## LiveCode 9.6.7 Release Notes

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## Overview

This document describes all the changes that have been made for LiveCode 9.6.7, 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
  - o 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.

#### Mac

The Mac engine supports:

- 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)

#### 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).

Currently, the supported versions of Xcode are:

- Xcode 10.1 on MacOS 10.13 (Note: You need to upgrade to 10.13.4)
- Xcode 11.3 on MacOS 10.14 (Note: You need to upgrade to 10.14.4)
- Xcode 12.4 on MacOS 10.15 and above (Note: You need to upgrade to 10.15.4)
- Xcode 13.2 on MacOS 11 and above (Note: You need to upgrade to 11.3+)

It is also possible to set other versions of Xcode, to allow testing on a wider range of iOS simulators. For instance, on MacOS 10.14 (High Sierra), you can add *Xcode 10.1* in the *Mobile Support* preferences, to let you test your stack on the *iOS Simulator 12.1*.

We currently support building against the following versions of the iOS SDK:

- 12.1 (included in Xcode 10.1)
- 13.2 (included in Xcode 11.3)
- 14.4 (included in Xcode 12.4)
- 15.2 (included in Xcode 13.2)

#### 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)

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.

#### HTML5

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

HTML5 deployment does not require any additional development tools to be installed.

LiveCode HTML5 standalone applications are currently supported for running in recent versions of Mozilla Firefox, Google Chrome or Safari. For more information, please see the "HTML5 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 files="" folder="" program="">/RunRev/LiveCode <version></version></x86>
Linux	<pre>/opt/livecode/livecode-<version></version></pre>

The installations when installing for "This User" are:

Platform	Path
Windows	<pre><user app="" data="" folder="" roaming="">/RunRev/Components/LiveCode <version></version></user></pre>
Linux	~/.runrev/components/livecode- <version></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	<pre><documents and="" folder="" settings="">/<user>/Local Settings/</user></documents></pre>
Windows Vista/7	<pre><users folder="">/<user>/AppData/Local/RunRev/Logs</user></users></pre>
Linux	<home>/.runrev/logs</home>

### 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 OPTIONs:

Option	Description
-allusers	Install the IDE for "All Users". If not specified, LiveCode will be installed for the current user only.
- desktopshortcut	Place a shortcut on the Desktop (Windows-only)
-startmenu	Place shortcuts in the Start Menu (Windows-only)
-location LOCATION	The folder to install into. If not specified, the LOCATION defaults to those described in the "Installation" section above.
-log LOGFILE	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 is .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 vecode> 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

## **Issues Resolved**

## **Bugs fixed**

23598	LiveCode will no longer potentially crash if there is an unsupported system date or time format in use on macOS	9.6.7- rc-2
12550	The time taken to clone a stack when the message box is open has been reduced	9.6.7- rc-1
16684	Gradients now print correctly when targetting the system printer on macOS	9.6.7- rc-1
22148	The contents of file and the entries of directory syntax in LCB can now access files and folders within the APK when used on Android The where clause of the filter command now interprets non-boolean	9.6.7- rc-1
22495		9.6.7-

	values as false rather than throwing an error	rc-1
22969	When building a standalone for the platform the IDE is running on, the default architecture selection will match that of the IDE	9.6.7- rc-1
23258	Changing the text of an android input control whilst handling inputTextChanged will no longer cause a crash	9.6.7- rc-1
23469	The OnStopEditing widget event is now sent on leaving pointer tool mode	9.6.7- rc-1
23492	IDE responsiveness will no longer reduce after the message box has been opened and then closed	9.6.7- rc-1
23497	The ask and answer commands will now display a dialog correctly when any of their arguments contain the NUL character	9.6.7- rc-1
23501	A warning is no longer shown if an unlicensed platform is checked when building a standalone application	9.6.7- rc-1
23503	Building a standalone for 64-bit Windows no longer includes and loads unnecessary dialog stacks	9.6.7- rc-1
23511	A style run with a box style will now render correctly when the caret is moved through it	9.6.7- rc-1
23525	Getting or setting custom properties of me outside of any handlers in a server script will no longer cause a crash	9.6.7- rc-1
23531	Script execution errors are now displayed correctly when the script editor is opened in debug mode	9.6.7- rc-1
23532	The engine will no longer crash when attempting to access the camera or microphone on recent version of macOS	9.6.7- rc-1
23533	Adding more than one scheme to the App URL Query Whitelist in iOS standalone settings now works correctly	9.6.7- rc-1
23545	Windows will no longer redraw incorrectly when another window is running a visual effect	9.6.7- rc-1
23550	The entries of directory syntax in LCB will no longer crash when used on Windows	9.6.7- rc-1
23554	Other processes can now read from a file currently being targetted by the LCB contents of file operation on Windows	9.6.7- rc-1
23561	Using the LCB property chunk to access a custom property will no longer cause a crash	9.6.7- rc-1

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