Station-IC™ Virtual Desktop Client for Eclipse® HX matrix and LQ® Series interfaces provides local and remote intercom access from PC and Mac computers.

**Station-IC Virtual Desktop Client**

Station-IC is a virtual desktop client that provides a scalable intercom user station on WindowsOS and MacOS computers. Connecting to Eclipse HX IP-capable matrices or LQ Series IP Interfaces, Station-IC provides access to the system’s resources which can include one-to-one, one-to-many, partyline, ISO and IFB communication in addition to call signals and logic controls. Individual keyset listening levels help users focus on specific channels while monitoring others. All of this functionality can be tailored to each user to create an efficient intercom user station.

**Efficient Operation for Multi-tasking Desktop User**

Station-IC’s ergonomic, easy-to-use interface is designed for familiarity and consistency with other user stations, including Agent-IC® and V-Series Iris™ panels. Station-IC’s large Talk and Listen buttons with individual level control and clear indication of current state allow operation with mouse and touchscreens. The window can be scaled to fit the screen and shows latched keys as well as input and output audio meters. Station-IC’s always-on-top compact mode allows users to keep their favorite intercom keys visible in the smallest window, even while working on other applications. Favorite keys can be dynamically designated by the user, without any administrator involvement, ensuring that notifications of incoming calls and Eclipse reply / LQ call keys are always visible.

**Integrates into any Intercom System**

Station-IC fully integrates into Eclipse systems with available IP port capacity while LQ offers Channel based routing with a wide variety of LQ interfaces allowing Station-IC to connect to Clear-Com’s Encore Partyline systems, TW Partyline, HelixNet, Two-Way radios, SIP telephone lines and to any other intercom system via four-wire.

**Robust Technological Foundation**

Station-IC uses multiple mission specific audio codecs for audio alongside a proprietary control transport protocol designed to operate over LAN, WAN and Internet network connections of various quality. Clear-Com’s legendary IP connectivity, requiring only a single network port on the Eclipse/LQ host end, drastically minimizes efforts required for network management and routing to public internet connectivity. Station-IC connects to the host Eclipse HX matrix via the E-IPA/IVC-32 card or to any LQ series Interface device with available capacity.

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**Key Features and Benefits**

**Station-IC Virtual Desktop Client**
- For: Eclipse and LQ
- To: Windows and MacOS
- Scalable UI for multitasking desktops
- Compact UI mode configured by the user
- Global Key state and Audio Presence indicators
- Native audio routing to computers I/O
- Easy download from Clear-Com Website

**Virtual Desktop Client for Eclipse-HX**
- (23) Keysets assignable to: Partylines, Groups, IFB, Point-to-Point, Directs & Controls
- Individual Keyset Listen Level Controls
- Reply for incoming Call Signals
- OS Notifications for incoming Calls

**Virtual Desktop Client for LQ**
- (24) Keysets assignable to Channels: Listen, Talk, Call, Control Events, Remote Mic Kill
- Individual Keyset Listen Level Controls
- Reply for incoming Call Signals
- OS Notifications for incoming Call Signals
- HelixNet and Encore Integration Options

**Network Agnostic**
- Supported by mission-built hardware
- Robust intercom over LAN, WAN & Internet
- IT friendly networking for Internet connectivity
- Encrypted Connection

**Flexible Licensing**
- Common license for Eclipse and LQ
- Event licenses for short term use
- Subscription licenses for continuous use
- Transferable subscription licenses
Event and Subscription License Options Tailored to Users Business

Station-IC is licensed per computer using either Event or Subscription licenses. Event licenses enable effortless licensing for one week or one month duration from the time of first connection and are ideal for short-term surge capacity and rental applications while Subscription licenses are for ongoing requirements at the lowest daily cost. Subscription license expiration is clearly displayed to users in the last month of the subscription. Licenses are delivered to the customer using a License Ticket which can contain/manage multiple licenses and can be used to license multiple computers, or to load multiple subscription extensions on a single computer for extended duration. License Tickets allow license owners to retrieve and transfer subscription licenses.

Station-IC can be downloaded from the [Clear-Com website](https://www.clear-com.com) and run in demo mode. Demo mode is provided with the ability to connect to a Clear-Com (or customer) provided system to test on a user's computer.

See also Clear-Com's [Agent-IC](https://www.clear-com.com) mobile app which provides fully integrated intercom capabilities on Android and iOS devices.

