# What's New in Lyric v5.0?

New Features

- **Backup & Restore:** Provides a convenient way to backup assets associated with a **Browser** or **Directory** and move these to another system. **Backup** collects assets (bitmaps, messages, **TrueType® Fonts**, etc.) into user-specified folders. **Restore** allows specification of folder locations for each asset type. Accessed from the Lyric **File** menu.

- **Soft Masks (Duet LE/LEX/PCI/PCI+ Only):** Accessed from the context (right-click) menu for the object in the **Scene Graph** or **Canvas**.

- **Center of Rotation** can now be displayed on an object. Accessed from the context (right-click) menu for the object in the **Scene Graph** or **Canvas**.

- **3D Canvas Scene Views (XY, YZ, XZ, Perspective):** In addition to the normal Lyric **Front** view, the **Canvas** now has **Top**, **Perspective**, **Left** and **Multi** views available. Two related preferences: **Show Viewport Labels** in **CG Preferences**, and **Lock Viewport Sizes** in **Windows Preferences**. **Preferences** are accessed from the Lyric **Config** menu. A **Multi View** on/off toggle is also available from the **View** menu.

- **New internal clip player hardware** supports multi-channel clip playout. **Clear Output** button has been added to the **Clip Control Panel**. Also, pressing **Ctrl + Alt + Q** (PC keyboard) or **Alt + Erase** (Duet keyboard) can clear the current clip player channel and frame buffer output. The following should be noted:

  o The minimum offset of a clip on the **Timeline** is **3** frames. Anything less than **3** frames is ignored, and treated as if set to **0** frames.

  o The minimum number of frames that can be looped to from the end of a clip is **15**. Output is unpredictable if the loop frame is set to less than 15 frames from the end of the clip.

  o **Default Operation Selection:** The first frame of a clip is not displayed in output when a message containing a clip is loaded. When the message is executed, the clip starts playing and is then visible on output.

    ▪ To change default behavior so that the first frame of the clip is displayed on output when the message is read, navigate to file in which Lyric is installed. Double-click on the file *DisableMatroxSourceSwitcher.reg*. Displaying the first frame of the clip was the default behavior of messages read in versions of Lyric predating Lyric v5.0. Note that clips contained in messages created in these earlier versions behave according to the current default setting in Lyric v5.0 when read.

    ▪ To revert back to the default behavior for Lyric v5.0, navigate to file in which Lyric is installed, and then double-click on the file *EnableMatroxSourceSwitcher.reg*.

  *Refer to **What's New in Lyric v4.14?** and **What's New in Lyric v4.15?** for additional information on clip player enhancements. Refer also to **Internal Clip Control Player** and **Clip Control Panel** for detailed information on clip operation. Note that the content in these two sections is superceded by the enhancements in the release notes.*

- New **Advanced Image Effects** have been added: **Assemble/Disassemble**; **Flipboard**; **Crumble**; **Detonate**; **Flag**; **Bulge** (Duet LEX/PCI+ only); and **Globe** (Duet LEX/PCI+ only).

- **Motion Path:** A **Motion Path** can be displayed for any 2D bitmap, 3D character or 3D object that contains more than one keyframe. The **Motion Path** is accessed from the context (right-click) menu for the object in the **Scene Graph** or **Canvas**.

- Rendering performance has been improved on Duet LEX/PCI+ systems.

- **Movie Objects:** Adds the ability to import AVI or Quicktime movie files (RGB only) into the scene as animatable objects. **Image Effects** can be applied to **Movie** object.

- **Scene Graph:** Objects in the **Scene Graph** can now be color-coded. The text/highlight color in the **Scene Graph** for an object can be changed from the context (right-click) menu for the object in the **Scene Graph** or **Canvas**.

- **Animation Rate:** Can now maintain the animation rate (i.e., the number of characters displayed per second) by automatically modifying the animation in a **Type On**, **Roll**, or **Crawl** window. This feature is accessed from the **Animation** tab of the **Properties** window, and is made active by enabling the **Speed** or **Rate** buttons.

- **Keyframe All Objects** and **Keyframe Selected Objects** on the **Edit** menu now include all applicable attributes for each object.

- The **Font Sample** chip in the **Font Properties** and **2D Font FX Properties** tabs and on the **2D Text Template** dialog box is now red-slashed if the **TrueType Font** is not available.

