# DIGITAL SIGNAGE SOFTWARE



Android Media Player with HDMI Input Installation Guide BRZ-321 | Version 3.1



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## Resources

## Keywest Technology Support Department

Questions or issues can be submitted to the **Keywest Technology Technical Support** department via e-mail or through the helpdesk ticketing system.

#### **Contact information:**

- E-mail: tech@keywesttechnology.com
- Helpdesk: <u>helpdesk.keywesttechnology.com</u>

#### **Breeze Software Documentation**

#### **Quick Start Tutorials:**

helpdesk.keywesttechnology.com/portal/en/kb/articles/breeze-tutorials

#### Knowledgebase:

helpdesk.keywesttechnology.com/portal/en/kb/keywest-technology-inc/breeze

## **Breeze Architecture**

**Breeze** is a hybrid **SaaS** (Software-as-a-Service) product. A user accesses the **Breeze** server to upload and design new content, schedule and deploy content, manage players and more. Accessing the **Breeze** server with a web browser means access is reliant upon the local Internet connection.

**Breeze Players** are devices that sit behind screens and run the digital sign. The players rely on the local network and the Internet to communicate with the **Breeze** server. If the network connection between the server and players is interrupted or absent, the players are not able to receive updates from the server, such as changes in content, playlist, schedules and more.





# **Breeze Player Hardware**

#### **Player Accessories**

Your Breeze Player includes the following accessories:

- 12V power supply
- Wireless antenna
- HDMI<sup>®</sup> cable
- Mounting kit

If the player equipment you received did not include the accessories listed above, please notify the **Keywest Technology Technical Support** department.

#### **Physical Installation**

The player requires three connections to function at the most basic level: Internet, video output and power.



#### **Basic Connections**

- 1. Ethernet:
  - a. Connect an Ethernet cable to the port marked LAN (③) on the Breeze Player.
- 2. Video Output:
  - a. Connect the HDMI cable to the port marked **HDMI OUT** (@) on the **Breeze Player**.
  - b. Connect the other end of the HDMI cable to the monitor, television screen, or video distribution system.



#### 3. **Power:**

- a. Plug the power supply into the port marked **DC 12V** on the **Breeze Player** (1).
- b. Plug the other end of the power supply into an electrical outlet.

A wireless connection can be used instead of an Ethernet cable. Detailed information is provided in the **Wireless Connection** section on page 11.



## **Breeze Player Hardware**

## **Physical Installation**

An HDMI connection carries audio to the **Breeze Player** as part of the video signal. External speakers can provide audio when the screen or monitor connected to the player is not capable of audio output.

#### Audio Connection

- 4. Audio (Optional):
  - a. Connect external speakers to the audio port (④) on the Breeze Player.



#### Audio Volume

There are many places to alter the audio volume, from turning down the volume on the connected screen to muting a specific media item in a zone.

- Volume control for individual media items within a playlist is located in the **Breeze Editor Media Properties**
- Volume control for each zone, and all media in the zone, is located in the **Breeze Editor Zone Properties**
- Audio output volume control for the Breeze Player in the hardware device settings
- Audio output volume control of the attached screen or external speakers



## **Breeze Player Hardware**

### HDMI Input

The **BRZ-321** player model allows video input from an external source to be included as part of the content on the digital sign.



Video Input Connections

- 5. External Video Input:
  - a. Connect the HMDI cable from the external video source to the port marker HDMI IN (⑤) on the Breeze Player.
  - b. Connect another HDMI cable to the port marked HDMI OUT (66) on the Breeze player.
  - c. Connect the other end of the 2nd HDMI cable to the screen.





# **Breeze Player Hardware**

### **Audio Settings**

The audio output volume control is located in **Sound** settings of the **Breeze Player**. The next page provides steps to stop the **Breeze Player** software and access the hardware device settings.

Q Search settin	gs					
	()	Developer options			•	Network & Internet W-FL mobile, date unsee, hotspot
	[0]	Connected devices Biaetooth, Cast			Ð	Display
	4)	Sound			=	Storage 19% used-2511 GB free
	۵	Security password Disable				Log Do not store
		MDM TeamViewer Host, TeamViewer QuickSupport			中	Firmware update Update firmware insige from USB storage
	Ŧ	Remote APP upgrade URL Set the remote APP upgrade XML URL location.			10	Schedule Reboot 04:00
	Þ	Player settings Player settings			☆	Advanced settings Advanced settings
	Ð	Reset options Network, apps, or device can be reset			0	Date & time GMT+0010
	⊕	Languages & input Android Keyboard (AOSP)			6	About device BXP-321
			0	۵	0	

The Media volume controls the output of the Breeze Player content.

