Client Types Reference

Learn the different client types.

Desktop, Web & Mobile Clients (Reference): Client Types, Multiple deployment options for accessing runtime displays, from high-performance desktop applications to zero-install web browsers across all platforms.

Client Deployment Options:

- **Desktop** (Windows stations) - RichClient and SmartClient applications
- **Web** (HTML5) - Browser-based, no installation required
- **Mobile** (HTML5) - Optimized for phones and tablets
- **API Clients** - Programmatic data access

Client Comparison
Desktop Clients
Web and Mobile Clients
Auto-Start Configuration
Deployment Considerations
Troubleshooting

Client Comparison

Feature	Desktop RichClient	Desktop SmartClient	Web HTML5
Platform	Windows	Windows only	All platforms
Installation	Local install	Click-once	None
Performance	Highest	High	Standard
Task Switching	Can block	Can block	Cannot block
Updates	Manual	Automatic	Immediate
Redundancy	Automatic	Automatic	Manual
Threading	Multi	Multi	Single
Port	3101	3101	3101 (by Execution Profile)

Desktop Clients

RichClient

Full-featured desktop application with maximum control and performance.

Characteristics:

- WPF-based on Windows
- Runs as standalone application
- Full Windows integration
- 64-bit on .NET Framework 4.8

Advantages:

- Block Windows task switching
- Automatic redundant server failover
- Highest performance
- Full security control

Requirements:

- FrameworX installation
- Windows OS
- Network access to server

Deployment:

```
Program: TRichClient.exe (64-bit)
Port: 3101 (configurable)
Technology: WPF
```

SmartClient

One-click deployment with automatic updates.

Characteristics:

- ClickOnce technology
- Self-updating from server
- No local installation
- Runs like RichClient

Advantages:

- Single-click deployment
- Automatic updates
- No IT deployment needed
- Same features as RichClient

Requirements:

- .NET Framework 4.8
- Compatible browser with ClickOnce support
- Windows OS only

Deployment:

```
http://<ServerIP>/smartclient
or
https:// if certificate is installed
```

Browser Compatibility:

- **Internet Explorer**: Native support
- **Microsoft Edge**: Requires "ClickOnce for Microsoft Edge" extension
- **Google Chrome**: Requires "Meta4 ClickOnce Launcher" extension
- **Mozilla Firefox**: Requires "FFClickOnce" add-on
- **Other browsers**: Manual download and execution required

Web and Mobile Clients

Browser-based access with zero installation.

Characteristics:

- WebAssembly technology
- Cross-platform compatible
- Responsive design
- Touch support

Advantages:

- No installation required
- Works on any device
- Immediate updates
- Platform independent

Limitations:

- Cannot block task switching
- Single-threaded execution
- HTTPS communication overhead
- No direct local file access

Access URL:

```
http://<ServerIP>/html5
or
https:// if certificate is installed
```

Browser Requirements:

Browser	Minimum Version	Notes
Chrome	90+	Recommended
Edge	90+	Recommended
Firefox	88+	Full support

Safari	14+	iOS compatible

Auto-Start Configuration

Windows Auto-Start

To start a client automatically on an unattended station, use AutoStartClient. See Installation Folders and Utilities Reference, AutoStartClient.exe.

Kiosk Mode

Desktop Kiosk: the desktop client is started by the shortcut or script the station uses, so kiosk behavior is set up there and in the solution's own display and layout settings rather than through switches on the client. See **Auto-Start Configuration** above for starting and keeping that client running unattended.

Browser Kiosk (Chrome):

cmd

```
chrome.exe --kiosk --app="http://server:10108/html5/" --no-first-run
```

Browser Kiosk (Edge):

cmd

```
msedge.exe --kiosk "http://server:10108/html5/" --edge-kiosk-type=fullscreen
```

Deployment Considerations

Desktop Deployment

Best for:

- Control rooms
- Dedicated operator stations
- High-security environments
- Maximum performance needs

Web Deployment

Best for:

- Cross-platform access
- Occasional users
- Remote access
- Zero-install requirements

Mobile Deployment

Best for:

- Field operations
- Responsive monitoring
- Alert management
- Quick status checks

Troubleshooting

Connection Issues:

- Verify server port access
- Check firewall settings
- Test network connectivity
- Review server logs

Update Problems:

- Clear browser cache (Web)
- Reset ClickOnce cache (Smart)
- Reinstall client (Rich)

Performance Issues:

- Check network latency
- Monitor server load
- Verify client resources
- Review display complexity

In this section...
