

syngo Virtual Cockpit

syngo MR | Expert-i – Job Aid

Legend



Indicates a hint
Provides information on how to avoid operating errors or information emphasizing important details



Indicates the solution to a problem
Provides troubleshooting information or answers to frequently asked questions



Indicates a list item



Indicates a prerequisite
A condition that has to be fulfilled before starting a particular operation



Indicates a single-step operation



Indicates steps within operating sequences

Italic

Used for references and for table or figure titles



Used to identify a link to related information as well as previous or next steps

Bold

Used to identify window titles, menu items, function names, buttons, and keys, for example, the Save button

Orange

Used to emphasize **particularly** important sections of the text

Courier

Used for on-screen output of the system including code-related elements or commands

Courier

Identifies inputs you need to provide

Menu > Menu Item

Used for the navigation to a certain submenu entry

<variable>

Identifies variables or parameters, for example, within a string



CAUTION
Used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or material damage.
CAUTION consists of the following elements:

- Information about the nature of a hazardous situation
- Consequences of not avoiding a hazardous situation
- Methods of avoiding a hazardous situation

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

WARNING consists of the following elements:

- Information about the nature of a hazardous situation
 - Consequences of not avoiding a hazardous situation
 - Methods of avoiding a hazardous situation
-



11 Expert-i: Collaborating with colleagues

With Expert-i, you can invite a colleague to connect remotely to your *syngo* MR Workplace from the local network, for example, to ask your colleague for a second opinion about special cases.

For this, your colleague requires an access code and information on which workplace you are working on.



You can also directly connect to a *syngo* MR Workplace without being invited beforehand. (→ Page 216 *Connecting directly to a workplace with Expert-i*)

For that, the Expert-i direct logon functionality has to be configured in the Administration Portal.

Only one Expert-i remote connection can be active at a time.

Expert-i consists of a client side and a server side:

- The client side connects to a workplace.
- The server side is the workplace that shares its desktop.

(→ Page 208 *Workflow of an Expert-i session*)



If you need **external technical or clinical application support** beyond internal collaboration with colleagues, you can ask Siemens Healthineers for assistance by requesting a remote connection with Siemens Healthineers Customer Services.

With your permission, Siemens Healthineers Customer Services can connect to your client.

(→ Page 223 *Remote Assistance*)

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During examinations, you are required to adhere to the safety measures described in the “Safety” chapter of the System Manual.

CAUTION

Insufficient image quality of the remote computer!

Incorrect interpretation of the MR images

- ◆ Do not use the remote computer for diagnoses or reports.

CAUTION

Remote user does not adhere to the currently valid safety guidelines!

Hazard. Patient injury due to uncontrolled actions of the remote user.

Possible injury to patient due to missing control or absence of local user.

- ◆ As the local user, you are responsible for the patient during the entire examination.
- ◆ Remain continuously at the MR console and monitor the actions of the remote user.
- ◆ Remain continuously in touch with the remote user via telephone.
- ◆ Stop the patient table if hazardous conditions are present for the patient or terminate the entire measurement sequence (e.g. via the **table STOP/sequence termination** at the intercom).
- ◆ Interrupt the remote connection in case of uncontrolled actions by the remote user.

**CAUTION**

Selection of wrong patient data while using remote assistance (Expert-i)!

Wrong diagnosis

- ◆ Before starting the evaluation with expert-i always check that the patient data (for example, Patient ID, Series number) matches.

Functionality

The remote connection is handled via a suitable computer (remote computer) connected to the local network.

To establish a remote connection, the remote user has to register at the MR console. For this registration, the user needs an access code.

This access code is generated by Expert-i and is only valid for one registration.

In this case, the system can be operated at the MR console as well as the remote computer.

HIPAA audit trail

Each time you use Expert-i, the protocol inputs are entered in the HIPAA audit trail.

The inputs are generated when you perform the following actions:

- The local user activates Expert-i.
- The remote user successfully establishes the remote connection.
- The remote connection was not established within the time reserved for this purpose.
- The local user or the remote user disconnects the remote connection.

Minimum requirements

The following minimum requirements must be met for the remote computer and the local network:

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Computer hardware	Current standard hardware
Processor	850 MHz
Operating system	Windows XP, 7, or higher
Primary storage	256 MB
Network card	100 Mbit/s
Graphic card, monitor	1280×1024
Color	32 bit
Local network	100 Mbit/s or higher
Min. transfer rate	> 600 kB/s
Response time	<30 ms



If the minimum requirements are not met, the performance and display of the remote computer may be adversely affected.

