

HoloQ Author - User Manual

HoloQ Technologies

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Contents

HoloQ Author

User Manual

Playlist Authoring Tool for the HoloQ Player Platform

Document Version 1.2

Applies to Playlist Specification v2.1

Revision History

Version	Date	Author	Summary of Changes
1.0	Initial release	HoloQ Author Team	First published edition of the user manual.
1.1	Previous release	HoloQ Author Team	Added Section 8, Supported Media Formats & Codecs; added Quick Start Checklist (Section 3.4); added Document Conventions.
1.2	Current release	HoloQ Author Team	Added placeholder figures throughout, marking each screenshot needed for a fully illustrated edition.

Document Conventions

This manual uses the following visual conventions throughout:

Convention	Meaning
Bold text in a shaded, left-bordered box labeled "Important"	A requirement or constraint that, if missed, will prevent the tool or player from working correctly.
Bold text in a shaded, left-bordered box labeled "Note" or "Tip"	Helpful context or a recommended practice; not required, but useful.
Menu → Command notation, e.g. File → Save	Indicates a menu to open followed by the command to choose within it.
Numbered steps	A sequence to be performed in order.
Bulleted lists	A set of related items with no required order.

About the Figures in This Edition: This edition of the manual includes placeholder figures marked with a dashed border and a camera icon, each labeled with the screenshot needed at that location. Replace each placeholder with an actual screenshot from a running copy of HoloQ Author before final publication.

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1. Introduction

1.1 Purpose of This Manual

This manual describes how to install, configure, and use HoloQ Author, the desktop authoring tool for building and editing playlist.json files used by the HoloQ Player. It is written for content producers, show technicians, and integrators who assemble video/image playback sequences without needing to hand-edit JSON.

1.2 What HoloQ Author Does

HoloQ Author provides a visual, graph-based editor for playlists: each video or image becomes a node on a canvas, and the sequencing logic (what plays next, what serial-port byte triggers a jump, what byte is sent to a PC when an item starts or ends) is configured through simple form controls. The tool validates the playlist against the HoloQ Player's specification before allowing it to be saved, reducing the chance of a malformed file reaching a deployed player.

1.3 Who Should Use This Manual

- Show technicians preparing playlists for a HoloQ Player installation.
- Content producers assembling video/image sequences for exhibits, kiosks, or interactive displays.
- Integrators who need to understand the relationship between playlist.json and the HoloQ Player runtime.

1.4 Related Documents

Document	Description
Playlist Specification v2.1	The full technical specification of the playlist.json format produced by this tool.
HoloQ Player Configuration Guide	Describes config.json, transport/speed byte mappings, and serial wiring on the player side.

2. System Requirements & Installation

2.1 Supported Platforms

Platform	Minimum Version	Notes
Windows	Windows 10 (updated) or Windows 11	Requires the WebView2 runtime. The installer bundles it automatically if not already present.
macOS	Recent supported macOS release	No additional runtime required.
Linux	Modern desktop distribution	Requires webkit2gtk, standard on most desktop distributions.

2.2 Installing HoloQ Author

1. Download the installer for your operating system from the distribution location provided by your administrator.
2. Run the installer:

- Windows: run the .msi or .exe and follow the prompts.
- macOS: open the .dmg and drag HoloQ Author to Applications.
- Linux: install the provided .deb, .rpm, or run the .ApplImage directly.

3. Launch HoloQ Author from your applications menu or Start menu.

Security Warning: HoloQ Author is distributed as an internal tool and is not code-signed in this release. On first launch you may see an operating-system security warning. On Windows, choose “More info → Run anyway.” On macOS, right-click the application and choose “Open,” then confirm. This is expected and only required once per machine.

2.3 No Internet Connection Required

HoloQ Author runs entirely on your local machine. It does not connect to any server, does not upload your media or playlists anywhere, and functions fully offline once installed. An internet connection is only needed to download the installer itself.

3. Getting Started

3.1 Preparing a Play-Root Folder

Before opening HoloQ Author, prepare a play-root folder on disk with the following structure:

play-root/

- videos/ — contains all video files (e.g. .mp4) used by the playlist
- images/ — contains all image files (e.g. .jpg, .png) used by the playlist
- playlist.json — created by HoloQ Author when you first save (not required to already exist)

Important: Media files must be copied into videos/ and images/ before opening HoloQ Author. The tool reads from these folders as its media library — it does not import, copy, or transcode media files on your behalf.