÷	Sound	đ				
	J	Media volume				•
	U	Alarm volume				
		Notification volume				· · · · · · · · · · · · · · · · · · ·
		Default notification sound GnTheHunt		•		
		Default alarm sound Alarm_Classic				
		Other sounds and vibrations Touch sounds				
			0	۵	0	Q)



## **Breeze Player Software**

#### Breeze Player Program

The **Breeze Player** software is the program responsible for running the digital sign. The **Breeze Player** program and the **Android Launcher** program must both be stopped in order to accomplish tasks such as altering device settings and verifying network connectivity.

To stop the **Breeze Player** program, you will need to physically connect a mouse and keyboard to the player device.



Stop and Start the Breeze Player

1. Click the right mouse button to exit the **Breeze Player** program. The **Android Launcher** dashboard is visible when the **Breeze Player** is stopped.

Content :	Configi com.keywest.breezeplayer2/.Main/	uration	
	Please enter URL starting with "http://", or "https://"	PPLAY (4 SEC)	
🕔 Date & time	击 Ethernet	🛜 Wi-Fi	💭 Settings
Time: 7:01 AM Date: 2022/02/04 Timezone: GMT-06:00	Status: Connected IP: 192.168.1.2 Mac: 18:65:71:9f:6d:a9	Status: Unconnected SSID: IP: Unavailable Mac: Unavailable	FW Ver: KW7_v1.0.2_d20200 Model: Breeze Player

2. Select **CANCEL AUTOPLAY** within 5 seconds or the **Android Launcher** automatically starts the **Breeze Player** again.

Various device settings can be verified and altered while the **Breeze Player** program and the **Android Launcher** program are stopped.



# **Breeze Player Software**

Stop and Start the Breeze Player

3. The **AUTOPLAY** timer restarts each time the **Android Launcher** dashboard is loaded. The **Breeze Player** is started each time the **AUTOPLAY** timer expires.

To restart the **Breeze Player** after selecting **CANCEL AUTOPLAY**, select the **PLAY** button.

	Config	uration	
Content :	com.keywest.breezeplayer2/.Main/	Activity	
	Please enter URL starting with <code>'http://*</code> , or <code>"https://*</code>		
	PL	AY	
🕔 Date & time	品 Ethernet	🧙 Wi-Fi	🗱 Settings
Time: 7:03 AM Date: 2022/02/04 Timezone: GMT-06:00	Status: Connected IP: 192.168.1.2 Mac: 18:65:71:9f:6d:a9	Status: Unconnected SSID: IP: Unavailable Mac: Unavailable	FW Ver: KW7_v1.0.2_d20200 Model: Breeze Player

*Note:* If the **Register Player** window appears instead, the player is not connected to a **Breeze** server. More information about this topic is provided in the **Breeze Server Communication** section on page 18.





# **Breeze Player Software**

### **Players Tool**

Playback of the demo schedule begins as soon as a player is provided with power and connected to a screen.



The **Players** tool is the interface between users and the **Breeze Players**, providing a central location to review and edit player information and operations. Each player registered to a **Breeze** server is represented by an icon in the **Players** tool.

Each player icon has a green or red indicator, signaling if the player is online with a glance. An update must be sent to the player via the **UPDATE PLAYER** button to load any changes to content, playlists, schedules, and player settings.



More information about the **Players** tool is provided in the <u>Breeze Quick Start Tutorial - Part II</u>.



## **Network Connections**

#### **Wireless Connection**

A wireless signal can be used to connect the **Breeze Player** to the Internet instead of an Ethernet cable.

Assign a Wireless Connection

- 1. Stop the Breeze Player and the Android Launcher.
- 2. Select Wi-Fi on the Android Launcher dashboard.

Content :	Config com.keywest.breezeplayer2/.Main/	uration	
	Please enter URL starting with "http://", or "http://"	AY	
Date & time Time: 7:06 AM Date: 2022/02/04 Timezone: GMT-06:00	Ethernet Status: Connected IP: 192.168.1.2 Mac: 18:65:71:9f:6d:a9	Status: Unconnected SSID: IP: Unavailable Mac: Unavailable	<b>Settings</b> FW Ver: KW7_v1.0.2_d20200 Model: Breeze Player

3. Available wireless networks are listed in **Wi-Fi** menu. If no wireless networks are shown, **Wi-Fi** may need enabled using the toggle switch at the right.