11.1 Compatibility of the Expert-i client

The Expert-i client is compatible with **all** Numaris/X versions and the Numaris/4 versions and systems listed in the table below. That is, you can access various MR systems from a single environment.

Numaris/4 version	MR system
<i>syngo</i> MR A35/A40	<ul style="list-style-type: none">• MAGNETOM Harmony• MAGNETOM Sonata• MAGNETOM Symphony• MAGNETOM Concerto• MAGNETOM C!

Numaris/4 version	MR system
<i>syngo</i> MR B17/B19	<ul style="list-style-type: none"> • MAGNETOM Avanto • MAGNETOM Espree • MAGNETOM Symphony a Tim System • MAGNETOM Trio a Tim System • MAGNETOM Verio
<i>syngo</i> MR C15	<ul style="list-style-type: none"> • MAGNETOM ESSENZA • MAGNETOM MAGNETOM ESSENZA Mobile • MAGNETOM C2!
<i>syngo</i> MR D13	<ul style="list-style-type: none"> • MAGNETOM Aera • MAGNETOM Avanto
<i>syngo</i> MR E11/E12	<ul style="list-style-type: none"> • MAGNETOM Aera • MAGNETOM Skyra • MAGNETOM Avanto • MAGNETOM Verio • MAGNETOM Avanto^{fit} • MAGNETOM Skyra^{fit} • MAGNETOM Prisma • MAGNETOM Spectra • MAGNETOM Amira • MAGNETOM Semptra • MAGNETOM Biograph mMR • MAGNETOM Terra

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11.2 Workflow of an Expert-i session

Before you start working with Expert-i, we recommend that you preconfigure connections, for example, set host names, IP addresses, or the display quality during the connection.

Once the configuration is set up, you can quickly establish a remote session whenever you need it. (→ Page 209 *Creating a new connection*)



As the local user, you are responsible for the patient during the entire examination.

Do not leave the MR console at any time during remote connection and monitor the actions of the remote user.

To invite a colleague and establish an Expert-i remote connection, proceed as follows:

- You generate an access code for your colleague to establish a remote connection to your workplace.
(→ Page 211 *Enabling an Expert-i remote connection to your workplace*)
- The requested colleague connects to your workplace.
(→ Page 214 *Connecting to a workplace with Expert-i remote connection*)
- Both of you can end the Expert-i remote connection and close the remote desktop session.
(→ Page 221 *Expert-i: Ending collaboration*)




If the connecting user is idle for a predefined time, the connection is terminated automatically.



You can also directly connect to a *syngo* MR Workplace without being invited beforehand. (→ Page 216 *Connecting directly to a workplace with Expert-i*)

For that, the Expert-i direct logon functionality has to be configured in the Administration Portal.

At the workplace that shares its desktop, the **Expert-i** status icon on the status bar indicates the connection state:

	No Expert-i remote connection established
	Waiting for Expert-i remote connection
	Expert-i remote connection is active

11.3 Creating a new connection

To connect to other workplaces with Expert-i, you can preconfigure required connection settings, such as the host name, the IP address, and the display quality. If you have a low network bandwidth, reducing the display quality may allow smoother image transmission.

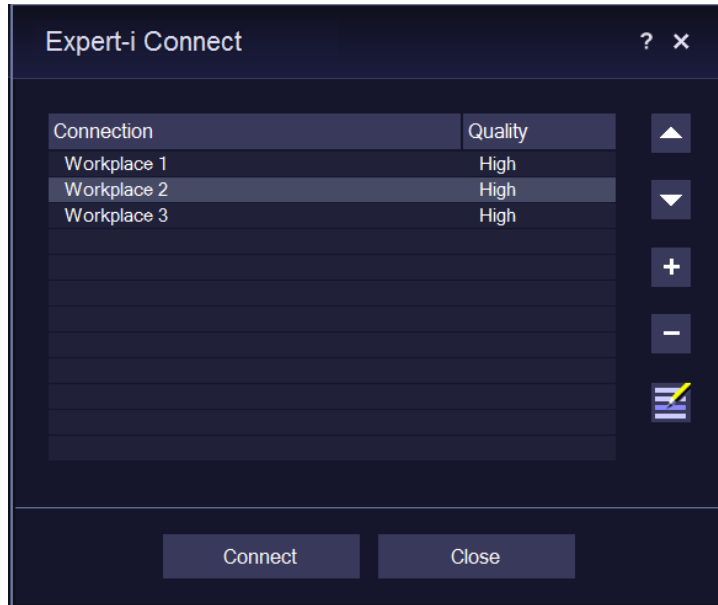
The connection settings apply to all users on your client.



