

# LiveCode 7.1.4 Release Notes

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## Overview

The LiveCode engine has undergone a large quantity of changes for the 7.0 release. The way values of variables are stored internally has been changed - in particular where before the engine used C-strings, it now uses a reference counted MCStringRef type. Every bit of code that displays text in LiveCode has been updated, and all the platform-specific API functions that manipulate characters now use the Unicode versions; as a result LiveCode is now fully Unicode compatible.

The implementation of Unicode compatibility necessitated a change to the stack file format, which means stacks saved in 7.0 format are not compatible with earlier versions of LiveCode. However you can still save stacks in legacy formats using the dropdown menu in the Save As... dialog.

The other significant change to engine internals is the work done on syntax refactoring. The code that deals with statement execution, function evaluation and property access has been cleaned up and separated out from the parsing code, and moved into distinct modules based on functionality. This represents a major first step towards being able to implement Open Language.

## Known issues

Every effort has been made to ensure that externally, the engine behaviour is identical to the current unrefactored release. In other words, users should not notice any difference in functionality in their existing stacks.

- 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 engine files are much larger than previous versions due to inclusion of ICU data

## 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)

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

### Linux

LiveCode supports Linux installations which meet the following requirements:

- Supported CPU architectures:

- 32-bit or 64-bit Intel/AMD or compatible processor
- 32-bit ARMv6 with hardware floating-point (e.g. RaspberryPi)
- Common requirements for GUI functionality:
  - GTK/GDK/Glib 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)
- Requirements for 32-bit Intel/AMD:
  - glibc 2.3.6 or later
- Requirements for 64-bit Intel/AMD:
  - glibc 2.15 or later
- Requirements for ARMv6:
  - glibc 2.7 or later

**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

**Note:** LiveCode runs as a 32-bit application regardless of the capabilities of the underlying processor.

## 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 7.3 on MacOS X 10.11

It is also possible to set other versions of Xcode, to allow testing on a wider range of iOS simulators. For instance, on 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 the following iOS Simulators:

- 5.1
- 6.1
- 7.1
- 8.2
- 9.2
- 9.3

## 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.

To enable the deployment to an Android device, you need to download the [Android SDK](#) and to install the following component, using the *Android SDK Manager*:

- Android SDK Platform for Android 4.0.3 (API 15)
- Android SDK Platform Tools
- Android SDK Build Tools

You also need to have Java *JDK 1.6* installed on your machine (or *openjdk-6* on Linux).

Once you have set the path of your Android SDK in the *LiveCode Preferences > Mobile Support*, you can deploy your stack to Android devices running Android  $\geq 2.3.3$ .

Android Watch is not officially supported at the moment.

## Setup

### Installation

Each distinct version has its own complete folder – multiple versions will no longer install side-by-side: on Windows (and Linux), each distinct version will gain its own start menu (application menu) entry; on Mac, each distinct version will have its own app bundle.

The default location for the install on the different platforms when installing for 'all users' are:

- Windows: <x86 program files folder>/RunRev/LiveCode 7.1.4
- Linux: /opt/runrev/livecode-7.1.4
- Mac: /Applications/LiveCode 7.1.4.app

The default location for the install on the different platforms when installing for 'this user' are:

- Windows: <user roaming app data folder>/RunRev/Components/LiveCode 7.1.4
- Linux: ~/.runrev/components/livecode-7.1.4
- Mac: ~/Applications/LiveCode 7.1.4.app

**Note:** *If your linux distribution does not have the necessary support for authentication (gksu) then the installer will run without admin privileges so you will have to manually run it from an admin account to install into a privileged location.*

### Uninstallation

On Windows, the installer hooks into the standard Windows uninstall mechanism. This is accessible from the appropriate pane in the control panel.

On Mac, simply drag the app bundle to the Trash.

On Linux, the situation is currently less than ideal:

- open a terminal
- `cd` to the folder containing your LiveCode install. e.g.

```
cd /opt/runrev/livecode-7.1.4
```

- execute the `setup.x86` (or `setup.x86_64` for 64-bit LiveCode) file. i.e.

```
./setup.x86
```

- follow the on-screen instructions.

## Reporting installer issues

If you find that the installer fails to work for you then please file a bug report in the RQCC or email [support@livecode.com](mailto:support@livecode.com) so we can look into the problem.

