

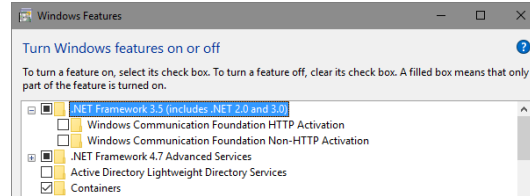
Instructions for setup the image acquiring station with GENESIS and Perkin Elmer

1 System requirements

- Hardware general:
 - o Intel-compatible multi-core processor (> 2 GHz)
 - o RAM > 4 GB
 - o Free gigabit LAN adapter
 - o XRPad detector
 - o Trigger cable (optional)
- Hardware wired installation
 - o XRPad IPU (interface & power unit)
 - o AC power cord
 - o Master data cable
 - o Gigabit LAN cable
- Additional hardware wireless installation
 - o XRPad LBP (Lithium Battery Pack), 95510920H or 95510920H-01
 - o XRPad LBC (Lithium Battery Charger)
 - o Separate WLAN router
 - WPA2 encryption protocol
 - 802.11n MIMO 3x3.
 - Compliance with the standard IEC 60601-1 or IEC 60950-1.
 - o Gigabit LAN cable
- Software:
 - o Windows 7 32bit/64bit
 - o digipaX from version 1.4.13
 - o XIS software from version 3.3.2.3
 - o Firewall must allow connections between the components

2 Installation

- Turn on Windows-Feature „.NET Framework 3.5 resp. 3.5.1“ if not installed
 - o execute command „OptionalFeatures“
 - o only checkmark „.NET Framework“



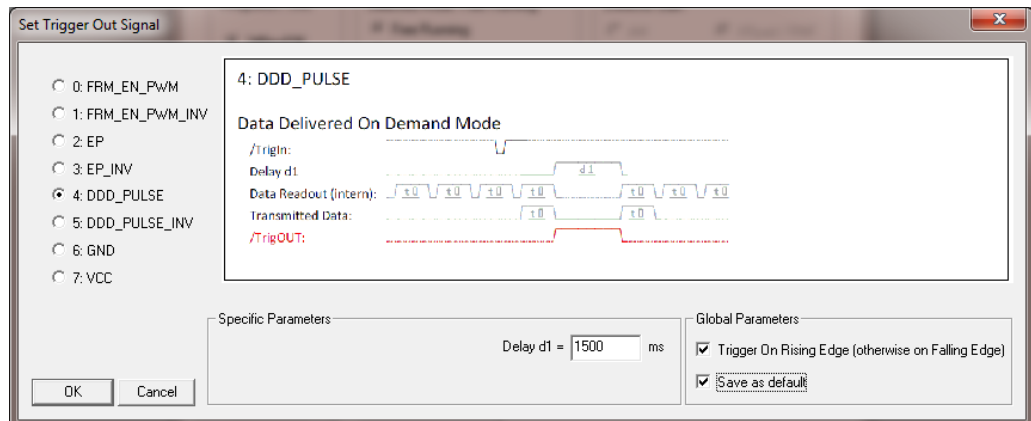
- Install digipaX
 - o Install the packet „vcredist_x86.exe“ from the digipaX installation directory (as administrator)
- Generate Body with Procedure Codes for devices GENESIS & digipaX
- Install MySQL if needed
 - o Run Instance Configuration Wizard
 - o Username = root / Password = root
- Install image archive if needed
 - o Configure the archive
 - o Set the data path
 - o Create the database / re-init the database
 - o Configure the AE title, port, stations' list
 - o Configure the archive in digipaX
- Install worklist if needed
 - o Run the Batch as Administrator
 - o Configure the worklist in digipaX
 - Choose the share path
 - Set the AE title and the port
- Install the software for the generator
 - o Configure the position of the user interface on the screen
- Set the network address 192.168.2.2 / mask 255.255.255.0 (separate network card for XRpad)
- Install the XIS software
 - o The software is in the digipaX installation package in the folder tools (PE-INST_3-3-2-3.zip) – activate all options
- Configure Firewall
 - o Allow software XIS (C:\XIS\Program\XIS.exe)
- Connect the panel in the wired mode
 - o Separate gigabit LAN connection required (possibly install an additional network card)
 - o Connect IPU
 - Power cord
 - Master data cable to XRpad
 - Ethernet cable to gigabit LAN
 - Connect the trigger cable (optional)
 - Switch on IPU (AC input LED must turn green and DC output LED yellow)
 - Switch on XRpad / hold the power button on the detector or IPU pressed for 2 seconds till the DC output LED on IPU turns green

