

LiveCode 8.2.0-dp-2 Release Notes

- [Overview](#)
- [Known issues](#)
- [Platform support](#)
 - [Windows](#)
 - [Linux](#)
 - [Mac](#)
 - [iOS](#)
 - [Android](#)
 - [HTML5](#)
- [Setup](#)
 - [Installation](#)
 - [Uninstallation](#)
 - [Reporting installer issues](#)
 - [Activating LiveCode Indy or Business edition](#)
 - [Command-line installation](#)
 - [Command-line uninstallation](#)
 - [Command-line activation for LiveCode Indy or Business edition](#)
- [LiveCode Community engine changes](#)
 - [libURLSetStatusCallback no longer requires a target object for the message](#)
 - [Implement revBehaviorUses property](#)
 - [Maximum text length on iOS native input fields](#)
 - [Implement \[effective\] revScriptDescription property](#)
 - [Specific engine bug fixes \(8.2.0-dp-2\)](#)
 - [Specific engine bug fixes \(8.2.0-dp-1\)](#)
- [LiveCode Community IDE changes](#)
 - [Dictionary APIs](#)
 - [Live Script Parsing Errors](#)
 - [Script Editor - Brackets & Quotes](#)
 - [Complete switch case and if ... then control structures](#)
 - [Specific IDE bug fixes \(8.2.0-dp-2\)](#)
 - [Specific IDE bug fixes \(8.2.0-dp-1\)](#)
- [LiveCode Community Plus IDE changes](#)
 - [Autocomplete](#)
 - [Specific IDE bug fixes \(8.2.0-dp-2\)](#)
 - [Specific IDE bug fixes \(8.2.0-dp-1\)](#)
- [LiveCode Indy IDE changes](#)
 - [Autocomplete Pro](#)
 - [Specific IDE bug fixes \(8.2.0-dp-2\)](#)
- [Previous release notes](#)

Overview

LiveCode 8.1 provides important improvements for delivering high-quality cross-platform applications!

- LiveCode Indy and Business editions now come with the tsNet external, which supercharges LiveCode's Internet features and performance. LiveCode 8.1 also introduces `mergHealthKit`, for accessing activity, sport and health data on iOS devices.
- The standalone builder now has a greatly-improved user experience for including externals, script libraries and LiveCode Builder extensions in your cross-platform application. Usually, it'll now do the right thing automatically, but you can still select the specific inclusions you need.
- The IDE has lots of other upgrades, too: a keyboard-navigable Project Browser that highlights any scripts that failed to compile, an improved dictionary user interface, and access to the message box just by starting to type.
- The player control can be used in Windows application without any need for users to install any additional libraries or dependencies, thanks to a brand new player implementation based on DirectShow. For most apps, it should now be unnecessary to install or use QuickTime at all.
- The LiveCode Builder programming language has had some enhancements as part of the Infinite LiveCode project. Variables now get initialised by default, `unsafe` blocks and handlers can be used to flag sections of code that do dangerous things, and you can even include raw `bytecode` if necessary.

Known issues

- The installer will currently fail if you run it from a network share on Windows. Please copy the installer to a local disk before launching on this platform.
- The browser widget does not work on 32-bit Linux.
- 64-bit standalones for Mac OS X do not have support for audio recording.

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 XP SP2 and above
- Windows Server 2003
- Windows Vista SP1 and above (both 32-bit and 64-bit)
- Windows 7 (both 32-bit and 64-bit)
- Windows Server 2008
- Windows 8.x (Desktop)
- Windows 10

Note: On 64-bit Windows installations, LiveCode runs as a 32-bit application through the WoW layer.

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: It may be possible to compile and run LiveCode Community for Linux on other architectures but this is not officially supported.