In the case of failed install it is vitally important that you include the following information:

- Your platform and operating system version
- The location of your home/user folder
- The type of user account you are using (guest, restricted, admin etc.)
- The installer log file located as follows:
  - **Windows 2000/XP:** <documents and settings folder>/<user>/Local Settings/
  - **Windows Vista/7:** <users folder>/<user>/AppData/Local/RunRev/Logs

- **Linux:** <home>/runrev/logs
- **Mac:** <home>/Library/Application Support/Logs/RunRev

## Activation

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.

## Multi-user and network install support (4.5.3)

In order to better support institutions needing to both deploy the IDE to many machines and to license them for all users on a given machine, a number of facilities have been added which are accessible by using the command-line.

**Note:** *These features are intended for use by IT administrators for the purposes of deploying LiveCode in multi-user situations. They are not supported for general use.*

## Command-line installation

It is possible to invoke the installer from the command-line on Mac, Linux and Windows. When invoked in this fashion, no GUI will be displayed, configuration being supplied by arguments passed to the installer.

On the three platforms, the command is of the following form:

```
<exe> install noui options
```

Here *options* is optional and consists of one or more of the following:

-allusers	Install the IDE for all users. If not specified, the install will be done for the current user only.
-	
-desktopshortcut	Place a shortcut on the Desktop (Windows-only)
-startmenu	Place shortcuts in the Start Menu (Windows-only)
-location <i>location</i>	The location to install into. If not specified, the location defaults to those described in the <i>Layout</i> section above.
-log <i>logfile</i>	A file to place a log of all actions in. If not specified, no log is generated.

Note that the command-line variant of the installer does not do any authentication. Thus, if you wish to install to an admin-only location you will need to be running as administrator before executing the command.

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

In what follows <installerexe> should be replaced with the path of the installer executable or app (inside the DMG) that has been downloaded.

On Windows, you need to do:

```
start /wait <installerexe> install noui options
```

On Mac, you need to do:

“<installerexe>/Contents/MacOS/installer” install noui *options*

On both platforms, the result of the installation will be written to the console.

## Command-line uninstallation

It is possible to uninstall LiveCode from the command-line on Windows and Linux. When invoked in this fashion, no GUI will be displayed.

On both platforms, the command is of the following form:

```
<exe> uninstall noui
```

Where <exe> 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.

In the same way as for the installer, there is no authentication possible with the command-line variant of the uninstaller. It means that you need to run the uninstaller as administrator to uninstall LiveCode, if it was installed in an admin-only location.

The result of the installation will be written to the console.

## Command-line activation

In a similar vein to installation, it is possible to activate an installation of LiveCode for all-users of that machine by using the command-line. When invoked in this fashion, no GUI will be displayed, activation being controlled by any arguments passed.

On both platforms, the command is of the form:

```
<exe> activate -file license -passphrase phrase
```

This command will load the manual activation file from *license*, decrypt it using the given *passphrase* and then install a license file for all users of the computer. Manual activation files can be downloaded from the 'My Products' section of the LiveCode customer accounts area.

This action can be undone using the following command:

```
<exe> deactivate
```

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

In what follows <livecodeexe> should be replaced with the path to the installed LiveCode executable or app that has been previously installed.

On Windows, you need to do:

```
start /wait <livecodeexe> activate -file license -passphrase phrase
```

```
start /wait <livecodeexe> deactivate
```

On Mac, you need to do:

```
“<livecodeexe>/Contents/MacOS/LiveCode” activate -file license -passphrase phrase
```

```
“<livecodeexe>/Contents/MacOS/LiveCode” deactivate
```

On both platforms, the result of the activation will be written to the console.

## Engine changes

### Make filenames with accented characters appear correctly in the detailed files on Mac (7.1.4-rc-1)

The detailed files uses URL encoding to be able to present the filename in a comma-separated list. However, this causes a problem because the current definition of url encode and decode in LiveCode is that it %-encodes the native encoding of the string.

As Mac HFS(+) volumes store filenames in decomposed unicode form, this means that any filenames containing accented characters will not appear correctly in the detailed files, even if the combined character is in the native character set.

To improve this situation, the detailed files will now normalize all filenames to composed form before url encoding.

### Installer no longer required on OSX (7.1.3-rc-1)

The installation process on OSX has been updated to no longer require an installer. Instead, LiveCode now installs like most other OSX applications: drag the app from the DMG to your Applications folder.

Similarly, there is no longer an uninstaller; drag the app to the Trash to remove.

The IDE app bundle is now signed, which means it can now be used in certain situations that require verification using Apple's GateKeeper technology. As such, you should not modify the contents of the app bundle (for example, editing the IDE stacks) if you use the IDE for purposes that require verification as the signature will no longer be valid.

