### **REFERENCE MANUAL**



# Rehab Suite





5250 Ferrier, Suite 812, Montreal, Quebec H4P 1L3 Tel: +1 (800) 361 3651 0 +1 (514) 489 8251 Fax: +1 (514) 489 8255 www.thoughttechnology.com

C	E
	Thought Technology Ltd. 5250 Ferrier, Suite 8 12, Montreal, QC, Canada H4P 1L3 mail@thoughttechnology.com
Product Name:	MyOnyx
Product No.:	SA9000/9020
Device Name:	MyOnyx Rehab Suite
REF	SA9014
EC REP	EMERGO EUROPE Prinsessegracht 20, 2514 AP The Hague, The Netherlands
Manual Number / Revision:	SA9017 ver. 6.7 Rev.1 (May 2022)
	© Thought Technology Ltd. 2019 - 2022

# **Table of Contents**

Introduction	. 1
Chapter 1 Setting Up the MyOnyx	. 2
System Requirements	. 2
Connecting the Cables and Electrodes	. 2
Registering the MyOnyx in BioGraph	. 3
Chapter 2 Setting Up the Sessions	. 9
Tips for Running a Quick Start	. 9
Viewing the Signal	. 9
Adjusting the Scale Automatically	. 9
Adjusting the Scale Manually	. 9
Adjusting the Thresholds	10
Managing Animation Files	10
Managing Audio Files	12
Adding Audio Files	15
Chapter 3 The Surface EMG Quick Start Favorites	16
The SEMG Assessments	16
Running the SEMG Fatigue Assessment	16
Setting up the MyOnyx Device	16
Starting the Quick Start	16
Recording the Session	17
Running the SEMG Complete Assessment Session	19
Set up the MyOnyx	19
Starting the Quick Start	20
Recording the SEMG Complete Assessment	21
The SEMG Open Assessment	24
Setting up the MyOnyx Device	24
Starting the Quick Start	24
Recording the SEMG Complete Assessment	25

The Training Quick Starts	6
SEMG Training: Activating Ch 1 while Relaxing Ch 2 26	6
Training Control Sessions	3
SEMG Training Control Session	3
SEMG Training Control with Extra Channel Session	B
SEMG Training: Equilibrium 44	4
SEMG Training: Relaxation 1 Channel 49	9
SEMG Training: Relaxation 2 Channels 55	5
SEMG Training Strengthening Session61	1
EMG Training Strengthening with 2 Channels67	7
Chapter 4 Reviewing the Sessions	4
Ending Session Recording74	4
Reviewing Saved Sessions	6
Artifact Rejection 78	В
Trend Graph 79	9
Raw EMG & 3D Spectrum87	1
Review – Endurance 8'	1
Chapter 5 MyOnyx Downloading Options	2
Downloading Sessions with the MyOnyx External Session Download Tool	3
Downloading Recorded Sessions from the MyOnyx to your PC 83	3
Importing Downloaded Sessions to BioGraph85	5
Using the Direct Downloading Option in BioGraph90	D
Viewing the Channel Set Configuration95	5
Creating a New Script	7
Troubleshooting	B
Reviewing Downloaded Sessions in MyOnyx 98	8

# Introduction

The MyOnyx Rehab Suite is a software application designed for the MyOnyx device and BioGraph Infiniti® software. It is used for surface electromyography (SEMG) in muscle rehabilitation therapy.

It contains a series of interactive screens, predefined sessions, and tasks. These provide immediate feedback for both the clinician and the client. This is easy to understand and meaningful for both.

The screens are accessed in BioGraph through the Quick Start menu or the Open Display Session menu.

The Quick Start menu contains predefined sessions, used for recording and reviewing assessment and training sessions. Both scripted and open sessions are available. Scripted sessions are timed and follow a predefined order. In open sessions, the clinician provides instructions and decides how long to run and record the session. Both open and scripted sessions have the same review screens.

Alternatively, the clinician can access the screens through the Open Display Sessions menu and choose the available recording and review screens.

**Note**: Before using the MyOnyx Rehab Suite, the MyOnyx device, or the accessories, read the *MyOnyx Hardware Manual* and *MyOnyx Reference Manual* especially the sections containing warnings, precautions, and contraindications.

# **Chapter 1** Setting Up the MyOnyx

# **System Requirements**

Before running the MyOnyx Rehab suite, ensure that you have the following:

- MyOnyx SA9000/ SA9020 Extended version
- BioGraph 6.7 or higher installed on a Bluetooth-enabled PC or laptop

**Note**: The MyOnyx must be paired with BioGraph as descripted in the *MyOnyx Reference Manual*.

### **Connecting the Cables and Electrodes**

The MyOnyx Rehab Suite uses Channels A and B on the MyOnyx. The configuration for each Quick Start Favorite is specified in this manual.

Before connecting any parts to the MyOnyx or using the device, ensure that you read and follow all warnings, precautions, and contraindications in the *MyOnyx Hardware Manual*. Make sure you use the approved cables specified in that manual.

To connect a cable

- 1. Insert the cable in the required channel.
- 2. Ensure that the cable is securely in place.
- 3. Connect the cable to the electrodes:
  - For **surface EMG**, either connect the two pins to electrical stimulation electrodes or connect the two pins to the DIN-to-snap connector. Then, connect the "snap on" Uni-Gel electrodes.
  - Make sure the patient's skin is clean, shaved, if necessary, and abraded. Then, peel the backing from the electrodes and place them on the patient.
- 4. Insert the Patient Drive (PD) cable into the REF port on the MyOnyx.



REF The REF port is in the center of the channel ports along the bottom of the device.

**Note**: Using EMG without the patient drive will cause false readings.

- 5. Connect the snap connection on the other end of cable to an EMG Uni-Gel electrode.
- 6. Peel the backing from the Uni-Gel electrode.

7. Place the electrode on a bony area, such as the patient's elbow, knee, ankle, or shoulder. Make sure it is not close to the area of the EMG reading.

# **Registering the MyOnyx in BioGraph**

Before using the MyOnyx Rehab Suite, you must register the MyOnyx device in BioGraph. The easiest way to do this is to run one of the Quick Start favorites and follow the online instructions.

This section describes this procedure running the *SEMG Complete Assessment* favorite. For this procedure, you need:

A PC running:

- BioGraph 6.7 or higher
- MyOnyx Rehab Suite

Hardware

- A MyOnyx device that is paired with the PC running BioGraph.
- Two EMG cables, one connected to Channel A, the other to Channel B
- EMG Electrodes connected to the cables

#### Codes

• The key code and application key code provided to you by Thought Technology

To register the device:

- 1. Turn on the MyOnyx.
- 2. Connect the EMG cables to Channels A and B.
- 3. Launch BioGraph.



#### 4. Click Quick Start.

The Quick Start window opens.

lients: Full Name , Jane Cormade, Jane HRV, ProComp Devices	Find Clie ID Number 1 5	nt Clinic	Select a Suite Name Show all suite names Categories	~
lients: Full Name , Jane Cormack, Jane HRV, ProComp Devices	Find Cle ID Number 1 6	nt Clinic	Show all suite names Categories	~
lients: Full Name Jame Cormack, Jane HRV, ProComp Devices	ID Number 1 6	Clinic	Categories	
Full Name , Jane Cormack, Jane HRV, ProComp Devices	ID Number 1 6	Clinic	Changed and sectors	
, Jane Cormack, Jane HRV, ProComp Devices	1 6		show all categories	~
Cormack, Jane HRV, ProComp Devices	6		-	
HRV, ProComp Devices			Favorite	
	2		Description	^
ProComp5 Infiniti, Z-Score 6	7		Control	
Stress Control, ProComp Devices	3		Control	
Test, Registration	4		Control with EMG	
XXX, XXX	5		Control with extra channel	
			Equilibrium	
			Fatique assessment	
			Guided relaxation	
			HRV 3 step assessment	
			Musculaire - Relaxation des muscles	
			Musculaire - Relaxation des muscles - Zukor	
			Muscular - Muscle relaxation	
			Muscular - Muscle relaxation	
			Muscular - Muscle relaxation	
			Muscular - Muscle relaxation	
			Muscular - Muscle relaxation - Zukor	
			Muscular - Muscle relaxation - Zukor	
			Muscular - Muscle relaxation - Zukor	
			Muscular - Muscle relaxation - Zukor	
			Paced Breathing Relaxation	
			Pressure assessment complete	
			Pressure open assessment	0
			Oanister MunTrar 7: Oahah	
Adda and				Connel

- 5. Do one of the following:
  - Select a client in the Clients list box if you have created client files.
  - Click Add New Client and continue with the next step.

CLIENT ID:				
Clinic ID				
First Name:	Registration		Last Name: Test	
Sex	Male	○ Female	Birth date: (5/8/2018)	
SSN/SIN:		Home phone:	Work phone:	
Street:				
City:			State/Prov:	
Country:			Zip/Postal code:	
Referred by:			Diagnosis:	
INSURANCE				
Claim number:			Туре:	
Company:			Insured SSN/SIN:	
Contact:			Phone:	
Street:				
City:			State/Prov:	
Country:			Zip/Postal code:	

**Note**: You do not need to enter the names of a real person to register the device. You can enter anything in these fields.

6. Click **OK** to return to the **Quick Start** window.

Quick Start				×
			Select a Suite Name	
	Find Clie	nt	MyOnyx Rehab Suite	~
Clients:			Categories	
Full Name	ID Number	Clinic	Assessment SEMG	~
BioGraph 6, Feature Set	8		Found	
C, J	12		Favorite	
Cormack, Jane	7		Description	
Cormack, Jane	11	88	Fatique assessment	
Encoder, Registration	1		SEMG complete assessment	
Encoder, Registrierung	3		SEMG open assessment	
Enregistrement, d'Encodeur	2			
Gold, Jane	13			
HRV, ProComp Devices	9			
ProComp5 Infiniti, Z-Score 6	10			
Registración, del Codificador	5			
Registrazione, della Centralina	4			
Rejestracja, Kodera	6			
	Clinet		01	Control
Add N	iew client		UK	Cancel

7. Select Rehab Suite from the Select a Suite Name drop-down list.

- 8. Select Assessment SEMG from the Categories drop-down list.
- 9. Click **OK** on the Quick Start window.

The Encoder Key Codes window opens.

#### **Entering Key Codes**

When the Encoder Key Codes window appears, enter the key codes provided to you by Thought Technology.

Select an	encoder Serial	Number and enter a Key Code for it.	Expected physica	al channel configuration	
			Encoder Input	Description	Sensor Type
rial Number	Key Code	Encoders	1A	A: EMG	EMG
A000083		[	18	B: EMG	EMG
		>			
		Clear			
		2%. 			
ОК	Cancel	Return to entering encoder Serial Nur	ibers		

The **Serial Number** text box is automatically populated.

The Expected physical channel configuration list box is populated from the selected Quick Start Favorite.

- 1. Enter the Thought Technology key code in the Key Code text box.
- 2. Click the right arrow **\_\_\_\_** to move the key code to the **Encoders** list box.

			Expected physica	al channel configuration	
Serial Number	Key Code	Encoders	Encoder Input	Description A: EMG	Sensor Type EMG
		> 1 GA000083 Clear	18	B: EMG	EMG
ОК	Cancel	Return to entering encoder Serial Num	berg.		

3. Click **OK**.

The Application Key Code window opens.



- 4. Enter the Application Key Code, provided by Thought Technology in the text box.
- 5. Click OK.

The Sensor Connection window opens.

	December 1	Constant Courses	Warner Conner Trend	Dealers and Claud Makes	Pro Arbana andres
nannes	Description	Expected Sensor	wrong sensor Type!	Replacement signal value	Emulating sensor
A	A: EMG	EMG			
B	B: EMG	EMG			

This window displays the Channel Inputs for the encoder with a description and the name of the sensor that is expected.

6. Do one of the following:

If the cables for the sensors are not connected correctly, the **Sensor is not detected** message appears in the **Wrong Sensor Type** column, verify the sensor connections and click **Repeat** 

This clears the **Sensor is not detected** message.

7. Click **OK** on the Sensor Connections window.

The SEMG Complete Assessment recording window appears.



•

You can begin recording your session or run any Quick Start in the MyOnyx Rehab Suite.

# **Chapter 2** Setting Up the Sessions

This chapter provides some tips for working with the sessions, as well as procedures for managing audio and video files.

# **Tips for Running a Quick Start**

### Viewing the Signal

#### Adjusting the Scale Automatically

You can use the Auto-Scale feature to automatically adjust the screen, so that the entire signal is shown. To do this, right click on the graph and click **Auto Scale** from the menu.

	Show connected channel(s) Edit Virtual Channel Settings
	Edit Damper Settings
	Edit Instrument Sound
~	Auto-Scale
	Hide Instrument
	Mute Sound
	Constant Range Settings
	Template Width
	Double Scale (x 2)
	Half Scale (/ 2)
	Channel Item Selection

### Adjusting the Scale Manually

To zoom in on small specific areas or to zoom out for a wider view, manually

- 1. Right-click on the graph.
- 2. Deselect Auto-Scale
- 3. Click on the graph to enable the toolbar.



4. Change the values in the **Min** and **Max** text boxes in the toolbar.

### Adjusting the Thresholds

Thresholds are added to the graphs to indicate one or more condition set by the clinician for the client. For example, a condition may be to contract a monitored muscle and keep the signal above the threshold or to relax a muscle and keep the signal below the threshold.