- Configure the network
 - The XRpad address is 192.168.2.158 / mask 255.255.255.0 by default
 - Set the gigabit LAN address on 192.168.2.2 / mask 255.255.255.0
- Configure XRpad
 - Open in the browser URL 192.168.2.158 / Username = admin / Password = PerkinElmer
 - Check if the image transfer is switched on LAN, change it if needed / confirm with Apply
- Test the network
 - Ping in the in the commandline 192.168.2.158 / a reply must come (change firewall settings if needed)
 - Test with XIS
- Change the panel over to wireless mode (with external router) -> **XRpad 4336 WiFi only**
 - XRpad must priorly be connected in the wired mode (see above)
 - Recommended router requirements
 - Dual band 2.4 GHz/5G Hz
 - Full 3x3 MIMO antenna connection
 - Speed minimum 450 MBs at 5 GHz
 - WPA2 encryption protocol
 - Configure XRpad for WLAN
 - Put the battery in XRpad
 - Open in the browser URL 192.168.2.158 / Username = admin / Password = PerkinElmer
 - WLAN Type = Station
 - WLAN Mode = Manual
 - WLAN IP Address = 192.168.22.1 / mask 255.255.255.0
 - leave blank the gateway
 - leave blank the nameserver
 - WLAN Description = XPad_Router
 - WLAN SSID = SSID of the router (refer to the documentation of the router)
 - WPA2 Password = WLAN access password of the router (please refer to the documentation of the router)
 - Repeat WPA2 password
 - Check if the image transfer is switched on LAN, change it if needed / confirm with Apply
 - Prepare the router
 - Connect the router to gigabit LAN
 - Read in the documentation of the router how to establish connection to the router and how to configure the router
 - Therefore, the IP address of the gigabit LAN connection needs to be temporarily adjusted if needed (optionally you can also use another network connection)
 - When the connection to the router is established:
 - Configure the router as the Access Point
 - Activate the WPA2 encryption protocol
 - Check the SSID and WLAN access password (both must be the same as in XRpad)
 - Finally set the IP address of the router on 192.168.22.3 / mask 255.255.255.0 and restart the router
 - Set the IP address of gigabit LAN connection on 192.168.22.2, and connect the router there (if it is connected to another connection at the moment)
 - Put the battery in XRpad
 - Remove detector cable (between detector and IPU)
 - Test the network
 - Ping in the in the commandline 192.168.22.3 / a reply must come (change firewall settings if needed)
 - Ping in the in the commandline 192.168.22.1 / a reply must come (change firewall settings if needed)
 - Test with XIS

- Configuration of the license in digipaX
 - o Enable the module „X-ray image acquisition“
 - o Enable the module „Perkin Elmer XRpad“
 - o Enable the module „Image filter (post-processing)“

- Connecting devices
 - o Generator GENESIS
 - Direct connection
 - Set the transfer directory „pub“ (in the installation folder Generator)
 - Set the tag for Procedure Code „Requested Procedure ID“
 - Activate sending the Procedure Codes using the button for image acquisition (pool the buttons for image acquisition)
 - o Detector Perkin Elmer
 - Set the tag for Procedure Code „Scheduled Procedure Step Code Meaning“
 - Also activate the image crop if needed
 - If using stationary grid, enable the option for grid suppression and enter the resolution of the grid or the grids used
 - o Set both tags also on the card for job management according to the position of the Procedure Codes in the organ chart

- If using external trigger than check or update settings
 - o Start XIS-Software starten and init detector
 - o Menu: Options / Detector Options
 - o Buttonr „Select / TrigOut Signal“
 - o Set configuration according to used generator for GENESIS-Generator:



- Activate the patient management card (User::User interface)
- Restart digipaX
- Run calibration of the detector according to the manual
- Set the symbol for acquisition button in digipaX (User::Image acquisition; file BodyGenX\Symbols\Xray02.png)

3 Router settings

3.1 D-Link DAP-1665

Overview IP addresses:

Wired:

LAN = 192.168.2.2 / 255.255.255.0

IPU = 192.168.2.158 / 255.255.255.0

WLAN:

LAN = 192.168.22.2 / 255.255.255.0

Router = 192.168.22.3 / 255.255.255.0

XRpad = 192.168.22.1 / 255.255.255.0

Router configurations:

ATTENTION! Notice upper and lower cases in router and XRpad settings for the network names (SSID) and WPA keys.

