

# InspectionWorks Connect

Global

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### **InspectionWorks Global**

Waygate Technologies InspectionWorks Connect is a live streaming software platform that supports live collaborations, connecting the inspector to a remote subject matter expert for immediate assistance anywhere in the world through real-time video and advanced collaboration tools.





### IW Connect - Global vs. Local + Control

### Global - MVIQ live streaming from Product to PC (inspectionworks.com required)



#### Grey Handset – Only Global (Connect) Available

Live Stream Video and Live Chat from Product to PC



### Flame Handset – Both Global and Local + Control Available

- Live Stream Video and Live Chat from Product to PC
- Live Stream Video and Control the System from an IOS Device



### InspectionWorks – Connect, Global



#### Waygate Technologies Grey Handset

Inspection Works Connect Use SW rev. 3.19 or higher Inspection Works Connect is only supported when using the Chrome Browser



#### Waygate Technologies Flame Handset

Inspection Works Global & Local + Control Use SW rev. 3.60 or higher



### **IW – Checklist for Success**

- 1. Software updated?
- 2. Verify license
- 3. Wi-fi connectivity
- 4. Perform a network test
- 5. Browser/website
- 6. Start a session





### MViQ Handset - IW Connect, Global

Settings	∦ 🗢   4/6/2022 10:52 📭
About	Device Serial Number 1545A0350
System	Software Version 3.19.21200.1 (July 19, 2021)
Software Update	BIOS 6894F112
Screen & Display	Internal Drive - Space Available / Capacity 14.21GB / 14.44GB
Connectivity	Feature level
InspectionWorks	MVIQ-ADP
Image & Video	Purchased Upgrade MVIQ-PPM
Measurement & Annotation	Purchased Upgrade
Diagnostics	MVIQ-51 Development Hannato

Verify Grey Handset Software Revision is Updated: **3.19 or Higher** See Appendix A



Verify Flame Handset Software Revision is Updated: **3.60 or Higher** See Appendix B

Software Version 3.19/3.60 or Higher is Required for a Connect Session, Update Software now if Necessary.



### MViQ Handset – IW Connect, Global



Verify the license is activated and not expired.

### On product check please note:

- 1. Current unexpired license continue
- 2. Expired license double check by serial number

An active license is required to continue. Proceed when license is active.

The license expiration date will not be updated until the user successfully establishes a session.



### MViQ Handset – IW Connect, Global

Settings	* 🗢	3/30/2021 12:23 PM
About	USB Slave Mode	Mass Storage 🗸
System	Wi-Fi	OFF ON
Software Update	Bluetooth	OFF ON
Screen & Display	Wi-Fi Networks	Connect
Connectivity	Known Networks	Manage
InspectionWorks	Bluetooth Devices	Connect
Image & Video	Map Network Drive	Setup
Measurement & Annotation		Unmap
	Repair Connection	

### Connectivity – Wi-Fi ON, Network FOUND

#### Please Note:

- 1. Wi-Fi or Ethernet Connection Required
- 2. Public Guest Network or Hotspot Required



### MViQ Handset - IW Connect, Global

### **Network Test – On Product**



lings	Network Health	n Test		∦ 🗢   3/30/2021 12:24 PM 💶
	Ping	Received 100 %, avg 11 ms	Network Name	spot
	Download	18.84 Mbps	Security Type	WPA2PSK
	Upload	10.23 Mbps	Encryption Type	AES
	HTTPS	Passed	Hidden	False
	STUN	Passed	IP	10.172.6.109
			SN	255.255.255.0
			MAC	80:19:34:85:34:96
		Repair Connection	Test Again	



### IW Connect – Global

### Global – Start a Session

Live			≹ 🗢   3/9/2021 14:07 🖃
File Manager	Help	Settings	Shut Down
Record	Pause Recording	Profiles	Eject
InspectionWorks			
Connect	Insight		
*			

#### 1. Go to Global Menu and Select Connect



Flame Handset



**Grey Handset** 

			*	¢	3/9/2021	14:07	Þ
Start Session	Quality ∟ow auto	Settings					
	Learn More						

2. Select Start Session & Agree to Terms of Use (Grey Handset)



Select Start Global & Agree to Terms of Use (Flame Handset)