To adjust a threshold, do one of the following:

- 1. Select it with your mouse and drag it to the correct position.
- 2. Click on the graph to enable the toolbar and change the value in the **Thr1** or **Thr2** text box.



# **Managing Animation Files**

Animations or short videos are included with several Quick Start favorites to provide feedback. If the client performs tasks successfully or meets the conditions set by the clinician, the video plays.

You can change an animation before or after a session.

#### To change an animation

- 1. Launch the Quick Start favorite.
- 2. Navigate to the screen with the animation.
- 3. Click on the animation.
- 4. A context-sensitive menu appears.

show connected thannel(s)	
Edit Virtual Channel Settings	
Edit Instrument Settings	
Edit Instrument Sound	
Auto-Scale	
Hide Instrument	
MuteSound	
Center the signal	
Double Scale (X 2)	
Harr Scale (/ 2)	
Channel Item Selection	
Reset	
http://	

#### 5. Select Edit Animation Setting.

The Animation Settings screen appears.



6. Select the animation in the list.

You can make your own AVI files available. To do this, save your files to the following location on the PC running BioGraph:

*C:\ProgramData\Thought Technology\Infiniti\AVI* Then, choose the appropriate subdirectory.

# **Managing Audio Files**

Audio files are included with the several Quick Start favorites to provide feedback to the client. For example, when the client performs a task successfully or meets a condition, music could be played, or barely audible music could be played at increased volume.

#### To change an audio file

- 1. Open the Quick Start favorite.
- 2. Select Tools > Sound Manager.

🥝 Recording mode. Open Display session. Client: Cormack, Jane. Screen: Relaxation 01 - Line graph (1 EMG)



The Instrument Sound Manager screen opens.

D Number	Instrument Name	Instrument Type	Edit Sound
2	A: EMG (RMS)	Single Line Graph	
			Highlight
			Delete Sound
			Select All

The Set Sound Feedback screen appears.

Set Sound Feedback		×
	Note: The sound mode depends on the options set in the Instrument Settings.	
Playback Mode		
◯ File Dependent	Volume Dependent	
Volume Dependent Play Wave files (*.wav)	Settings	
	OK Cancel	

Volume Dependent	Tip: To change the audio file type, expand the
Play Wave files (*.wav) 🛛 🗸	Volume Dependent drop-down list and select one of
None Play MIDI Songs (*.mid) Play MP3 files (*.mp3) Play Wave files (*.wav) Binaural Beat Play CD	<ul> <li>Play Wave Files (*.wav)</li> <li>Play mp3 files (*.mp3)</li> </ul>

3. Click **Settings** > **OK**.

The file selection screen opens for the type of audio file selected for the Quick Start, Mp3 or Wave.

Select Wave Files	×
Select up to	5 Wave files to play.
Available	Selected
Birds On Lake.wav Left Pad.wav MyOnyx - Both-Bottom-01.wav MyOnyx - Both-Top-01.wav MyOnyx - Relaxation-01.wav MyOnyx - Tension-01.wav MyOnyx - Tension-02.wav	>
Play Stop	Clear Selection
Settings for Boolean ON	Settings for Boolean OFF
95 Volume (%)	5 Volume (%)
Speakers	Speakers
OLeft	OLeft
	ORight
( Both	() Both
	Loop
	 ✓ Enable
	0 Interval Time (sec)
ОК	Cancel

The audio file selected for the Quick Start favorite is displayed in the **Selected** list box.

Tip: You can select any file in the list and click Play. To end it, click Stop.

- 4. Click Clear Selection.
- 5. Select a file in the **Available** list.
- 6. Click the right arrow to move it to the Selected list.
- 7. Click **OK**.

The Set Sound Feedback window appears.

Set Sound Feedback		×
	Note: The sound mode depends on the options set in the Instrument Settings.	
Playback Mode		
◯ File Dependent	Volume Dependent	
Volume Dependent		
Play Wave files (*.wav)	✓ Settings	
	OK Cancel	]

8. Click **OK** on the Set Sound Feedback window.

Instrument So	und Manager				$\times$
Instruments v	vith Sound:				
ID Number	Instrument Name	Inst	trument Type	Edit Sound	
2	A: EMG (RMS)	Sing	gle Line Graph		
				Highlight	
				Delete Sound	
				Select All	
Global Sou	nd is ON				
		Close			

9. Click **Close** on the Instrument Sound Manager window.

### **Adding Audio Files**

If you want to use your own wave (\*.wav) or MP3 files in a Quick Start favorite, save them to the one of the following directories on the computer running BioGraph:

Wave files: C:\ProgramData\Thought Technology\Infiniti\Waves MP3 files: C:\ProgramData\Thought Technology\Infiniti\Sounds

Then, you can select them as described in the previous procedure.

# Chapter 3 The Surface EMG Quick Start Favorites

This chapter describes the SEMG assessments and training sessions available through the Quick Start menu.

## **The SEMG Assessments**

The following Quick Start Favorites are available for SEMG Assessments.

- SEMG Fatigue Assessment
- SEMG Complete Assessment
- SEMG Open Assessment

## **Running the SEMG Fatigue Assessment**

The SEMG Fatigue Assessment measures muscle fatigue. It is an Open Assessment. This means you can decide when to start and stop the session, rather than a following a predefined script.

### Setting up the MyOnyx Device

To set up the MyOnyx for the Fatigue Assessment

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG cable to Channel A.
- 3. Connect the Patient Drive to the REF port.
- 4. Connect EMG electrodes to the cables and place the electrodes on the patient.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

### Starting the Quick Start

To start the Quick Start Favorite:

1. Launch BioGraph and click Quick Start

The Quick Start window opens.

uick Start				>
			Select a Suite Name	
	Find Clie	nt	MyOnyx Rehab Suite	~
Clients:			Categories	
Full Name	ID Number	Clinic	Assessment SEMG	~
BioGraph 6, Feature Set	8		Equerito	
C, J	12		Favorite	
Cormack, Jane	7		Description	
Cormack, Jane	11	88	Fatigue assessment	
Encoder, Registration	1		SEMG complete assessment	
Encoder, Registrierung	3		SEMG open assessment	
Enregistrement, d'Encodeur	2			
Gold, Jane	13			
HRV, ProComp Devices	9			
ProComp5 Infiniti, Z-Score 6	10			
Registración, del Codificador	5			
Registrazione, della Centralina	4			
Rejestracja, Kodera	6			
	Climate		<b>O</b> Y	Control
Add New	Client		OK	Cancel

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Assessment SEMG from the Categories drop-down list.
- 4. Select a client in the **Clients** list box.
- 5. Select SEMG Fatigue Assessment in the Favorite list box.
- 6. Click **OK** on the Quick Start window.

### **Recording the Session**

The Connected screen is displayed on the MyOnyx.



In BioGraph, the SEMG Fatigue Assessment recording window appears when you click **OK** on the Quick Start window.

Tecording made Open Dapley service. Cleant Conneck, Jane, Science SRMG Res. Science, Science, Edit, Josh, Octione, Machanar, View, Mich.	- Felipie (FDMS)	- 0 ×
[ Min [ Max] Thr1 [ Thr2] [	X0xec 🗸 🖬 🔳 🛄 dk 🧃 2 3 4 5 b.	
SEMG - Fatigue assessment		754
Channel A	Channel A - EMG (RMS)	
EMG (RMS) 2292,75		
Average 2421,78 When you perform an isometric contraction, the RMS signal shows the level of offon exerted while the module frequency reflects muscle fatigue.		
Median freq 215,01	Commission and the design of t	
When median frequency value begins to decline, it is an indication of muscle fatgue:	200 200 200 10001/7 00.01/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8 0001/8	

The first screen of the Fatigue Assessment displays two graphs.

- The graph in the top pane shows the RMS signal from Channel A and the level of contraction in the muscle.
- The graph in the lower pane shows the Median Frequency. When the muscle becomes fatigued, it begins to decline.
- 1. Explain to the client how the signal changes as the monitored muscle contracts and then becomes fatigued.
- 2. Press the **Start** button **b** when you and your client are ready to begin recording.

- 3. Describe the feedback: explaining how the signal line on the graphs rises and falls corresponding to the level of contraction or relaxation in the muscle.
- 4. Click **2** in the BioGraph Recording window toolbar to display the second screen. This presents a different view of the RMS signal. You can switch back to the first screen.



This screen shows two graphs and a 3D spectrum of the EMG signal.

The RMS Signal is shown on the left, the median frequency on the right.

5. Click **Stop** when you are ready to end the session and stop recording.

## **Running the SEMG Complete Assessment Session**

The SEMG Complete Assessment is a scripted session.

### Setting up the MyOnyx

To set up the MyOnyx for the SEMG Complete Assessment

- 1. Turn on the MyOnyx.
- 2. Connect EMG cables to Channels A and B.
- 3. Connect the Patient Drive to the REF port.
- 4. Place the electrodes on the patient.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

### **Starting the Quick Start**

To start the SEMG Complete Assessment favorite.

- 1. Launch BioGraph.
- 2. Click Quick Start.

The Quick Start window opens.

Find Client     Select a Suite Name       Clients:     MyOnyx Rehab Suite       Pull Name     ID Number     Clinic       BioGraph 6, Feature Set     8     Assessment SEMG       Cormack, Jane     7     Description       Encoder, Registration     1     BioGraph 6, Feature Set     BioGraph 6, Feature Set       Encoder, Registration     1     BioGraph 6, Feature Set     BioGraph 6, Feature Set       Gold, Jane     13     Hith V, ProComp Devices     9       ProCompS Infinity, Z-Score 6     10     SEMG Complete assessment       Registracion, del Contralina     4       Rejestracija, Kodera     6       Image: Stracion, del Contralina     4       Image: Stracion,	Quick Start				×
Select a Suite Name       MyOnyx Rehab Suite       Clents:     Categories       Full Name     ID Number     Clinic,       BioGraph 6, Feature Set     8					
Find Client     MyOnyx Rehab Suite       Clents:     Categories       Full Name     ID Number     Clinic       BioGraph 6, Feature Set     8       C, J     12       Cormack, Jane     7       Cormack, Jane     1       Encoder, Registration     1       FNV, ProComp Devices     9       ProComp5 Infiniti, Z-Score 6     10       Registrazione, dela Centralina     4       Registrazione, dela Centralina     4       Indication     1       Inditin     1       Indication </td <td></td> <td></td> <td></td> <td>Select a Suite Name</td> <td></td>				Select a Suite Name	
Clients: Categories Ca	[	Find Clie	nt	MyOnyx Rehab Suite	~
Full Name       ID Number       Clinic         BioGraph 6, Feature Set       8       B         C, J       12       B         Cormadk, Jane       7       B         Encoder, Registration       1       BB         Encoder, Registration       1       SEMG complete assessment         Enregistrement, d'Encodeur       2       Gold, Jane         Gold, Jane       13       SEMG complete assessment         ProCompS Infinit, Z-Score 6       10       Registración, del Codificador         Registración, del Codificador       5       Registracione, della Centralina         Add New Client       Add New Client       OK	Clients:			Categories	
BioGraph 6, Feature Set     8       C, J     12       Cormack, Jane     7       Cormack, Jane     1       Encoder, Registration     1       Encoder, Registrierung     3       Enregistrement, d'Encodeur     2       Gold, Jane     13       HRV, ProComp Devices     9       ProCompS Infinit, Z-Score 6     10       Registracion, del Codificador     5       Registracion, del Codificador     5       Registracion, del Codificador     5       Registracion, del Contralina     4       Rejestracja, Kodera     6       Image: Stracja, Kodera     1       Image: Stracja, Kodera     1       Image: Stracja, Kodera     1	Full Name	ID Number	Clinic	Assessment SEMG	~
Description       Cormack, Jane     7       Cormack, Jane     11       Encoder, Registration     1       Encoder, Registrierung     3       Encoder, Registrierung     3       Encoder, Registrierung     3       Gold, Jane     13       HRV, ProComp Devices     9       ProComp5 Infniti, Z-Score 6     10       Registracion, del Cotificador     5       Registracion, del Cotificador     5       Registracion, del Cotificador     6       Image: Stracija, Kodera     6	BioGraph 6 Feature Set	8			
Cormack, Jane     7       Cormack, Jane     11       Encoder, Registration     1       Brocomp Devices     9       ProComp Devices     9       ProComp S Infiniti, Z-Score 6     10       Registracion, della Centralina     4       Registracia, Kodera     6       Image: Stracja, Kodera     6       Image: Str	C 1	12		Favorite	
Cormack, Jane     1     88       Encoder, Registration     1       Encoder, Registrierung     3       Enregistrement, d'Encodeur     2       Gold, Jane     13       HRV, ProComp Devices     9       ProComp5 Infinit, 2-Score 6     10       Registrazione, della Centralina     4       Rejestracja, Kodera     6	Cormack Jane	7		Description	
Encoder, Registration     1     50       Encoder, Registration     1       Encoder, Registration     3       Enregistrement, d'Encodeur     2       Gold, Jane     13       HRV, ProComp Devices     9       ProCompS Infiniti, Z-Score 6     10       Registrazione, della Centralina     4       Rejestracja, Kodera     6	Cormack, Jane	11	99	Estique secondment	
Encoder, Registrierung     3       Enregistrement, d'Encodeur     2       Gold, Jane     13       HRV, ProComp Devices     9       ProComp5 Infiniti, Z-Score 6     10       Registración, del Codificador     5       Registración, del Codificador     5       Registración, del Codificador     6       Image: Stración, del Codificador     1       Image: Stración del Codificador <t< td=""><td>Encoder Registration</td><td>1</td><td>00</td><td>Faugue assessment</td><td></td></t<>	Encoder Registration	1	00	Faugue assessment	
Enregistreent, d'Encodeur     2       Gold, Jane     13       HRV, ProComp Devices     9       ProComp5 Infiniti, Z-Score 6     10       Registración, del Codificador     5       Registración, del Codificador     5       Registración, del Codificador     5       Registración, del Codificador     6       Image: Stración del Codificador     6	Encoder, Registration	2		SEMG complete assessment	
Add New Client     2	Encoder, Registrierung	2		SEMG Open assessment	
Bold, Jahre     13       HRV, ProComp Devices     9       ProCompS Infiniti, Z-Score 6     10       Registración, del Codificador     5       Registracione, della Centralina     4       Rejestracja, Kodera     6       Image: Stracja, Kodera     6 <td>Cold Jana</td> <td>12</td> <td></td> <td></td> <td></td>	Cold Jana	12			
Intro-procomp5 Infiniti, Z-Score 6     10       Registrazione, della Centralina     4       Rejestrazione, della Centralina     4       Rejestrazione, della Centralina     6       Image: Strazione della Centralina     1       Image: Strazione della Centralina     4       Rejestrazione, della Centralina     4       Image: Strazione della Centralina	HDV DraComp Davisas	15			
Protomps Infinite, 2-score 6     10       Registración, del Codificador     5       Registracióne, dela Centralina     4       Rejestracia, Kodera     6       Image: Stracia, Kodera     1       Image: Stracia, Kodera	ProComp Devices	9		-	
Registrazione, della Centralina     4       Rejestracija, Kodera     6       Image: Stracija, Kodera     6       Image: Stracij	Procomps Innitia, 2-Score 6	10		-	
Registrazione, della Centralina     4       Rejestracja, Kodera     6       Image: Strack of the second s	Registración, del Codificador	5		-	
Rejestracja, Kodera     b       Image: Stracja, Kodera     Image: Stracja, Kodera       Image: Stracja, Kodera     Image: Stracja,	Registrazione, della Centralina	4		-	
Add New Client OK Cancel	Rejestracja, Kodera	6		-	
Add New Client OK Cancel				-	
Add New Client OK Cancel				-	
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel					
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel				_	
Add New Client OK Cancel					
Add New Client OK Cancel					
	Add Ne	ew Client		ОК	Cancel

