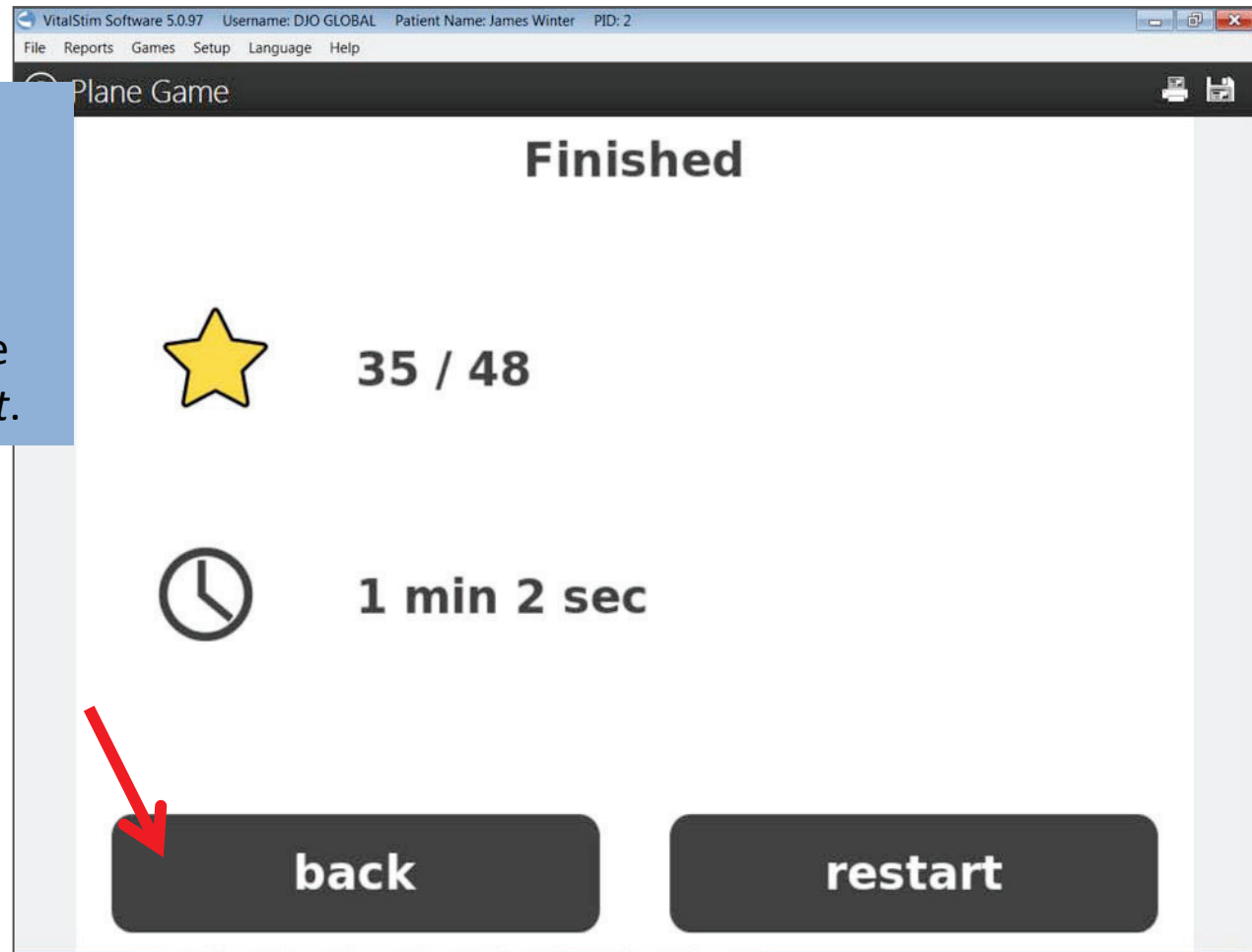
In this game, the patient has to catch as many stars as possible by contracting to fly over the mountain and relaxing to drop to the bottom.



