Results Overlay

Complete user guide

Broadcast graphics operation • Version 26.2 • 21 October 2026

Use Results Overlay to turn live MyLaps Orbits timing data and prepared starting grids into graphics for a broadcast or venue display. This guide takes operators through installation, connection, NDI output, every available graphic, settings, imports, backup and fault recovery.

Start here

For an existing installation, begin with the quick start on page 2. For a new installation, complete pages 3–4 before rehearsing the graphics. Keep the race-day checklist on page 16 beside the production desk.

Contents

Section	Page
1 Quick start	2
2 Installation and timing connection	3
3 NDI output and compositing	4
4 Main controls and connection status	5
5 Templates logos and backgrounds	6
6 Keyboard shortcuts and button visibility	7
7 Live towers ticker and fastest lap	8
8 Qualifying and race results	9
9 Creating and displaying starting grids	10
10 Importing competitors and runs	11
11 Understanding the displayed data	12
12 Backup restore and moving computers	13
13 Troubleshooting	14
14 Build specific behaviour and support	15
15 Race day checklist	16

Edition: Results Overlay 26.2. The supplied published application folder is labelled 26.2.0.4. Instructions use the control labels in this edition. A different installed release may have different controls.

1 Quick start

Keep the Results Overlay input off programme while you check the timing feed and graphics. Buttons change the NDI output directly; the application does not provide a separate preview and take workflow.

1. Start the timing system and ensure its compatible live data feed is available. Obtain its IP address and TCP port from the timing operator.

2. Launch Results Overlay. It attempts to connect on startup. The default destination is 127.0.0.1 on port 50000.

3. Open the gear icon. On Connection, enter the Orbits (MyLaps) IP Address and Port Number. Use 127.0.0.1 only when the timing feed runs on this same computer. Enter the operator email address.

4. On Overlays, choose a template under Set all Overlays to, then click APPLY TO ALL. Start with Default unless the production has specified another template.

5. Choose TRANSPARENT for an alpha-capable production workflow. Close Settings. If the timing address changed while connected, click CONNECTED to disconnect, then CONNECT to establish the new connection.

6. In the production system, select the NDI source Results Overlay from the graphics computer. Confirm a 1280 × 720 image and test compositing over a camera or test picture.

7. Wait for CONNECTED and verify real data: the current run title, competitor numbers and race status. A green connection button alone does not confirm that useful timing messages are arriving.

8. Click RACE ORDER TOWER for race order, or QUALIFYING TOWER for qualifying order. Check the received picture before placing it on programme.

9. Click CLEAR DISPLAY to remove graphics. This leaves the configured background in the output and does not disconnect timing or stop NDI.

During a race

Use TOP TICKER or RACE ORDER TOWER as the main graphic. FASTEST LAP adds a separate graphic and toggles off on a second press. At the finish, use RACE RESULT; press it again to advance through further pages. Clear the display before the timing operator changes to the next run.

For prepared grids

Open the grid/list icon beside the gear, prepare and save a grid, then click STARTING GRIDS and select its event. Selection immediately loads that grid. Repeat STARTING GRIDS to advance pages. To select a different event, clear the display first.

2 Installation and timing connection

What you need

- A Windows computer able to run the supplied WPF application and its .NET Framework 4.7.2 target. This is a .NET Framework application, not a .NET 8 application.
- The complete Results Overlay deployment, including its NDI and other supporting libraries. Keep the application files together.
- A compatible live MyLaps Orbits feed and its address and port. Connecting to a timing computer is separate from selecting the NDI source in the production system.
- An NDI-capable receiving system, or a production system with a compatible NDI input component. Use a network connection suitable for live video.

Install and launch

The supplied package contains a ClickOnce deployment in Examples/C#/WPF NDI Send/publish, including setup.exe, Results Overlay.application and Application Files. Extract the archive before use. Use the installer supplied for this application and keep its deployment files together; copying only the executable can omit required libraries. If this copy cannot install, obtain a current deployment from the application provider rather than moving files between build folders.

Launch the installed Results Overlay entry. The control window is titled RESULTS OVERLAY 26.2 and stays above other windows. The output window is normally hidden; that is not, by itself, a fault.

Set the timing destination

1. Ask the timing operator to enable the compatible TCP results feed and confirm the port. The application default is 50000; the timing service must use the same port.