- 3. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 4. Select a client in the **Clients** list box.
- 5. Select Assessment SEMG from the Categories drop-down list.
- 6. Select SEMG Complete Assessment in the Favorite list box.
- 7. Click **OK** on the Quick Start window.

### **Recording the SEMG Complete Assessment**

The Connected window is displayed on the MyOnyx screen.



The SEMG Complete recording screen appears when you click **OK** on the Quick Start window.



The first screen of the SEMG Complete Assessment script is an instruction screen:



You can review the steps presented in the instruction screen with your client.

#### Step I: Resting State

This step lasts 60 seconds. In this phase, the client tries to remain below the threshold.

The clinician can move the threshold up or down manually. It changes color when the client is not meeting the condition and signal is below the threshold.

#### **Step II: Maximal Activation**

This step lasts 60 seconds. It runs through three rest-work cycles. The rest phase lasts 10 seconds. During this phase, the client tries to remain below the threshold. The work phase lasts 10 seconds. During each work phase, the client contracts to maximal effort.

#### Step III: Fast Flick

This step is like the previous one, but faster. It lasts 30 seconds. It runs through three restwork cycles. The rest phase lasts 4 seconds. During this phase, the client tries to remain below the threshold. The work phase for each cycle lasts 9 seconds and the client contracts to maximal effort.

#### Step IV: Endurance

The Endurance step lasts 25 seconds. It begins with 5 seconds of rest when the client tries to remain below the threshold. It is followed by 20 seconds during which the client contracts and holds the muscle.

#### Step V: Resting State

The assessment script ends with a 60-second resting phase. This is the same as the first step.

#### Introduction

Before the main steps in the script start, an introduction screen is presented.



When this screen appears, you can ask your client to practice contracting and relaxing the monitored muscles to see how the signal varies on the graph. Explain that instructions are shown on the screen and voice prompts are played during the session. These help your clients to perform the required tasks.

To navigate to the next screen, press the space bar or any key between A and Z.

#### The SEMG Resting Step

SEMC Complete ass	accmont	and the second s
GEINIG - Complete ass	essment	<b>7</b> 24
	Channel A - EMG (RMS)	
Channel A EMG (RMS) 42.47 Average 51.91		
This is the resting level	400-	
assessment - remain below	300-	
threshold.	200	
		24 00.00.28 00.00.29 00.00.30

In this step, a threshold is shown on the screen. To change the threshold, select it with your mouse and move it into position.

To use this screen

1. Instruct the client to try and relax the monitored muscle during the resting phase and keep the RMS signal below the threshold.

2. Press any alpha-character key on your computer keyboard when you and your client are ready to begin.

The script runs through the steps described in the first screen. When the script ends, you are prompted to save the session. You can review it after it is saved.

### **The SEMG Open Assessment**

The SEMG Open Assessment presents a single screen.

### Setting up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect EMG Cables to Channels A and B.
- 3. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

### **Starting the Quick Start**

1. Launch BioGraph and click Quick Start

The Quick Start window opens.

uick Start				د
			Select a Suite Name	
	Find Clie	nt	MyOnyx Rehab Suite	
Jients;			Categories	
Full Name	ID Number	Clinic	Assessment SEMG	
BioGraph 6. Feature Set	8			
C. J	12		Pavonte	
Cormack, Jane	7		Description	
Cormack, Jane	11	88	Felicue essessment	
Encoder, Registration	1		SEMG complete assessment	
Encoder, Registrierung	3		SEMG men assessment	
Enregistrement, d'Encodeur	2		Resulting and a standard search and a standard	
Gold, Jane	13			
HRV, ProComp Devices	9			
ProComp5 Infiniti, Z-Score 6	10			
Registración, del Codificador	5			
Registrazione, della Centralina	4			
Rejestracja, Kodera	6			
k.				
Add New (	Client		OK	Cancel

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Assessment SEMG from the Categories drop-down list.

- 4. Select SEMG Open Assessment in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

### **Recording the SEMG Complete Assessment**

The Connected window is displayed on the MyOnyx screen.



The Bluetooth icon is displayed next to the battery icon. If you do not see this screen on the MyOnyx device, verify that the device is paired to the PC via Bluetooth.

The SEMG Recording screen appears when you click OK on the Quick Start window.



Line graphs display the RMS signal from Channels A and B.

To use this screen

- 1. Ask the client to perform one or several tasks.
- 2. Click **Start** in the Recording window toolbar when you are ready to begin recording.
- 3. Press the space bar to add markers and indicate events, such as changes in tasks that you want to review.
- 4. Click **Stop** when you are ready to end the session and stop recording.

# **The Training Quick Starts**

The following Quick Start Favorites are available in the sEMG Training category

- Activating ch 1 while relaxing ch 2
- Control
- Control with extra channel
- Equilibrium
- Relaxation 1 channel
- Relaxation 2 channels
- Strengthening 1 channel
- Strengthening 2 channels

# SEMG Training: Activating Ch 1 while Relaxing Ch 2

In this training session, the client tries to perform two different tasks, contracting one muscle and relaxing a second muscle.

To run the Activating Ch 1 while Relaxing Ch 2 Quick Start Favorite:

### Setting up the MyOnyx

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect EMG cables and electrodes to Channels A and B.
- 3. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

### **Starting the Quick Start**

1. Launch BioGraph and click Quick Start

The Quick Start window opens.

uick Start				)
-			Select a Suite Name	
	Find Clie	nt	Rehab Suite	
lients:			Categories	
Full Name	ID Number	Clinic	Training SEMG	2
, Jane	1		Favorite	
Cormack, Jane	6			
HRV, ProComp Devices	2		Description	
ProComp5 Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	1
Stress Control, ProComp Devices	3		Control	
Fest, Registration	4		Control with extra channel	
XXX, XXX	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
A 44 PM			~	Connect
Add New C	aent		UK	Cancel

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select **Training SEMG** from the Categories drop-down list.
- 4. Select Activating Ch 1 while Relaxing Ch 2 in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

#### **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.



The Activating Ch 1 while Relaxing Ch 2 recording window appears in BioGraph.



The screen displays two graphs.

The top graph shows the RMS Signal from Channel A, the lower from Channel B.

A threshold is displayed on each graph. To change the position of a threshold, select it with your mouse and drag and drop it to the appropriate position.

#### To use this screen

- 1. Instruct the client to try to meet two conditions for this screen:
  - Contract the muscle connected to Channel A and keep the signal above the threshold.

- At the same time, relax the muscle connected to Channel B and keep the signal below the threshold.
- 2. Click **Start** when you are ready to begin recording.
- 3. Describe the feedback.
  - On the Channel A graph, the color changes when the signal drops below the threshold. This indicates that the client is not meeting the condition.
  - On the Channel B graph, the color changes when the signal goes above the threshold. This indicates the client is not meeting the condition for this channel.
  - For both channels, music plays at full volume when the client meets a condition. It plays quietly when the client no longer meets one of the conditions.



4. Select 2 in the toolbar of the recording window to navigate to the next screen.

The second screen presents a different view, with two bar graphs and two trend graphs. These graphs show the average value of the EMG signal and are updated every 20 seconds.

A threshold is shown on each bar graph. To change the position of a threshold, select it with your mouse and move it to the appropriate level.

Proceed as with the first screen:

- 1. Instruct the client to try to meet two conditions for this screen:
- Contract the muscle connected to Channel A and keep the signal above the threshold.

- At the same time, relax the muscle connected to Channel B and keep the signal below the threshold.
- 2. Describe the feedback.
- On the Channel A graph, when the signal drops below the threshold, the color changes. This indicates that the client is not meeting the condition.
- On the Channel B graph, the color changes when it goes above the threshold. This indicates the client is not meeting the condition for this channel.
- For both channels, music plays when the client meets a condition. It stops when the client does not meet a condition.
- 3. Select **3** in the toolbar of the recording window to navigate to the next screen.



The screen shows two bar graphs and an animation.

The top bar graph shows the RMS signal from channel A, the lower graph from Channel B.

A threshold is available for each graph. To change the position of a threshold, select it with your mouse and move it to the appropriate level.

To use this screen

- 1. Instruct the client to try to meet two conditions for this screen:
- Contract the muscle connected to Channel A and keep the signal above the threshold.
- At the same time, relax the muscle connected to Channel B and keep the signal below the threshold.

- 2. Describe the feedback:
- On the top graph, the line color changes when the signal drops below the threshold, indicating the client is not meeting the condition.
- On the lower graph, the color changes when the signal goes above the threshold, again indicating the client is not meeting the condition.
- When both signals are in condition, the animation plays.
- Replaying mode. Open Display session. Client: Sample Data, Rehab. Screen: Activation 04 Animation & counter (2 EMG) X File Session Screens Edit Tools Options Hardware View Help v 1x v GoTa 00:00:00 🛊 😝 📰 🔲 1 2 3 4 5 🗖 ×10 Min \* Max 1 Thr1 1 ThrZ 30 sec Activation - Animation & counter Channel A - EMG (RMS) **Channel A** EMG (RMS) 6.44 2 Average 6.81 Channel B - EMG (RMS) **Channel B** EMG (RMS) Average 6.81 Open session: 00:01:15.625 / 00:05:25.250
- 3. Select **4** in the toolbar of the recording window to navigate to the next screen.

Like the previous screen, this screen shows two bar graphs and an animation. It adds a counter to make the client's tasks more challenging.

The top bar graph shows the RMS signal from channel A, the lower graph from Channel B.

A threshold is shown on each graph. You can change the position of the thresholds.

To use this screen

- 1. Instruct the client to try to meet two conditions for this screen:
- Contract the muscle connected to Channel A and keep the signal above the threshold.
- At the same time, relax the muscle connected to Channel B and try to keep the signal below the threshold.
- 2. Describe the feedback:

- On the top graph, the line color changes when the signal drops below the threshold, indicating the client is not meeting the condition.
- On the lower graph, the color changes when the signal goes above the threshold, again indicating the client is not meeting the condition.
- When both signals are in condition, the animation plays. Then, one is added to the counter, and a new animation.
- Replaving mode, Open Display session, Client: Sample Data, Rehab, Screen: Activation (5 Video (2 EMG)) × File Session Screens Edit Tools Options Hardware View Help v 1x v GoTo 000000 ÷ ■ ■ ■ 1 2 3 4 5 L ×I0 Mn Max : Thr1 \* Thr2 : 30 sec Activation - Video Channel A - EMG (RMS) Channel A EMG (RMS) 6.00 Average Channel B - EMG (RMS) **Channel B** EMG (RMS) 3.58 Average Open session: 00:00:47.000 / 00:05:25.250
- 3. Select **5** in the toolbar of the recording window to navigate to the next screen.

