

LiveCode 10.0.4 Release Notes

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Overview

This document describes all the changes that have been made for LiveCode 10.0.4, including bug fixes and new syntax.

Platform support

The engine supports a variety of operating systems and versions. This section describes the platforms that we ensure the engine runs on without issue (although in some cases with reduced functionality).

Windows

LiveCode supports the following versions of Windows:

- Windows 7 (both 32-bit and 64-bit)
- Windows Server 2008
- Windows 8.x (Desktop)
- Windows 10
- Windows 11

Note: On 64-bit Windows installations, LiveCode can run either as a 32-bit application through the WoW layer or as a native 64-bit Windows application, depending on the installer that is chosen.

Linux

LiveCode supports the following Linux distributions, on 32-bit or 64-bit Intel/AMD or compatible processors:

- Ubuntu 14.04 and 16.04
- Fedora 23 & 24
- Debian 7 (Wheezy) and 8 (Jessie) [server]
- CentOS 7 [server]

LiveCode may also run on Linux installations which meet the following requirements:

- Required dependencies for core functionality:
 - glibc 2.13 or later
 - glib 2.0 or later
- Optional requirements for GUI functionality:
 - GTK/GDK 2.24 or later
 - Pango with Xft support
 - esd (optional, needed for audio output)
 - mplayer (optional, needed for media player functionality)
 - lcms (optional, required for color profile support in images)
 - gksu (optional, required for privilege elevation support)

Note: If the optional requirements are not present then LiveCode will still run but the specified features will be disabled.

Note: The requirements for GUI functionality are also required by Firefox and Chrome, so if your Linux distribution runs one of those, it will run LiveCode.

Note: The browser widget and the revbrowser external are not currently supported on Linux. Support will be reintroduced in a later version when compatibility issues between up to date versions of CEF and the engine have been resolved.

macOS

The macOS engine supports Intel architecture machines running the following operating system versions:

- 10.9.x (Mavericks)
- 10.10.x (Yosemite)

- 10.11.x (El Capitan)
- 10.12.x (Sierra)
- 10.13.x (High Sierra)
- 10.14.x (Mojave)
- 10.15.x (Catalina)
- 11.x (Big Sur)
- 12.x (Monterey)
- 13.x (Ventura)
- 14.x (Sonoma)

The macOS engine supports Apple architecture machines running the following operating system versions:

- 11.x (Big Sur)
- 12.x (Monterey)
- 13.x (Ventura)
- 14.x (Sonoma)

The macOS IDE supports building macOS standalones with an Apple architecture slice on:

- 10.13.x (High Sierra)
- 10.14.x (Mojave)
- 10.15.x (Catalina)
- 11.x (Big Sur)
- 12.x (Monterey)
- 13.x (Ventura)
- 14.x (Sonoma)

When running the IDE in older macOS versions, the request for adding an Apple architecture slice will be ignored.

Note: Apple architecture support is currently experimental. To run the IDE using Apple architecture (on supported machines), you must toggle the `Open using Rosetta` option to off in the `LiveCode.app` bundle's `Get Info` pane in Finder. To build a standalone with native Apple architecture support you must explicitly choose the `macOS Apple` option in standalone settings.

iOS

iOS deployment is possible when running LiveCode IDE on a Mac, and provided Xcode is installed and has been set in LiveCode *Preferences* (in the *Mobile Support* pane).

The iOS engine is currently built against the iOS 18.2 SDK and building iOS standalones either for simulator or device should work with any recent version of Xcode - a specific iOS SDK is not required.

Android

LiveCode allows you to save your stack as an Android application, and also to deploy it on an Android device or simulator from the IDE.

Android deployment is possible from Windows, Linux and Mac OSX.

The Android engine supports devices using x86, x86-64, ARM and ARM64 processors. It will run on the following versions of Android:

- 5.0-5.1 (Lollipop)
- 6.0 (Marshmallow)
- 7.x (Nougat)
- 8.x (Oreo)
- 9.0 (Pie)
- 10.0 (Q)
- 11.0 (R)
- 12.x (S)
- 13.0 (T)

To enable deployment to Android devices, you need to download the [Android SDK](#), and then use the 'Android SDK Manager' to install:

- the latest "Android SDK Tools"
- the latest "Android SDK Platform Tools"

You also need to install the Java Development Kit (JDK). On Linux, this usually packaged as "openjdk". LiveCode requires JDK version 1.6 or later.