Wi-Fi						
On						•
•	Chuck Nomis					â
•	Lehcar					ŵ
$\mathbf{v}$	Jack					ŵ
•	tommygun10					â
+	Add network					
	Wi-Fi preferences					
		0	⊲	0	<b>(</b> )	



# **Network Connections**

Assign a Wireless Connection

4. Select the wireless network to connect to by clicking on it. If the network is secured, a window opens to obtain the password.

Wi-Fi										
On										•
•	Chuck Norris									ê
•	Lehcar									â
$\overline{\mathbf{v}}$	Jack									ê
	tommygun10									ê
+	Add network	Chuck Norris								
	Wi-Fi preferences	Password								
		the password Advanced options					CANCEL	CONNECT		
			4	۵	0	0				

 A label below the network name in Wi-Fi menu displays the connection status. The network status processes several stages during the first connection to a new network: Authenticating... Obtaining IP address... and finally Connected.

If an **Ethernet** connection is active, the network label is **Saved**. The **Wi-Fi** connection must be active to see the connection status.

Wi-Fi						
On						•
•	Chuck Norris Connected			k		â
•	Lehcar					â
$\overline{\mathbf{v}}$	Jack					â
$\overline{\nabla}$	tommygun10					â
+	Add network					
	Wi-Fi preferences					
	Saved networks 1 network					
	c	)	۵	0	C))	



# **Network Connections**

Assign a Wireless Connection

6. Click **Escape** on the keyboard to exit **Settings**. The **Wireless** connection can be verified via the **Wi-Fi** button on the **Android Launcher** dashboard.



7. Restart the **Breeze Player** by clicking on the **PLAY** button or wait for the **AUTOPLAY** timer to expire and the **Android Launcher** to start the **Breeze Player** program.





## **Network Connections**

Out of the box, a **Breeze Player** device is configured to use DHCP. DHCP is a network protocol that automatically obtains an IP address for the player device after physical installation is complete. If the player device does not receive an IP address automatically, please contact your network administrator or IT technician.

#### Static IP Address

A static IP address can be configured for a wired or wireless connection. Please contact your network administrator to be assigned an open static IP address for each player.

#### Assign a Static IP Address

- 1. Stop the Breeze Player and the Android Launcher.
- 2. Select Ethernet on the Android Launcher dashboard.

Content :	Config com.keywest.breezeplayer2/.Main Please enter URL starting with "http://", or "https:// Pl	uration Activity	
Date & time Time: 7:16 AM Date: 2022/02/04 Timezone: GMT-06:00	<b>몸 Ethernet</b> Status: Connected IP: 192.168.1.2 Mac: 18:65:71:9f:6d:a9	Status: Unconnected SSID: IP: Unavailable Mac: Unavailable	C Settings FW Ver: KW7_v1.0.2_d20200 Model: Breeze Player

3. Select Ethernet Ip mode in Ethernet menu.

Ethernet				
On				۲
IP address 192.168.1.7				
netmask 255.255.255.0				
gateway 192.168.1.250				
dns1 192.168.1.250				
dns2 0.0.0.0				
Ethernet ip mode chop				
Security Ethemet security with 802.1x authentication				
802.1x settings				
	0	0		



## **Network Connections**

#### Assign a Static IP Address

4. In the **Ethernet Ip mode** window, **dhcp** is selected by default. Select the **static** radio button instead.

Etherr	et								
On									
	IP address 192.168.1.7								
	netmask 255.255.255.0								
	gateway 192.168.1.250								
	dns1 192.168.1.250								
	dns2 0.0.0	Ethernet Ip mode							
	Ethemet ip mode chop	static dhcp							
								•	
			4	۵	0	0			

5. The **Ethernet** window appears after **static** is selected. Enter the appropriate network information in the fields. It is highly recommended to obtain a static IP and other network addresses from your network administrator.

Etherr	net											
On											۲	
	IP address 192.168.1.7											
	netmask 255.255.255.0											
	gateway 192.168.1.250	Ethernet IP address										
	dns1 192.168.1.250	192.168.1.252 Gateway										
	dns2 0.0.0	192.168.1.250 netmask										
	Ethemet Ip mode dhcp	255.255.255.0 DNS 1										
		192.168.1.250									•	
		0.0.0.0										
		_	-	-	-	-	-	CANCEL	CONNECT			
			4	⊲	0		0					



# **Network Connections**

Assign a Static IP Address

6. Click **Escape** on the keyboard to exit **Settings**. The static ip address assigned to the connection can be verified in the **Ethernet** button on the **Android Launcher** dashboard.