2. Open Settings using the gear. In Connection, set the IP address to the timing computer. For example, a separate timing computer might have a local-network address such as 192.168.1.50; use its actual address.

3. Enter a whole-number TCP port. Do not leave a partial number or letters in the field: the application parses the saved value when connecting.

4. Close Settings, disconnect any existing connection, and reconnect. A changed address does not move an already-open connection.

5. Confirm CONNECTED, then verify that a test run and competitor data appear.

Connection recovery

Startup makes an initial connection attempt. The status check attempts automatic reconnection after it detects a lost established connection. If data stop, take graphics off programme and verify the feed before trusting the displayed order. For a manual retry, use the connection button; a press while CONNECTED disconnects.

3 NDI output and compositing

Results Overlay sends the graphics as an NDI video source. The normal source name is Results Overlay and the configured output is 1280 × 720, a 16:9 picture. Choose the source associated with the correct graphics computer in your receiver.

Add the source to the production

1. Start Results Overlay before searching for sources in the receiving system.

2. Add or select an NDI input in the receiving application. Choose Results Overlay from the graphics machine.

3. Keep the input in preview or on a test output. Load a known graphic and check its full frame, text and aspect ratio.

4. For TRANSPARENT output, configure the receiver to use the source alpha channel. Confirm that the camera picture is visible through the unused areas.

5. If the production instead uses colour keying, choose GREEN or MAGENTA in Settings and key that colour in the receiver. Check fine text edges and any artwork that contains the key colour.

6. Test CLEAR DISPLAY, then return to a graphic. Confirm the production system shows exactly the intended clean picture before transmission.

Important output behaviour

Action or setting	Effect
CLEAR DISPLAY	Removes graphics; the configured background remains. NDI and timing continue.
TRANSPARENT	Requests a transparent background. The receiving production chain must preserve and composite alpha.
GREEN or MAGENTA	Produces a key-colour background. Clearing graphics is not equivalent to removing the input from programme.
Closing the main control window	Shuts down the application and its output.
More than one application instance	The source name can acquire a time-based suffix. Identify it in the receiver again.
Output resolution	Fixed at 1280 × 720 in this edition. No active resolution selector is exposed.

The local output window is hidden during normal startup and after Settings closes. Monitor the actual received NDI picture in the production system. There is no active main-window button for opening an announcer display in this edition.

If the receiver cannot see the source

Confirm the application is running, the correct computer is selected and the systems can communicate on the intended network. Check the network and firewall configuration with the production technician. Do not confuse the timing TCP port with NDI transport configuration. A working timing connection does not prove the video path is working.

4 Main controls and connection status

Control	What it does
CONNECT TO MYLAPS / CONNECT / CONNECTED	Connects to the saved timing destination, or disconnects if already connected.
CLEAR DISPLAY	Clears every loaded graphic, including Fastest Lap.
QUALIFYING TOWER	Loads live qualifying order and best laps; replaces the main graphic.
QUALIFYING RESULT	Loads the qualifying results page. Repeated presses advance pages.
STARTING GRIDS	Opens Grid Selection, or advances the currently displayed grid.
TOP TICKER	Loads the compact leading-positions graphic, with template-dependent content.
RACE ORDER TOWER	Loads the live race order tower; replaces the main graphic.
RACE RESULT	Loads race results. Repeated presses advance pages.
FASTEST LAP	Adds the fastest-lap graphic; the next press removes it.
Grid/list icon	Opens the competitor database and starting-grid editor.
Gear icon	Opens Connection and Overlays settings.
SpeedwayLive logo	Opens the software website in the browser.

Read the connection indicators

The connection button is khaki while connecting, green when connected and salmon after disconnect or an unsuccessful connection attempt. The status line beneath it reports the feed state.

Status	Meaning
NO LINK	No active link reported after disconnect or at initial display.
READY	The feed has an empty flag state.
RACING	Green flag; remaining laps or time may follow.
CAUTION	Yellow flag; remaining laps or time may follow.
RED FLAG	Red flag; remaining laps or time may follow.
FINISHED	The timing feed reports Finish.

A green graphics button indicates a selected action, not confirmation that the receiver or programme output is showing it. Always use the received picture as the final check. Opening Settings resets button highlighting when it closes; it does not necessarily clear the existing graphic.