3.2 Opening a Play-Root

4. Launch HoloQ Author.
5. Choose File → Open Play-Root...
6. Select your play-root folder in the dialog.
7. HoloQ Author validates the folder and scans its contents.

If the selected folder does not contain at least one file in videos/ and at least one file in images/, HoloQ Author displays an error and returns you to the folder picker. This check exists to catch an incorrectly chosen folder before any editing begins.

3.3 Opening an Existing Playlist vs. Starting Fresh

If a playlist.json file already exists at the play-root, HoloQ Author loads it automatically, rebuilds the canvas from its contents, and checks every referenced media file against what is actually present in videos/ and images/. Any missing file is flagged immediately (see Section 7, Validation & Troubleshooting).

If no playlist.json exists, HoloQ Author opens with an empty canvas and a populated media library, ready for you to begin placing items.

3.4 Quick Start Checklist

For an experienced user, the full authoring process reduces to the following checklist:

☐	Step
☐	Confirm all video files are in a supported format (see Section 10) before copying them into videos/.
☐	Copy all media into play-root/videos/ and play-root/images/.
☐	Open HoloQ Author and select the play-root folder.
☐	Drag every file to be used from the Media Library onto the Canvas.
☐	Open each item and configure its playback and signal properties.
☐	Set Play Next and Jump Triggers for each item using the Item Inspector.
☐	Mark exactly one item as the Start Item.
☐	Review the validation status bar and resolve any red (blocking) issues.
☐	Save, and confirm playlist.json now exists at the play-root.

4. Interface Overview

The main editing window is divided into a menu bar, a status strip, and three working panels.

4.1 Menu Bar

Menu	Commands
File	Open Play-Root..., Save, Save As..., Recent Play-Roots, Exit
View	Zoom to Fit (re-centers and scales the canvas to show all items)
Help	About (application version and supported playlist specification version)

4.2 Playlist Summary Strip

Directly below the menu bar, a status strip always shows the item currently marked as the playlist's starting point, for example: "start: intro-clip.mp4." This is a read-only summary; the starting item is set from within an item's editor (Section 5).

4.3 The Three Panels

Media Library (left panel)

Lists every file found in the videos/ and images/ subfolders at the time of the last folder scan. Files already placed on the canvas are marked so you can see at a glance what remains to be added. The library is read-only with respect to the filesystem — HoloQ Author never adds, removes, or renames files in these folders.

Canvas (center panel)

Displays one node per playlist item. Each node shows its name and type (video or image). Connections between nodes — the "play next" relationship and any jump triggers — are drawn automatically based on what you configure in the item editor; they are not created by dragging lines on the canvas. A status bar along the bottom of the canvas summarizes current validation issues and can be clicked to jump directly to the affected item.

Item Inspector (right panel)

Shows the editable properties of whichever item is currently selected on the canvas. This is where all configuration happens: playback behavior, outgoing signals, and the item's place in the sequence. Its full contents are covered in Section 5.

The HoloQ Author editing window: Media Library (left), Canvas with connected items (center), and the Item Inspector (right).