- **Playlist:** New features have been added to the **Playlist**:

  o The **Playlist Configuration** dialog has been expanded to include **GPI** triggers for **Line Up** and **Line Down**.

  o Default Playlist Attributes.

  o **Scroll Offset**.

  o **Preview Options**.

  o **Cue Clip**. **Cue Clip** was moved from the **Control** column of the **Playlist**.

- **Read Next** mode is now maintained per frame buffer. That is, changing to a different frame buffer no longer clears the **Read Next** status of the inactive frame buffer. **Read Next** is still in force when the original frame buffer is reactivated.

- **Advanced Image Effects** now keeps the object on screen based on the duration of the object on the **Timeline**, not the duration of the effect.

- **GPI Pauses** are now supported for nonstop **Flipbook** animations on Duet LE/LEX/PCI/PCI+ systems.

- **Enhancements to Selective Recording (Ctrl + Record):**

  o **Record a Template Data Message from within Lyric:** Multiple **Template Data Messages** can reference the same **Template Description Message** and therefore the format of all **Template Data Messages** can be changed by simply modifying the underlying **Template Description Message**.

  o **Preview Frame:** Specify which frame should be shown in **VGA** (**Canvas**) preview if this preference is enabled.

  o **Embedded Macro:** Embed a macro in a message. The macro auto-executes when the message is read.

  o **Ctrl + Alt + Record:** New accelerator key combination added to selectively record (**Ctrl + Record**) to the same message number as that loaded in **Canvas**.

- The **Load**, **Quick Load**, **Load Saved**, **Save**, **Stop** and **Play** icons have been removed from the **Duet LE/LEX/PCI/PCI+ Tools** toolbar. **Load (Alt + L)**, **Quick Load (Alt + Q)**, **Stop (Esc)** and **Play (Alt + Y)** functionality are still available from the accelerator keys as noted above. The **Save** and **Load Saved** functions have been removed.

- Changes to display priority via drag-and-drop in the **Scene Graph** view are now possible even if a group is present. Drag-and-drop within a group is also now supported. To facilitate these changes, a group added to a new message will now dictate display priority of all its members of equal **Z** value. This is enabled/disabled via **Use Group Priority**, accessed from the context (right-click) menu for the object in the **Scene Graph** or **Canvas**, and then selecting **Internal Properties**.

- Texture compression is now supported for **Flipbooks** and **2D Bitmaps**. An nVIDIA® GeForce FX or better board is required. Duet LE/LEX/PCI/PCI+ systems will be able to create and record messages which have compressed **Flipbooks/2D bitmaps**. Duet SD systems will be able to read messages with compressed **Flipbooks** but will uncompress them before playback. Using compressed textures will speed up message **Read** and **Record**.

- **Advanced Text Effects:** Duration of an **Advanced Text Effect** will now automatically increase when necessary so that effect can be completed on all applicable elements of the **2D Text Window**.   This adjustment is applied *only when configuring* the effect.

- **Clocks/Timers:**

  - Support new clock/timer format specifier –0 which will strip the leading zero off of such formats as h:mm, causing timer to display :59 instead of 0:59

  - Allow clocks/timers to support justification to prevent digits from moving to the left when the new format above is used.

- **Message Record** and **Delete** information on the **Status Bar** is now more prominently displayed with a green background.

- A particular surface on a 3D object can now be selected with the mouse.   **Reflective**, **Masked** or neither can now be set in **Properties > Surface** for each individual surface.

- **Graphic Import:**

  - **Import Graphic** now supports the import of 32-bit Photoshop, **PNG** and **LZW** files.

  - The **Import Graphic** dialog now has a **Merge Layers** checkbox for Photoshop files. If not selected (checked), each layer in the Photoshop file is imported as a separate image, and is displayed as such in the **Scene Graph**.

- An animation on a Duet LE/PCI system now plays out to scene **Duration** instead of the length of the **Camera Timeline**.

- **Paste Unicode Text** now immediately adjusts to existing **Row Tabs**.

- A variety of **Internal Properties** can now be set per object or per message. **Internal Object Properties** can be accessed from the **2D Text Window**, 2D object, 3D character and 3D object context (right-click) menus. **Internal Message Properties** can be accessed from the **Light**, **Global Light** and **Camera** context (right-click) menus. **Internal Message Properties** can also be accessed from **Tools Menu > Set Message Properties**.