5 Templates logos and backgrounds

Connection tab

Setting	Operator guidance
Orbits port and IP address	Timing destination; default 50000 and 127.0.0.1. Reconnect after changing.
Email Address (Required)	Enter the operator or organisation email requested by the application.
Registration Code	Enter a code supplied by the provider when applicable. The label says it is not required for the free version.
Image / ADD IMAGE	Choose PNG, JPG, JPEG or BMP artwork. The application stores the file path.
Display Background Colour	Click to cycle TRANSPARENT → GREEN → MAGENTA → TRANSPARENT.

Choose a consistent template

On Overlays, the available template names are Default, LakeSide, Big Screen, KartSport and Springs. Select a template beside each graphic to mix styles, or choose one under Set all Overlays to and click APPLY TO ALL. Selecting the global template alone does not replace every existing per-graphic selection.

Settings are saved as you change them; there is no overall Save or Cancel button. Close Settings, click CLEAR DISPLAY, then reload the graphic to apply and check changes. This matters for paged results and grids: pressing their existing button may only advance a page rather than rebuild the graphic with its new template.

Add and remove a logo

1. Store the logo in a permanent local folder. Prefer a transparent PNG when the design needs a transparent surround.

2. In Connection, click ADD IMAGE and select the file. Check the preview.

3. Clear and reload the intended graphic, then inspect the receiver. Custom logos are loaded by the tower, result and grid controls where the chosen template provides a logo area.

4. To remove it, right-click the image area and select Remove Image. Clear and reload the graphic.

Do not assume the custom logo will appear in TOP TICKER or FASTEST LAP; these controls do not load the selected custom image in this edition. Template artwork and the custom logo are separate. Moving or deleting the selected file can make the custom logo disappear.

Background changes

Choose the background before the show and test it in the receiver. If a green background remains after switching to another mode, restart the application off air and verify the new mode. This build can leave a green background on the parent output container after GREEN has been used.

6 Keyboard shortcuts and button visibility

Hotkeys trigger the same actions as the main buttons. They are useful for rapid graphics cues, including advancing result pages, but they can also operate while you are working in another application.

Assign a shortcut

1. Open Settings and select Overlays.

2. Click SET HOTKEY beside the action you want to control.

3. Press the desired key, optionally with one modifier: Ctrl, Alt or Shift. Check the displayed combination.

4. Click SAVE. Close Settings to reload the hotkeys.

5. Test the shortcut with the NDI input off programme. Hover over the main button to check its assigned shortcut.

Change or remove a shortcut

Hotkey dialog control	Effect
CLEAR	Clears the combination being entered so you can try another key. It does not remove the saved assignment.
REMOVE	Deletes the saved shortcut for that action and closes the dialog.
SAVE	Saves a captured key combination and closes. Saving without a captured key does not remove an old assignment.

This capture dialog stores a single modifier. Avoid combinations that require Ctrl and Shift together. Choose unique assignments that do not conflict with the production system, timing software or operating system. No fixed default shortcut set is defined; use the assignments shown in your Settings.

Hide unused controls

The Hide Button switches on Overlays remove selected graphics buttons from the main control panel after Settings closes. An enabled switch means hide, not show. CLEAR DISPLAY remains available. Hiding a button does not remove its saved hotkey; remove that separately if the action must not trigger.

Suggested operating discipline

- Give CLEAR DISPLAY an easily remembered, tested shortcut.
- Record assignments in the show notes and hand them to the relief operator.
- Hold off using shortcuts while entering grid names or competitor details; global keys may still activate graphics.
- Use one Results Overlay instance during normal operation. Multiple instances can respond to the same shortcuts and make source selection confusing.

If a shortcut stops responding after a settings change, close Settings and test the equivalent button. If the button works, reassign the shortcut to a unique key, then test again off air.

7 Live towers ticker and fastest lap

Race Order Tower

Click RACE ORDER TOWER to display live race order. The graphic refreshes approximately once per second from the data received. Typical rows show position, number, abbreviated driver name and gap to the preceding competitor. LakeSide uses the surname in the field otherwise used for that gap. Big Screen simplifies the display.

The first ten positions remain present. Except in Big Screen, later positions cycle automatically in groups: 15 additional positions for Default, KartSport and Springs, or 10 for LakeSide. The first group is held about ten seconds initially; subsequent holds vary between approximately six and twelve seconds. Big Screen shows the top ten only. Pressing the tower button again rebuilds it and restarts its cycle.

