

Manufacturer:	ICRealtime	
Model Number(s):	DVR-FLEX4E, DVR-FLEX8E, DVR-FLEX16E	
Core Module Version:	6.5.219	
Required ICRealtime Firmware:	DVR V1.0 (Single Ethernet Port): System Version 2.610.KL05.0 DVR V2.0 (Dual Ethernet Ports): System Version 2.616.KL05.0	
Document Revision Date:	06/25/2014	

OVERVIEW AND SUPPORTED FEATURES

The ICRealtime Flex Series of DVRs are network-enabled DVR that supports the connection of 4, 8, or 16 analog cameras. The DVR Connects to the g! Controller via Ethernet to provide communications, enabling live video, and control from the g! system.

THE FOLLOWING FEATURES ARE SUPPORTED:

Video Streams: Each of the connected cameras is available as a Video Camera/Source in the g! system for live video streaming.

Basic Control: The ICRealtime Flex DVR OSD is controllable via g! Keypads and the ICRealtime OSD with a built in one-way IP driver and interface. This interface is assignable as a source on any zone controller on the Media tab.

THE FOLLOWING FEATURES ARE NOT SUPPORTED:

Recorded Video: Video output from the ICRealtime Flex DVR is not available in the g! Viewer.

PTZ: Pan / tilt / zoom features are not available for video cameras connected to the ICRealtime Flex DVR.

Any feature not specifically noted as supported should be assumed to be unsupported.

INSTALLATION OVERVIEW

Installing the ICRealtime Flex DVR can be broken down into the following steps:

- 1. During the rough-in phase install the necessary power, A/V, and network cabling for the ICRealtime Flex DVR and Cameras
- 2. Also during the rough-in phase, run a Cat5 wire from the location of the DVR back to the Router to provide the Ethernet connection needed to control the DVR.
- 3. Install the DVR and Cameras.
- 4. Test the DVR and Cameras independently of the g! system to ensure proper operation of the DVR and Cameras.
- 5. Configure the g! system for the DVR. This step is outlined in g! Configuration Details.
- 6. Test the system.

DVR-FLEX4E, DVR-FLEX8E, DVR-FLEX16E CONFIGURATION

In addition to normal ICRealtime Flex setup procedures, it is required to set the Flex DVR devices to static IP addresses for reliable communications. To set a DVR to a static IP address, use the front panel or attached mouse to navigate the on screen interface:

- 1. Click with the mouse anywhere on the display to bring up the menu.
- 2. Navigate to Setting -> Network.
- 3. In Network, deselect the DHCP Checkbox
- 4. Select IP ADDRESS and enter an available static IP address. Typically the first IP Video device is set to 192.168.0.80, the second to 192.168.0.81, and so on.
- 5. Select SUBNET MASK and set to 255.255.255.000
- 6. Set the DEFAULT GATEWAY and DNS SERVER (PRIMARY) to the router IP address. By default, 192.168.000.001.
- 7. Click Save to save settings and get back to the General Menu screen.

When displaying live video from the ICRealtime Flex DVRs, the g! system will use the DVR's "Extra Stream". This stream must be configured to use MJPEG, and made available for each camera channel being used:

To enable the Second Stream (Must be done for each channel being used):

- 1. Click with the mouse anywhere on the display to bring up the menu.
- 2. Navigate to Setting -> Encode
- 3. Select the Channel you are attempting to configure
- 4. Under "Extra Stream1", set the Compression to MJPEG

On slower networks there can be occasional issues rendering the video feeds from the ICRealtime Flex DVRs. In order to alleviate this, the Resolution, Frame Rate(FPS), Bit Rate Type, and Bit Rate settings may need to be adjusted:

To adjust Resolution, Frame Rate(FPS), Bit Rate Type, and Bit Rate:

- 1. Click with the mouse anywhere on the display to bring up the menu.
- 2. Navigate to Setting -> Encode
- 3. Adjust Resolution, Frame Rate(FPS), Bit Rate Type, and Bit Rate according to your network needs.

For detailed information on Resolution, Frame Rate(FPS), Bit Rate Type, and Bit Rate settings and their impact on the DVR, please refer to the ICRealtime DVR documentation.

The ICRealtime Flex DVRs require an always logged in account to facilitate the use of its OSD. There are 2 alternatives to configuring access:

Configuring the default user's permissions. This will give you unprompted access to basic functionality, such as Status, Monitor, and Playback:

- 1. Click with the mouse anywhere on the display to bring up the menu.
- 2. Navigate to Advanced.-> Account.
- 3. Select the Default User (default) and click Modify User
- 4. Under the permissions, ensure that all available Authorities are selected
- 5. Click Save.

Configuring an always logged in Admin. This will give you unprompted access to all DVR functionality.

- 1. Click with the mouse anywhere on the display to bring up the menu.
- 2. Navigate to Settings.
- 3. Log in as Admin.
- 4. In Settings, navigate to General.
- 5. Set Auto Logout to 0 Minutes (prevent Auto Logout) and click OK
- 6. Navigate to Advanced -> Auto Maintain
- 7. Set Auto-Reboot System to Never
- 8. Click Save.

IMPORTANT: If the ICRealtime Flex DVR is shut down or forcibly logged off, the Default User's permissions will allow basic operation of the DVR through the g! interface. You must go to the DVR to log in the Admin user to get full functionality of the device through the g! interface.