3. Make Record of Session Details: ID and Password

**Please Note:** Invite Soft Key for Email Invitation (Optional)

	7∕∕/ 🕴 🗢   3/9/2021 14:12 🔲
Session Details Provide this to the person you want	to join this session.
Session URL	www.inspectionworks.com/connect
Session ID	519031
Session Password	216 034
Minvite	✓ Ok



4. Invite remote experts (PC side) by Email via Invite Softkey or Send Session ID and Session Password via text or chat message for collaboration



#### InspectionWorks

#### Join a live Connect session

#### Hello geoff.carvey@bakerhughes.com,

You have been invited to the following InspectionWorks

#### Connect live session:

Topic:	InspectionWorks Connect live session
Date & Time :	Tue Apr 27 14:11:50 UTC 2021
Session ID:	859347
Password:	450874

Please click the following link to join your meeting: https://www.inspectionworks.com/connect/#!/? session=qcu7GW4zsNmzHBxsyMGAB% 2Bkdq09XjRZ6gRWbN3NvCNLFpBr2% 2BOeoSSAA1PblMnzn8AjbjJpTd1qxLSohAIUXmw%3D%3D

Note: InspectionWorks Connect currently supports the following web browser(s) for use in a live session: Google Chrome



#### 5. Go to <u>www.inspectionworks.com</u> (Chrome Browser Required)





### InspectionWorks Website

### **Perform Network Test – On PC**

S Waygate Technologies InspectionWa	rks			0			
InspectionWorks Connect			Activate A Network Test	U waygate rechnologies InspectionWo	rks		
			1 0	InspectionWorks Connect			Activate al Network Test
	Join a Live Session Your Name Session ID Session Password C a accept the Terms of Use Join Session	InspectionWorks Connect allows you to participate in live Inspections anywhere in the world through real-time video and advanced collaboration look. Delivering expertise where and whenever you need it.	/		Join a Live Session Vour Nome Session ID Session Possword D accept the Terms of Use Join Session	InspectionWorks Connect allows you to participate in five Inspections anywhere in the world through real-time video and advanced collaboration tools. Delivering expensise where and whenever you need it.	A stream (1704/s) × stream (normalis



- 6. Enter Name
- 7. Enter Session ID (no spaces)
- 8. Enter Session Password (no spaces)
- 9. Accept Terms of Use and Press Join Session

J	oin	a	Live	Sessi	or

IW CONNECT TEST

519031

Session Password

✓ I accept the Terms of Use

Join Session

InspectionWorks Connect allows you to participate in live inspections anywhere in the world through real-time video and advanced collaboration tools.

Delivering expertise where and whenever you need it.





# Wait for Connection - Verify Live Streaming





# Assistance - Technical Support

### For more assistance, please contact technical support.

A remote service case can be opened by: Phone – +1 866-243-2638

Email - remoteservice@bakerhughes.com

For more assistance, please see the appendices. Appendix A – Updating Software 3.19 or Higher (Grey) Appendix B – Updating Software 3.60 or Higher (Flame) Appendix C – IW Troubleshooting Guide



Settings		奈│ 3/24/2022 12:22 PM 💼
About	Check Automatically	OFF ON
System	Checking for update	Check Now
Software Update	Version 3.19.21200.1(July 19,2021) Your software is up to date.	
Screen & Display		
Connectivity		
InspectionWorks		
Image & Video		
Measurement & Annotation		
Diagnostics		

Settings		
About	Check Automatically	OFF ON
System	Available Update (Online)	Check Now
Software Update	€ Version 3.19.21200.1 Installed	Download
Connectivity		
InspectionWorks		
Image & Video		
Measurement & Annotation		
Diagnostics		





Appendix A

# **Grey Handset Software Update**

# ΟΤΑ

An Over The Air (OTA) Incremental update is supported on the system handset (grey) as long as the software revision is at 3.19 or higher.

Any issues updating the system software can be remedied by utilizing the best practice recommendations on the next slide.