5. Building a Playlist

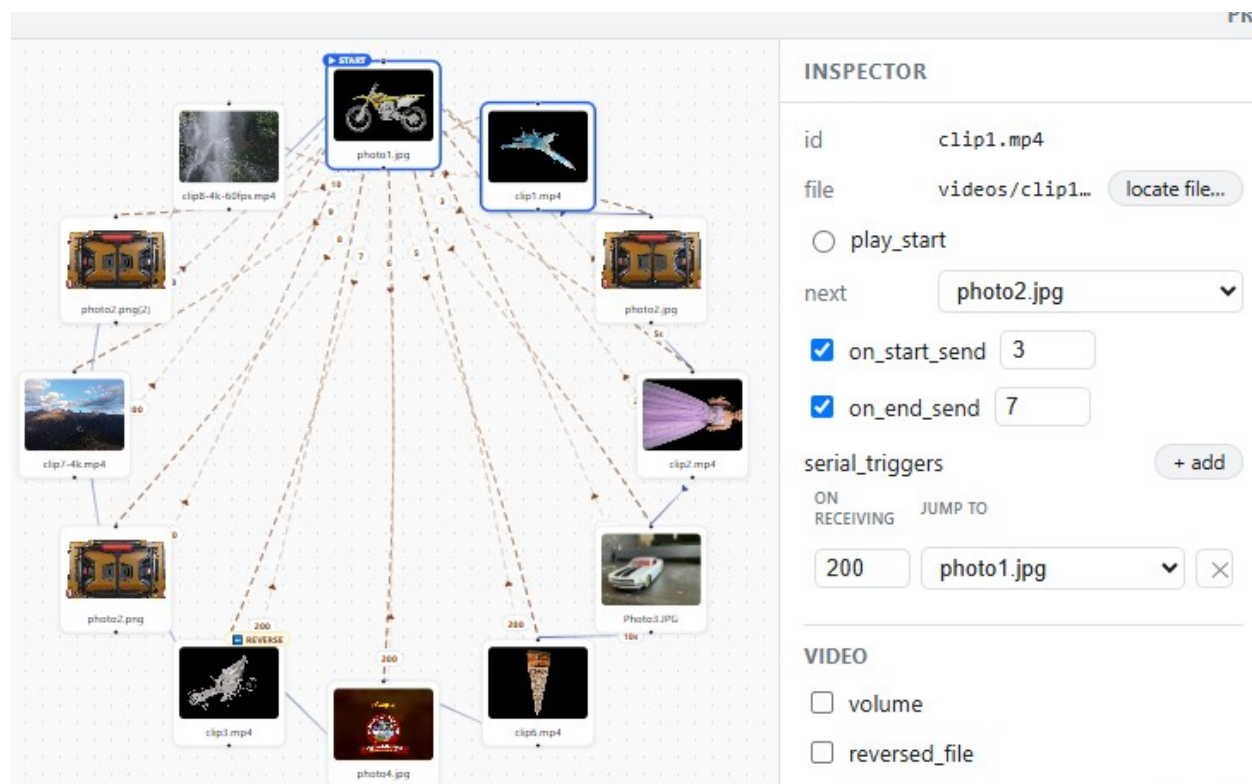


Figure 1: HoloQ Author — canvas with connected playlist items and the Item Inspector panel

5.1 Recommended Workflow

HoloQ Author works best in two passes:

8. Place items: drag every file you intend to use from the Media Library onto the Canvas. This creates a node for each with default settings.
9. Wire items: open each node in turn and configure its playback behavior and its connections to other items.

Tip: You are not required to follow this order strictly — you can return to the Media Library and add more items at any time. Every selection list in the Item Inspector always reflects whatever items currently exist on the canvas.

5.2 Adding an Item

Drag a file from the Media Library onto an empty area of the Canvas. A new node appears, and HoloQ Author automatically assigns it a unique reference name based on the file name. If the same file is used more than once, subsequent copies are automatically distinguished, for example flower.mp4, flower.mp4(2), flower.mp4(3).

About Reference Names: This reference name is generated automatically and cannot be re-named by the user. It is what you will see and select everywhere in the tool — in the Canvas, in the Media Library, and in every drop-down used to configure sequencing.

5.3 Selecting and Deleting Items

Click a node on the Canvas to select it and open its details in the Item Inspector. To remove an item from the playlist, select it and use the delete control in the Inspector or Canvas (this removes the item from the playlist only — the underlying media file is not affected).