### DataGrid added to the Standalone Settings script libraries list (7.1.2-rc-1)

Formerly, the DataGrid library was only included in a standalone application if the stack saved as a standalone was using a DataGrid.

This have been causing issues, in case the stack saved does not use DataGrid, but loads a stack which uses it: the DataGrid library was not saved with the standalone, and the DataGrid would not work in the loaded stack.

To tackle this issue, we have added 'DataGrid' in the list of Script Libraries in the Standalone Settings. You can now force the inclusion of the DataGrid library, to ensure that any stack loaded by the standalone can use DataGrids.

### Ensure 'the effective rect of stack' is more accurate on Linux (7.1.2-rc-1)

With the move to GDK since 7.0 there is a better method for computing the effective rect of a window. The engine has been updated to use this method, rather than the heuristic which was there before.

### Application Transport Security (ATS) (7.1.1-rc-3)

Apple introduced in iOS SDK 9.0 the Application Transport Security which 'enforces best practices in the secure connections between an app and its back end' (see [the technical notice](#)).

The most noticeable effect on applications created using Xcode 7.0 (and following versions) is that URLs using *HTTP* protocol are no longer considered valid, and the iOS engine will not process them; only URLs using *HTTPS* are deemed secure enough, and will be loaded.

This means that `nativeBrowser` cannot load a webpage such as [http LiveCode](http://LiveCode), but will happily load [https LiveCode](https://LiveCode). The same applies to the LiveCode function `url`.

To allow our users to create apps letting Web navigation accept unsecure webpages, we added a checkbox **Disable ATS** in the Standalone Settings for iOS, in the Requirements and Restrictions section. If you check this box, then *ATS* will be disabled, and the application can load Webpages using *HTTP* (as it used to do).

### Android Hardware Acceleration (7.1.1-rc-1)

In order to have the Native Android Browser object being able to play videos, the Hardware Acceleration of the activity must be enabled.

However, activating the hardware acceleration rendering decreases the stack rendering speed considerably due to our use of a frequently changing bitmap as the stack view.

Thus, we added an option in the Standalone Settings to let users choose between a fast-rendering application (without the Hardware Acceleration) or an application whose Native Browsers can play videos.

### *launchDataChanged* message on Android (7.1.1-rc-1)

Added the *launchDataChanged* message on Android to indicate when the app was resumed to handle a new request from another app.

### Add beta testing entitlement to iOS apps standalone settings (7.1.1-rc-1)

From LiveCode 6.7.8 RC 1 and LiveCode 7.1.1 RC 1, a checkbox allows users to add a beta testing entitlement to their iOS applications.

### Ability to set the `dontUseQT` property for a player object (Windows and OSX) (7.1.1-rc-1)

It is now possible to set the `dontUseQT` property for a player object. On Windows, the default value of the `dontUseQt` (global) property is false. This means that any player object created will use the QuickTime API for multimedia playback. With this new feature, you can set the `dontUseQT` property of a player to true, without changing the value of the global `dontUseQt` property. In that way you can have both QuickTime and non-QuickTime players playing at the same time.

On OSX, the default value of the `dontUseQT` (global) property is true if the OSX version is greater or equal to 10.8. This means that any player object created will use the AVFoundation API for multimedia playback. With this new feature, you can set the `dontUseQT` property of a player to false, without changing the value of the global `dontUseQt` property. In that way you can have both QuickTime and AVFoundation players playing at the same time. This can be particular useful for supporting some media formats or codecs that are not supported by the default AVFoundation player (for example .midi files, Sorenson Video 3, H.261 codecs etc)

### background audio on iOS (7.1.1-rc-1)

A new "experimental" feature has been added, which allows audio to continue playing while the app is on the background (i.e. when switching apps). We have added a new checkbox "Background Audio (experimental)" in the Standalone Application Settings for iOS, which enables this feature by modifying the plist settings in the appropriate way.

The reason for this being "experimental" is that the engine does not yet support suspend/resume explicitly - this means that you do have to check your applications work correctly on startup / exit. In particular, if you app saves state on shutdown you might need to ensure it is saved more frequently so if your app gets terminated when in the background, data is not lost.

### New "mirrored" property for the OSX player. Applies to both QTKit and AVFoundation player. (7.1.1-rc-1)

The default value of this property is "false". Setting this property to "true" makes the video frames to be displayed mirrored.

Syntax: set the mirrored of player "myPlayer" to true

### New 'readyForDisplay' ios player property (7.1.1-rc-1)

We added a new `readyForDisplay` property to the ios player. This maps to the native `readyForDisplay` property, and is read-only. For more details see the dictionary entry of `mobileControlGet` function.