Settings older firmware

DAP-1665 // AP	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
SETUP WIZARD WIRELESS SETUP LAN SETUP	<div style="background-color: #f08080; padding: 5px;">WIRELESS NETWORK</div> <p>Use this section to configure the wireless settings for your D-Link Access Point. Please note that changes made on this section may also need to be duplicated on your wireless client.</p> <p>Save Settings Don't Save Settings</p> <p>WIRELESS MODE :</p> <p>Wireless Mode : Access Point Site Survey</p> <p>2.4GHZ WIRELESS NETWORK SETTINGS :</p> <p>Enable Wireless : <input checked="" type="checkbox"/> Always Add New</p> <p>Wireless Network Name : XRAY_SWISS (Also called the SSID)</p> <p>802.11 Mode : Mixed 802.11n, 802.11g and 802.11b</p> <p>Wireless Channel : 6</p> <p>Enable Auto Channel Scan : <input checked="" type="checkbox"/></p> <p>Channel Width : Auto 20/40MHz</p> <p>Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible</p> <p>2.4GHZ WIRELESS SECURITY SETTING :</p> <p>Security Mode : WPA-Personal</p> <p>WPA Mode : AUTO (WPA or WPA2)</p> <p>Cipher Type : TKIP and AES</p> <p>Pre-Shared Key :</p> <p>5GHZ WIRELESS NETWORK SETTINGS :</p> <p>Enable Wireless : <input checked="" type="checkbox"/> Always Add New</p> <p>Wireless Network Name : XRAY_SWISS (Also called the SSID)</p> <p>802.11 Mode : Mixed 802.11ac, 802.11n and 802.11a</p> <p>Wireless Channel : 36</p> <p>Enable Auto Channel Scan : <input checked="" type="checkbox"/></p> <p>Channel Width : Auto 20/40/80 MHz</p> <p>Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible</p> <p>5GHZ WIRELESS SECURITY SETTING :</p> <p>Security Mode : WPA-Personal</p> <p>WPA Mode : AUTO (WPA or WPA2)</p> <p>Cipher Type : TKIP and AES</p> <p>Pre-Shared Key :</p>				<p>Helpful Hints..</p> <p>Wireless Mode : Select a function mode to configure your wireless network. Function wireless modes include Access Point, AP Client, Bridge, Bridge with AP and Repeater. Function wireless modes are designed to support various wireless network topologies and applications.</p> <p>Wireless Network Name : Changing your Wireless Network Name is the first step in securing your wireless network. We recommend that you change it to a familiar name that does not contain any personal information.</p> <p>Hidden Wireless : Enabling Hidden Mode is another way to secure your network. With this option enabled, no wireless clients will be able to see your wireless network when they perform scan to see what's available. In order for your wireless devices to connect to your AP, you will need to manually enter the Wireless Network Name on each device.</p> <p>Security Keys : If you have enabled Wireless Security, make sure you write down WEP Key or Passphrase that you have configured. You will need to enter this information on any wireless device that you connect to your wireless network.</p> <p>Bridge setting : If you want to bridge with the other Bridge AP, please write down the MAC address of the Bridge AP. Besides, you also need to write down the MAC</p>

Settings new firmware:

D-Link
DAP-1665 HW:B1 FW:2.00

Home | Settings | Management

Existing Network Connected

Click on any item in the diagram for more information.



DAP-1665

IPv4 Network

MAC Address: 80.26.89.B3.CA.10
IP Address: 192.168.22.3
Subnet Mask: 255.255.255.0
Default Gateway: Not Available
Primary DNS Server: Not Available
Secondary DNS Server: Not Available

IPv6 Network

Link-Local Address: FE80::3226:89FF:FEB3:CA10
Router IPv6 Address: Not Available
Default Gateway: Not Available
Primary DNS Server: Not Available
Secondary DNS Server: Not Available

Wi-Fi 2.4GHz

Status: Disabled
Wi-Fi Name (SSID): Not Available
Password: Not Available

Wi-Fi 5GHz

Status: Enabled
Wi-Fi Name (SSID): DIGIPAX
Password: avrmx05405

[Go to settings](#)

[Go to settings](#)

Extender

Use this section to configure the wireless settings for your D-Link Ap. Please note that changes made on this section may also need to be duplicated on your Wireless Client.