- 1 On the access bar, click the **Collaboration Menu** icon and choose **Expert-i Connect**.

The **Expert-i Connect** dialog box opens.

11 Expert-i: Collaborating with colleagues



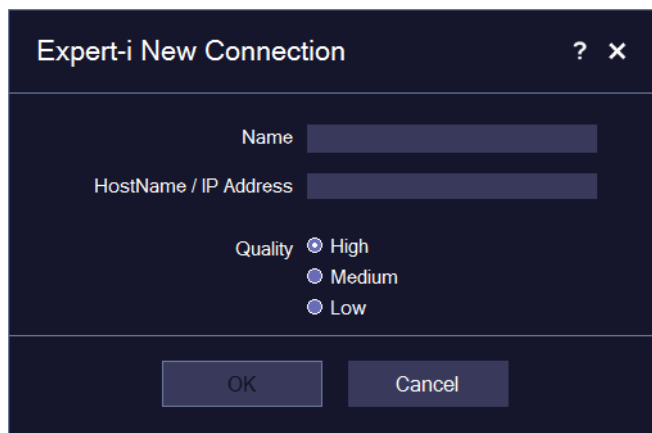
2 Click the **Add** icon to create a new connection.

– or –



Click the **Edit** icon to modify an existing connection.

The **Expert-i New Connection** dialog box opens.



- 3 In the **Name** field, enter the name of the connection.
- 4 In the **HostName / IP Address** field, enter the host name or the IP address of the remote computer.
- 5 To allow smooth image transmission, select the **Quality** of the Expert-i display according to your network bandwidth.



Consider that if you select **Medium** or **Low**, the display quality is not sufficient for primary reading.

- 6 Click **OK**.

The new connection is listed in the **Expert-i Connect** dialog box.



If you are using the Expert-i standalone client, you can click this icon in the **Expert-i Connect** dialog box to change the port number for the Expert-i remote connection.

11.4 Enabling an Expert-i remote connection to your workplace

To allow a colleague to connect to your workplace, you need to generate an access code and specify the access mode for the connecting user (**View Only** or **Full Access**).



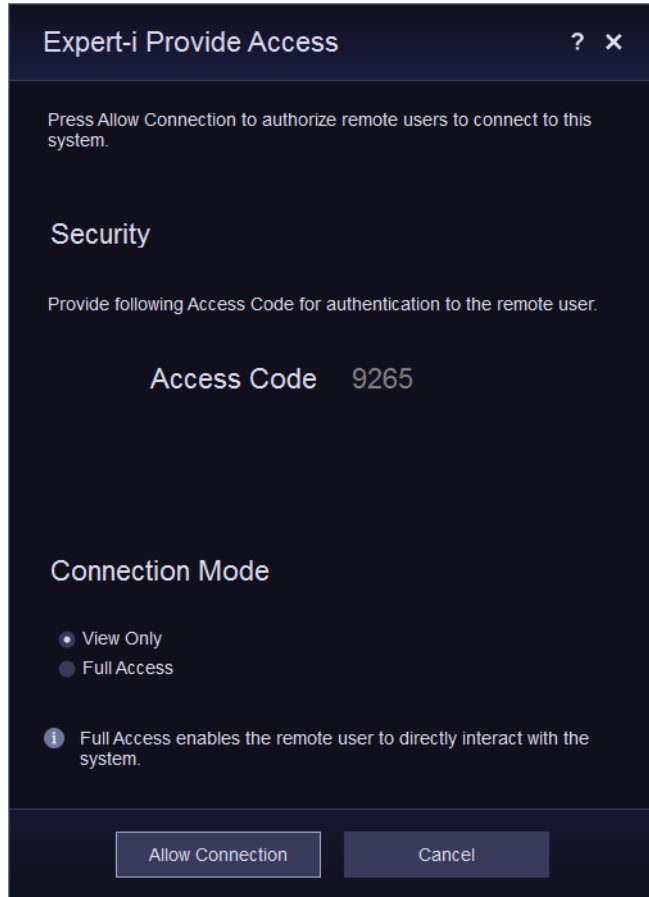
The access code is only valid for a single login to a remote connection.