#### Appendix A

Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions

#### Update Grey Handset Software Instructions:





#### Appendix A

Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions

#### Update Grey Handset Software Instructions: Store All Cultivacies AT MARKED INC. All Princh all Sta All All Modalities All Products Software (9) Mentor Visual IQ - Flame. Mentor Visual iQ - Gray ... Inspection Manager Mentor EM Mentor Create Mentor PC Mentor UT 3.50 20310.3 338,2025,21 3.40 220 43 3.4 3.4 Applications (24) Conductivity Weld with DGC Rotary Mode User Docs Weld Dual Frequency Phasec Mode Weld Mode 2.0 3.0 3.0 5.0 3.0 3.0 2.0 ))))) $\mathbf{m}$ Mentor DM User Documentingion. Dual Frequency Weld Inspection. 2.0 This workflow is for the inspectio... Basic Rotary Mode. This Workflow contains panels f. General purpose relative condu





#### Best practice recommendation Download full software update

# Go to InspectionWorks.com for full software package and instructions

Waygate Technologies InspectionWorks							
Store	Hentor Visual IQ - Gray Handset Store > Public > Device Softwares > Mentor Visual IQ - Gray Handset						
			Mentor Visual iQ - G Uploaded Date: 12/11/20 Modality: RVI Product: Mentor Visual Device Processor Type:	ray Handset 020 iQ Haswell	3.19.21200.1 Latest Version Release Date: 24/02/2022 Updated Date: 03/03/2022 Package Type: Full(No Dependencies)		<b>↓ Download</b> File Size (7.46 GB)
		Available Versions (5) Software Version 3.19.21200.1		Release Date 04/08/2021	Package Type	Dependent On 3.18.20252.1	Actions
		3.19.21200.1		24/02/2022	Full(No Dependencies)		





Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions





# Appendix A Follow MViQ Software Update Instructions

### Mentor Visual iQ software update instructions

Install this software update to get the latest features and functionality.

- 1. Ensure that the handset to be updated has a full battery charge or is plugged into AC power.
- 2. Plug the USB drive into the handset and power on the device.
- 3. Press the Menu button and select Settings.
- 4. Select the About screen and verify your current software version is not later than the version to which you would like to update.
- 5. On the Software Update screen select Install to begin the software update. If you wish to not start the software update then press the large Exit arrow (on/off button) to exit without upgrading.

Note—if Shut Down is selected, the upgrade can be attempted again at a later time.

- 6. Once the update completes, the Reboot button appears. At that point, it's safe to remove any USB drives and press Reboot.
- 7. The system will now reboot multiple times to finish the update process.

Note—The update has completed when the initial language selection or Live video screen is shown.

#### Special cases:

- 1. Update software indicates that a failure occurred during the update.
  - **a.** Verify that no errors occurred when copying the update file to the USB drive and press "Retry" to attempt the update again.
  - **b.** If the update fails multiple times, contact customer support.
- 2. Update is interrupted (due to e.g. power loss or removal of USB during update)
  - **a.** Attempt to perform the update again; the update software will attempt to resume the update.
  - **b.** An in-progress update must be completed before an update to a different version can be started.
  - **c.** Contact customer support if the handset does not boot or the update software indicates that the system is corrupted.

107M1213 Rev. C





#### File download

Please Note the Following Files from Software Download will need to be Copied to the Top Level of a Clean USB Drive.

EFI	File folder			
MViQ_Update_3.19.21200.1.pkg.000	000 File	4,117,425 KB	No	4,194,304 KB
MViQ_Update_3.19.21200.1.pkg.001	001 File	3,075,149 KB	No	3,076,102 KB





Settings	*	
About	Check Automatically	OFF ON
System	Available Update (Online)	Check Now
Software Update		
Screen & Display	Version 3.60.22042.10 Installed InspectionWorks (2037 MB)	Download
Connectivity		
Image & Video		
Analytics (Still)		
Analytics (Live)		
Measurement & Annotation		
Turning Tool		
InspectionWorks		



# Appendix B

# Flame Handset Software Update



An Over The Air (OTA) Incremental Update can be performed.

- System must be connected by Wi-Fi or Hot Spot (Flame only)
- Update is recognized and available for download.

Note: If current update is not identified please continue to best practice recommendations.



#### Appendix B

Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions

### Update Flame Handset Software Instructions:





#### Appendix B

Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions

#### **Update Flame Handset Software Instructions:** Store All March differ All Products All Products All All Modalities Software (9) Mentor Visual IQ - Flame. Mentor Visual iQ - Gray \_ Inspection Manager Mentor EM Mentor Create Montor PC Mentor UT 220 3.4 350,20310.3 3.18.20252.1 3.40 43 3.4 0 Applications (24) **Rotary Mode** Phasec Mode Weld Dual Frequency Weld Mode Weld with DGC User Docs Conductivity 3.0 3.0 2.0 3.0 3.0 5.0 2.0 <u>))))</u> )))))) 1)))) 2.0 Basic Rotary Mode Dual Frequency Weld Inspection. This Workflow contains panels f., This workflow is for the inspectio... Mentor EM User Documentation General purpose relative condu