### Windows default videograbber is now DirectX (7.1.1-rc-1)

Since QuickTime has been deprecated by Apple for a long time and is not maintained anymore, and that it is getting more and more difficult to install QT on the newer Windows versions, the default Windows videograbber has been updated to be DirectX.

### Xcode 7.0 (7.1.1-rc-1)

iOS 9.0 SDK is now part of the valid SDKs that can be used for iOS standalone application deployment, from Mac OSX 10.10.4.

If you installed the new version of Xcode at another location than the previous one, we invite you to update the Xcode in Preferences > Mobile Preferences.

All the previously existing versions of iOS supported are still supported.

### Some arrays encoded in 6.7 format from 7.0 won't load into 6.7. (7.1.1-rc-1)

It was possible for an array in 7.0 to have a key that contained the empty array. When encoded in 6.7 format using `arrayEncode`, the resulting data would not decode correctly in 6.7 - producing a truncated result.

This has been fixed - 6.7 will now successfully load such arrays when generated from 7.0.

### revCapture - revCaptureListVideoCodecs() results in crash (7.1.1-rc-1)

To palliate this problem, some getters in the library `revCapture` must return possibly UTF-8

encoded names (such as the codecs) to allow the script writer to set them. In the same idea, some setters can be given UTF-8 encoded strings.

Affected getters:

- revCaptureListAudioInputs
- revCaptureListVideoInputs
- revCaptureGetAudioInput
- revCaptureGetVideoInput
- revCaptureGetPreviewImage
- revCaptureListAudioCodecs
- revCaptureListVideoCodecs
- revCaptureGetAudioCodec
- revCaptureGetVideoCodec
- revCaptureGetRecordOutput

Affected setters:

- revCaptureSetAudioInput
- revCaptureSetVideoInput
- revCaptureSetPreviewImage
- revCaptureSetAudioCodec
- revCaptureSetVideoCodec
- revCaptureSetRecordOutput

### mobileLaunchData function (7.1.0-rc-2)

This new function is available on Android and returns an array containing information from the Intent object used to launch the currently running app.

Available information

- `action` - The general action the app was launched to perform.
- `data` - The data to operate on.
- `type` - The MIME type of the data provided.
- `categories` - Additional information about the action to perform.
- `extras` - An array of action-specific data set by the calling activity.

### the `commandName` and the `commandArguments` (7.1.0-rc-1)

The bugs [12106](#) and [12018](#) have been longstanding issues: `$0` is not the command name, but the first command argument (which does not follow the way Bash works).

To solve this issue and avoid breaking any script that uses the current way command arguments are retrieved with LiveCode (`$0` being the first commandline argument instead of the command name), we introduced two functions to allow the users to access the commandline name and arguments.

- the `commandName` returns the command that has been used to start the executable
- the `commandArguments` returns a 1-based, numeric array of the commandline arguments if no index is given. Returns the arguments at this index otherwise (or empty if the index is `< 1` or `>` number of parameters)

These functions are only implemented for desktop standalone applications and server scripts. They will return *empty* on mobile platforms and in the IDE.

## Multimedia on MacOS with AVFoundation (7.1.0-dp-1)

### What has changed?

The player object until now used QuickTime/QTKit APIs for audio and video playback. Since both QuickTime and QTKit have been deprecated by Apple, we have updated the player to use the new AVFoundation API. AVFoundation does not provide a controller for multimedia playback until OSX 10.9 and their new control bar is also missing some of the features provided by the QTKit controller, which required us to implement our own controller to ensure backward compatibility. We have added three new properties to the player object enabling you to customise the appearance of the controller:

- The **hilitecolor** of a player is the color of the played area, the colour of the volume area, as well as the background color of a controller button when it is pressed.
- The **forecolor** of a player is the color of the selected area. The selected area is the area between the selection handles.
- The **backcolor** of a player is the color of the controller icons (volume icon, play/pause icon, scrub back/scrub forward icon).

We have also added support for getting information about the download progress of a remote multimedia file:

- The **loadedtime** of a player is the time up to which the movie can be played. The download progress is also displayed on the controller well.

You can also query the **status** property of the player. This property can take either of the values:

- **loading** (for remote multimedia files)
- **playing**
- **paused**

A new message is added to the player:

- The **playRateChanged** message is sent to the player when the rate is changed by the rate scrollbar controller. To enable the rate scrollbar controller, hold shift + click on scrubForward/scrubBack buttons of the player controller.