Games – Reporting

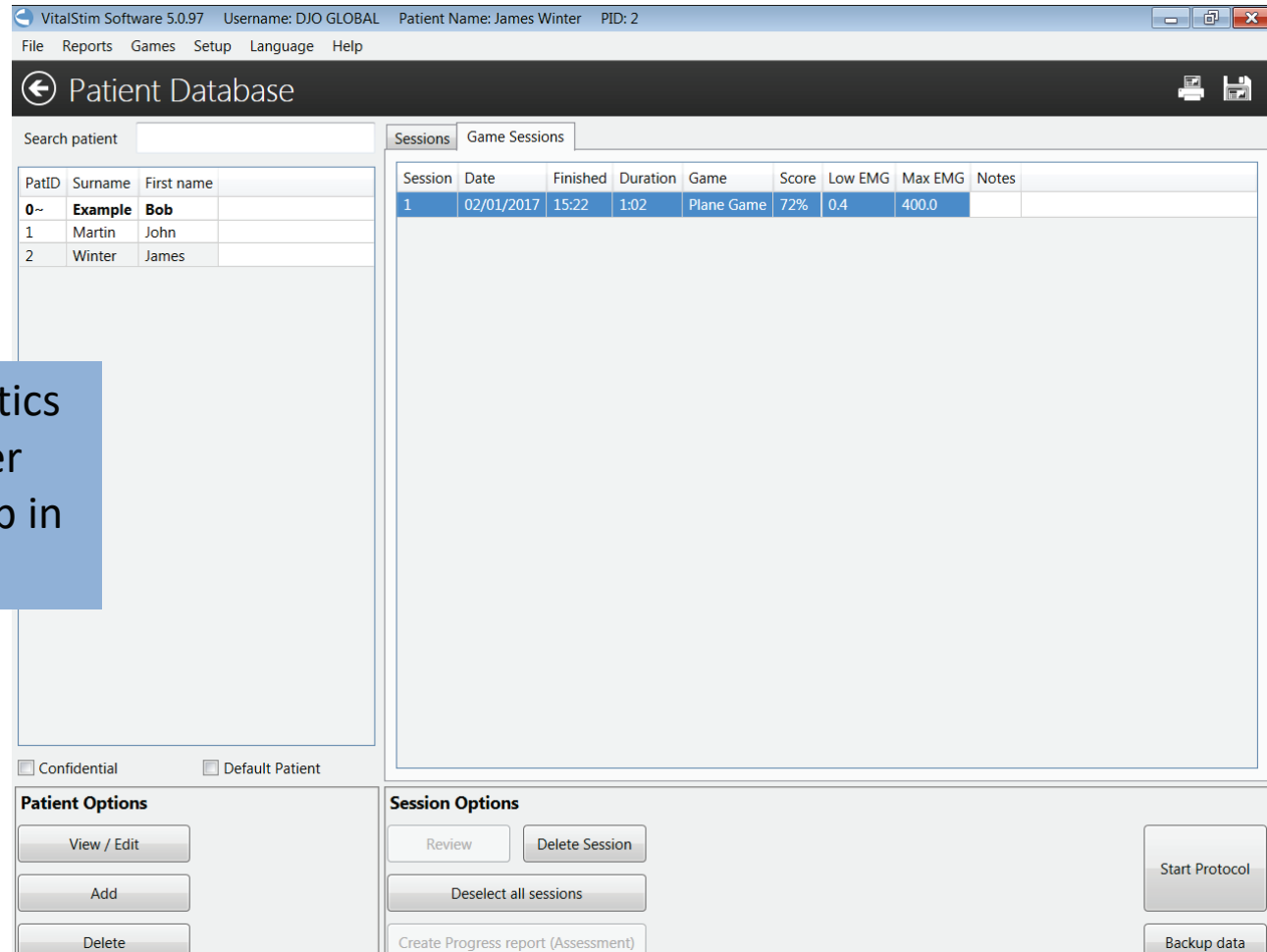
Score and time is displayed after end of game.

Clinician can restart the game by clicking *restart*.