This screen shows two bar graphs and a video. It plays when the client meets both conditions.

The top bar graph shows the RMS signal from channel A, the lower graph from Channel B.

A threshold is shown on each graph. To change the position of a threshold, select it with your mouse and move it into position.

To use this screen:

- 1. Instruct the client to try to meet two conditions for this screen:
- Contract the muscle connected to Channel A and keep the signal above the threshold.
- At the same time, relax the muscle connected to Channel B and try to keep the signal below the threshold.
- 2. Describe the feedback
- When the client meets both conditions, the video expands to fill more of the screen. When the client fails to meet a condition, it shrinks.
- 3. Click Stop <a><br/>
  when you are ready to end the session and stop recording.</a>

# **Training Control Sessions**

The SEMG Training Control and Control with Extra Channel Quick Start favorites are similar. One uses a single channel, the other two.

# **SEMG Training Control Session**

This Quick Start Favorite uses a single channel.

## Setting Up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A,
- 3. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## **Starting the Quick Start**

1. Launch BioGraph and click Quick Start

The Quick Start window opens.

uick Start				>	
			Select a Suite Name		
	Find Clie	nt	Rehab Suite		
lients:			Categories		
Full Name	ID Number	Clinic	Training SEMG	~	
Jane	1		Enurrita		
Cormack, Jane	6		Eavoine		
HRV, ProComp Devices	2		Description		
ProCompS Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2		
Stress Control, ProComp Devices	3		Control		
Test, Registration	4		Control with extra channel		
XXX, XXX	5		Equilibrium		
			Relaxation 1 channel		
			Relaxation 2 channels		
			Strengthening I channel		
			Strengthening 2 channels		
a data Manua C	lant		( ar	Cancel	
ADD MEN C	ARCHIC		UK .	Carlot	

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Training SEMG from the Categories drop-down list.
- 4. Select **Control** in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.



B B: EMG	EMG	Constant data and		
		Sensor is not detected	1	

If you have only one EMG sensor connected, the Sensor Connections screen appears.

You can do one of the following:

- Connect a sensor to Channel B and click **Repeat** and then **OK**.
- Click Cancel. The second sensor is not required for this Quick Start.

The Control Template – Level 1 window is displayed in BioGraph.



The screen shows a line graph and a template. The graph shows the RMS signal from Channel A.

- 1. Instruct the client to contract and relax the monitored muscle, so that the signal line follows the outline of the template.
- 2. Click **Start** when you are ready to begin recording.
- 3. Click **2** in the BioGraph recording screen toolbar to navigate to the next screen.



The second screen presents a new challenge. The client's task is the same, but the template is more difficult to follow.

- 1. Instruct the client to follow the template, explaining the task is now more challenging.
- 2. Click **3** in the BioGraph recording screen toolbar to navigate to the next screen.

Replaying mode. Open Disp File Session Screens Edit	ilay session. Client: Sar Tools Options Ha	ample Data, Rehab, Screen: Control 03 - Template - Level 3 (1 EMG) Jardware - View - Helo	- 🗆 X
🛓 ×10 Min 🔹 Max	t Thr 1	2 Thv2 2 Thin v 1x v GoTo 0000000 🛊 🔲 🔲 🔲 1 2 3 4 5 b.	
Control - Ten	nplate - Le	evel 3	
		Channel A - EMG (RMS)	
Channel A		m.	
EMG (RMS)	1.93		
Average	4.43		
Follow the template.			
		20-	
0			
		οδότο ατάντε αυτάντο παράτε ατόταν αυτάνε το το πολογια το	00.95 00:01:00
		Open session: 00:00:12:625 / 00:03:14:938	1

The third screen presents a new challenge.

- 1. Instruct the client to follow the template as in the previous screens, explaining that it is even more difficult.
- 2. Click **4** in the BioGraph recording screen toolbar to navigate to the next screen.

<ul> <li>Recording mode. Open Displ File Session Screens Edit</li> </ul>	ley session. Client: Cormack, Jane. Screen: G Tools Options Herdware: Yiew Hel	Control 04 - Metching gene - uption 1 () (1M0) Ip	- n ×
L 40 Me E Mar	() 1w1 () 1w2	а) (Яни) — — — — — — — — — — — — — — — — — — —	
Control - Mat	ching game		71
		Channel A - EMG (RMS)	
Channel A			
EMG (RMS)	2349,76		
Average	2357,42		
Line up the hand with th	i arag shown in the bas		

This screen presents an interactive animated game for Channel A.

In the top section of the screen, a series of animations are displayed on the right. A figure that matches one of the animations is displayed in a separate box to the left. A hand is displayed underneath.

To use this screen

- 1. Instruct the client to contract and relax the monitored muscles, so that the hand lines up with the matching animation.
- 2. Describe the feedback
  - The hand moves as the client contracts and relaxes the muscle.
- 3. Click **Stop** when you are ready to stop recording and end the session.

## **SEMG Training Control with Extra Channel Session**

The SEMG Control with Extra Channel Training sessions are the like the SEMG Training Control screens. The difference is that the EMG signal is shown as a bar graph to the left of the design in Screens 1 to 3. It is shown below the interactive game in Screen 4.

## Setting up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home Screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect a second EMG Sensor to Channel B.
- 4. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## **Starting the Quick Start**

1. Launch BioGraph and click Quick Start

The Quick Start window opens.

uick Start				×
			Select a Suite Name	
	Find Clie	nt	Rehab Suite	~
lients:			Categories	
Full Name	ID Number	Clinic	Training SEMG	~
, Jane	1		Eavorite	
Cormack, Jane	6		1 drunte	
HRV, ProComp Devices	2		Description	
ProCompS Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
Stress Control, ProComp Devices	3		Control	
Test, Registration	4		Control with extra channel	
XXX, XXX	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
pold Signed	Tent		00	-
HOD NEW C	and the		Cano	9

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Training SEMG from the Categories drop-down list.
- 4. Select Control with extra channel in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.

The Control Template – Level 1 window is displayed in BioGraph.

Replaying mode, Open Display session, Client: Sa File Session Screens Edit Tools Options H	ample Data, Rehab, Screen: Control 01 - Template - Leve Iardware View Help	el 1 (2 EMG) — 🗆 🗙
i_ ×10 Min :	‡]Thr2	x 🗸 GeTe 00:00 00 🛊 😬 📰 🚺 🚺 1 2 3 4 5 🗅
Control - Template - L	evel 1	72.
	Channel B - EMG (RMS)	Channel A - EMG (RMS)
Channel A	30	30-
EMG (RMS) 2.07		
Average 4.33		
Follow the template.		
	20-	20-
a 50	-	
Channel B		
EMG (RMS) 5.17	10+	10-
Average 14.25		
Relax muscle B.		
	0	0000000 000003 000000 000009 000012 000015 000018 000021 000024 000027 000030

The screen shows two graphs.

The graph on the right displays the RMS signal from channel A, with a template line graph displayed on the graph.

The bar graph on the left shows the RMS signal from Channel B. It shows the level of contraction or relaxation.

- 1. Instruct the client to try and follow the template by contracting and relaxing the monitored muscle.
- 2. Describe the feedback
  - The bar graph on the left show the level of contraction.
- 3. Click **Start** to begin recording.
- 4. Click 2 on the toolbar to navigate to the next screen.

Replaying mode. Open Dis     File Session Screens Edit	play session, Client: Sar Tools Options Ha	mple Data, Rehab. Screen: Control 02 - Template - L archvare View Help	Level 2 (2 EMG)	- 🗆 X
L ×I0 Min 🔄 Max	1 Terl	1)Thr2 1 2min ~	1 x 😼 GeTo 00:00:00 💠 🌺 🔳 🔲 👖 1 2 3 4 5 🖿	
Control - Ter	nplate - Le	evel 2		75
		Channel B - EMG (RMS)	Channel A - EMG (RMS)	
Channel A		100-		
EMG (RMS)	4.41		an _	
Average	4.61	90-		
		80-	-	
rollow the template.				
		70+	20-	
		60-		
		50 -		
Channel B		+		
EMG (RMS)	15.54	40-	10	
Average	17.43	30-		
		20-		
		10-		
		0	0.00 00 00.00 00.00.40 00.01.00 00.01.20 00.01.40	00.02.00
Session paused			Open session: 00:00:07.500 / 00:05:14.938	

The second screen displays a bar graph on the left and a template on the right.

presents a new template for Channel A, with a similar but more difficult challenge.

- 1. Instruct the client to follow the template, explaining that it is more difficult than the previous screen.
- 2. Describe the feedback.
  - The bar graph monitors the signal.
  - The signal rises and falls on the template as the client contracts and relaxes the muscle.
- 3. Click **3** on the toolbar to navigate to the next screen.

Replaying mode, Open Dis File Session Screens Edit	play session. Clier	ts Sample Data, Rehab, Screens Control 03 - Template - Le Hardware View Helm	Level 3 (Z. EMG)	- X
L ×ID Min 📫 Max	thr1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1x 🗸 Goto 000000 🛊 🔳 🔲 🖬 1 2 🛐 4 5 b.	
Control - Ter	nplate -	Level 3		7.
Channel A	4.45	Channel B - EMG (RMS)	Channel A - EMG (RMS)	
Average Follow the template.	4.07	90-		
Channel B		60 50	20-	
EMG (RMS)	4.98	40		
Average	13.07	30		
Relax muscle B.		23		00.1000
			Open session: 00:00:15.000 / 00:05:14.938	

The third screen presents a new template for Channel A.

- 1. Give the client the same instructions as in the previous screen, explaining the challenge is even more difficult.
- 2. Click **4** on the toolbar to navigate to the next screen.

Replaying mode. Open Display File Session Screens Edit To	session. Client:	s Sample Data, Rehab. Screen: Control 04 - Matching game - option 1 (2 EMG) Hardware View Help	- 0 X
L ×10 Min 🔅 Max	‡ Thr1	1 Thr2 1 30 see 🗸 1x 🗸 Go To 000000 0 🕸 🔜 🔲 1 2 3 4 5 🖿	
Control - Matc	hing g	ame	7.
		Channel A - EMG (RMS)	
Channel A			
EMG (RMS)	6.51		
Average	7.07		
Line up the man with the shown in the box on the Relax the muscle on Cha to keep the man moving	e animal left. innel B i	20	
		Channel B - EMG (RMS)	
Channel B			
EMG (RMS)	3.68	tΛ	
Average 1	1.26		56 00:00 58 00:01:00
Session paused		Open session: 00:00:51.187 / 00:05:25:250	

This screen presents an interactive animated game for Channel A and a line graph for Channel B.

In the top section of the screen, a series of animations are displayed on the right. A figure that matches one of the animations is displayed in a separate box to the left. A hand is displayed underneath.

A line graph is displayed under the animations. It shows the RMS signal for Channel B. A threshold is displayed on the graph. You can change the position of the threshold, by selecting it with your mouse and moving it into position.

- 1. Instruct the client to perform the following tasks:
  - Contract and relax the monitored muscles, so that the hand lines up with the matching animation.
  - At the same time, relax the muscle, so that the signal remains below the
- 2. Describe the feedback
  - The color on the graph changes color when it goes above the threshold.
  - When the signal is below the threshold, the client can move the hand by contracting or relaxing muscles.
  - When the signal is above the threshold, the hand does not move.
- 3. Click **Stop** when you are ready to stop recording and end the session.

# **SEMG Training: Equilibrium**

In this training session, the client tries to maintain a predefined level of muscle contraction. To assist in performing this task, a balance beam is displayed on the screen. The client tries to keep the beam level.

To run the Equilibrium Quick Start Favorite:

### Setting Up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect a second EMG Sensor to Channel B.
- 4. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## **Starting the Quick Start**

1. Open the Quick Start window in BioGraph.

uick Start				
			Calcular C. Car Marrie	
	Find Clie	nt	Rehab Suite	
Tients:			Categories	
Full Name	ID Number	Clinic	Training SEMG	,
lane	1		1200	
Cormack, Jane	6		Favorite	
HRV. ProComp Devices	2		Description	
ProCompS Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
Stress Control, ProComp Devices	3		Control	
Test, Registration	4		Control with extra channel	
xxx, xxx	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
			1	
Add New	Client		ок	Cancel

2. Select Training SEMG from the Categories drop-down list.

- 3. Select Equilibrium in the Favorite list box.
- 4. Click **OK** on the Quick Start window.

The Connected window is displayed on the MyOnyx screen.



The screen reads PC connected to device.

## **Recording the Session**

The Connected window is displayed on the MyOnyx screen.

If you do not see this screen on the MyOnyx device, verify that the device is paired to the PC via Bluetooth.

The Equilibrium recording screen appears in BioGraph.

Reviewing mode. Open File Session Screens E	Display session, Client: Sa dit Tools Options Ha	mple Data, Rehab. Screen: Equilibrium Irdware View Help	01 - Line graph				- 🗆 X
L ×10 Mn 1	lax 🕴 5 sec	v 4	> 1234	5 8-8-00 🖶			
Equilibrium							7
Channel A		Channel A - EMG (RMS)				Channe	el B - EMG (RMS)
EMG (RMS)	2.14	30					30
Average	12.23						
Channel B		· • 5					1
EMG (RMS)	5.00						
Average	8.59	20-					-20
Equilibrium ratio	0.40	-					-
		10-					-10
							~~~
Right click the graph	to auto-scale.	00 00 28	00:00:29	80:00:30	00.00.31	00:00:32	
				Open session: 00:00:32.90	0 / 00:05:14.938		

A line graph displays the signals from Channels A and B.