Settings >> Wireless

[RADIUS](#)

[Multi-SSID](#)

[WiFi VLAN](#)

[Save](#)

Existing Network

Wireless Mode:

2.4GHz Extended Wi-Fi

Status:

Wi-Fi Name (SSID):

Password:

[Advanced Settings...](#)

5GHz Extended Wi-Fi

Status:

Wi-Fi Name (SSID):

Password:

[Advanced Settings...](#)

Wi-Fi Protected Setup

WPS-PBC status:

WPS-PIN Status:

User Limit

Status:

Maximum User Client:

3.2 D-Link DAP-2660

Overview IP addresses:

Wired:

LAN = 192.168.2.2 / 255.255.255.0

IPU = 192.168.2.158 / 255.255.255.0

WLAN:

LAN = 192.168.22.2 / 255.255.255.0

Router = 192.168.22.3 / 255.255.255.0

XRpad = 192.168.22.1 / 255.255.255.0

Router login settings:

The screenshot displays the D-Link DAP-2660 web management interface. The top navigation bar includes 'Home', 'Maintenance', 'Configuration', 'System', 'Logout', and 'Help'. A left sidebar shows a tree view with 'DAP-2660' expanded to 'Basic Settings', which includes 'Wireless', 'LAN', and 'IPv6'. The main content area is titled 'Administration Settings' and contains several sections, each with a collapse icon:

- Limit Administrator**
- System Name Settings**
- Login Settings**
 - Login Name:
 - New Password:
 - Confirm Password:
 - Apply New Password
- Console Settings**
- SNMP Settings**
- Ping Control Setting**
- LED Settings**
- Central WiFiManager Setting**

A 'Save' button is located at the bottom right of the settings area.

Router LAN configuration:

The screenshot displays the D-Link web management interface for a DAP-2660 device. The top navigation bar includes 'Home', 'Maintenance', 'Configuration', 'System', 'Logout', and 'Help'. A sidebar on the left shows a tree view with 'DAP-2660' expanded to 'Basic Settings', which includes 'Wireless', 'LAN', and 'IPv6'. The main content area is titled 'LAN Settings' and contains the following configuration fields:

Get IP From	Static IP (Manual)
IP Address	192.168.22.3
Subnet Mask	255.255.255.0
Default Gateway	
DNS	

A 'Save' button is located at the bottom right of the configuration area.

Configuration 5 GHz:

ATTENTION! Notice upper and lower cases in router and XRpad settings for the network names (SSID) and WPA keys.

The screenshot shows the D-Link DAP-2660 configuration interface. The main menu includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with Basic Settings (Wireless, LAN, IPv6) and Advanced Settings (Status). The main content area is titled "Wireless Settings" and contains the following fields:

- Wireless Band: 5GHz
- Mode: Access Point
- Network Name (SSID): DIGIPAX
- SSID Visibility: Enable
- Auto Channel Selection: Enable
- Channel: 100
- Channel Width: Auto 20/40/80 MHz
- Authentication: WPA-Personal

The "PassPhrase Settings" section is expanded and includes:

- WPA Mode: AUTO (WPA or WPA2)
- Cipher Type: Auto
- Group Key Update Interval: 3600 (Seconds)
- Manual: (selected)
- Periodical Key Change:
- Activated From: Sun : 00 : 00
- Time Interval: 1 (1~168)hour(s)
- PassPhrase: [Redacted]
- Confirm PassPhrase: [Redacted]

Notice: 8~63 in ASCII or 64 in Hex.
(0-9,a-z,A-Z,~!@#%&*()_+`-={}|:~"/<>?)

Save

Configuration 2.4 GHz:

WLAN should not be configured for 2.4 GHz cause the XRpad should always work with with 5 GHz. To prevent an open WLAN activate WPA encryption, set any password (digi4admin) and hide SSID.

The screenshot displays the D-Link DAP-2660 configuration interface. The main menu includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with DAP-2660, Basic Settings (Wireless, LAN, IPv6), Advanced Settings, and Status. The main content area is titled "Wireless Settings" and contains the following configuration options:

- Wireless Band: 2.4GHz
- Mode: Access Point
- Network Name (SSID): dlink
- SSID Visibility: Disable
- Auto Channel Selection: Enable
- Channel: 6
- Channel Width: 20 MHz
- Authentication: WPA-Personal
- PassPhrase Settings:
 - WPA Mode: AUTO (WPA or WPA2)
 - Cipher Type: Auto
 - Group Key Update Interval: 3600 (Seconds)
 - Manual (selected) / Periodical Key Change
 - Activated From: Sun : 00 : 00
 - Time Interval: 1 (1~168)hour(s)
 - PassPhrase: [Redacted]
 - Confirm PassPhrase: [Redacted]

notice: 8~63 in ASCII or 64 in Hex.
(0-9,a-z,A-Z,~!@#\$%^&*()_+ '-=}{|:;"/<>?)

Save

Save router settings:

With „Configuration / Save and Activate“ save all settings finally. The router restarts automatically.