	Config	uration	
Content :	com.keywest.breezeplayer2/.Main.	Activity	
	Please enter URL starting with "http://*, or "https://*		
	Verify Static Address	AY	
Date & time Time: 7:21 AM Date: 2022/02/04 Timezone: GMT-06:00	R: 192.168.1.252 Mac: 18:65:71:9f:6d:a9	<b>Stup:</b> Status: Unconnected SSID: IP: Unavailable Mac: Unavailable	<b>EXAMPLE Settings</b> FW Ver: KW7_v1.0.2_d20200 Model: Breeze Player

7. Restart the **Breeze Player** by clicking on the **PLAY** button or wait for the **AUTOPLAY** timer to expire and the **Android Launcher** to start the **Breeze Player** program.

There are a myriad of IT methods that can be applied to truly complicate connections (such as virtual private networks, host files, and aliasing). It is best to work cooperatively with the IT department to ensure smooth operations.



## **Network Connections**

## **Confirm Connectivity**

The Breeze Player must be connected to the Internet with either Ethernet or Wi-Fi. Connectivity is verified on the Android Launcher dashboard via the Ethernet Status or Wi-Fi Status.



When both the **Ethernet Status** and the **Wi-Fi Status** are "Unconnected," the **Breeze Player** is offline and unable to receive updates from the server.



Updates from the server include changes in content, playlists, schedules and more. Players can run offline with cached information for many days or sometimes even weeks before a lack of internet connection begins to affect playback.



## **Network Connections**

#### **Breeze Server Communication**

A player's registration is the method by which a **Breeze Player** connects to a **Breeze** server. Players must be connected to the Internet and registered to communicate with a server.

Players are pre-registered to a server in the **Keywest Technology Production** department before shipping. However, if a player is deleted in the **Players** tool, the player must be registered to the **Breeze** server again. While a player is unregistered, the **Register Player** window opens any time the **Breeze Player** software is started.

Register Player
If you already have an existing account, fill out the form below to connect this player to your server.
Name
Player Name
Username
Username
Password
Password
Subdomain
demo
Register

**Name** is the label for the player icon in the **Players** tool. It is usually helpful to name a player according to its location, especially when managing multiple players.

Username and Password correspond to a set of credentials used to login to the Breeze server.

The **Subdomain** field requires the subdomain of the **Breeze** server. A **Breeze** server with a web address of <u>https://training.breezedigitalsignage.com</u> has a subdomain of "training." A user should type "training" in the **Subdomain** field of the **Register Player** window.





## **Network Connections**

#### **Breeze Server Communication**

Once a user has gathered the necessary information, registering a **Breeze Player** is simply a matter of entering the correct information in the fields while the player is connected to the Internet.

A newly registered player must be assigned content! The player will continue to display a black screen, or "None," until a user selects a schedule for the player.

Register Player
If you already have an existing account, fill out the form below to connect this player to your server.
Name
RC Elevators
Username
keywest
Password
Subdomain
training
Register

Register a Breeze Player

- 1. Enter a label for the player in the Name field.
- 2. Enter credentials used to login to the **Breeze** server in the **Username** and **Password** fields.
- 3. Subdomain is the subdomain of the Breeze server, detailed on the previous page.
- 4. Select the **REGISTER** button.
- 5. Confirm an icon for the player is present in the **Players** tool of the **Breeze** server.

Select the player icon, choose a **Schedule** and click on the **UPDATE PLAYER** button to deliver content to the player!





# **Resolution & Screen Settings**

Resolution is the number of pixels a screen can display in each direction. The correct resolution is a critical factor in achieving great-looking digital signage!

The HDMI menu offers three settings that affect **Breeze Player** content: HDMI Resolution, Screen **Zoom** and HDMI Rotation.

#### **Screen Resolution**

Screens possess two sets of width and height measurements: physical and digital. While most people are familiar with physical screen sizes, like 60 inches, screens also possess a digital size measurement known as <u>display resolution</u>.

The resolution of a screen is the number of pixels the screen can display in each direction. A pixel is the smallest unit of measure for digital graphics. Numerous pixels combine together to create the "picture" displayed on a screen.



New playlists should be created in dimensions matching the resolution of the screen connected to the player. The playlist resolution is entered in the **Screen Units** fields of the **New Playlist** window.

More information about the New Playlist window is provided in Breeze Quick Start Tutorial - Part I.



## **Resolution & Screen Settings**

#### **Screen Resolution**

Supported screen resolutions are automatically detected by the **Android** operating system and can be found in the **HDMI** menu settings.