Mac

The Mac engine supports:

- 10.6.x (Snow Leopard) on Intel
- 10.7.x (Lion) on Intel
- 10.8.x (Mountain Lion) on Intel
- 10.9.x (Mavericks) on Intel
- 10.10.x (Yosemite) on Intel
- 10.11.x (El Capitan) on Intel
- 10.12.x (Sierra) on Intel

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 4.6 on MacOS X 10.7
- Xcode 5.1 on MacOS X 10.8
- Xcode 6.2 on MacOS X 10.9
- Xcode 6.2 and 7.2 on Mac OS X 10.10
- Xcode 8.2 on MacOS X 10.11
- Xcode 9.0 on MacOS 10.12 (Note: You need to upgrade to 10.12.6)

It is also possible to set other versions of Xcode, to allow testing on a wider range of iOS simulators. For instance, on OS X 10.10 (Yosemite), you can add *Xcode 5.1* in the *Mobile Support* preferences, to let you test your stack on the *iOS Simulator 7.1*.

We currently support deployment for the following versions of iOS:

- 6.1 [simulator]
- 7.1 [simulator]
- 8.2 [simulator]
- 9.2
- 10.2
- 11.0

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 ARMv6, ARMv7 or ARMv8 processors. It will run on the following versions of Android:

- 2.3.3-2.3.7 (Gingerbread)
- 4.0 (Ice Cream Sandwich)
- 4.1-4.3 (Jelly Bean)
- 4.4 (KitKat)
- 5.0-5.1 (Lollipop)

- 6.0 (Marshmallow)
- 7.0 (Nougat)

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	<code><x86 program files folder>/RunRev/LiveCode <version></code>
Linux	<code>/opt/livecode/livecode-<version></code>

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 Indy or Business edition

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 noui [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 noui [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 noui
```

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 for LiveCode Indy or Business edition

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
```

LiveCode Community engine changes

libURLSetStatusCallback no longer requires a target object for the message

Passing an object reference as a second parameter to libURLSetStatusCallback is no longer required. If no object is passed in then the message will be sent to revLibURL itself and you can handle the message anywhere in the message path.

Implement revBehaviorUses property

The `revBehaviorUses` property returns an array of object long IDs that a behavior is applied to or empty if objects use the behavior. The `revBehaviorUses` property is intended for internal use by the IDE and is subject to change without notice.

Maximum text length on iOS native input fields

It is now possible to set/get the maximum number of characters that can be entered into an ios native single-line field, using

```
`mobileControlSet sFieldID, "maximumTextLength", sMaxLength`
`put mobileControlGet(sFieldID, "maximumTextLength")` --> returns
`sMaxLength`
```

Implement [effective] revScriptDescription property

A new property has been implemented object reflection. The property is currently undocumented and subject to change without notice as it is intended largely for internal use.

The `revScriptDescription` of an object returns a multi-dimensional array description detailing the constants, variables and handlers of an object. The `effective revScriptDescription` of an object returns a sequence of arrays with keys `object` and `description` in the order that messages are passed through an object.

Specific engine bug fixes (8.2.0-dp-2)

- 13627** Fixed example code errors in the `mobileAddContact` and `mobileUpdateContact` dictionary entries.
- 13857** Correct dictionary entry for `revProfile`
- 19609** Make sure unicode characters display correctly when set `htmlText` in browser

- 20349** Fix crash when deleting the focused object
- 20405** Fixed bug causing incorrect formattedWidth to be returned for buttons
- 20410** Script Editor can drop keystrokes on Windows
- 20413** Add documentation for android specialFolderPath external prefix
- 20434** Fix crash on iOS when the app uses HealthKit
- 20497** Correct dictionary entry for send (missing script syntax)

Specific engine bug fixes (8.2.0-dp-1)