Games – Reporting



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

← Patient Database

Search patient

Sessions Game Sessions

PatID	Surname	First name	Session	Date	Finished	Duration	Game	Score	Low EMG	Max EMG	Notes
0~	Example	Bob	1	02/01/2017	15:22	1:02	Plane Game	72%	0.4	400.0	
1	Martin	John									
2	Winter	James									

Confidential Default Patient

Patient Options

View / Edit
Add
Delete

Session Options

Review Delete Session
Deselect all sessions
Create Progress report (Assessment)

Start Protocol
Backup data

Games sessions statistics can be retrieved under the *Game Sessions* tab in the Patient Database.



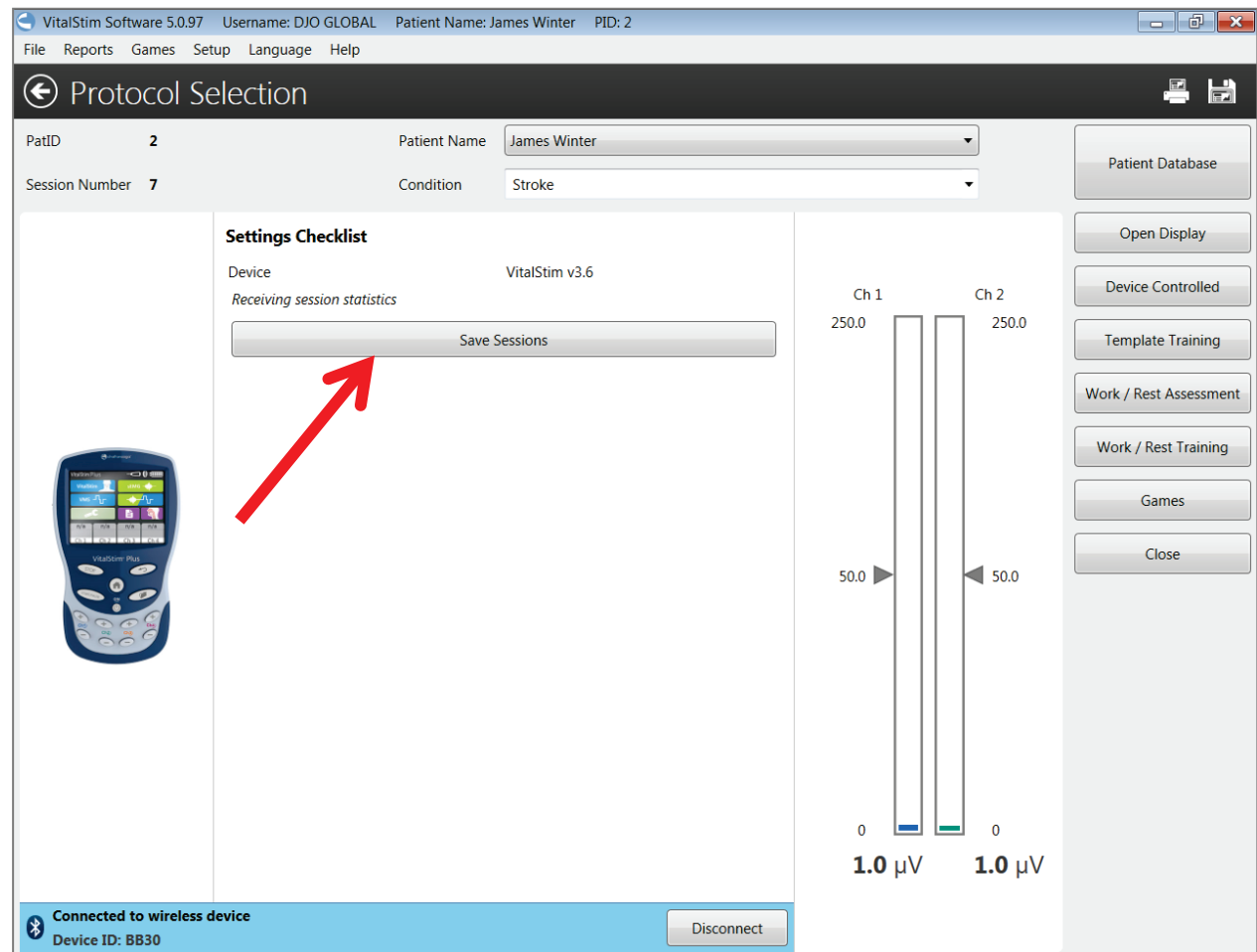
EXPORT DATA from the device

Step 1 (see device manual):
Create a patient profile and
save the sessions on the
device.