5.4 Configuring a Video Item

The following properties are available for a video item:

Property	Control	Description
Reference name	Read-only	Automatically assigned; identifies this item throughout the tool.
Source file	Read-only, with “Locate file...”	The video file this item plays. Use Locate File... to re-link if the file was renamed or moved outside the tool.
Start item	Radio button	Marks this item as the playlist's starting point. Only one item in the whole playlist can be selected.
Volume	Checkbox + value (0–100)	Playback volume for this item. Unavailable when a reverse file is set (see below) — reverse-paired items always play muted.
Reverse file	Checkbox + selection list	Pairs this item with a pre-rendered, reversed version of the same clip, enabling forward/reverse playback. The selection list is drawn from files present in the videos folder.
Signal on start	Checkbox + value (0–255)	A byte sent to the connected PC when this item begins playing.
Signal on end	Checkbox + value (0–255)	A byte sent to the connected PC when this item finishes and advances.
Play next	Selection list	The item to advance to when this one finishes. Choosing “(loop — no next)” causes the video to replay from the start indefinitely.
Timed signals	Repeatable list	Sends a byte at a specific elapsed time within this item's playback. Unavailable when a reverse file is set.
Jump triggers	Repeatable list	Defines incoming byte values that, while this item is playing, cause an immediate jump to another item.

About Reverse-Paired Items: When a reverse file is configured, the item is described on the canvas as “reverse-paired.” It remains a single item — the reverse file is a property of the item, not a separate item of its own.

5.5 Configuring an Image Item

Image items share most properties with video items, with the following differences:

Property	Control	Description
Display duration	Value, in seconds (default 5)	How long the image remains on screen before advancing. Applies only to images.

Image items do not have Volume, Reverse File, or Timed Signals — these fields do not apply to images and are not shown.

5.6 Setting the Play-Next Relationship

Use the Play Next selection list in the Item Inspector to choose which item follows the current one. This list is populated with every item currently placed on the canvas. Leaving it set to “(loop — no next)” is a valid, common choice: a video will replay continuously, and an image will remain on screen indefinitely.

5.7 Setting Jump Triggers

Jump triggers let an external signal interrupt the current item and jump to another one immediately, regardless of what is currently playing. To add one:

10. In the Item Inspector, locate the Jump Triggers section and choose Add.
11. Enter the byte value (0–255) that should trigger the jump.
12. Choose the target item from the selection list.
13. Repeat to add additional triggers, or use the delete control to remove a row.

About Duplicate Trigger Values: Two jump triggers on the same item cannot use the same byte value — HoloQ Author will flag this as a warning. The same byte value may be reused safely across different items, since triggers are only active while their own item is playing.

5.8 Marking the Starting Item

Exactly one item in the playlist must be marked as the starting point — the item the HoloQ Player begins with. Select the desired item, then choose the Start Item option in the Item Inspector. Selecting a new start item automatically clears the setting on whichever item held it previously.

6. Saving and Exporting

6.1 Saving Your Work

Choose File → Save, or use the Save control in the toolbar. HoloQ Author validates the entire playlist before writing anything to disk (see Section 7). If validation passes, playlist.json is written to the play-root folder, overwriting any previous version.

6.2 Saving Is a Checkpoint

Saving does not close your project. The playlist remains open for continued editing, and you may save again at any time. HoloQ Author tracks unsaved changes; if you attempt to open a different play-root or exit the application while changes are unsaved, you will be prompted to save first.

6.3 Save As

Use File → Save As... to write the current playlist to a different play-root folder — useful for creating a variant of an existing show without altering the original.

7. Validation & Troubleshooting

HoloQ Author continuously checks your playlist for problems and summarizes them in the status bar at the bottom of the Canvas. Each issue can be clicked to select the affected item. Issues are categorized by severity:

7.1 Blocking Issues (must be resolved before saving)

Issue	How to resolve
A source or reverse file cannot be found on disk	Use Locate File... in the Item Inspector to re-link the item to its file, or restore the missing file to the videos/images folder and reopen the play-root.
No item is marked as the starting item	Select an item and enable Start Item in the Item Inspector.

7.2 Warnings (saving is still allowed)

Issue	Description
Reverse file does not match the source file's length	The forward and reverse files should have identical duration, frame count, and frame rate for a seamless reverse switch. HoloQ Author displays both values so you can compare them.
Duplicate jump-trigger byte within one item	Two jump triggers on the same item share a byte value; only one can meaningfully apply. Review the Jump Triggers list for that item.

7.3 A File Was Renamed or Moved Outside HoloQ Author

If a media file referenced by the playlist is renamed, moved, or deleted outside of HoloQ Author — for example, using the operating system's file explorer while the tool is open — the affected item is flagged the next time HoloQ Author's window regains focus, or the next time you save. Use Locate File... in the Item Inspector to point the item at the file's new location.