- The **Config Menu > Duet Hardware > Setup Board Configuration** tab has been reformatted. The **Video Insert/Video Only** controls are no longer present; **Video Insert** is always set. If you wish to disable the graphics layer, you should instead erase the frame buffer. NOTE: Certain configuration settings have been deprecated in the registry. Therefore, if you attempt to go back to a previous version of Lyric after using this version, you may need to reset the **Video Standard**, **Genlock**, and **Video Insert** settings for each board in the system.
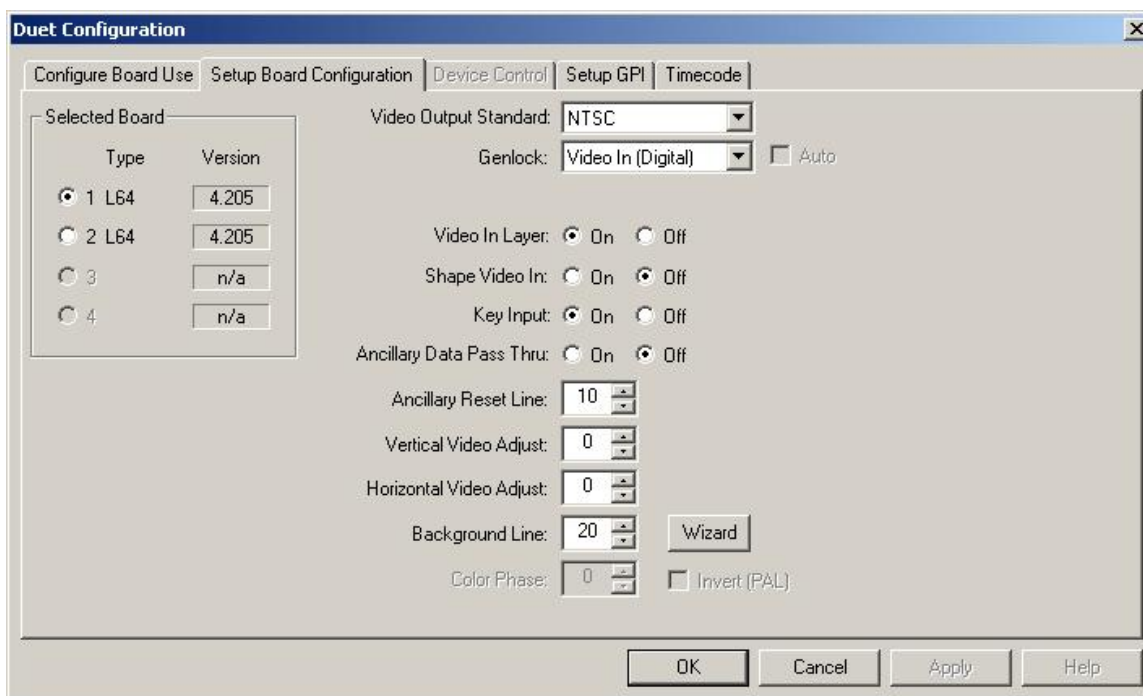
- Chinese, Japanese, and Korean 2D and 3D text input to the **Canvas** is now supported. Also support **Template Update** and **Spline Edit Window** for these languages. Note that **Unicode Only** must be selected (checked) in the **CG Preferences** to enable Asian language support. **CG Preferences** is accessed from **Config Menu > Preferences**.

- Analog Lantern 64 PCI cards are now supported. Configuration of Analog cards is subject to certain limitations: **Video In** layer cannot be turned off; **Video Out** cannot be delayed horizontally or vertically; and **Ancillary Data** settings cannot be modified.

- When reading a **Template Data Message** (**Intelligent Interface W** file), the **Template Description Message** will now be read from the same directory (i.e., the **Intelligent Interface** directory, if read by **Intelligent Interface**). This directory is also the **Default Message Directory**, which is set from **Config Menu > Preferences > Default Paths**. The **Intelligent Interface Message Directory** path can also be viewed from **Config Menu > Intelligent Interface**.

- **Ctrl + Tab** in **2D Text Windows** are now supported in pasting, **Template Update** and **DBLink**.

- New compositing (i.e., blend) modes are now supported in the **Animation Settings Preferences**:

  o **Fast:** Produces fastest rendering times, but sacrifices quality on overlapping transparent pixels.

  o **Normal:** Accurate compositing of transparent overlapping pixels, but slower render times than **Fast**. Also requires GeForce FX or better VGA card.

  o **Depth (2 Pass):** Accurate compositing of intersecting transparent objects, but yields slowest rendering times.

  o **Fast/Fix Key:** Fast rendering plus improved alpha blending for overlapping transparent pixels and **Key** signal.