CONNECTION DIAGRAM



BILL OF MATERIALS

#	Device	M anufacturer	Part Number	Protocol	Connector Type	Notes
1	ICRealtime DVR	ICRealtime	Flex/ElitexE DVR	Ethernet	RJ-45	
2	Cat 5 Cable Assy	Installer	N/A	Ethernet	RJ-45 M ale X RJ-45 M ale	
3	Switch/Router	Various	Various	Ethernet	RJ-45	
4	g! System Controller	ELAN	Various (e.g. HC12)	Ethernet	RJ-45	

g! CONFIGURATION DETAILS

The following table provides settings used in the **g!** Configurator. Please refer to the *g!* Configurator Reference Guide for more details.

- "<User Defined>", etc. Type in the desired name for the item.
- "<Auto Detect >", etc.
- The system will auto detect this variable.

Variable Name	Setting	Comments
Name	<user defined=""> (Default: ICRealtime Flex/Elite)</user>	
Туре	Ethernet	
Communication Type	ICRealtime DVR-FLEXxE	
User Name	<user defined=""> (Default: admin)</user>	
Password	<user defined=""> (Default: admin)</user>	
IP Address	<user defined=""></user>	Typically 192.168.0.80 for the first video device, 192.168.0.81 for the second, and so on.
Port	<user defined=""> (Default: 80)</user>	
Name	<user defined=""></user>	This device auto populates with the Communication Device on the Video Tab.
Device Type	<select></select>	
COM Device	<select> (Default: ICRealtime DVR FLEXxE)</select>	
Enable DVR	<select> (Default: No)</select>	
Has Audio	<select> (Default: No)</select>	
Flip Image 180	<select> (Default: No)</select>	
Hide Resolution Control	<select> (Default: No)</select>	
Hide Full Screen Control	<select> (Default: No)</select>	
Default Resolution	<select> (Default: None)</select>	
Record Resolution	<select> (Default: <don't change="">) (See Note 1)</don't></select>	
Record Mode	<select> (Default: Auto (Medium Sensitivity)) (See Note 1)</select>	
Name	<user defined=""></user>	
Device Type	ICRealtime DVR-FLEXxE	This device auto populates with the Communication Device on the Video Tab.
User Name	<user defined=""></user>	
Password	<user defined=""></user>	
IP Address	<user defined=""></user>	
Port	<user defined=""></user>	
Interface Name	<user defined=""></user>	
Layout Template	SnapAV	
Connect to Existing	<select from="" list=""> SnapAV WPS-300-DVR</select>	Two-Way Device Described above

1. Refer to the DVR integration note for details. Typically the g! DVR is not used with ICRealtime DVR.

g! CONFIGURATION STEPS

CREATE DVR INSTANCE

1. Under Video tab/Communication Devices, select Add New Communication Device.

System	Global Options		
Security	+ 🍯 Video Cameras/Sources	Add Ne	w Communication Device
Climate			
Lighting			
Content			
Media			
Video			

Add New Communication Dev	ice	
Device Name IC Rea	altime DVR-FLEX16E	Show Unsupported Devices
Communication Type		Hardware Type
Name AvioSys IP Video 9100B Generic Serial IC Realtime DVR-FLEX16E IC Realtime DVR-FLEX4E IC Realtime DVR-FLEX8E SnapAV WPS-300-DVR-160	Version 6.5 Build 218.0 Rel 6.5 Build 218.0 Rel 6.5 Build 218.0 Rel 6.5 Build 218.0 Rel 6.5 Build 218.0 Rel CH 6.5 Build 218.0 Rel	Etnemet
SnapAV WPS-300-DVR-9Cl Standard Connection	H 6.5 Build 218.0 Rel 6.5 Build 218.0 Rel	
Device	<u></u>	Cancel OK

2. Configure the ICRealtime DVR Communication device as Hardware Type: Ethernet

- 3. On the Video tab, the correct number of cameras for the DVR model chosen will automatically populate as **Video Cameras/Sources**.
- 4. On the Media tab, a DVR Player Two-Way Device will automatically populate.

CREATE ONE-WAY DRIVER

1. On the Media tab under One-Way Devices, select Add New Source.

System	+ 😴 Communication Devices	
Security	One-Way Devices One-Way Devices The Controllers	Add New Video Display
Climate	+ Interface Templates	Add New Source
Lighting	Interface Groups	Import New IR Interface from File
Content		
Media		

2. Select the **ICRealtime** template and connect to **ICRealtime DVR-FLEXxE** automatically added by populating the DVR Communication Device on the Video Tab.

Add New Interface	
Interface Name Copy Layout from template	New Source
Connect to Existing Device Create New IR Device Create New Serial Device	IC Realtime DVR-FLEXxE ▼ < NONE >
	Cancel OK

3. Finally, add the source to the desired zone controller input as normal and arrange the appropriate selections to manage your Display source to select the ICRealtime DVR monitor out for one-way control from the g! Viewer.



COMMON MISTAKES

- 1. No Video: Check to ensure that the "Extra Stream" has been configured to use MJPEG rather than H.264.
- 2. Unable to Navigate: Make sure the Default User and Admin Users permissions are set according to the Configuration Section of this document.
- Slow or Choppy video can be experienced on a slow network or with a large number of Viewers streaming video attached to the system. This can be alleviated by adjusting the DVR's Resolution, Frame Rate(FPS), Bit Rate Type, and Bit Rate settings, as detailed in the ICRealtime DVR-FLEXXE Configuration section of this document
- 4. No control of the device: Check which ICRealtime hardware you have and make sure the appropriate ICRealtime firmware is installed on it. See Firmware revisions at the top of the document.