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**Technical Specifications**

**Software Application**
- **Audio Settings**
  - Assignment to any operating system audio input and output
  - Audio test capability for computer audio
  - Audio level meters
  - Far-end Silence Suppression
  - Echo Cancellation
- **Audio Controls & Indication**
  - Talk/Listen indication and level meter
  - Listen level per key/keyset
  - Master level & balance by operating systems

**Eclipse**
- **Host Connection Profiles:** 2
- **Keysets:** 23
- **Assignable:** Talk, Listen and Controls in EHX
- **Talk/Listen:** Tap to latch (if allowed), push for momentary
- **Call Signal:** Initiation and indication
- **Tally Indication:** Audio Presence, In-Use, Panel/Client Connected
- **Reply Key:** 1 - Shows incoming Point-to-Point talk for immediate response. Hidden by default, pops up and provides operating system notification
- **Character Support:** Arabic, Cyrillic, Hangeul, Hebrew, Hiragana, Kanji, Katakana, Latin

**LQ**
- **Host Connection Profiles:** 2
- **Keysets:** 24
- **Assignable:** per assigned channel to Talk, Listen, Call, Control Events and Remote Mic Kill in LQ’s CCM
- **Talk/Listen:** Tap to latch (if allowed), push for momentary
- **Call Signal:** Initiation and Indication
- **Tally Indication:** Audio Presence, Call, Control Events 1 & 2
- **Reply Call Key:** 1 - Shows incoming Call signal on a Channel for immediate response. Hidden by default, pops up and provides operating system notification
- **Character Support:** Latin

**System Minimum Requirements**

**Host Intercom System**
- **Eclipse:** 12.1+ with E-IPA (or IVC-32)
- **LQ:** 4.2+

**Windows**
- **Version:** 8 (min), 10+ (recommended)
- **Computer and Processor:** Intel Duo Core Processor (min), Apple M1
- **Memory:** 4.0GB RAM (min)
- **Hard Disk:** 1.5GB (available)
- **Display:** 1280 x 800 (min)

**MacOS**
- **Version:** 10.14 (min), 10.16+ (recommended)
- **Computer and Processor:** Intel Duo Core Processor (min), Apple M1
- **Memory:** 4.0GB RAM (min)
- **Hard Disk:** 1.5GB (available)
- **Display:** 1280 x 800 (min)

**Audio**
- **Eclipse:**
  - **Audio Encoding:** G.722 – Fixed Wideband 7kHz within 64kbit/s
  - **Frequency Response:** 50Hz-7kHz

- **LQ:**
  - **Audio Encoding:** Opus – Configurable 12kHz-20kHz within 16-128kbit/s
  - **Frequency Response:** 100Hz-12kHz, 100Hz-20kHz

- **LQ in HelixNet Link Group:**
  - **Audio Encoding:** WavPack – Fixed Wideband 10kHz within 320kbit/s
  - **Frequency Response:** 20Hz-10kHz

*Frequency Response is additionally filtered depending on use

*Please contact your Clear-Com representative for use with older Eclipse versions.
### Technical Specifications

#### Latency

**Eclipse**
- **Windows**
  - Station-IC to 4-wire: LAN 85ms, WAN 92ms, Internet 117ms
  - 4-wire to Station-IC: LAN 135ms, WAN 158ms, Internet 216ms
  - Station-IC to Station-IC: LAN 220ms, WAN 245ms, Internet 333ms
- **MacOS**
  - Station-IC to 4-wire: LAN 109ms, WAN 115ms, Internet 145ms
  - 4-wire to Station-IC: LAN 85ms, WAN 107ms, Internet 177ms
  - Station-IC to Station-IC: LAN 185ms, WAN 205ms, Internet 305ms

**LQ**
- **Windows**
  - Station-IC to 4-wire: High 60ms, Balanced 90ms, Low 110ms
  - 4-wire to Station-IC: High 97ms, Balanced 202ms, Low 246ms
- **MacOS**
  - Station-IC to 4-wire: High 66ms, Balanced 88ms, Low 109ms
  - 4-wire to Station-IC: High 76ms, Balanced 76ms, Low 76ms

**LQ in HelixNet Link Group**
- **Windows**
  - Station-IC to 4-wire: High 106ms, Balanced 106ms, Low 106ms
  - 4-wire to Station-IC: High 177ms, Balanced 187ms, Low 223ms
- **MacOS**
  - Station-IC to 4-wire: High 109ms, Balanced 109ms, Low 109ms
  - 4-wire to Station-IC: High 77ms, Balanced 96ms, Low 137ms

Latency is measured on local network with user selected network presets which adds latency with processing and Forward Error Correction for network resilience. Measurements are averages due to inline adaptive Echo Cancellation and Silence Suppression. Final latency performance is heavily dependent on configuration, computer, audio peripherals and network.

#### Network Specifications (Version 1.1+)

**Network Protocols**
- Ethernet IPv4 – Unicast Audio and Control
- IPv6 – IP Routable
- DNS – Domain Name Server
- HTTP – License Transfer
- HTTPS – Optional Usage Data / Diagnostic Service
- IVP – Proprietary Intercom Audio and Control
- G722 – Audio Codec for Eclipse IPA/IVC
- Opus – Audio Codec for LQ
- WavPack – Audio Codec for LQ in HelixNet Link Group
- AES-128 – Audio and Control Encryption

**Network Connectivity**
- Ethernet, Wi-Fi, 3G, 4G, LTE (as available on device)

#### Theory of Operation:

Eclipse Intercom System or LQ Interface (the server) provides a network connection and includes user credentials for Agent-IC (the clients) in its database. Server allows use of DNS and declaration of external IP address of an optional third-party network router which may be used to cross firewalls or NAT. Client receive connection information from the server via TCP, used to log onto the server with its credentials and establish encrypted audio and control stream(s) via UDP. Single UDP and TCP port is required in each direction. Eclipse systems route and mix all audio for the client centrally and stream a complete mix to the clients running on a Windows or MacOS computer. LQ systems intelligently route audio ethernet packages dependent on loudest talkers and listen levels to be mixed on the client.