Qualifying Tower

Click QUALIFYING TOWER for the order supplied by the qualifying feed. Rows use qualifying position and best-lap time. Its first-ten and lower-position cycling follows the same template pattern as Race Order Tower. It requires qualifying data; a valid race connection alone does not guarantee a populated qualifying tower.

Top Ticker

Click TOP TICKER for a compact leading-positions display. The code updates up to ten places where the template has corresponding fields; visible capacity and layout vary by template. Competitor surnames, numbers, nationality/additional data, race title, flag state and remaining laps or time may appear. It is not a free-text news ticker.

Fastest Lap

1. Ensure the timing feed has supplied qualifying/best-lap positions for this run.

2. Load the main graphic, if wanted, then click FASTEST LAP to add the fastest-lap graphic over it.

3. Check the driver and time in the receiver. The control uses qualifying position 1, not the last competitor to cross the line.

4. Press FASTEST LAP again to remove it, or use CLEAR DISPLAY to remove everything.

LakeSide includes fields for the top three qualifying/best-lap positions; the other supplied fastest-lap templates have a single primary entry. No automatic disappearance time is set. New data can update the graphic while it is showing.

Avoid leftover overlays

Switching to a newly loaded main graphic clears the old canvas. Advancing an already loaded result or grid page does not. Remove Fastest Lap before paging, or use CLEAR DISPLAY and reload, so the button state and picture remain easy to follow.

8 Qualifying and race results

Show qualifying results

1. Ask the timing operator to leave the intended run selected and confirm its qualifying order.

2. Click QUALIFYING RESULT. Check the title, position, number, name, best lap and difference to the fastest where the template displays them.

3. Press QUALIFYING RESULT again to show the next group. Allow approximately one second for the refresh.

4. Continue through the field. After the last group, the display wraps to the beginning.

5. Click CLEAR DISPLAY when finished.

Show race results

Click RACE RESULT after the timing operator confirms the finishing order. It uses the current race-position data and refreshes continuously; it is not a frozen or officially approved results snapshot. Typical fields are position, number, full name, gap to the leader and best lap. The exact layout depends on the template.

Press RACE RESULT again to advance its page. To restart at the first page immediately, use CLEAR DISPLAY and then RACE RESULT. A corrected feed can change the order while the graphic is on screen, so coordinate the timing of corrections with the director.

Page sizes

Template	Qualifying or race result	Starting grid
Default	20 competitors	40 competitors / 20 paired rows
LakeSide	10 competitors	24 competitors / 12 paired rows
Big Screen	8 competitors	20 competitors / 10 paired rows
KartSport	20 competitors	40 competitors / 20 paired rows
Springs	20 competitors	40 competitors / 20 paired rows

These are the page steps used by the controls. Check actual readability and fitting with the chosen template, names and fonts before the show. Result and grid pages advance manually; the automatic cycling used by the towers does not apply here.

Keep the correct run on air

CLEAR DISPLAY only hides the graphics. It does not erase timing data or select another run. Run changes and resets come from the timing feed. Take the result graphic off programme before the timing operator loads the next race; otherwise its title or entries may change to the new run.

Qualifying display limits in this build also use the race-position count. If qualifying data are present but the graphic is blank or incomplete, ask for a complete compatible feed including race-position records. See Troubleshooting for recovery steps.

9 Creating and displaying starting grids

Starting grids are stored locally and are independent of the live timing standings. Adding competitors to the grid database does not correct names in live graphics, and live timing does not automatically populate the grid editor.

Build a grid

1. Click the grid/list icon on the main panel to open the editor.

2. Under COMPETITOR DATABASE, choose or type a CLASS. Enter a competitor number and name, then use the add button. Enter in the number field moves to the name; Enter in the name field adds the competitor.

3. Under STARTING GRIDS, type a clear event name before adding positions. Use a unique title such as Sprintcars Heat 1.

4. Double-click competitors in the left list in starting order. The first two form row 1, the next two row 2, and so on. Check the required left/right convention with the event officials.

5. Check every number and name. There is no per-row drag, reorder or delete control in this editor. If the order is wrong, clear the grid and rebuild it.

6. Click SAVE GRID DRAW. The editor clears its current selection after saving. Select the event again to confirm it was saved correctly.

Edit an existing grid

Select its event name to load the saved order. Double-clicking competitors appends them; it can add the same competitor more than once. To rebuild, click CLEAR GRID DRAW and add the order again, then save. CLEAR GRID DRAW writes the empty grid immediately without a confirmation prompt. Use it only when you intend to replace that order.