- 1. Give the client one or more tasks.
- 2. Click **Start** when you are ready to begin recording.
- 3. Describe the feedback.
  - Explain how the signal line changes as the client contracts and relaxes the monitored muscle.
- 4. Click **2** in the recording window toolbar to navigate to the next screen.

Replaying mode. Ope	en Display session. Client: Edit Tools Ontions	Sample Data, Rehab. Screen: Equilibrium 02 - Bar graph Hardware - View - Heln	-	×
L ×10 Mn	Max Thr1		v GoTo 00.00.00 😌 🖶 🔳 🔲 1 2 3 4 5 b.	
Equilibriu	m			<b>7</b>
		Channel A - EMG (RMS)	Channel A - Periodic mean	
Channel A				
EMG (RMS)	2.33		20	
Average	8.56	0 1 2 3 4 5 6 7 1 Channel B - EMG (RMS)	$\begin{array}{c} 15 \\ 10 \\ 5 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \end{array}$	-
Channel B			30т	
EMG (RMS)	12.43			
Average	14.08			
Equilibrium ratio	0.68	0 1 2 3 4 5 6 7 4		-
Right click the grap	h to auto-scale.			
Session paused			Open session: 00:02:49.562 / 00:05:14.938	

The screen shows two bar graphs and two trend graphs. The top bar graph connects to channel A., the lower to Channel B. Two trends graphs per signal. Every 20 secs the graph updates with average value of the EMG signal.

To use this screen

- 1. Give the client one or more tasks.
- 2. Describe the feedback

Explain how the signal line changes as the client contracts and relaxes the monitored muscle.

3. Click 3 to navigate to the next screen.

### Equilibrium 3



The screen shows a line graph and an animation.

The animation connects to the equilibrium ratio. The animation plays proportionally to the signal.

The line graph connects to channel A and channel B. A y axis is shown for each channel.

- 1. Instruct the client to try and keep the beam level by contracting and relaxing the muscle.
- 2. Describe the feedback, explaining how the signal lines on the graph rise and fall.
- 3. Click **4** in the BioGraph toolbar to navigate to the next screen.

#### **Equilibrium 4**

Replaying mode. Open Dis     Eile Session Screens Edit	play session. Client: Tools Options	Sample Data, Rehab. Screen: Equilibrium 04 - Animation - option 2 Hardware View Help		- 🗆 X
🔄 ×10 Min 🔄 Max	d Thr1	📩 Thr2 📩 30 sec 🗸 🖉 Go T	00.00-00 💠 🁥 📕 📕 👖 1 2 3 🖪 5 🗖	
Equilibrium				75
Channel A				
EMG (RMS)	1.96		~ 1	
Average	14.40			
Channel B				
EMG (RMS)	4.89			
Average	9.35			
Equilibrium ratio	0.43			
Keep the seesaw cente	ered.			
		Channel A - EMG (RMS)		Channel B - EMG (RMS)
		100	~^ ~	T <sup>100</sup>
		50-	/~/~	-50
Diabt cilciz the graph to				
Right Chek the graph to	nautorscale.		ucurio acoere acoriti ocazife acturite acturit	10024 0000326 0010028 0020030
Session paused			Open session: 00:00:27.375 / 00:05:14.938	

This screen provides an alternative image to the previous screen. The information is the same.

To end the session and stop recording, click **Stop** in the toolbar.

## **SEMG Training: Relaxation 1 Channel**

The SEMG Relaxation Quick Start is used to train the client to relax the muscles being treated.

To run the Relaxation Quick Start Favorite:

### Setting Up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

### **Starting the Quick Start**

1. Open the Quick Start window in BioGraph.

iick Start				>
			Select a Suite Name	
	Find Clie	nt	Rehab Suite	~
ients:			Categories	
Full Name	ID Number	Clinic	Training SEMG	~
Jane	1		Favorite	
Cormack, Jane	6		1 divorine	
RV, ProComp Devices	2		Description	
roComp5 Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
tress Control, ProComp Devices	3		Control	
est, Registration	4		Control with extra channel	
XX, XXX	S		Equilibrium	
			Relaxation 1 channel	1
			Relaxation 2 channels	1
			Strengthening 1 channel	
			Strengthening 2 channels	
			2.02.42002 (20.000 (20.000))	
Add New C	aent		UK	Cancel

- 2. Select Training SEMG from the Categories drop-down list.
- 3. Select Relaxation 1 channel in the Favorite list box.
- 4. Click **OK** on the recording window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.



If you have only one EMG sensor connected, the Sensor Connections screen appears in BioGraph.

nannei A	Description	Expected Sensor	wrong Sensor Type!	Replacement Signal Value	Emulating sensor
B	B: EMG	EMG	Sensor is not detected	1	

You can do one of the following:

- Connect a sensor to Channel B and click **Repeat** and then **OK**.
- Click Cancel. The second sensor is not required for this Quick Start.

The Relaxation recording window appears in BioGraph.

#### **Relaxation 1**



A line graph displays the signal from the sensor connected to Channel A. A threshold is available. To change the position, select it with your mouse and drag it to the appropriate position.

To use this screen

- 1. Instruct the client to relax the monitored muscle, so that the signal stays below the threshold.
- 2. Click **Start** when you and your client are ready to begin.
- 3. Describe the feedback
  - The line changes color when the signal is below the threshold.
  - Music plays at full volume when the client meets the condition. It plays quietly when the client is not meeting the condition.
- 4. Click **2** in the BioGraph toolbar to navigate to the next screen.

#### **Relaxation 2**



The screen presents a bar graph and a trend graph showing the RMS signal from Channel A. The trend graph displays the average value of the EMG signal. It updates every 20 seconds.

A threshold is available on the bar graph. You can change the position of the threshold by selecting it with your mouse and dragging and dropping it into position.

To use this screen

1. Instruct the client to relax the monitored muscle, so that the signal stays below the threshold.

- 2. Describe the feedback.
  - When the signal is below the threshold, music plays at full volume. If the signal goes above the threshold, the color changes and the volume lowers.
- 3. Click the **3** in the recording toolbar to navigate to the next screen.



This screen displays a bar graph, connected to Channel A, and an animation.

- 1. Instruct the client to relax the monitored muscle to keep the signal below the threshold.
- 2. Describe the feedback:
- The color on the graph changes when the signal is above the threshold. This indicates the client is not meeting the condition.
- When the client meets the condition, the animation plays.
- 3. Click 4 in the recording window toolbar to navigate to the next screen.

#### **Relaxation 4**



This screen displays an animation, and a counter. The animation is a series of sketches.

- 1. Instruct the client to try and meet two conditions:
  - Contract the muscle connected to Channel A.
  - At the same time, relax the muscle connected to Channel B.
- 2. Describe the feedback.
  - When the client meets both conditions, the animation plays. This indicates the client is meeting both conditions.
  - Each time the client is successful in meeting both conditions, one is added to the counter and a new sketch begins.
- 3. Click 4 in the BioGraph toolbar to navigate to the next screen.

### **Relaxation 5**



The screen displays a bar graph and a video.

To use this screen:

- 1. Instruct the client to relax the muscle and keep the signal below the threshold.
- 2. Describe the feedback:
  - The color on the graph changes when the signal is above the threshold. This indicates the client is not meeting the condition.
  - When the client meets the condition, the video expands. It shrinks when the client is no longer meeting the condition.
- 3. Click **Stop** to end the session and stop recording.

## **SEMG Training: Relaxation 2 Channels**

The SEMG Relaxation 2 Channels Quick Start trains the client to relax the monitored muscles connected to Channels A and B.

To run the Relaxation 2 Channels Quick Start Favorite:

## Setting up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect a second EMG Sensor to Channel B.

4. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## **Starting the Quick Start**

1. Open the Quick Start window in BioGraph.

			Select a Suite Name	
	Find Clie	nt	Rehab Suite	
ents:			Categories	
ul Name	ID Number	Clinic	Training SEMG	N
Jane	1		Favorite	
Cormack, Jane	6			
RV, ProComp Devices	2		Description	
ProCompS Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
Stress Control, ProComp Devices	3		Control	
Fest, Registration	4		Control with extra channel	
oxx, xxx	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
			~	Control

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Training SEMG from the Categories drop-down list.
- 4. Select **Relaxation 2 channels** in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.



The screen reads PC connected to the device.

The Relaxation recording window opens in BioGraph.



The first screen shows two-line graphs, one connected to Channel A, the other to Channel B.

- 1. Instruct the client to keep the monitored muscles below the threshold.
- 2. Click **Start** when you are ready to begin recording.
- 3. Describe the feedback. It is the same for both channels.

- When the signal is above the threshold, the color changes. This indicates that the client is not meeting the condition for that channel.
- Music plays at full volume when the client is meeting a condition. It plays quietly when the client is not meeting a condition.
- 2. Click **2** in the BioGraph toolbar to navigate to the next screen.



This screen shows a bar graph and a trend graph for each channel.

- 3. Describe the feedback for this screen.
  - The color on the graph changes color when the signal is above the threshold. This indicates the client is not meeting the condition.
  - Music plays when the client meets a condition. It stops when the client is no longer meeting a condition.
  - The trend graphs are updated every 20 seconds with the average value of the EMG signal.
- 4. Click 3 in the BioGraph toolbar to navigate to the next screen.

File Session Screens Edit	Tools Options H	lardware View Help ↓ Thu2 ↓ 30 sec ∨ 8 x √ GoTo 00:00:	00 🔄 👪 🔳 📕 🔲 1 2 3 4 5 bL	
Relaxation -	Animatio	n		_
		Channel A - EMG (RMS)		
Channel A		15-		
EMG (RMS)	3.12			
Average	9.51	10-		
		-		
		S <b>S</b>		
	or will play.		2M	
			S a	
Channel B		Channel B - EMG (RMS)	ž & 3	
EMG (PMS)	5.46	(16 <sub>1</sub>	THAANNS"	
Average	14 37		and the second se	
1021062	1-11-22	10		
		5		
Right click the graph to	auto-scale.	0		
Session paused			Open session: 00.02:17.312 / 00:05:14.938	

This screen adds an animation. Proceed as with the previous screen:

1. Describe the feedback from this screen.

The animation plays when the client keeps the signals from Channel A and Channel B below the threshold, meeting the conditions.

2. Click **3** in the BioGraph toolbar to navigate to the next screen.

Replaying mode. Open Display session. Client. San File Session Screens Edit Tools Options Hi	mple Data, Rehab. Screen: Relaxation 04 - Animation & co ardware View Help	ounter (2 EMG) — 🗆 X
L ×10 Min ↓ Max ↓ Thr1	‡ Tm2 ↓ 30 sec v 1 x	🗸 GeTo 000000 💠 🗰 🔳 🖬 1 2 3 4 5 🖿
Relaxation - Animation	n & counter	
	Channel A - EMG (RMS)	
Channel A	151	
EMG (RMS) 4.10	-	1
Average 8.08	10-	
	5	
Relax and the animation will play.		$\frown$
	0- <u></u>	
	Channel B - EMG (RMS)	
Channel B		
EMG (RMS) 10.70	10	
Average 13.55	10-	
	s <b></b> ,	
Right click the graph to auto-scale.	g <b></b>	
Service report		One neuroine (003-25.000 / 00-05-14.938

The screen shows two bar graphs, an animation, and a counter. The animation is a series of sketches.

- 1. Instruct the client to try and meet the conditions for both channels:
  - Relax the muscles to keep the signals below the thresholds.
- 2. Describe the feedback.
  - The color on a graph changes when the client is not meeting the condition for that graph.
  - When both signals are in condition, the animation plays. This indicates the client is meeting both conditions.
  - Each time the client is successful in meeting both conditions, one is added to the counter and a new sketch begins.
- 3. Click **4** in the BioGraph toolbar to navigate to the next screen.

Replaying mode. Open Display session. Client: Sample Data, Rehab. Screen: Relaxation 05 - Video (2 EMG)     File Session Screens Edit Tools Options: Hardware View Help	- 🗆 X
L ×10 Mn	
Relaxation - Video	
Channel A	
EMG (RMS) 4.20	
Average 7.91 10-	
Relax and watch the video.	
Channel B Channel B - EMG (RMS)	
EMG (RM5) 3.00	
Average 13.25 10-	
Right click the graph to auto-scale.	

The screen shows two bar graphs, and a video.

To run this screen:

- 1. Instruct the client to meet two conditions:
  - Relax the muscles connected to Channels A and B to keep the signals below the threshold.
- 2. Describe the feedback:
  - For both channels, the color on the graph changes when the client is not meeting the condition for that channel.
  - When the client meets both conditions, the video expands. It shrinks when a condition is no longer met.
- 3. Click **Stop** to end the session and stop recording.

## **SEMG Training Strengthening Session**

## Setting up the MyOnyx Device

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## Starting the Quick Start

1. Open the Quick Start window in BioGraph.

			Select a Suite Name	
	Find Clie	nt	Rehab Suite	~
lents:			Categories	
Full Name	ID Number	Clinic	Training SEMG	
, Jane	1		Favorite	
Cormack, Jane	6			
HRV, ProComp Devices	2		Description	
ProComp5 Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
Stress Control, ProComp Devices	3		Control	
Test, Registration	4		Control with extra channel	
xx, xxx	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
ŕ	1			
Add New C	lient		OK	Cancel

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Training SEMG from the Categories drop-down list.
- 4. Select Strengthening 1 Channel in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.