- **Macros/LEIF Additions and Modifications:**

  o **Font on Text** object is now settable, i.e., the default font for a **2D Text Template** can be changed from a macro/plugin.

  o Calling the **Update** method on a **Font** object will now apply changes to selected characters as well as update active font.

  o Calling the **Load** method on an **Image** object with an empty string for the filename will cause the **Graphic Import** dialog to pop up.

  o Added **RemovePreMultiply** property to **Image** object.

  o A new method **IICommand** on Lyric object will accept and process an **Intelligent Interface** command.

  o New **Surface** object for 3D characters/objects allows get/set color and texture filename.

  o **Enhanced Row** object to support retrieval of text, font, character position, etc.

  o If **Globals** have been entered in the **Globals** tab of the **Macros** dialog box, **Save Globals** in the **Save Macros To** dialog box is automatically selected (checked).

  o The hotkey for a macro is not displayed if there was a failure to register the macro.

  o The maximum length of an auto-recorded macro statement has been increased from 256 bytes to 2K.

  o Added method **NextTemplate** on **Template** object to return the next template in numerical sequence.

  o Added **Move** method to Image and **Template** objects.

  o Added method **Message to Scene** object to return the message number of the current scene. This will be accurate on read and record, while Lyric.Message is not.

  o Added **MessagePath** property to Lyric object to get/set the preferred message path.

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Bug Fixes

- Resolved problem where a **Template** field was auto-erased erroneously when reading a **Template Data Message** (**W** file) which contained fewer updates than were **Templates** available.

- Resolved color-caching issue when the font edge was changed from a file-based texture to a gradated texture.

- **Clocks/Timers:**

    - Corrected resource leak occurring on change of format string (Duet LE/PCI only).

    - Synchronized **Clock/Timer** display with Lyric objects on transfer to Duet LEX/PCI+ output.

    - All **Clocks/Timers** on Duet SD output are now stopped if an animation error occurs with any one of them.

- Duet LEX/PCI+ **Video** setting is now maintained upon exit from Lyric.

- Resolved problem where an **Advanced Image Effect** would not execute once the image was updated through **DBLink**.

- Resolved a resource leak occurring during **Playlist** execution on Duet LEX/PCI+.

- Resolved issues related to soft **Type On** for Duet SD and Duet LE/LEX/PCI/PCI+.

- If **2D Frames On** is selected from the selected **2D Text Window** context (right-click) menu, all frames of selected text windows are toggled on/off. Previously, only the last-selected **2D Text Window** was toggled.

- Resolved incorrect sort order in message entries generated by a **Browser Search**.

- **Intelligent Interface:**

    - An animation read up via a **Y** command on a Duet LE/PCI system can now be played to the active output frame buffer with a subsequent **Y** or **V** command.

    - **Diagnostics** section in **Intelligent Interface** dialog box (accessed from **Config Menu > Intelligent Interface**) will now update if connected over **Telnet**.

    - **Telnet** and **Recall Keys** options are now prevented from being selected simultaneously in the **Intelligent Interface** dialog box (accessed from **Config Menu > Intelligent Interface**).

    - The **Recall Keypad** display will now report **Invalid Message** if a **Read** or **Read Next** fails to load a message. This problem existed on Duet LE/PCI only.

- **Masks:**

    - Resolved intermittent issue with surface transparency of **2D Text Windows** if they render after a **Mask** object.

    - Resolved blending problems with other characters in a **2D Text Window** in which a **Mask Character** was present.

- Resolved scaling issue with the first character in an animated **2D Text Template** if it was located near the **2D Text Template** boundary

- **Playlist** and keyframe pauses for **GPI** now function correctly when **RS-422 Serial I/O & GPI/O Board** was installed in a Duet LE/PCI system.

- Resolved flash on Duet SD output if mixer was reset to default when either **Output Layer** was set for mix

- Resolved intermittent problem where text would not appear on Duet SD output if the containing **2D Text Template** had a background.

- Resolved problem where characters would be missing from a **2D Text Window** after an extended period of constant updating.

- Corrected **Timeline** length of group members when **Apply All** was executed from **Animation Properties**.

- Resolved problem with iNFiNiT! batch export on Duet LE/PCI, where missing **Message Numbers** within the specified range were still exported. They contained content from last available message.

- Corrected **Auto Standards Conversion** bug, where **16:9** message was not properly scaled when read into a **4:3 Canvas**.

- Resolved problem where an iNFiNiT! character was replaced via **Sync TrueType Fonts** if it had been imported into a **2D Text Window** in which a **Browser** font was active.

- Corrected screen position of **2D Text Windows** that had **Xscale/Yscale/Zscale** keyframes.