Set the event title before building positions. Typing or changing the event name reloads the matching saved grid and can discard unsaved work. Saving under an existing exact event name replaces that grid. There is no dedicated rename or delete-one-event command.

Put a grid on air

1. Click CLEAR DISPLAY, then STARTING GRIDS.

2. In GRID SELECTION, click the event name. Selection immediately loads it; there is no separate Take button.

3. Press STARTING GRIDS again for later pages. To choose another event, clear and reopen STARTING GRIDS.

4. After editing a displayed grid, clear and reselect it. The on-air control holds the selected grid text and does not automatically reread the saved file.

CLEAR ALL STARTING GRIDS deletes the entire saved grid list after confirmation. CLEAR COMPETITOR DATABASE deletes the local competitor list after confirmation. They affect separate files; clearing competitors does not remove the names already saved inside grids.

10 Importing competitors and runs

Import a competitor database

IMPORT COMPETITOR DATABASE reads a tab-delimited text file. It skips the first line as a header and uses the first four columns in the following order. A comma-separated CSV is not the required layout.

Column	Required content	Example
1	Competitor number	19c
2	Class	Sprintcars
3	First name	Alex
4	Last name	Taylor

Example file layout below uses [TAB] to make the separators visible. Replace each [TAB] with a real tab; do not type the literal marker into the file.

Number[TAB]Class[TAB]FirstName[TAB]LastName

19c[TAB]Sprintcars[TAB]Alex[TAB]Taylor

7c[TAB]Sprintcars[TAB]Jamie[TAB]Smith

1. Prepare the four columns in that order and include the header. Save as tab-delimited .txt.

2. Open the grid editor, click IMPORT COMPETITOR DATABASE and select the file.

3. Wait for LOADING DATA PLEASE WAIT to clear. Choose each imported class and check the numbers and names.

4. Build and save the starting grids manually. Importing competitors does not assign starting positions.

Import appends new records and skips exact existing class/number/name matches. It is not an update-by-number operation: a changed spelling can create another record. Every nonblank data row needs at least four columns. Double quotes are removed from imported values. Extra columns are ignored.

Import groups and runs

IMPORT GROUPS AND RUNS reads XML. It recognises run elements with a name attribute and competitor elements with no, class, firstname and lastname attributes. Use a compatible export from the timing workflow, then inspect the result in the editor.

This import creates run/event titles and adds competitors to the database. It does not turn competitor ordering into a populated starting lineup. Manually select the competitors for each grid and save it. Start the import with no unsaved grid in the editor; matching event names may be saved over, so back up existing grids first.

Keep text safe for local storage

Avoid vertical bars, underscores and embedded line breaks in grid titles, class names, numbers and competitor names. The local files use these characters as separators. If an import fails, correct its format before retrying; an interrupted import may already have added some records.

11 Understanding the displayed data

Displayed information	Where it comes from
Race title	The current run description from the timing feed.
Race order	Race positions sent by timing; not the saved starting grid.
Qualifying order	Qualifying positions and best laps sent by timing.
Race result gap	Calculated time/lap gap to the leader.
Race tower gap	Normally the gap to the preceding competitor; template exceptions apply.
Qualifying difference	Difference between the competitor best lap and the qualifying leader best lap.
Best lap / Fastest Lap	Qualifying/best-lap information for the current feed state.
Flag state and remaining laps or time	Heartbeat data from the timing system.
Nationality or additional label	Competitor data supplied by the feed; meaning depends on its setup.
Starting grid title and competitors	The locally saved event and competitor text selected in Grid Selection.

Names numbers and missing fields

Live graphics do not have a manual correction screen. Ask the timing operator to correct the live source and resend the data. The grid database is a separate list used only for prepared grids. A correct name in a starting grid does not guarantee that the live result will show the same spelling.

The towers often abbreviate first names. TOP TICKER commonly uses surnames. Full-result and fastest-lap controls use full-name fields. Some feed message variants may populate first and last names without constructing the full-name field, which can produce blank names in certain graphics.

Timing and refresh

The main graphics refresh about once per second after data arrive. This is the data refresh interval, not a statement of NDI video frame rate. Network delivery, the timing feed and the receiver all affect when viewers see a change. Laps and time remaining are supplied by timing rather than counted independently by Results Overlay.