Once you have set the path of your Android SDK in the "Mobile Support" section of the LiveCode IDE's preferences, you can deploy your stack to Android devices.

Some users have reported successful Android Watch deployment, but it is not officially supported.

Web

LiveCode applications can be deployed to run in a web browser, by running the LiveCode engine in JavaScript and using modern HTML5 JavaScript APIs.

Web deployment does not require any additional development tools to be installed.

LiveCode Web standalone applications are currently supported for running in recent versions of [Mozilla Firefox](#), [Google Chrome](#) or [Safari](#). For more information, please see the "Web Deployment" guide in the LiveCode IDE.

Setup

Installation

Each version of LiveCode installs can be installed to its own, separate folder. This allow multiple versions of LiveCode to be installed side-by-side. On Windows (and Linux), each version of LiveCode has its own Start Menu (or application menu) entry. On Mac OS X, each version has its own app bundle.

On Mac OS X, install LiveCode by mounting the `.dmg` file and dragging the app bundle to the `Applications` folder (or any other suitable location).

For Windows and Linux, the default installation locations when installing for "All Users" are:

Platform	Path
Windows	<x86 program files folder>/RunRev/LiveCode <version>
Linux	/opt/livecode/livecode-<version>

The installations when installing for "This User" are:

Platform	Path
Windows	<user roaming app data folder>/RunRev/Components/LiveCode <version>
Linux	~/ .runrev/components/livecode-<version>

Note: If installing for "All Users" on Linux, either the **gksu** tool must be available, or you must manually run the LiveCode installer executable as root (e.g. using **sudo** or **su**).

Uninstallation

On Windows, the installer hooks into the standard Windows uninstall mechanism. This is accessible from the "Add or Remove Programs" applet in the windows Control Panel.

On Mac OS X, drag the app bundle to the Trash.

On Linux, LiveCode can be removed using the `setup.x86` or `setup.x86_64` program located in LiveCode's installation directory.

Reporting installer issues

If you find that the installer fails to work for you then please report it using the [LiveCode Quality Control Centre](#) or by emailing support@livecode.com.

Please include the following information in your report:

- Your platform and operating system version
- The location of your home or user folder
- The type of user account you are using (guest, restricted, admin etc.)
- The installer log file.

The installer log file can be located as follows:

Platform	Path
Windows 2000/XP	<documents and settings folder>/<user>/Local Settings/
Windows Vista/7	<users folder>/<user>/AppData/Local/RunRev/Logs
Linux	<home>/ .runrev/logs

Activating LiveCode

The licensing system ties your product licenses to a customer account system, meaning that you no longer have to worry about finding a license key after installing a new copy of LiveCode. Instead, you simply have to enter your email address and password that has been registered with our customer account system and your license key will be retrieved automatically.

Alternatively it is possible to activate the product via the use of a specially encrypted license file. These will be available for download from the customer center after logging into your account. This method will allow the product to be installed on machines that do not have access to the internet.

Command-line installation

It is possible to invoke the installer from the command-line on Linux and Windows. When doing command-line installation, no GUI will be displayed. The installation process is controlled by arguments passed to the installer.

Run the installer using a command in the form:

```
<installer> install -ui [OPTION ...]
```

where `<installer>` should be replaced with the path of the installer executable or app (inside the DMG) that has been downloaded. The result of the installation operation will be written to the console.

The installer understands any of the following `OPTION`s:

Option	Description
<code>-allusers</code>	Install the IDE for "All Users". If not specified, LiveCode will be installed for the current user only.
<code>-desktopshortcut</code>	Place a shortcut on the Desktop (Windows-only)
<code>-startmenu</code>	Place shortcuts in the Start Menu (Windows-only)
<code>-location LOCATION</code>	The folder to install into. If not specified, the <code>LOCATION</code> defaults to those described in the "Installation" section above.
<code>-log LOGFILE</code>	The file to which to log installation actions. If not specified, no log is generated.