#### Best practice recommendation Download full software update

# Go to InspectionWorks.com for full software package and instructions

<b>Waygate Technologies</b> InspectionWorks							
Store	← Mentor V Store → Public	Hentor Visual IQ - Flame Handset Store > Public > Device Softwares > Mentor Visual IQ - Flame Handset					
		Mentor Visual IQ - Flame Handset Uploaded Date: 13/11/2020 Modality: RVI Product: Mentor Visual iQ Device Processor Type: Skylake	3.60.22042.10 Latest Version Release Date: 22/02/2022 Updated Date: 31/03/2022 Package Type: Full(No Dependencies)	3.60.22042.10 Latest Version Release Date: 22/02/2022 Updated Date: 31/03/2022 Package Type: Full(No Dependencies)			
	Available Versions (S	9) Release Date	Package Type	Dependent On	Actions		
	3.60.22042.10	22/02/2022	Full(No Dependencies)		<u>ل</u>		
	3.60.22042.10	17/02/2022	Incremental (With Dependencies)	3.42.20267.1	$\checkmark$		





Best practice recommendation Download full software update Go to InspectionWorks.com for full software package and instructions





# Appendix B Follow MViQ Software Update Instructions

### MViQ Operating system update instructions for update via downloaded files to a thumb drive

For the **full** version upgrade, use this section. For incremental upgrade, use the next section.

- 1. Ensure that the handset to be upgraded has a full battery charge and is plugged into AC power.
- 2. Download the full upgrade version from InspectionWorks.com to a Windows PC.
- 3. Use Windows to unzip the full update file. There should be a folder called "EFI" and two files related to the version. These files should be copied to a 16GB or larger thumb drive. It's best to have no other files on the thumb drive.
- Plug the USB drive into a handset and power on the device while holding both trigger buttons on the underside of the Handset handle.

   The trigger buttons can be released once the Baker Hughes or Waygate logo appears on the screen. Note—If the trigger buttons aren't held firmly, the upgrade will not proceed. Please repeat Step 4.

- 5. The upgrade software will automatically search for upgrade files once it starts up. If no upgrade files found, select "Search Again," in combination with removing/inserting the upgrade drive or using a different USB upgrade device.
- The upgrade SW will not display the current system version. It will, however, display the upgrade SW version in the upper right. Press "Upgrade System" to begin the upgrade. Press "Shutdown" to exit without upgrading. Note—If "Shutdown" is selected the upgrade can be attempted again at a later time.
- 7. Once the upgrade completes, the "Reboot" button appears.a. At that point, it's safe to remove any USB drives.b. Press "Reboot."
- 8. The system will now reboot multiple times to finish the upgrade process.

Note—The upgrade has completed when the initial language selection or Live video screen is shown.



#### For the incremental upgrade use this section

- 1. Ensure that the handset to be upgraded has a full battery charge and is plugged into AC power.
- 2. Download the incremental upgrade version from InspectionWorks.com to a Windows PC.
- 3. Use Windows to unzip the incremental update file. There should be a "ivp" file related to the version. This file should be copied to an 8GB or larger thumb drive. It's best to have no other files on the thumb drive.
- 4. Plug the USB drive into a handset and power on the device. A message will be shown onscreen indicating an upgrade is available. Open the Main Menu and then select the Software Update screen.
- 5. On the Software Update screen select install to begin the software update. If you wish to not start the software update then press the large Exit arrow (on/off button) to exit without upgrading.
- 6. Once the update completes, the Reboot button appears. At that point, it's safe to remove any USB drives and press Reboot.
- 7. The system will now reboot multiple times to finish the update process.

#### **File download**

Please Note the Following Files from Software Download will need to be Copied to the Top Level of a Clean USB Drive.

EFI	File folder	
FeatureUpgrade.db	Data Base File	302 KB
MViQ_Update_3.60.22042.10.pkg.000	000 File	4,102,116 KB
MViQ_Update_3.60.22042.10.pkg.001	001 File	4,192,889 KB
MViQ_Update_3.60.22042.10.pkg.002	002 File	1,912,103 KB
server_version_info.txt	Text Document	1 KB



# Appendix C Troubleshooting IW Connect Expert Portal

There are a number of factors that can contribute to a users' inability to use the InspectionWorks Expert Portal. This troubleshooting guide will attempt to walk through the various scenarios with the intent of determining a root cause and ultimately a solution.