- Ensured the availability of font assets in the **Browser** is updated when read from the database file. Previously, only those font assets visible in the **Font Browser Window** were checked. As a result, **Sync TrueType Fonts** could update characters to a non-existent font.

- Resolved problem where **Key Input** and **Shape** settings for the **SD Mixer** were not being saved for a **Timeline** mix if offline.

- Reload of image data during message read (e.g., for non-embedded, interfaced or **DBLinked** images) will no longer make the image visible if it is not.

- Resolved crash occurring if a larger font was applied to a **2D Text Template** with **Word Wrap** enabled

- Corrected operation of Aprisa VCS if **Use Channel B** was selected.

- Corrected problem in reading pop-on messages, where characters would be added, but then deleted when subsequent characters were inserted out of sequence on the same row.

- Plug texture memory leak on successive video captures on LE

- Template data messages read through **Intelligent Interface** will now use the **Intelligent Interface** message directory

- Corrected Duet LEX/PCI+ video settings for **Video Key** enable not being stored/restored from registry correctly.

- **Internal Clip Player:**

    o An internal clip will no longer start prematurely on Duet LE/PCI systems if the animation is paused at frame **0**.

    o Resolved problem where internal clip added after audio clip would not have visible video.

    o Resolved problem where a clip would not play if read up twice while another looping clip was playing on output.

    o Resolved problems with using clips from two channels in same frame buffer

- GPIO on Duet LE/PCI systems

    o Resolved problem where a GPI used to release a pause could not be used for any other purpose (i.e. as a global GPI) without restarting Lyric.

    o All available GPIs are now automatically allocated when Lyric starts up.

    o Corrected board and pin designations listed in Duet Hardware for second and subsequent VGBs.

    o Existing GPI assignments will no longer be overwritten when Global GPIs are configured unless the global GPI is enabled.

- **Wipe Image Effect** now supports a softness of 0 (none)

- Correct error message posted if the source object for an object-textured image is not found.

- Corrected scaling of graphics imported into 16 x 9 SD canvas when **1:1** aspect is disabled.

- Corrected **Save As** cropping with Duet HD.

- **Macros/LEIF Corrections/Modifications:**

    o **Get/SetBackgroundVisible** on **Scene** object now properly handles solid or gradated color background.

    o Improved error reported if a file cannot be loaded into an **Image** object.

    o **MajorVersion** and **MinorVersion** methods on **Version** object now return correct values.

    o **Rect** method on **Template** object now returns correct values if **Canvas** is scaled and/or **16:9**.

    o Reversed operation of flag for **SizeToFit** method on **Template** object, which had been counter-intuitive

    o Resolved problem where saving a trigger macro twice to the same file would delete the file.

    o Simultaneously executing and recording macros is now prevented. This conflict can occur when an **Intelligent Interface E** macro execution command is sent while a macro record is in progress.

- Resolved kerning issues with a clock/timer on a 16 x 9 canvas on Duet LE/PCI systems.

- **Esc** is no longer accepted as the **Playlist Take** hotkey.

- Resolved problem where **F2** would not delete remainder of row if preceded by **Ctrl + Home**.

- Resolved problem where **Ctrl + Click** selection of group members in **Scene Graph** would select objects outside of the group.

- Corrected processing of characters typed with two keystrokes such as accented characters.

- Resolved problem where a **Playlist** read from file would be erroneously updated with default parameter settings.

- Disabled ability to move **4:3** reference Safe Title using the mouse.

- Corrected **Alpha** of exported QuickTime movies.

- Import of an image into a **2D Text Window** will not wrap to the next line if **Word Wrap** is not enabled.

- Fixed problem with the cursor not moving if **2D Frames On** are off.

- When in **Preview Mode**, if you try to add another node, you'll snap out of **Preview Mode** and the new node will start at frame **0**.

- If an image file is not found on load (e.g., during **DBLink**), the error is now posted to the Lyric status bar instead of in a message box.

- Resolved crash when a second Lyric process exits on Duet LEX/PCI+ systems.

Known Issues

- PCI-Squeezeback boards do not support **Clocks/Timers**.

- A **Clip** with a **Start Time** of **0**, **1** or **2** frames always starts at **Frame 0** when the animation is executed. A **Clip** with a **Start Time** of **3** or higher executes at the specified frame.

- **Clip Control Panel:** The minimum number of frames that can be looped to from the end of a clip is **15**. Output is unpredictable if the loop frame is set to less than **15** frames from the end of the clip.