**Network Ports**

**Unicast:**
- Port 443 TCP – Optional Usage Data to Diagnostic Service
- Port 6001 (configurable) TCP – System Management to/from Station-IC
- Port 6001 (configurable) UDP – IVP Audio Streams to/from Station-IC
- Port 22350 TCP – Online Licensing Activation to/from CodeMeter

**Multicast:**
- No multicast ports are used for Station-IC

**Endpoint Resource Use:**
- Eclipse: 1 port on IPA/IVC card
- LQ: 1-3 See LQ Resource Estimator
- LQ in HelixNet Link Group: 1

**Bandwidth:**

**Eclipse:**
- 140 kbps from Eclipse to Station-IC
- 140 kbps from Station-IC to Eclipse

**LQ:**
- Low:
  - 40 kbps from LQ to Station-IC
  - 160 (max) kbps from Station-IC to LQ
- Balanced:
  - 70 kbps from LQ to Station-IC
  - 280 (max) kbps from Station-IC to LQ
- High:
  - 100 kbps from LQ to Station-IC
  - 400 (max) kbps from Station-IC to LQ

**LQ in HelixNet Link Group:**
- Station-IC Rx: High: <=400ms, Balanced: <= 500ms, Low: <= 600ms
- LQ Rx: V. High, High & Balanced: <=60ms, Low: <= 100ms, V. Low: <= 200ms

**Network Jitter Tolerance**

**Eclipse:**
- Station-IC Rx: LAN: <=160ms, WAN: <= 400ms, Internet: <= 600ms
- E-IPA Rx: (Configurable) LAN: <=12ms, WAN: <= 120ms, Internet: <= 200ms

**LQ:**
- Station-IC Rx: High: <=400ms, Balanced: <= 500ms, Low: <= 600ms
- LQ Rx: V. High, High & Balanced: <=60ms, Low: <= 100ms, V. Low: <= 200ms

**LQ in HelixNet Link Group:**
- Station-IC Rx: High: <=400ms, Balanced: <= 500ms, Low: <= 600ms
- LQ Rx: <=128ms automatically adjusted to network performance
Licensing

Licenses
Delivery: License Ticket, may include multiple licenses, can be re-loaded
Host: Local - CodeMeter License Manager software on user’s computer
Virtual Machine Support: Not Available
Activation: Via WebDepot, Online (recommended) or Offline

Event Licenses
Part numbers: ST-IC-1W, ST-IC-1M
Validity: Time-Limited. Starts upon first connection, to host system
Duration: 1 Week, 1 Month. One license can be installed at a time
Transferable: No
Recovery: Contact Clear-Com

Subscription Licenses
Part numbers: ST-IC-1Y, ST-IC-ADD1Y, ST-IC-8-1Y, ST-IC-8-ADD1Y
Validity: Duration of a Committed Subscription. Starts with Activation
Duration: 1 Year with Initiation, +1 Additional Year Extensions
Multiple extension licenses can be Activated for extended duration
Support: Duration of use or 7 years following purchase, whichever first
Transferable: Yes, Re-Hostable from computer to original ticket
Recovery: Yes, using valid context files

Privacy
Data-Usage for Diagnostics:
Station-IC optionally collects usage data to troubleshoot and continuously improve the application. The data collected is limited to Station-IC and the use of connected equipment and is transferred to Clear-Com managed diagnostics cloud servers. The data collected does not include any content or personal data. The data collected is stored and managed according to the Clear-Com Privacy Policy. Data-Usage and related communication to Clear-Com diagnostic cloud services can be disabled by the customer.
Station-IC Virtual Desktop Client
For Eclipse HX and LQ Series

Notice About Specifications
While Clear-Com makes every attempt to maintain the accuracy of the information contained in its documentation, that information is subject to change without notice. Performance specifications included in this document are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.

Order Code

EVENT LICENSES: For time-limited use
- ST-IC-1W: 1 user, 1 week
- ST-IC-1M: 1 user, 1 month

SUBSCRIPTION LICENSES: For ongoing use
- ST-IC-1Y: 1 user, 1 year
- ST-IC-ADD1Y: 1 user, +1 year
- ST-IC-8-1Y: 8 users, 1 year
- ST-IC-8-ADD1Y: 8 users, +1 year

Notice About Specifications
Cancer and Reproductive Harm - www.P65Warnings.CA.Gov

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