- 1 On the status bar, click the **Expert-i** status icon.

The **Expert-i Provide Access** dialog box opens.

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The access code is displayed.



Depending on the configured security level for Expert-i, the access code varies in complexity and may be editable.

- 2 To specify the access mode, select the corresponding option in the **Connection Mode** section:

- **View Only**

The remote user has read-only access.

The remote user has a separate cursor to point:



- **Full Access**

The remote user has full access to your *syngo* MR Workplace.

The remote user controls your cursor.

- 3 Click **Allow Connection** to enable an Expert-i remote connection.

The white Expert-i status icon indicates that a remote connection is enabled but that the requested colleague has not yet connected:



- 4 Invite your colleague at the other workplace to the Expert-i remote connection session.

Inform your colleague about the access code and the workplace that your colleague should connect to.

Now the colleague can connect to your *syngo* MR Workplace within a specified time interval. (→ Page 214 *Connecting to a workplace with Expert-i remote connection*)

Once the Expert-i remote connection is established, the Expert-i status icon turns green:



You can end the collaboration at any time. (→ Page 221 *Expert-i: Ending collaboration*)

11.5 Connecting to a workplace with Expert-i remote connection

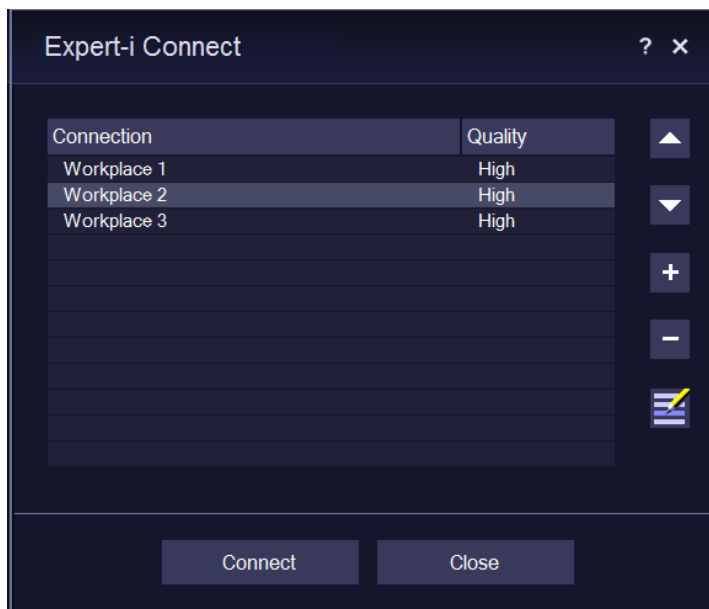
To answer a collaboration request from a colleague and establish an Expert-i remote connection, proceed as follows:

- 1 Ask the requesting colleague for the access code and the workplace you should connect to.



- 2 On the access bar, click the **Collaboration Menu** icon and choose **Expert-i Connect**.

The **Expert-i Connect** dialog box opens.

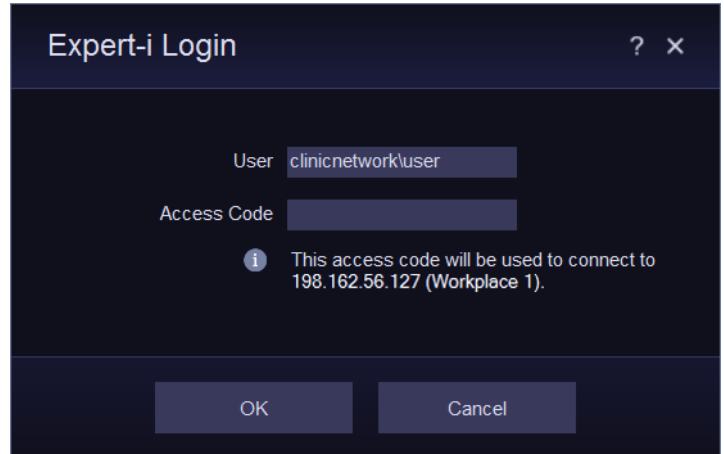


- 3 Select a connection setting and click **Connect**.