Blank gaps can be normal for the leader or when the feed lacks comparable timing data. Lapped competitors can show a lap deficit instead of a time. Check suspicious values with timing rather than correcting them in the grid editor.

Authority of results

The application displays the current data; it does not apply sporting penalties or declare results official. Obtain approval from timing or officials before describing the on-screen order as final. For a new run, confirm the title and refreshed field before showing graphics again.

12 Backup restore and moving computers

Settings and saved grids belong to the current Windows user. A second Windows login can therefore open the same application with different settings and empty lists.

What to preserve

Item	Location or method
Competitor database	%LOCALAPPDATA%\RO_CompetitorList.ro
Saved starting grids	%LOCALAPPDATA%\RO_EventList.ro
Settings and hotkeys	HKEY_CURRENT_USER\Software\Results Overlay
Custom logo	The original image file selected in Settings; it is referenced by path.
Installation	Keep the complete installer/deployment package for the approved release.

Before making major changes

1. Take graphics off programme and close Results Overlay.

2. Press Windows+R, enter %LOCALAPPDATA% and copy RO_CompetitorList.ro and RO_EventList.ro to a dated backup folder. Files may not exist before their first use.

3. Copy the selected logo image to that folder or another recorded backup location.

4. Record connection settings, template selections, background and hotkeys. A technician can export only HKEY_CURRENT_USER\Software\Results Overlay using Registry Editor if an exact settings backup is needed.

5. Label the backup with event, date, Windows user and application version. Reopen and test before the show.

Restore or move to another computer

1. Install the approved application on the destination computer and close it.

2. Copy the two .ro files into the destination user's %LOCALAPPDATA% folder. Replacing files replaces that user's current lists; keep a copy of them first.

3. Re-enter settings, or have a technician restore the specific registry branch. Review the timing IP and port for the new computer.

4. Use ADD IMAGE to select the logo at its destination path. Old paths may not exist on the new computer.

5. Open saved grids, verify their order, connect to timing and confirm the NDI source in the receiver. Test hotkeys and clearing.

Data handling and cleanup

There is no in-app backup/export command. Avoid manually editing the separator-based .ro files during normal operation. The supplied build also attempts to append incoming timing data to D:\raceoverlay.txt when that path is writable. This diagnostic file is not a replay or restore facility; it may grow during use and is not guaranteed to exist. Close the application before a technician archives or removes it.

13 Troubleshooting

Symptom	Check and recovery
CONNECT stays salmon	Confirm timing is running and the IP/port match its TCP feed. Use loopback only for a feed on this PC. Check routing/firewall with the technician, then retry.
CONNECTED but no useful data	Confirm the correct run and compatible live messages are being sent. A socket connection is not proof of complete results. Ask timing to refresh/resend the current run.
Receiver cannot find Results Overlay	Check the application and graphics computer, network visibility and receiver NDI input. If several instances exist, look for a suffixed source name.
Blank picture after CLEAR DISPLAY	Expected with transparent output. Load a known graphic and test the alpha composition. Clear does not stop the source.
Solid background over the camera	Check TRANSPARENT versus GREEN/MAGENTA and the receiver alpha/key settings. If green persists after a mode change, restart off air.
Wrong run or stale order	Take the input off programme. Confirm timing selected and reset the intended run; reconnect or restart if needed, then verify the refreshed title and competitors.
Qualifying graphic empty or incomplete	Request complete race-position and qualifying data. This build uses race-position counts when deciding which qualifying rows to show.
A tower row or name is missing	Check first/last names in the feed. Empty first names can cause a tower row to be skipped. Full-name graphics can also be affected by the feed message variant.
Results will not change template	CLEAR DISPLAY and reload. Pressing an already active result button only advances its page.
Logo missing	Check the original file still exists and reselect it. Confirm the template has a logo area; custom images are not loaded in Top Ticker or Fastest Lap.
Grid list empty or unsaved changes lost	Check the Windows user and .ro file. Save before changing titles or closing. After saving, reselect the event to verify it.
Grid import fails	Use a header and four tab-delimited columns, not commas. Check all data rows. For XML use the expected element/attribute names.
Hotkey fails or fires unexpectedly	Test the button, use a unique single-modifier assignment and close Settings. Remove the shortcut separately from hiding its button.
Application closes or cannot launch	Record the error and action. Verify the complete deployment and required framework. Restore the approved release or ask the provider; avoid mixing DLLs from different folders.