- 13150 Ensure tabStops property docs describe relationship with indent properties
- 13696 The "volumes" function is only supported on Mac & Windows
- 13880 Fix formatting in scrollbarWidth property documentation
- 14172 Clarify that the "combine" command works in lexicographic key order
- 14247 Clarify insertion point location when field is focused
- 14311 add example to replace command dictionary entry showing it can be used on a chunk within a string.
- 14363 The "startup" message is sent to the first card of the initial stack
- 14473 Provide a complete example for revZipAddItemWithData
- 14801 Correct examples in "split" command documentation
- 14867 The tabStops property can't be set to a boolean
- 15117 The "lineOffset" function can search for multiline substrings
- 15470 Correct "tool" property docs to be clear that it is not a stack property
- 15604 Update dictionary links to PCRE pattern documentation
- 15865 Fixed Dictionary example for is within
- 16491 Fix bad example of using the menuName property
- 16511 Make examples of "borderPixel" use its main synonym
- 16658 Document the fact that "the environment" may be "server"
- 18125 Fix Dictionary example for is within
- 18231 Fixed documentation formatting issues for binaryEncode and binaryDecode
- 18465 Syntax: mouseUp mouseButtonNumber
- 18743 Fix missing cross-references in "keys" dictionary entry
- 18774 Fix errors in "write to file" dictionary entry
- 19570 Updated print command docs ensuring parameters topLeft and bottomRight were used consistently.
- 20113 Fixed there is a operator reference
- 20187 Implement [effective] revScriptDescription property
- 20240 Fix text selection occasionally not being contiguous
- 20273 Implement revBehaviorUses property
- 20297 Fix crash when using RSA encryption and revsecurity is not loaded

LiveCode Community IDE changes

Dictionary APIs

The dictionary now includes extension APIs in the section of the dictionary to which they are applicable. Library and widget APIs appear in the LiveCode Script dictionary, and module APIs in the LiveCode Builder dictionary.

Live Script Parsing Errors

The script editor has been enhanced to indicate parsing errors as the script is edited. This provides immediate feedback on incorrect syntax.

Script Editor - Brackets & Quotes

Two new features have been added to the script editor:

- The script editor will now wrap the selection when typing an opening square bracket `[`, parenthesis `(` or double quote `"`. If the selection is just an insertion point the insertion point is placed between the brackets/quotes. If a larger block of text is highlighted it the text will be wrapped by the brackets/quotes and the insertion point will be after the replaced text. In the case of quotes an attempt is made to ensure that a second quote is desired by counting quotes on the line and ensuring the number is even.
- The script editor will now highlight matching pairs of square brackets and parentheses.

Complete switch case and if ... then control structures

Support has been added to the script editor for completing the `case` statement with `break` and `if ... then` with `end if`. Due to the many variations of the `if` control structure it will only complete with `end if` when the last token is `then`.

Specific IDE bug fixes (8.2.0-dp-2)

- 18088** Allow setting multi-line tooltips from the Property Inspector
- 20140** breakpoints better tracking of editor scrolling
- 20145** Move breakpoints appropriately when editing scripts
- 20330** Show error dialog when the name of the stack contains quotes
- 20345** Ensure the IDE reopens a DB connection if this was previously closed by the user
- 20366** Add icon to edition element in docs and upgrade button for APIs not in the current edition
- 20386** Add an options menu for a number of script editor preferences
- 20388** Layout menu buttons in script editor for platforms where they are visible
- 20391** Fix location of upgrade button
- 20392** Type over closing brackets if they match the next char
- 20465** Fix special key codes being entered into the script editor when the option key is down

20471 [Start Center] Ensure "Skip interactive tour and take me to the Start Center" responds to clicks

Specific IDE bug fixes (8.2.0-dp-1)

- 8228 Indent scripts correctly when a comment is after the line continuation character
- 18637 Fix searching in "Stack File and its stack files" from the script editor
- 19887 Make sure script loads correctly when Script Editor is not already opened
- 19951 Fix a range of edge case indentation issues related to line continuation
- 20214 Breakpoints may not toggle when clicked
- 20258 Complete switch case and if ... then control structures
- 20264 Fix infinite loop when looking for bracket pairs and right bracket is at the beginning of the line
- 20307 Ensure cantSelect buttons on Project Browser have appropriate toolTips
- 20342 Ensure selection is retained when opening/closing scripts or returning to a tab

LiveCode Community Plus IDE changes

Autocomplete

While typing in the script editor a filtered list of available completions will appear below the selection. Use the following keys to navigate the completion list:

- tab - apply the completion
- up arrow - move up the list
- down arrow - move down the list

Moving the mouse will hide the completion list to avoid it remaining in place over an area you would like to select. Completions include placeholder fields which you can navigate with the tab key. Some completions may have multiple placeholders with the same name which will be edited together. Clicking within a placeholder will select it.