#### Using an incompatible operating system and browser

InspectionWorks will only work with the approved browsers and versions. To determine if the Expert is using an approved one, please ask the Expert which device, browser and OS version they are using, then compare this to the list of acceptable items provided below:

Devices	Operating Systems	Browsers	Minimum network bandwidth (download/upload)
MViQ – Gray 📀	Windows 10 Pro (1809)	Chrome (80.0.3987.149.80.0 3987.95)	Device – 2.4 Mbps/346 kbps, machine (browser) - 1/3 Mbps
MUT (3.4.0300.005) 🛛 📀	Windows 10 (1909) 🛛 🥑	Firefox (68.6.0)	
Older versions not supported for both of the above devices.	MacOS – High Sierra 🕜 (10.13.1)	Safari (12.1.1)	
	MacOS – Mojave (10.14.5)		
	Android (10.0)		
	IOS (iPhone) (13.3.1)		
	IOS (iPad) (12.4.5)		

Refer below links for detailed specification list: MViQ List – Click here | Mentor UT List – Click here



InspectionWorks Connect requires that the Expert be on a system that has Internet access and IP port 433 to be open through the firewall. There are a couple quick tests that can be performed to make sure the Experts system is properly connected to the Internet.

### **Connectivity test #1**

Have the Expert open a browser on their computer and browse to "https://www.inspectionworks.com." This should display InspectionWorks home page. If this does not work, try test #2. If this does work, try test #3.

### **Connectivity test #2**

Have the Expert open a DOS command window on this computer and enter the command "ping 8.8.8.8" or "ping 8.8.4.4." These are Google's DNS servers and are generally known to be available and reliable. If both test #1 and test #2 fail, chances are the computer is either not properly connected to the Internet, the connectivity is sporadic, or the network is behind a highly restrictive firewall. There is also a chance the system is behind a captive portal. If the ping succeeds, chances are there is a DNS issue which could be either unreachable DNS servers configured on the system, or DNS servers which have not cached the inspectionworks.com domain name.



Appendix C Suspect network connectivity

### **Connectivity Test #3**

To test network connectivity, there is a utility built into the Expert portal which will validate access to the InspectionWorks services. To run this test do the following:

- 1. Open an approved browser and go to www.inspectionworks.com
- 2. On the main page, click on the "Join Session" button
- 3. On Live Session login page, in the upper right-hand corner, click on the "Run Network Test" button. This will start a test suite which will perform a variety of tests against the InspectionWorks servers. The detailed output will look similar to:



If the "Run Network Test" fails, output will be:



If any of these tests fail, then it is likely the Expert will not be able to use InspectionWorks Connect. The customer should work with their local IT support to determine whether there are firewall or connectivity issues.



#### Appendix C

#### **Detecting a captive portal**

A captive portal is a firewall system that restricts the user from accessing Internet services until they have performed some type of access process. Commonly these are seen at hotels and coffee shops where public wifi access is provided. The system is allowed to connect to the local area network (LAN) but is unable to access Internet services until they open a browser and request access through a captive portal page.

If the Expert's system is behind a captive portal, they may or may not have detected this scenario. "If network connectivity seems to be functioning, then the quickest way to detect a captive portal restriction is to ask the expert to open a browser and try to connect to the internet. If the Expert is behind a captive portal, the access page should appear fairly quickly. If the Expert is shown the Waygate website without having to log into a captive portal, then other troubleshooting steps should be taken. If a captive portal is detected, ask the Expert to log into the portal and then perform **Connectivity Test #3** (see above).

#### Accessing a closed or full session

InspectionWorks currently provides the ability for one Expert to be in a session with an Inspector. If there is already an Expert in the session and another Expert tries to login, they will get a message stating the session is full and not accepting additional participants.

If the session has been closed, the Expert, upon entering in their login information, will get a message stating the login information is invalid. In this case the Expert should first validate the login information and retry the login, then contact the Inspector should the login fail again.

#### Incorrect session connection information

In the case where an Expert has provided incorrect login information, they will see a message stating that the login information is invalid. The Expert should then validate the login information, or if sent an email session invitation, click on the session link in the email which will auto populate the login information. The Expert can then check Terms of Use box and retry the login. If the Expert still cannot join the session, they should contact the Inspector who initiated the session.