Step 2: Launch the
VitalStim Software and
ensure that Bluetooth
connection with device is
established.

Step 3: On the device,
highlight the patient in
Patient Data and click on
Export to PC.

Click *Save Sessions* open on
the home page.



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: James Winter PID: 2

File Reports Games Setup Language Help

Protocol Selection

PatID 2 Patient Name James Winter

Session Number 7 Condition Stroke

Settings Checklist

Device VitalStim v3.6

Receiving session statistics

Save Sessions

Ch 1 250.0 Ch 2 250.0

50.0 50.0

0 0

1.0 μ V 1.0 μ V

Connected to wireless device Device ID: BB30 Disconnect



EXPORT DATA from the device

The download process starts

Click *OK*

The screenshot shows the VitalStim Software 5.0.97 interface. The main window is titled "Protocol Selection" and displays patient information (PatID, Patient Name: Test, Session Number: 3, Condition: Add or Select Condition). A "Settings Checklist" for "VitalStim v1.0" is visible, showing "Receiving session statistics" and a "Save Sessions" button. A "Download Sessions" dialog box is open, displaying a progress bar at 100% and a "Cancel" button. Below it, a "Download Patient Data" dialog box shows a message: "Treatment Summary has successfully downloaded" with an "OK" button highlighted by a red arrow. The interface also includes a "VitalStim Plus" device image, a "Connected to wireless device" status bar (Device ID: BB30), and a "Disconnect" button. On the right side, there are several control buttons: Patient Database, Open Display, Device Controlled, Template Training, Work / Rest Assessment, Work / Rest Training, Games, and Close. Two vertical bars labeled "Ch 1" and "Ch 2" are shown with "0.0" values and "0.0 μV" labels at the bottom.



EXPORT DATA from the device

The Patient Database opens and lists the new patient in the patient list.



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Test PID:

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name
0~	Example	Bob
1	Martin	John
2	Winter	James
		Test

Confidential Default Patient

Patient Options

View / Edit

Add

Delete

Sessions Game Sessions

Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
<input type="checkbox"/> 1	05/01/2015	22:01	VitalStim (sEMG)		171	33351 lbs	Attachments (0)	
<input type="checkbox"/> 2	05/01/2015	22:02	VitalStim (Swallows)		171	33351 lbs	Attachments (0)	

Session Options

Review Delete Session

Deselect all sessions

Create Progress report (Assessment)