If the output is wrong and the application is unresponsive, remove its input at the production system first. Restart only once it is off programme. Recheck the source, data and graphic before returning it to air.

14 Build specific behaviour and support

The following details matter when operating this edition. Rehearse the exact templates and combinations planned for the show.

- Live action: graphics buttons change output immediately. Grid selection also loads immediately. Use the receiving system for preview and programme control.
- Fastest Lap state: paging an existing result or grid resets the main-panel Fastest Lap state without necessarily removing the overlay. Repeated toggling can leave an extra layer. CLEAR DISPLAY removes all layers and restores a known state.
- Grid page boundary: when a grid exactly fills a page, a further press can show an empty page before it wraps. Press again, or clear and reselect the event.
- Qualifying dependency: qualifying controls use race-position counts for their display limits. They can omit qualifying-only entries if the feed does not also supply matching race-position data.
- Names: a missing first name can cause a tower row to be skipped. Some full-name displays depend on which competitor message variant the timing feed sends.
- Background: GREEN is applied to both the canvas and parent container; later colour changes do not fully reset the parent. Restart off air if the old green remains.
- Settings and feedback: most settings save immediately. Closing Settings reloads shortcuts and resets button highlights, but may leave the current graphic on the output.
- Unavailable controls: the resolution selector and Automation tab are hidden. Announcer-display and refresh-connection icons are not active operator features in the main panel.

Network reporting

At startup, the application attempts to report licence/installation information to SpeedwayLive. Graphics actions also attempt usage reporting. The submitted fields include the entered email, track, computer name, selected templates and action; startup adds Windows user/domain, operating-system and hardware information. The supplied reporting endpoints use HTTP. Calls run synchronously and slow responses can delay the interface. Reporting errors are caught without a visible diagnostic message.

When asking for help

Provide the application title/version, Windows version, selected template, graphic, run title, steps to reproduce and the exact error text. Say whether timing connects and whether the receiver sees the NDI source. Include a picture of the received output and relevant timing sample only when appropriate. Do not send registration codes or unrelated private data.

The in-app logo opens https://speedwaylive.co.nz/software. Use the provider’s current support channel. Keep an approved backup configuration available before testing a different release.

Technical reference for this edition

The operator behaviour maps to Window_MAIN, Window_SETTINGS, Window_NDI, Window_GRIDSETUP, Window_GRIDSELECTION and Window_SETHOTKEY; graphics use the UserControl files and Template resources. Class_MyLaps handles timing input; Class_Global handles settings, files and reporting. These names help a maintainer locate a reported issue.

15 Race day checklist

Before the audience sees graphics

- Confirm the approved application release, Windows login and correct timing address/port.
- Back up the competitor list, event grids, logo and settings before imports or bulk clearing.
- Check the network and select the correct Results Overlay NDI source in the receiver.
- Confirm 16:9 framing and the transparent or keyed background over a camera picture.
- Load every graphic you plan to use. Check fonts, long names, logo placement and later result pages.
- Check starting grids against the official order, including paired rows and later pages.
- Test CLEAR DISPLAY and each assigned hotkey. Confirm no conflicts with other production controls.
- Agree with timing how run changes, corrections, finish confirmation and data loss will be communicated.

For each run

Stage	Operator action
Before the start	Verify current run title and class with timing. Select the correct saved grid and check the first page before taking it.
Grid presentation	Advance STARTING GRIDS deliberately. Clear it before selecting another event or switching the timing run.
Qualifying	Use QUALIFYING TOWER. Show QUALIFYING RESULT or FASTEST LAP only after confirming their data.
Race underway	Use RACE ORDER TOWER or TOP TICKER. Monitor changes against the timing feed.
Caution or red flag	Confirm the status follows timing. Remove graphics if the data are unreliable.
Finish	Get timing confirmation, then show RACE RESULT. Advance remaining pages and keep results provisional until approved.
Next run	Clear graphics before timing loads the next run. Verify the new title and field before taking graphics again.

If something goes wrong

Remove the input from programme at the production system. Use CLEAR DISPLAY if the application responds. Check timing and NDI separately, recover the failed path, then verify a known graphic in preview before returning it to air.

After the meeting

Take the input off programme, clear graphics and close the main window. Back up useful grids and settings, note any faults and check diagnostic-log growth if the D: log is being written. Closing the main window shuts down the application; it is not a hide-only action.