If no appropriate connection setting is available, you will have to create a new connection setting. (→ Page 209 *Creating a new connection*)

The **Expert-i Login** dialog box opens.



4 Enter the **Access Code**. If required, you can change the **User** name you log on with.

5 Click **OK** to establish the connection.



If a Windows screen lock is active at the workplace that you want to connect to, the Expert-i remote connection cannot be established.

The Expert-i remote session is started and the *syngo* MR environment of your colleague is displayed in a separate window. You can change the display settings. (→ Page 220 *Changing the Expert-i display settings on client side*)

Depending on the access mode configured, you either have read-only access or you use this environment as a normal *syngo* MR application. The access mode can be changed at any time by the requesting colleague. (→ Page 219 *Changing the Expert-i access mode*)



If the display of the remote desktop is distorted, click the **Expert-i** icon at the top of the window and choose **Refresh** from the menu.

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When you are working in a collaboration session, the mouse pointer might jump if the mouse button is pressed for a longer time.

This is especially true for zoom/pan or rotate operations in the collaboration session.

11.6 Connecting directly to a workplace with Expert-i

You can establish an Expert-i remote connection to another *syngo* MR Workplace without being invited. To do this, the Expert-i direct logon functionality has to be configured in the Administration Portal.

To use this direct connection to another workplace, you only have to enter your Windows user credentials.

The user on the server side receives a notification that you want to connect to that workplace.



The user on the server side can deny the logon within a predefined time interval. If required, this time interval can be set to "0" so that logon cannot be denied.

- ✓ You have appropriate user rights.
- ✓ The direct logon functionality is configured for the workplace that you want to log on to.



- 1 On the access bar, click the **Collaboration Menu** icon and choose **Expert-i Connect**.

The **Expert-i Connect** dialog box opens.



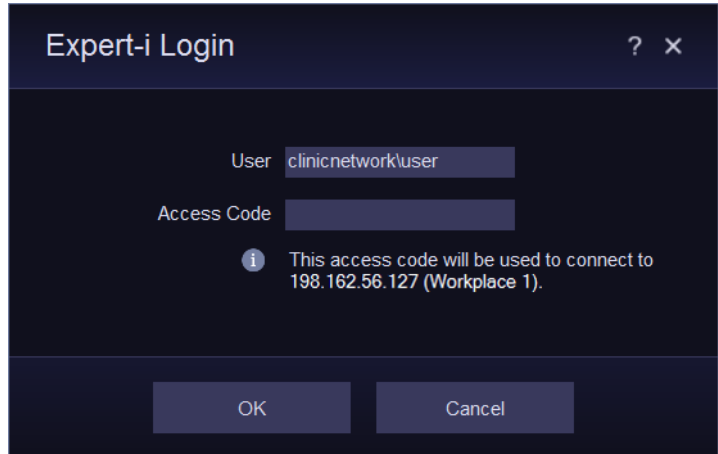
2 Select a connection setting and click **Connect**.



If no appropriate connection setting is available, you will have to create a new connection setting. (→ Page 209 *Creating a new connection*)

The **Expert-i Login** dialog box opens.

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- 3 Enter your Windows user credentials and click **OK** to establish the connection.



If a Windows screen lock is active at the workplace that you want to connect to, the Expert-i remote connection cannot be established.

The Expert-i remote session is started and the *syngo* MR environment of your colleague is displayed in a separate window. You can change the display settings. (→ Page 220 *Changing the Expert-i display settings on client side*)



If the display of the remote desktop is distorted, click the **Expert-i** icon at the top of the window and choose **Refresh** from the menu.



When you are working in a collaboration session, the mouse pointer might jump if the mouse button is pressed for a longer time.

This is especially true for zoom/pan or rotate operations in the collaboration session.