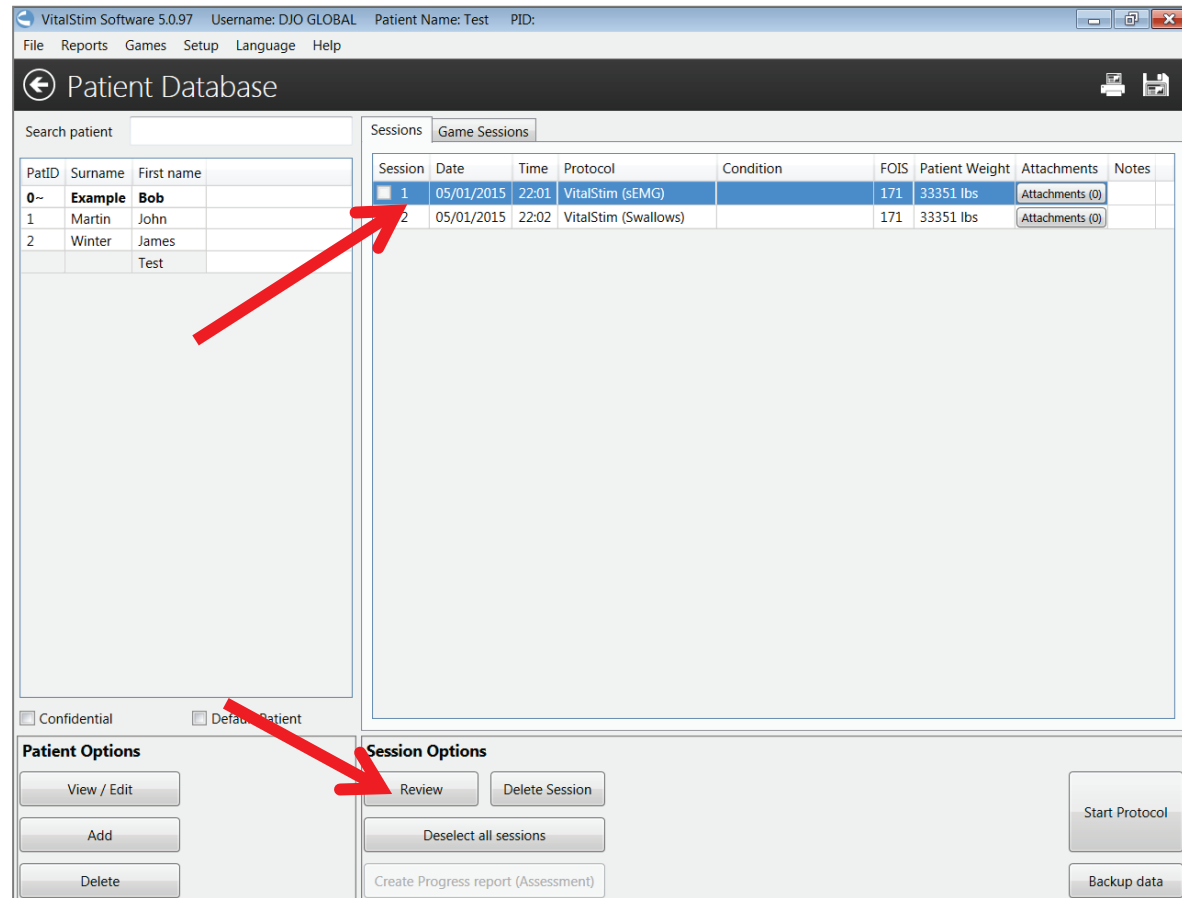
Start Protocol

Backup data



EXPORT DATA from the device

Select the session that you want to review and click *Review*



VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Test PID:

File Reports Games Setup Language Help

← Patient Database

Search patient

PatID	Surname	First name	Session	Date	Time	Protocol	Condition	FOIS	Patient Weight	Attachments	Notes
0~	Example	Bob	1	05/01/2015	22:01	VitalStim (sEMG)		171	33351 lbs	Attachments (0)	
1	Martin	John	2	05/01/2015	22:02	VitalStim (Swallows)		171	33351 lbs	Attachments (0)	
2	Winter	James									
		Test									

Confidential Default Patient

Patient Options

View / Edit Add Delete

Session Options

Review Delete Session Deselect all sessions Create Progress report (Assessment) Start Protocol Backup data



EXPORT DATA from the device

The patient session data are displayed.

IMPORTANT: No graph display is available for export sessions

VitalStim Software 5.0.97 Username: DJO GLOBAL Patient Name: Test PID:

File Reports Games Setup Language Help

VitalStim

Therapist Name **DJO GLOBAL** PatID Patient Name Test

Date **05/01/2015 22:01** Session Number **1** Condition

Device **VitalStim v3.6**

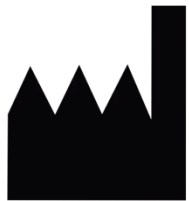
sEMG	Ch 1	Ch 2
Max. Threshold	1,3	1,6
Min. Threshold	0	0
Avg. Threshold	0,8	1,1
Max. Work	6246,4	0
Avg. Work	6246,5	0
Avg. Baseline	6246,5	2816
% Time Above Threshold	1 %	0 %
Avg Work/Max Work Ratio	100 %	0 %
Treatment Duration	0:11	

No Graph

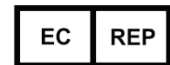
Observations and Comments

Close Save Graph

Attachments (0) Export to CSV



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13-5923-PC-SW

An accessory to
Vitalstim Plus system
(REF 5923-3)

Document No: 13-59048 Rev.A, Date: 24/04/2017