The current automatic completion of control structures has not changed.

Specific IDE bug fixes (8.2.0-dp-2)

- 20367 **Ensure common handlers are listed first**
- 20370 **Group completions when many variants of the same command are listed**
- 20387 **Handle desktopChanged correctly in autocomplete**
- 20393 **Add Cmd/Control+right as autocomplete shortcut**
- 20403 **Fix insertion of `tab` when autocomplete action performed on `tabKey`**
- 20407 **Use arrow key right to apply completions because tab can be ambiguous**
- 20408 **Detect continued lines to present more appropriate completions**

- 20409** Fix selection when placeholder selected and user keys arrow right
- 20442** Only filter messages by associated object
- 20462** Add shift to autocomplete shortcut as current shortcut conflicts with select end of line

Specific IDE bug fixes (8.2.0-dp-1)

- 7303** Add autocomplete to the script editor

LiveCode Indy IDE changes

Autocomplete Pro

Autocomplete Pro extends autocomplete with the following features:

- Completions generated dynamically by introspecting the object being edited and its message path
- An Autocomplete Snippet Manager dialog is accessible from the script editor menubar to manage a custom set of completions.

Specific IDE bug fixes (8.2.0-dp-2)

- 20385** Fix execution error when opening the snippet manager
- 20540** Fix broken behavior of snippet manager

Previous release notes

- [LiveCode 8.1.6 Release Notes](#)
- [LiveCode 8.1.5 Release Notes](#)
- [LiveCode 8.1.4 Release Notes](#)
- [LiveCode 8.1.3 Release Notes](#)
- [LiveCode 8.1.2 Release Notes](#)
- [LiveCode 8.1.1 Release Notes](#)
- [LiveCode 8.1.0 Release Notes](#)
- [LiveCode 8.0.2 Release Notes](#)
- [LiveCode 8.0.1 Release Notes](#)
- [LiveCode 8.0.0 Release Notes](#)
- [LiveCode 7.1.4 Release Notes](#)
- [LiveCode 7.1.3 Release Notes](#)
- [LiveCode 7.1.2 Release Notes](#)
- [LiveCode 7.1.1 Release Notes](#)

- [LiveCode 7.1.0 Release Notes](#)
- [LiveCode 7.0.6 Release Notes](#)
- [LiveCode 7.0.4 Release Notes](#)
- [LiveCode 7.0.3 Release Notes](#)
- [LiveCode 7.0.1 Release Notes](#)
- [LiveCode 7.0.0 Release Notes](#)
- [LiveCode 6.7.9 Release Notes](#)
- [LiveCode 6.7.8 Release Notes](#)
- [LiveCode 6.7.7 Release Notes](#)
- [LiveCode 6.7.6 Release Notes](#)
- [LiveCode 6.7.4 Release Notes](#)
- [LiveCode 6.7.2 Release Notes](#)
- [LiveCode 6.7.11 Release Notes](#)
- [LiveCode 6.7.10 Release Notes](#)
- [LiveCode 6.7.1 Release Notes](#)
- [LiveCode 6.7.0 Release Notes](#)
- [LiveCode 6.6.2 Release Notes](#)
- [LiveCode 6.6.1 Release Notes](#)
- [LiveCode 6.6.0 Release Notes](#)
- [LiveCode 6.5.2 Release Notes](#)
- [LiveCode 6.5.1 Release Notes](#)
- [LiveCode 6.5.0 Release Notes](#)
- [LiveCode 6.1.3 Release Notes](#)
- [LiveCode 6.1.2 Release Notes](#)
- [LiveCode 6.1.1 Release Notes](#)
- [LiveCode 6.1.0 Release Notes](#)
- [LiveCode 6.0.2 Release Notes](#)
- [LiveCode 6.0.1 Release Notes](#)
- [LiveCode 6.0.0 Release Notes](#)