The recording screen appears in BioGraph.

### **Strengthening 1**



The screen shows a line graph displaying the signal from Channel A.

- 1. Instruct the client to contract the monitored muscle, so that the signal stays above the threshold.
- Click Start to begin recording.
   Describe the feedback

- When the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition.
- When the client meets the condition, music plays at full volume. It plays quietly when the client is no longer meeting the condition.
- 4. Click the 2 in the toolbar to navigate to the next screen.

#### Replaying mode. Open Display session. Client: Sample Data, Rehab. Screen: Strengthening 82 - Bar graph (1 EMG) × File Session Screens Edit Tools Options Hardware View Help ✓ 1x ~ GoTo 00:00:00 ♀ ■ ■ ■ 1 2 3 4 5 1. thr2 4 30 sec Strengthening 11 Channel A - EMG (RMS) Channel A - Periodic mean **Channel A** 15 EMG (RMS) 8.06 14 Average 10.57 40 12 m 20 10 10 11 12 13 14 15 Open session: 00:04:54,500 / 00:05:19:68

#### SEMG Training Strengthening Level 2

This screen displays a bar graph and a trend graph.

- 1. Instruct the client to contract the monitored muscle, so that the signal stays above the threshold.
- 2. Describe the feedback.
  - On the bar graph, when the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition.
  - Music plays at full volume when the client meets the condition. It plays at low volume when the client is no longer meeting the condition.
  - The trend graph is updated every 20 seconds with the average value of the EMG signal
- 3. Click the 3 in the toolbar to navigate to the next screen.

## Replaying mode. Open Display session. Client: Sample Data, Rehab Suite (2 EMG). Screen: Strengthening 03 - Animation (1 EMG) -X File Session Screens Edit Tools Options Hardware View Help \_\_\_\_×I0 Min 1 Max 4 Thr1 1 Thr2 30 sec Strengthening - Animation Channel A - EMG (RMS) **Channel A** EMG (RMS) 13.26 Average Open session: 00:00:20.812 / 00:02:59.250 Session paused

### **SEMG Training Strengthening Level 3**

This screen displays a bar graph on the left for Channel A and an animation on the right. A threshold is available. To change the threshold, select it with your mouse and move it into position.

- 1. Instruct the client to contract the muscle, so that the signal stays above the threshold.
- 2. Describe the feedback:
  - When the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition.
  - When the client meets the condition, the animation plays.
- 3. Click the 4 in the toolbar to navigate to the next screen.

### SEMG Training Strengthening Level 4



The screen displays a bar graph, connected to Channel A, on the left, and an animation and a counter on the right.

- 1. Instruct the client to contract the muscle and keep the signal above the threshold.
- 2. Describe the feedback:
  - When the signal drops below the threshold, the color on the graph changes. This indicates the client is not meeting the condition.
  - When the client meets the condition, the animation plays. Then, one is added to the counter, and a new animation plays.
- 3. Click the **5** in the toolbar to navigate to the next screen.

### **SEMG Training Strengthening Level 5**



The screen displays a bar graph, connected to Channel A, and a video.

To use this screen

- 1. Instruct the client to contract the monitored muscle and keep the signal above the threshold.
- 2. Describe the feedback
  - When the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition.
  - When the client meets the condition, the video expands. It shrinks when the client is no longer meeting the condition.
- 3. Click **Stop** to end the session and stop recording.

## **EMG Training Strengthening with 2 Channels**

The EMG Training Strengthening 2 Channels Quick Start is like the Strengthening 1 Channel Quick Start. However, signals from two channels are displayed.

### **Setting Up the MyOnyx Device**

- 1. Turn on the MyOnyx and navigate to the Home screen.
- 2. Connect an EMG Sensor to Channel A.
- 3. Connect the EMG Sensor to Channel B.

4. Connect the Patient Drive to the REF port.

Refer to the MyOnyx Reference Manual for full details on connecting cables and electrodes.

## **Start the Quick Start**

1. Open the Quick Start window in BioGraph.

uick Start				>
			Select a Suite Name	
	Find Clie	nt	Rehab Suite	
lients:			Categories	
Full Name	ID Number	Clinic	Training SEMG	¥
, Jane	1		Favorite	
Cormack, Jane	6			
HRV, ProComp Devices	2		Description	
ProComp5 Infiniti, Z-Score 6	7		Activating ch 1 while relaxing ch 2	
Stress Control, ProComp Devices	3		Control	
Test, Registration	4		Control with extra channel	
xxx, xxx	5		Equilibrium	
			Relaxation 1 channel	
			Relaxation 2 channels	
			Strengthening 1 channel	
			Strengthening 2 channels	
				8
Add New C	aner n.		Cance	

- 2. Select MyOnyx Rehab Suite in the Select a Suite Name drop-down list.
- 3. Select Training EMG from the Categories drop-down list.
- 4. Select **Strengthening 2 Channels** in the Favorite list box.
- 5. Click **OK** on the Quick Start window.

## **Recording the SEMG Session**

The Connected window is displayed on the MyOnyx screen.


The recording screen appears in BioGraph.

### **Strengthening 1**



The screen shows a line graph displaying the signal from Channel A, and a second line graph showing the signal from Channel B.

- 1. Instruct the client to contract the muscles connected to both channels, so that signal stays above the threshold.
- 2. Describe the feedback.
  - On both channels, when the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition for the channel.
  - When the client meets both conditions, music plays at full volume. It plays at low volume when the client is not meeting a condition.

- 3. Click **Start b**egin recording.
- 4. Click the 2 in the toolbar to navigate to the next screen.



### **SEMG Training Strengthening Level 2**

This screen shows two bar graphs and two trend graphs.

- 1. Instruct the client to contract the muscles connected to both channels and to try and keep the signals above the threshold.
- 2. Describe the feedback.
  - For both graphs, when the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition for the channel.
  - A wave file is associated with the
  - For both channels, music plays when the client meets the condition. It stops when the client is no longer meeting the condition.
  - The trend graphs are updated every 20 seconds with the average value of the EMG signal.
- 3. Click the **3** in the toolbar to navigate to the next screen.

### SEMG Training Strengthening Level 3

Replaying mode. Open Display session. Client: Sa File Session Screens Edit Tools Options H	mple Data, Rehab. Screen: Strengthening 03 - Anima Iardware View Help	tion (2 EMG) - X
L ×10 Min 0 + Max 15 + Thr1 5		1x 🛩 Gete (0000:00) 🔄 🌺 📕 🔲 🛄 1 2 3 4 5 🗠
Strengthening - Anima	ation	
	Channel A - EMG (RMS)	
Channel A	45.	
EMG (RMS) 7.35	3	
Average 13.90	10-	
Contract and hold your muscles	• • • • •	
and the animation will play.	0	
	Channel B - EMG (RMS)	
Channel B	15	
EMG (RMS) 7.56	-	
Average 17.16	10-	11/2 CAR 1 Care al and
		A Set Cit Cit Cit
Right click the graph to auto-scale.	0	
Session paused		Open session: 00:00:55:500 / 00:04:20:625

This screen displays two bar graphs on the left and an animation on the right. Thresholds are displayed. To change a threshold, select it with the mouse and move it into position.

The upper bar graph shows the signal from Channel A, the lower graph shows the signal from Channel B.

- 1. Instruct the client to contract the muscle, so that the signal stays above the threshold.
- 2. Describe the feedback:
  - For both graphs, the color on the bars changes when the signal is below the threshold. This indicates the client is not meeting the condition.
  - The animation plays when the client meets the conditions for both channels.
- 3. Click the **4** in the toolbar to navigate to the next screen.

#### @ Replaying mode. Open Display session. Client: Sample Data, Rehab Suite (2 EMG). Screen: Strengthening 04 - Animation & counter (2 EMG) -× File Session Screens Edit Tools Options Hardware View Help \_ ×I0 Min 1 Max 1 Thr1 t ThrZ 1 30 sec v 1x v GoTo 00:00:00 ≑ 🔂 🔳 🔲 🚺 1 2 3 4 5 b. Strengthening - Animation & counter Channel A - EMG (RMS) **Channel** A 15 EMG (RMS) 2 Average Channel B - EMG (RMS) Channel B EMG (RMS) Average 30.82 Session paused Open session: 00:01:50.500 / 00:02:59.250

### **SEMG Training Strengthening Level 4**

The screen displays two bar graphs on the left, and an animation and a counter on the right.

- 1. Instruct the client to contract the muscles and keep the signals above the threshold.
- 2. Describe the feedback:
  - On each graph, when the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition for the channel.
  - When the client meets both conditions, the animation plays. Then, one is added to the counter, and a new animation plays.
- 3. Click the **5** in the toolbar to navigate to the next screen.

### SEMG Training Strengthening Level 5



The screen displays two bar graphs and a video.

- 1. Instruct the client to contract the monitored muscles and keep the signals above the threshold.
- 2. Describe the feedback
  - For each graph, when the signal drops below the threshold, the color changes. This indicates the client is not meeting the condition for that channel.
  - When the client meets the conditions for both channels, the video expands. It shrinks when the client is no longer meeting one of the conditions.
- 3. Click **Stop** to end the session and stop recording.

# Chapter 4 Reviewing the Sessions

This chapter includes the following sections:

- Ending Session Recording
- Reviewing Saved Sessions

## **Ending Session Recording**

At the end of a session, when you click the Stop Recording button  $\blacksquare$ , the Statistics Page is shown.

41.11			01 D 11		
ctivity	Activity Description	Step	Step Description	Statistic Description	Value
				A: Median frequency	232,00
				A: EMG (RMS) mean	2412,94
				A: EMG (RMS) min	1850,86
				A: EMG (RMS) max	4569,46
				A: EMG (RMS) standard deviation	140,62
				A: EMG (RMS) variability	0,06
				A: EMG (RMS) area	1257627,63
1				Close	

You can review the statistics as shown on the screen or generate a report to save the statistics in a file.

Note: You can generate a session report in addition to the statistics report.

To generate a statistics report:

#### 1. Click Generate Report.

You are prompted to add a Training Code and optional notes and a description for the session.

Session Notes				×
Training Code	SEMGFtg1	~		
Description				
Notes				^
				~
		ОК	Cancel	

- 2. Enter a code in the Training Code field and any description and notes for easy reference.
- 3. Click OK.

Thought Technology Ltd.		
	OPEN SESSION CURRENT STATISTICS	
	10.09.2019 17:14:35	
Client : 88 - Cormack, Jane		
Description	Value	
A: Median frequency	232,00	
A: EMG (RMS) mean	2412,94	
A: EMG (RMS) min	1850,86	
A: EMG (RNS) max	4569,46	
A: EMG (RMS) standard deviation	140,62	
A: EMG (RMS) variability	0,06	
A FMC (BUE)	1257627 62	

4. Click **Close** the Statistics Page.

You are prompted to save the session. /

Infiniti Software System							
Do you want to save this session? Remember: Sessions saved with compression cannot be reviewed until decompressed!							
Save	Do Not Save	Save Compressed					

**Note**: If you compress the session, you can decompress it when you select it for review or replay.

You are prompted to review or replay the session.

Infiniti Software System						
Do you want to review/replay this session now?						
Yes, switch to: Reviewing mode.	No	Yes, switch to: Replaying mode.				

If you click **No**, you are asked if you want to record another session with the same configuration.

Infiniti Sof	itware System	$\times$
	Do you want to record another session for the same client with the same configuration?	
	Yes No	

If you want to record another session with the same client, click **Yes**. The same screen, which was open when the session was stopped, appears.

## **Reviewing Saved Sessions**

To access sessions saved to the BioGraph database:

1. Launch BioGraph.



#### 2. Select Database.

The Main Database screen opens.

ents:		Fin	id Client	Sessions:						
Full Name		ID Num	. Clinic !	Date and Time	Sc	ript / Channel Set	Ту	pe Duration	Description	
BioGraph 6, Featur	e Set	8		17.06.2019 10	):53:49 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:00:19,063	3	
c, a		12		03.09.2019 15	5:32:02 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:01:33,813	}	
Cormack, Jane		7		03.09.2019 15	5:34:53 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:00:50,500	)	
Cormack, Jane		11	88	09.09.2019 13	3:55:55 SE	MG complete asses	sment Sci	ript 00:04:04,000	)	
Encoder, Registrat	ion	1		09.09.2019 14	1:47:59 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:03:35,500	)	
Encoder, Registrier	ung	3		10.09.2019 17	7:17:19 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:08:41,250	)	
Enregistrement, d'E	Encodeur	2		10.09.2019 17	7:56:49 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:00:05,875	5	
Gold, Jane		13		11.09.2019 12	2:29:28 M	yOnyx Rehab Suite	- 2 EMG Op	en 00:00:11,563	3	
HRV, ProComp Dev	ices	9								
ProComp5 Infiniti, 2	Z-Score 6	10								
Registración, del C	odificador	5								
Registrazione, della	a Centralina	4								
Rejestracja, Koder	a	6								
				<						
Client Options				Session Option	ns					
Add New Client	Edit Client Data	Delete Client(s)	Trend Report	1	Delete Session(s)	Session Notes	Export Data	Review / Report	Replay Session	
Restore Client(s)	Archive Client(s)	Import Client(s)	Export Client(s)		Delete video data (if any)	Import Session(s)	Export Session(s)	Compress / Decompress	HRV Report	

3. Click **Review/Report** to review your session.

The Review/Replay Session Confirmation screen appears.