7.4 Common Questions

Why doesn't a file I added to the videos folder appear in the library?

The Media Library reflects the folder contents as of the last scan. Switching away from and back to the HoloQ Author window triggers a re-scan; alternatively, reopen the play-root.

Can I leave unused media files in the videos or images folders?

Yes. HoloQ Author does not flag or warn about media files that exist in these folders but are not used in the playlist.

Can I undo a change?

Undo/redo is not available in this release. Save periodically, and consider keeping a backup copy of playlist.json for significant edits.

8. Supported Media Formats & Codecs

HoloQ Author does not transcode or convert media — it references the video and image files exactly as they are found in the videos/ and images/ folders. For playback to work correctly on the HoloQ Player hardware, media files should be prepared in one of the formats below before being copied into the play-root. This section is a reference for producers and editors preparing source media, not a setting configured within the tool itself.

Important: HoloQ Author does not check codec compatibility when a file is added to the library or placed on the canvas. A file in an unsupported format will appear normally in the tool and can be wired into a playlist without error — the incompatibility will only surface as a playback problem on the HoloQ Player hardware itself. Always verify source media against this section before delivery.

8.1 Supported Video Formats and Codecs

The player's hardware video decoder supports the codecs below. Where a codec is hardware-accelerated, playback performance scales up to the resolution and frame rate shown; content beyond these limits may not play smoothly, if at all.

Codec	Profile	Hardware Performance
H.265 / HEVC	Main10	Hardware decode up to 4K at 60 fps, or 6K at 30 fps
VP9	Profile 2	Hardware decode up to 4K at 60 fps

Codec	Profile	Hardware Performance
H.264 / AVC	Baseline, Main, High	Hardware decode up to 4K at 30 fps; hardware encode up to 1080p at 60 fps
AVS2	JiZhun, 10-bit	Hardware decode up to 4K at 60 fps
VP8	—	Playback supported at 1080p, 60 fps
MPEG-1	—	Playback supported at 1080p, 60 fps
MPEG-2	—	Playback supported at 1080p, 60 fps
MPEG-4	Simple Profile / Advanced Simple Profile	Playback supported at 1080p, 60 fps
H.263	—	Playback supported at 1080p, 60 fps
WMV9 / VC-1	—	Playback supported at 1080p, 60 fps

Recommended Practice

- Prefer H.265/HEVC Main10 or H.264 for new content — these have the broadest hardware acceleration headroom on the player.
- Reserve resolutions above 1080p for the H.265, VP9, H.264, or AVS2 rows above; the remaining codecs are only guaranteed smooth at 1080p and below.
- For reverse-paired items (Section 5.4), encode both the forward and reverse files with the same codec, profile, resolution, and frame rate so the reverse switch stays frame-accurate.

8.2 Supported Image Formats

Format	Notes
JPEG / HD JPEG	Recommended for photographic content.
PNG	Recommended when transparency or sharp graphic edges are required.
BMP	Supported; uncompressed, so file sizes are larger.
GIF	Supported as a static image; animation is not applicable within HoloQ playlists.
TIF	Supported.

Source: This format and performance information reflects the underlying HoloQ Player hardware decoder and is provided here for reference when preparing source media. See your hardware platform documentation for the authoritative specification.

9. Glossary

Term	Definition
Play-root	The folder selected when opening HoloQ Author, containing the videos and images subfolders and the playlist.json file.
Item	A single video or image entry in the playlist, represented as one node on the canvas.
Reference name	The unique, automatically assigned name used to identify an item throughout the tool and within the saved playlist.
Reverse-paired item	A video item configured with a reverse file, enabling forward/reverse playback control.
Play next	The item an item advances to once it finishes playing or displaying.
Jump trigger	A rule that causes an immediate jump to another item when a specific signal is received while the current item is playing.
Start item	The single item the HoloQ Player begins playback from.

Term	Definition
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10. Support

For issues not covered in this manual, contact HoloQ Technologies at info@holoq.us, and include the play-root folder name, a description of the steps taken, and, if applicable, a screenshot of the validation status bar.