Note: the command-line installer does not do any authentication. When installing for "All Users", you will need to run the installer command as an administrator.

As the installer is actually a GUI application, it needs to be run slightly differently from other command-line programs.

On Windows, the command is:

```
start /wait <installer> install -ui [OPTION ...]
```

Command-line uninstallation

It is possible to uninstall LiveCode from the command-line on Windows and Linux. When doing command-line uninstallation, no GUI will be displayed.

Run the uninstaller using a command of the form:

```
<uninstaller> uninstall -ui
```

Where `.setup.exe` on Windows, and `.setup.x86` on Linux. This executable, for both of the platforms, is located in the folder where LiveCode is installed.

The result of the uninstallation operation will be written to the console.

Note: the command-line uninstaller does not do any authentication. When removing a version of LiveCode installed for "All Users", you will need to run the uninstaller command as an administrator.

Command-line activation

It is possible to activate an installation of LiveCode for all users by using the command-line. When performing command-line activation, no GUI is displayed. Activation is controlled by passing command-line arguments to LiveCode.

Activate LiveCode using a command of the form:

```
<livecode> activate -file LICENSEFILE -passphrase SECRET
```

where `<livecode>` should be replaced with the path to the LiveCode executable or app that has been previously installed.

This loads license information from the manual activation file `LICENSEFILE`, decrypts it using the given `SECRET` passphrase, and installs a license file for all users of the computer. Manual activation files can be downloaded from the [My Products](#) page in the LiveCode account management site.

It is also possible to deactivate LiveCode with:

```
<livecode> deactivate
```

Since LiveCode is actually a GUI application, it needs to be run slightly differently from other command-line programs.

On Windows, the command is:

```
start /wait <livecode> activate -file LICENSE -passphrase SECRET  
start /wait <livecode> deactivate
```

On Mac OS X, you need to do:

```
<livecode>/Contents/MacOS/LiveCode activate -file LICENSE -passphrase SECRET
<livecode>/Contents/MacOS/LiveCode deactivate
```

New Features

LiveCode Script

New MariaDB database driver

A new revdb database driver `mariadb` has been added which is fully compatible with the existing `mysql` driver and supports the more modern password schemes added to MySQL 8 and onwards including the 'caching sha2' and 'sha256' password methods.

To take advantage of the new password methods, existing apps need only update their database connection function, specifying `mariadb` instead of `mysql` as the driver type, and ensure the `mariadb` driver is included in standalone settings for deploying the app.

Important: The `mariadb` driver depends on an additional shared library `libmariadb` which is included alongside it when deploying standalones. However, that shared library is licensed under the LGPL which means that user's receiving the app must be able to replace that library (should they choose) with a different version of it. This means that apps built including the driver are incompatible with submitting to app stores due to the inability of receiving users to modify those apps.

Issues Resolved

Features implemented

21239	A new <code>mariadb</code> database driver has been added which supports the modern <code>mysql</code> password authentication methods	10.0.4-rc-1
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Bugs fixed

23932	'Go to definition' now works in the script editor for LiveCode Builder widgets.	10.0.4-rc-1
24494	The <code>mobileExportImageToAlbum</code> command will now work on android 11 or later	10.0.4-rc-1
	The inclusion of the OAuth2 script library and push notifications will no longer	10.0.4-

24544	cause the android standalone builder to fail	rc-1
24725	The revdb postgres driver can now connect using the more secure password authentication method available in versions 10 and later	10.0.4-rc-1
24748	The browser widget on macOS and iOS will now load the URL as <code>https</code> if no scheme prefix is provided	10.0.4-rc-1
24759	The mysql and postgres drivers no longer require revsecurity to be present on server to use ssl facilities	10.0.4-rc-1
24761	The keyboardActivated and keyboardDeactivated messages will now fire correctly on Android 16	10.0.4-rc-1
24763	Stacks are no longer unfocused when key focus transfers from a control to a native element in web standalones.	10.0.4-rc-1

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