Review/Replay Session Confirmation		×
Channel Set Options MyOnyx Rehab Suite - 2 EMG		
Select Channel Set	Edit Virtual Channel Settings	
Screens Review 01 - Artifact rejection (Char	nnel A)	
Review 02 - Trend graph (1 EMG)		
Review 03 - Raw EMG & 3D spectru	ım (1 EMG)	
-		
Select Screens	Set Screen Order	
ОК	Cancel	

4. Click **OK**.

The following review screens are available:

- Artifact Rejection
- Trend Graph
- Raw EMG & 3D Spectrum
- Review Endurance (for single-channel sessions only)

## **Artifact Rejection**



The screen displays Raw, RMS, and the RMS periodic mean for the channel or channels used in the session.

Review the data on this screen to detect unusual patterns. These can be caused by line interference, EKG artifacts, or movement if electrodes slide out of position or cables are pulled.

Review the RAW signal for the channel or channels. You may want to reject segments that are too high or too low. To do this, place artifact rejection segments over the signal: as described in the following steps.

1. Scroll through the data, using the time scroller at the top of the window, to find an artifact.

**Tip**: Right click on the graph and select **Auto scale** to view the full signal on the screen. Deselect it and adjust the **Min** and **Max** settings in the toolbar to zoom in on a segment.

- 2. Place your mouse cursor over the EMG segment you want to reject.
- 3. Press and hold the Control [Ctrl] key on your computer keyboard and your left mouse button at the same time. Move the cursor right until you reach the end of the distorted section
- 4. Release the Ctrl key and mouse button.

## **Trend Graph**



The screen displays the Raw, RMS and RMS periodic mean for the channel or channels used in the session. You can review the trend data. By default, the periodic means are calculated every 20 seconds. You can adjust this time period.

### To adjust the periodic mean duration

- 1. Right click on the trend graph.
- 2. Select Edit Virtual Channel Settings > Control Data Channel.

The Edit Channel Settings screen appears.

rtual Chan	incls:		Committee Carels Dense			
lumber	Description	^	Computation: epoch Pacer.			
5	Periodic pacer					
10	A: EMG filtered signal					
11	A: EMG (RMS)					
12	A: EMG (RMS) smoothed signal					
13	A: EMG (RMS) signal as a % of value					
14	A: Power Spectrum					
15	A: Median frequency					
16	A: Peak frequency					
21	A: EMG (RMS) periodic mean		Time Period (sec)		20	
22	A: EMG (RMS) mean					
23	A: EMG (RMS) min					
24	A: EMG (RMS) mex					
25	A: EMG (RMS) standard deviation					
26	A: EMG (RMS) variability					
27	A: EMG (RMS) area					
50	B: EMG filtered signal					
51	B: EMG (RMS)					
52	B: EMG (RMS) smoothed signal					
53	B: EMG (RMS) signal as a % of value					
/ 54	B: Power Spectrum			Non-Editable Settinos	Save Changes	Algorithm Settings
		6			1000 C (C (	

- Enter the required duration in the Time Period (sec) field.
   Click Close.

A progress bar is displays while the information is updated.

	Please wait	7	Ľ
	Processing session data		
1		t	i

## Raw EMG & 3D Spectrum



The screen displays Raw, median frequency, as well as 3D spectrum of the EMG signal.

**Tip**: To view the entire graph in the screen, right click on the graph and select **Auto Scale**. To zoom in on an area, disable Auto Scale and adjust the **Min** and **Max** values in the toolbar.

### **Review – Endurance**



The screen displays the RMS signal, RMS periodic mean, and median frequency for channel A only. Review the trend data and median frequency through the assessment. You can adjust the time period for the periodic means.

# Chapter 5 MyOnyx Downloading Options

If you would like to review the biofeedback sessions you have recorded with the MyOnyx app in BioGraph, you need to download them from the MyOnyx device to BioGraph using the MyOnyx Downloading Options. The MyOnyx Rehab Suite Review screens are available for reviewing the downloaded sessions. All statistics and options available in BioGraph are available for these sessions.

The MyOnyx app supports two types of biofeedback, standard and alternating. These are recognized as the following session types in BioGraph:

МуОпух Арр	BioGraph
Alternating or reciprocal biofeedback:	Open Session
Standard biofeedback	Script Session

Refer to the MyOnyx App Help for details on alternating and standard biofeedback.

**Note**: Standard biofeedback sessions must be complete if you want to download them. However, you can download incomplete alternating biofeedback sessions.

BioGraph provides two options for downloading sessions:

- the MyOnyx External Session Download Tool: This is recommended for sessions longer than ten minutes:
- the **Direct Downloading Option**: This can be used for sessions shorter than ten minutes. BioGraph is unavailable while you are using this option.

You can continue to use BioGraph while downloading sessions with the external tool. However, the MyOnyx device can be connected to only one device or software application at a time. While running the MyOnyx External Session Download Tool, you cannot run BioGraph or MyOnyx app sessions with the device.

## Downloading Sessions with the MyOnyx External Session Download Tool

There are two parts to downloading sessions with the MyOnyx External Session Download Tool. First, download sessions from the MyOnyx device to a folder on your PC or network. Then, import the sessions from that folder to BioGraph.

## Downloading Recorded Sessions from the MyOnyx to your PC

To download one or more sessions to your PC:

- 1. Turn on the MyOnyx device.
- 2. Navigate to the Home screen if it is not displayed.
- 3. Double-click on the **BioGraph Infiniti Docs & Editors** icon 🤐 on your desktop.
- 4. Click the **MyOnyx Session Download Tool** icon icon to launch the tool.

On the MyOnyx device, the PC Connected to Device screen appears.



Tip: If this screen does not appear, verify the Bluetooth connection.

When you are downloading sessions with the MyOnyx external session download tool, you can use the power button to turn off the device, but all other functionality is controlled from the PC.

On the PC, The MyOnyx external session download tool appears.

lect the session(s) to	download. Use the CTRL or SHIFT	keys to select mult	ple sessions.				About
levices	Sessions						
A000102	Date & Time	Patient ID	Duration		Download State		
	02.06.2019 15:25:05	PatientID	0h:0m:3	4s:884ms			
	06.05.2019 16:31:24	PatientID	0h:0m:3	7s:477ms			
	06.05.2019 16:50:57	PatientID	0h: 1m: 1	5s:0ms			
	06.05.2019 16:55:09	PatientID	0h: 1m: 1	8s:473ms			
	07.05.2019 13:22:07	PatientID	0h: 1m: 1	.5s:0ms			
	07.05.2019 13:24:52	PatientID	0h: 1m: 1	5s:0ms			14
	07.05.2019 13:26:40	PatientID	0h: 1m: 1	.5s:0ms			
	07.05.2019 13:30:53	PatientID	0h: 1m: 1	5s:0ms			
	07.05.2019 13:32:49	PatientID	0h:1m:4	3s: 17ms			
	07.05.2019 14:01:57	PatientID	0h: 1m: 3	Os:Oms			
	07.05.2019 14:08:56	PatientID	0h: 1m: 1	.5s:0ms			
	07.05.2019 14:14:13	PatientID	0h: 1m: 1	5s:0ms			
Defrech	Download Stop	Download	Delete	Delete All	Downloa	d Location	Evit

The Devices column of the MyOnyx external session download tool shows all the MyOnyx devices that are paired to the PC, turned on, and set to the Home screen.

5. Select the MyOnyx device in the **Devices** column that contains the sessions you would like to download.

The sessions saved to the device are displayed by Date & Time, Patient ID, Duration, and Download State.

- 6. Click **Download Location** and navigate to the folder on your PC or network where you would like to save the files.
- 7. Click Download.

The Download State column displays downloading for each selected session while the download is in progress. The percentage of the download that is complete is shown int eh status bar beside the percent sign (%).

🖾 MyOnyx external sessior	n download tool				×		
Select the session(s) to downlo	ad. Use the CTRL or SHIFT	keys to select mu	ultiple sessions.		About		
Devices	Sessions						
GA000102	Date & Time	Patient ID	Duration	Download State	~		
	02.06.2019 15:25:05	PatientID	0h:0m:34s:884ms				
	06.05.2019 16:31:24	PatientID	0h:0m:37s:477ms				
	06.05.2019 16:50:57	PatientID	0h:1m:15s:0ms				
	06.05.2019 16:55:09	PatientID	0h:1m:18s:473ms				
	07.05.2019 13:22:07	PatientID	0h:1m:15s:0ms				
	07.05.2019 13:24:52	PatientID	0h:1m:15s:0ms				
	07.05.2019 13:26:40	PatientID	0h:1m:15s:0ms				
	07.05.2019 13:30:53	PatientID	0h:1m:15s:0ms	Downloaded			
	07.05.2019 13:32:49	PatientID	0h:1m:43s:17ms				
	07.05.2019 14:01:57	PatientID	0h:1m:30s:0ms				
	07.05.2019 14:08:56	PatientID	0h:1m:15s:0ms				
	07.05.2019 14:14:13	PatientID	0h:1m:15s:0ms		~		
Refresh	Download Stop	Download	Delete Delete All	Downloa	d Location Exit		
					0%		

When the download process is complete, the **Download State** column for the session displays **Downloaded**.

8. Click **Exit** to close the MyOnyx Session Download Tool once all required sessions are downloaded.

The Home Screen is shown on the MyOnyx.



## **Importing Downloaded Sessions to BioGraph**

After downloading sessions with the MyOnyx External Download Tool to a folder on your PC, the next step is to import the sessions to BioGraph.

To import downloaded sessions to BioGraph.

1. Launch BioGraph



2. Click Session Downloading Options.

The Session Downloading Options screen appears.

Session Downloading Options		×
Select Option <ul> <li>Downloading from MyOnyx Options</li> </ul>	Compact Flash Options	
ОК	Cancel	

3. Select **Downloading from MyOnyx** and click **OK**.

The Downloading from MyOnyx Options screen appears.

	×
Attention! Use Direct Downloading for short sessions only. Session Download Tool. You can continue to use BioGrapi direct downloading process	For sessions > 10 minutes, use the MyOnyx External h while running the external tool but not during the s, which can be long.
To launch the external tool, double-click the BioGraph Infin the MyOnyx External Ses When your sessions are downloader	niti Docs & Editors icon on your desktop. Then, select sion Download Tool. d, return here to import them.
Import Sessions downloaded with the MyOnyx External Session Download Tool	Direct Downloading from MyOnyx

4. Click Import Sessions Downloaded with the MyOnyx External Session Download Tool.

The Select MyOnyx recorded session folder screen opens.



- 5. Navigate to the folder where your downloaded MyOnyx sessions are located if it does not open automatically.
- 6. Select the folder.
- 7. Click **OK**.

The BioGraph Client Database screen appears.

	Fin	id Client
Full Name	ID Numb	per Clinic ID:
BioGraph 6, Feature Set	8	
C, J	12	
Cormack, Jane	7	
Cormack, Jane	11	88
Encoder, Registration	1	
Encoder, Registrierung	3	
Enregistrement, d'Encodeur	2	
Gold, Jane	13	
HRV, ProComp Devices	9	
ProComp5 Infiniti, Z-Score 6	10	
Registración, del Codificador	5	
Registrazione, della Centralina	4	
Rejestracja, Kodera	6	

8. Select a client in the list and click OK.

Alternatively, you can click **Add New Client** and create a new client account. You must select a client before importing downloaded sessions.

Date and Time	Duration	Errors	Α	в	с	D	Е
10.07.2019 13:03:4	00:06:40,000		EMG	EMG			
07.06.2019 13:30:5	3 00:01:15,000		EMG	EMG			
07.06.2019 13:22:0	7 00:01:15,000		EMG	EMG			
07.06.2019 13:26:4	00:01:15,000		EMG	EMG			
06.06.2019 16:50:5	7 00:01:15,000			EMG			
10.07.2019 13:03:4	00:06:40,000		EMG	EMG			
07.06.2019 14:01:5	7 00:01:30,000			EMG			
16.07.2019 16:19:1	00:05:59,438		EMG	EMG			
07.06.2019 13:30:5	3 00:01:15,000		EMG	EMG			
<							2

The Select a Session to Download screen appears.

9. Select a session in the list and click **Download Session**.

A confirmation message appears.

Infiniti Sof	tware System	$\times$
?	This is an Open Display Session. Are you sure you want to download a session recorded with Client 88 to Client: 88 - Cormack, Jane - 11?	
	Yes No	

10. Click **Yes** to continue.

The Select Channel Set screen appears.

elect Channel Set				×
	Select the channel	set for which this session	on should be saved.	
Channel Set Category				
Show all categories				~
Description				
MyOnyx Downloaded S	essions - 2 EMG			
MVOnyx Kehab Suite -	2 BMG			
Channel Set Co	onfguration		ОК	Cancel

You can view details on the Channel Set, see Viewing the Channel Set Configuration..