Locate Supported Screen Resolutions

- 1. Stop the Breeze Player and the Android Launcher.
- 2. Select **Settings** on the **Android Launcher** dashboard.

Content :	Config com.keywest.breezeplayer2/.Main/	uration Activity	
	Please enter URL starting with "http://", or "https://"		
		AY	
<b>Date &amp; time</b>	Status: Connected	Status: Unconnected	EW Ver: KW7 v1.0.2 d20200
Date: 2022/02/04 Timezone: GMT-06:00	IP: 192.168.1.2 Mac: 18:65:71:9f:6d:a9	SSID: IP: Unavailable Mac: Unavailable	Model: Breeze Player

3. Select **Display** from the **Settings** menu.

Q Search settings				
0	Developer options		•	Network & Internet W-FL mobile, data unspe, hotspot
[40	Connected devices Biketooth, Cast		Ð	Display
4)	Sound		≡	Storage 19% used - 25.91 GB free
8	Security password Disable		8	Log Do not store
	MDM TeamViewer Host, TeamViewer QuickSupport		¢þ	Firmware update Update firmware image from USB storage
<u>*</u>	Remote APP upgrade URL. Set the remote APP upgrade XML URL location.		${}^{\textcircled{0}}$	Schedule Reboot 0400
•	Player settings Player settings		☆	Advanced settings Advanced settings
4	Reset options Network, apps, or device can be reset		0	Date & time GMT+00.00
•	Languages & input Android Keyboard (AOSP)		(j)	About device BXP-321
	¢	4	0	<b>О</b> Ф



## **Resolution & Screen Settings**

Locate Supported Screen Resolutions

4. Select **HDMI** in the **Display** menu.

÷	Display	
	Font size Default	
	Display size Default	
	HDMI	
	D 4	0 🗆 🗘

5. Select HDMI Resolution from the HDMI menu.

The supported resolutions for the screen connected to the player are listed in **HDMI** window. The first two digits are the resolution (width x height) in pixels and the third digit represents frame rate.

HDN	VI Resolution
٢	Auto
0	1920x1080p60.00-0
0	1920x1080p50.00-4
0	1280x720p60.00-13
0	1280x720p50.00-15

**Auto** allows the player device to automatically select the native resolution of the attached screen. The native screen resolution is typically the highest resolution a screen can support.

6. Record the current resolution or select a new resolution.

The new resolution is applied to the screen immediately and must be saved to be retained. If the timer expires before OK is selected, the previous resolution is restored.

Save Confirm Will cancel it 9s		
	CANCEL	ok

 Click Escape on the keyboard to exit Settings. Restart the Breeze Player by clicking on the PLAY button or wait for the AUTOPLAY timer to expire and the Android Launcher to start the Breeze Player program.



# **Resolution & Screen Settings**

#### Screen Zoom

Another helpful setting in the **HDMI** menu is the **Screen Zoom**. This tool corrects overscanning or underscanning produced between the player and the screen. Underscan occurs when the video signal does not fill the screen.



Underscanning can be corrected in the **Screen Zoom** control, by clicking on the arrow buttons to increase the width and height of the video signal.



The **Screen Zoom** control is located in the **HDMI** menu. Steps 1-4 in the **Screen Resolution** section on page 21 provide access to the **HDMI** menu.

Overscan is the opposite effect, with a video signal that overfills the screen and is cut off at the edges. A similar process is used to correct overscan by clicking on the arrow buttons to decrease the width and height of the video signal.





## **Resolution & Screen Settings**

#### **Screen Orientation**

Screen Orientation typically refers to two possible layouts: Landscape or Portrait.



While less common than **Landscape** mode, **Portrait** mode is highly desirable for certain scenarios, such as large interactive kiosks.



Screen Orientation is altered in the HDMI Rotation menu, rotating the screen in 90 degree intervals.

**Configure Portrait Mode** 

- 1. Stop the **Breeze Player** and the **Android Launcher**.
- 2. Select Settings on the Android Launcher dashboard.
- 3. Select **Display** in the **Device** menu. Select **HDMI** in the **Display** menu and **Screen Orientation** in the **HDMI** menu.
- 4. Select the 90 radio button. If the screen is upside down, select 270 instead.

Scre	een Orientation
۲	0 degree
0	90 degree
0	180 degree
0	270 degree

 Click Escape on the keyboard to exit Settings. Restart the Breeze Player by clicking on the PLAY button or wait for the AUTOPLAY timer to expire and the Android Launcher to start the Breeze Player program.