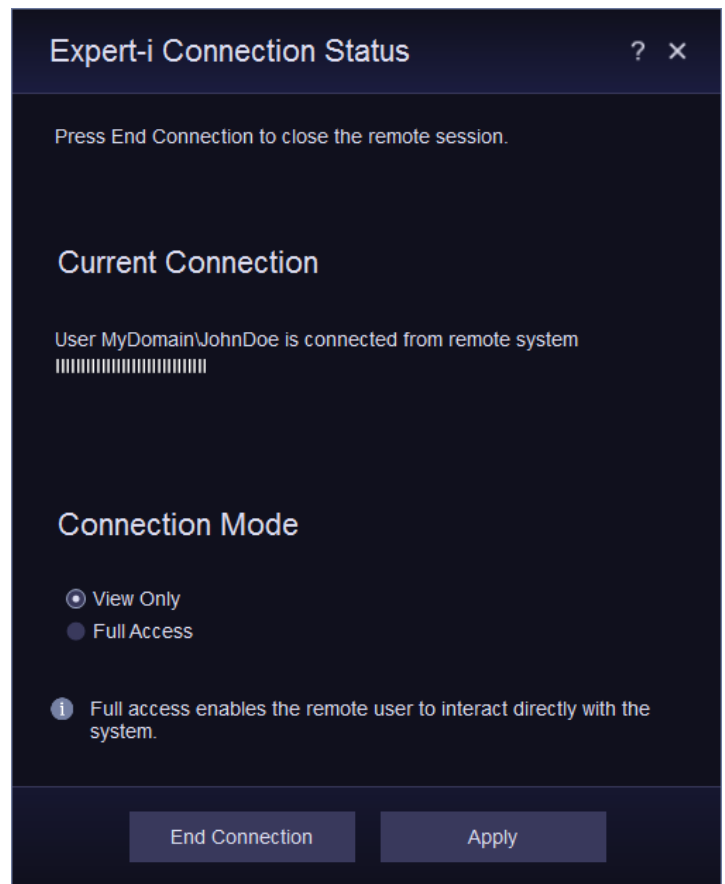
11.7 Changing the Expert-i access mode

The requesting user (server side) can change the access mode at any time during the Expert-i remote session.



- 1 On the status bar, click the **Expert-i** status icon.

The **Expert-i Connection Status** dialog box opens.



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2 To change the access mode, select the corresponding option in the **Connection Mode** section:

- **View Only**

The remote user has read-only access.

The remote user has a separate cursor to point:



- **Full Access**

The remote user has full access to your *syngo* MR Workplace.

The remote user controls your cursor.

3 Click **Apply**.

The access mode is changed. The connected user now has the appropriate rights.

11.8 Changing the Expert-i display settings on client side

If the display is distorted during an Expert-i remote session, you can refresh or adapt the quality of the Expert-i display. For example, if you have a low network bandwidth, it is recommended that you reduce the display quality for smoother image transmission.

In multi-monitor scenarios, you can switch between dual monitor layout and single monitor layout. In single monitor layout, you can select the monitor that should be displayed.



1 Move the cursor to the top of the window and click the **Expert-i** icon to open the menu.

2 To refresh the monitor, choose **Refresh**.

3 To adapt the display quality according to your network bandwidth, choose one of the following items from the **Connection Quality** menu:

- **High** (Full Color)
- **Medium** (Compressed)
- **Low** (Grayscale)



Consider that if you select **Medium** or **Low**, the display quality is not sufficient for primary reading.

4 To switch the displayed monitor, choose **Switch Monitor**.



If the remote desktop has more than two monitors, you can click the arrow head next to **Switch Monitor** and directly select the required monitor.

– or –

To display all available monitors, choose **Show All Monitors**.

5 To display the remote desktop on both of your monitors, choose **Dual Monitor Layout**. This layout is only available if both the client and server side each have two monitors with similar resolutions.

Only available for Expert-i standalone clients:

6 To switch to full screen mode, choose **Full Screen**.

– or –

To switch to window mode, choose **Exit Full Screen**.

11.9 Expert-i: Ending collaboration

Both you and your colleague can end the collaboration and close the Expert-i remote connection session at any time.

11 Expert-i: Collaborating with colleagues

11.9.1 Ending collaboration from the desktop-sharing workplace (server side)

1 Inform your colleague that you want to end the collaboration.



2 Click the **Expert-i** status icon to open the **Expert-i Connection Status** dialog box.

3 Click **End Connection** to terminate the Expert-i remote connection session.

The Expert-i remote connection session is terminated.

The user on the client side can no longer see your desktop.

The user on the client side is informed that the connection has terminated.

11.9.2 Ending collaboration from the connected workplace (client side)

1 Inform your colleague that you are ending the collaboration.

2 Press **Ctrl + Alt + Q**.

– or –



Move the cursor to the top of the window and click the **Expert-i** icon to open the menu and choose **Close**.

The Expert-i remote connection session is terminated.

On the server side, the **Expert-i** status icon turns gray.

Please note that this learning material is for training purposes only!

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