11. Select the Channel Set and click OK.

If the session was recorded as a standard biofeedback session on the MyOnyx app, the Select Script screen opens.

elect Script		×
Description		
MyOnyx Downloaded Session	ns (2 EMG)	
OK	Add New Script	Cancel

12. Select an item in the list and click **OK**.

A confirmation message appears.

Infiniti Software System	
How would you like to save this dowr	nloaded session?
Save	Save Compressed

If the file is large, you can save it in compressed mode. You can decompress the file, when you open for Review or Replay.

#### 13. Click Save or Save compressed.

A confirmation message appears.

Infiniti Sof	tware System	×
1	Downloading is complete.	
	ОК	

14. Click **OK** on the message.

## Using the Direct Downloading Option in BioGraph

It is recommended to use the MyOnyx external session download tool for sessions longer than ten minutes. You can use the Direct Downloading option to download short sessions.

**Note**: BioGraph is not accessible when you are running this procedure.

To download a session or sessions with the Direct Downloading from MyOnyx option

- 1. Turn on the MyOnyx.
- 2. Navigate to the Home screen on the device if it is not displayed.
- 3. Launch BioGraph on the PC.



4. Click Session Downloading Options.

The Session Downloading Options screen appears.

Session Downloading Options		$\times$
Select Option		
Downloading from MyOnyx Options	O Compact Flash Options	
ОК	Cancel	

5. Select **Downloading from MyOnyx** and click **OK**.

The Downloading from MyOnyx Options screen appears.

Downloading from MyOnyx Options	×					
Attention! Use Direct Downloading for short sessions only. For sessions > 10 minutes, use the MyOnyx External Session Download Tool. You can continue to use BioGraph while running the external tool but not during the direct downloading process, which can be long.						
To launch the external tool, double-click the BioGraph Infiniti Docs & Editors icon on your desktop. Then, select the MyOnyx External Session Download Tool. When your sessions are downloaded, return here to import them.						
Import Sessions downloaded with the MyOnyx External Session Download Tool Direct Downloading from MyOnyx						
Car	ncel					

### 6. Click Direct Downloading from MyOnyx.

The Client Database screen opens.

	Find Cli	ent
Full Name	ID Number	Clinic ID:
BioGraph 6, Feature Set	8	
с, з	12	
Cormack, Jane	7	
Cormack, Jane	11	88
Encoder, Registration	1	
Encoder, Registrierung	3	
Enregistrement, d'Encodeur	2	
Gold, Jane	13	
HRV, ProComp Devices	9	
ProComp5 Infiniti, Z-Score 6	10	
Registración, del Codificador	5	
Registrazione, della Centralina	4	
Rejestracja, Kodera	6	

Sessions must be downloaded to a client account in BioGraph. For details on creating client accounts, refer to the BioGraph Infiniti® Help.

- 7. Select the client account in the list.
- 8. Click **OK**.
- 9. On the MyOnyx device, the PC Connected to Device screen appears.



**Tip**: If this screen does not appear, verify the Bluetooth connection.

While you are downloading sessions, you can use the power button to turn off the device, but all other functionality is controlled from the PC.

10. Click **OK** on the message to continue.

The Select a Session to Download screen opens.

Select a Session to	Download									×
Switched on MyOnyx devices	ſ	Downloading session t	to Client: 8	B - Corma	ack, Jane,	, ID Num	ber: 11			
Devices	Date and Time	Duration	Errors	Α	в	С	D	E	F	^
GA000102	07.06.2019 16:26:23	00:01:15,000			EMG					
	07.06.2019 16:29:08	00:01:15,000			EMG					
	07.06.2019 16:33:37	00:01:15,000			EMG					
	17.06.2019 10:53:49	00:00:19,063		EMG	EMG					
	21.06.2019 11:43:01	00:01:15,000		EMG	EMG					
	02.07.2019 15:25:05	00:00:34,875		EMG						
	10.07.2019 13:03:40	00:06:40,000		EMG	EMG					
	16.07.2019 16:19:11	00:05:59,438		EMG	EMG					
										$\sim$
	<									>
		In MyO	nyx: Client	Name is	PatientID	).				
Refresh										
	Download	Session					Clos	se		

The Select Sessions to Download screen displays the devices that are connected to the PC, turned on, and set to the Home screen. When you select a device in the **Devices** list, the sessions saved to the device are displayed by date and time, duration, and channels.

11. Select the session or sessions you want to download and click **Download Session**. A confirmation message appears.



12. Click Yes to continue.

The Select Channel Set screen appears.

ect Channel Set			
	Select the channel set for which thi	is session should be saved.	
hannel Set Category			
Show all categories			~
Description			
MyOnyx Rehab Suite	2 EMG		
Channel Set (	onfiguration	ОК	Cancel

You can view details on the Channel Set, see Viewing the Channel Set Configuration.

13. Select a Channel Set and click **OK**.

If the session you are downloading is a Script, or standard biofeedback session, the Select Script screen appears.

lect Script		2
Description		
MyOnyx Downloaded Sessions	(2 EMG)	
OK	Add New Script	Cancel

14. Select a script in the list and click **OK**.

You are prompted to save the session.

Infiniti Software System	
How would you like to save this downloa	ded session?
Save	Save Compressed

15. Click **Save** or if the session is long, you can save a compressed version.

The Downloading Complete message appears.

Infiniti Sof	tware System	×
1	Downloading is complete.	
	ОК	

16. Click **OK** on this message.

## Viewing the Channel Set Configuration

When the Select Channel Set screen appears, you can view details on the channel set.

Select the channel set for which this session should be saved. Channel Set Category Show all categories Description MyOnyx Rehab Suite - 2 EMG	
hannel Set Category Show all categories Description MyOnyx Rehab Suite - 2 EMG	
Show all categories Description MyOnyx Rehab Suite - 2 EMG	
Description MyOnyx Rehab Suite - 2 EMG	
MyOnyx Rehab Suite - 2 EMG	
	Consul

1. Click **Channel Set Configuration** to verify the configuration.

nannel Set Con	figuration							
Channel Set Des	cription:	MyOnyx Rehab Suite - 2 EMG						
ncoder Type:		MyOnyx						
Communication P	rotocol:	MyOnyx						
lumber of Encod	ers:	1						
hysical Channel	5:		Virtual Chan	nels:				
Encoder Input	Description	Sensor Type	Number	Description	Computation	Source 1	Source 2	^
1A	A: EMG	EMG	V 5	Periodic pacer	Epoch Pacer			
1B	B: EMG	EMG	V 10	A: EMG filtered signal	Filter: IIR	1A		
			V 11	A: EMG (RMS)	RMS Non-Sliding Window	V 10		
			V 12	A: EMG (RMS) smoothed s	Smoothing: Average	V 11		
			V 13	A: EMG (RMS) signal as a	Signal as Percentage of V	V 12	100,000	
			V 14	A: Power Spectrum	Power Spectrum	1A		
			V 15	A: Median frequency	Frequency Band: Median	V 14		
			V 16	A: Peak frequency	Frequency Band: Peak Fr	V 14		
			V 21	A: EMG (RMS) periodic mean	Statistics: Mean	V 11	V 5	
			V 22	A: EMG (RMS) mean	Statistics: Mean	V 11		
			V 23	A: EMG (RMS) min	Statistics: Minimum	V 11		
			V 24	A: EMG (RMS) max	Statistics: Maximum	V 11		
	1		V 25	A: EMG (RMS) standard d	Statistics: Standard Devia	V 11		
eneral Constan	ts:		V 26	A: EMG (RMS) variability	Statistics: Variability	V 11		
Number	Description	Value	V 27	A: EMG (RMS) area	Area Below Curve	V 11		
			V 50	B: EMG filtered signal	Filter: IIR	1B		
			V 51	B: EMG (RMS)	RMS Non-Sliding Window	V 50		
			V 52	B: EMG (RMS) smoothed si	Smoothing: Average	V 51		
			V 53	B: EMG (RMS) signal as a	Signal as Percentage of V	V 52	100,000	
			V 54	B: Power Spectrum	Power Spectrum	1B		
			V 55	B: Median frequency	Frequency Band: Median	V 54		

For details on this screen, click **F1** to view the BioGraph Help.

- 2. Click **Close** on this screen.
- 3. Click **OK** on the Select Channel Set screen.

If the session you are downloading is a Script, or standard biofeedback session, the Select Script screen appears.

## **Creating a New Script**

When the Select Script screen appears, you can create a new script for your downloaded session.

Soundanding consists to Diagta 00 Diagense	k lana ID Number 11
	×
2 EMG)	
Add New Script	Cancel
	2 EMG) Add New Script

### 1. Click Add New Script.

The New Script Design screen appears.

New Script Design						×
Script Description		Ca	tegory			
Activity Number	Activity Description	Step Number	Step Description		Show Continue / Repeat	
		1	Onset		рорир	
1	Work - Rest	2	Work			
		3	Offset		Activity Number	
Instrument Screen	Voice F	Prompt		Statistics	Step Number	
Activation 01 - Line graph (	2 EMG).scr 🔥 Contr	act and hold.wav		Channel	Description	^
Activation 02 - Bar graph (2	2 EMG).scr Contr	act.wav		Channel V 10	As ENG Changel sizes I	
Activation 03 - Animation (2 Activation 04 - Animation &	counter (2 EMG).sc MyOn	iyx - Contract and hold.v ivx - Contract.wav	av	V 10	A: EMG filtered signal	-
Activation 05 - Video (2 EM	G).scr MyOn	yx - Relax.wav		V 11	A: EMG (RMS)	-
Control 01 - Template - Lev	el 1 (1 EMG).scr Relax	.wav		V 12	A: EMG (RMS) sinced signal	-
Control 02 - Template - Lev	el 2 (1 EMG).scr			V 15	A: Median frequency	
Text Prompt					>	~
	ОК			Cancel		

2. Click F1 for details on this screen.

## Troubleshooting

The following warning message appears for incomplete standard biofeedback sessions. These are called Script sessions in BioGraph. It does not appear for alternating biofeedback sessions. These are called Open session in BioGraph.

Infiniti Sof	itware System	×
	In 6 script session(s), the Session Duration is not equal to the MyOnyx Script Duration. The session will not be added to the list.	
	OK	

If recording is enabled on the MyOnyx device, all sessions recorded on the MyOnyx app are saved to the device. If a standard biofeedback session was not completed, the session is not added to the Select a Session to Download screen.

## **Reviewing Downloaded Sessions in MyOnyx**

After downloading sessions from the MyOnyx to BioGraph, you can review them as you would a session recorded in BioGraph.

To review a session

1. Launch BioGraph.



### 2. Click Database.

The Main Database screen appears.

ients:		Fin	Find Client		Sessions:							
Full Name		ID Num	Clinic !	Date and Time	e Sc	Script / Channel Set Type		ype	Duration	Description	s	
BioGraph 6, Feature Set		8		07.06.2019 1	.3:26:40 My	yOnyx Downloaded	Session S	cript	00:01:15,000			
С, Ј		12		07.06.2019 13:30:53		MyOnyx Downloaded Session Scri		cript	00:01:15,000			
Cormack, Jane		7		17.06.2019 10:53:49 MyOn		yOnyx Rehab Suite - 2 EMG Open		pen	00:00:19,063			
Cormack, Jane		11	88	03.09.2019 15:32:02		MyOnyx Rehab Suite - 2 EMG Ope		pen	00:01:33,813			
Encoder, Registration		1		03.09.2019 1	5:34:53 My	MyOnyx Rehab Suite - 2 EMG		pen	00:00:50,500			
Encoder, Registrierung		3		09.09.2019 1	3:55:55 SE	SEMG complete assessment		cript	00:04:04,000			
Enregistrement, d'Encodeur		2		09.09.2019 1	4:47:59 My	MyOnyx Rehab Suite - 2 EMG		pen	00:03:35,500			
Gold, Jane		13		10.09.2019 1	7:17:19 My	Onyx Rehab Suite	- 2 EMG 0	pen	00:08:41,250			
HRV, ProComp Devices		9		10.09.2019 1	7:56:49 My	MyOnyx Rehab Suite - 2 EMG		pen	00:00:05,875			
ProComp5 Infiniti, Z-Score 6		10		11.09.2019 1	2:29:28 My	MyOnyx Rehab Suite - 2 EMG		pen	00:00:11,563			
Registración, del Codificador		5		12.09.2019 1	4:41:00 My	MyOnyx Rehab Suite - 2 EMG		pen	01:31:31,938			
Registrazione, della Centralina		4		12.09.2019 1	4:50:01 SE	SEMG complete assessment		cript	00:04:04,000			
Rejestracja, Kodera		6		12.09.2019 1	12.09.2019 16:16:49 MyOnyx Rehab Suite -		- 2 EMG 0	pen	00:01:32,563			
				17 00 2010 1	6-00-22 SE	MC complete acces	ement C	crint	00-04-04 000			
				<							>	
lient Options				Session Optio	ons							
Add New Client	Edit Client Data	Delete Client(s)	Trend Report		Delete Session(s)	Session Notes	Export Data		Review / Report	Replay Session		
Restore Client(s)	Archive Client(s)	Import Client(s)	Export Client(s)		Delete video data (if any)	Import Session(s)	Export Sessior	ı(s)	Compress / Decompress	HRV Report		

3. Click **F1** for details on this screen and how to review or replay sessions.