Note AVFoundation player is supported in OSX 10.8 and above. On systems running OSX 10.6 and 10.7, LiveCode continues to provide player functionality using the QTKit API.

## Mobile Sockets (7.1.0-dp-1)

Socket support has been added to the mobile platforms. The following syntax has been added to the iOS and Android engines.

Commands:

- accept
- open socket
- close socket
- read from socket
- write to socket
- secure socket

Functions:

- openSockets

#### Messages:

- socketClosed
- socketError
- socketTimeout

#### Properties:

- socketTimeoutInterval

If you are secure sockets, the SSL library must be included in your standalone. To do this for iOS, make sure the "Encryption" checkbox of "Basic Application Settings" section on the iOS screen of the Standalone Application Settings window is selected. To do this for Android, make sure the "SSL & Encryption" checkbox of "Basic Application Settings" section on the Android screen of the Standalone Application Settings window is selected.

#### Objects are only deleted on idle (7.1.0-dp-1)

The engine will now flush any recently deleted objects after each command as long as they were created during the current event handling loop.

If an object is created during one event handling loop, and then deleted during another nested event handling loop it won't be flushed until control returns to the original event handling loop.

The upshot is that in tight loops, creating and deleting objects will result in objects being flushed immediately, reducing memory usage and making it easier to write object processing code which creates and deleted many objects.

#### Specific bug fixes (7.1.4-rc-2)

- 17385 Prevent LiveCode app bundle re-verification on every launch on OS X
- 17368 Make sure iOS 64bit device builds do not fail on OS X 10.10 because of linking warning
- 17292 Fixed codesigning issue when building iOS standalones on OSX 10.11

#### Specific bug fixes (7.1.4-rc-1)

- 17290 Correct position of trueWord chunk in hierarchy
- 17195 Fix permissions on apps dragged from LiveCode DMG
- 17174 Use the system certificate store for Win32 server SSL verification
- 17153 Fix population of \$\_POST from content-type=multipart/form-data in CGI mode
- 17150 Fix issue with MySQL loading SSL libraries on iOS
- 17086 Check that a behavior reference is a button or a stack.
- 17085 Make filenames with accented characters appear correctly in the detailed files on Mac
- 16971 Fix a memory leak causing the autoupdater to fail
- 16940 Fix access to https:// URLs from OSX server engines
- 16145 [[ Bug 16145 ]] Fix crash running standalones on some Android devices (Android version < 4.2)
- 14452 Fix session storage via \$\_SESSION in CGI mode

## Specific bug fixes (7.1.3-rc-1)

- 17031 mobilecomposemail now returns a result code
- 17019 Make sure listIndex is set correctly when setting the styledText of a field
- 17013 Don't crash when constructing huge strings
- 16984 Fixed iOS Mobile Player Seek Commands being reversed
- 16945 Make sure mobilePick..."checkmark" behaves the same between iOS and Android
- 16939 Make sure large files do not EOF prematurely
- 16139 Don't draw leading '(' on labels for disabled tab buttons

## Specific bug fixes (7.1.2-rc-3)

- 16932 Page Setup and Printer Dialogues now open successfully

## Specific bug fixes (7.1.2-rc-2)

- 16889 Fix crash when going to a substack
- 16859 Make sure chmod is not used by Windows installer
- 16853 set htmltext crash if there are spaces between and "=" sign

## Specific bug fixes (7.1.2-rc-1)

- 16772 Android: fix incorrect offset of the working screenrect
- 16768 Update to libpng 1.5.26
- 16741 The attached stack will not open in LC 7.1.1
- 16737 playstopped message after playing mp3 with player waits until mouse is moved
- 16735 Added beta entitlement for testflight
- 16704 android native multiline ("editable")
- 16700 URLs hosted on SNI servers are not supported
- 16661 Dict: "before" and "after" have bad examples
- 16584 Filtering with wildcards broken in very specific edge case
- 16577 SpecialFolderPath("resources") doesn't work in substack
- 16565 Update to OpenSSL 1.0.1q
- 16528 'put the commandArguments' crashes LiveCode IDE
- 16524 Setting the colors of a field to 8 empty lines has no effect
- 16515 Player callbacks not sent
- 16504 empty is an ascii string
- 16501 Checking if a variable is a color turns Unicode chars into '?'
- 16500 Arrays are ASCII string
- 16493 Fixed instability when using styledText with style arrays containing listStyle or textAlign entries
- 16476 Plaforms sections doesn't mention Android or HTML 5
- 16467 mobileControlGet(..
- 16452 global variable shadowing local variable is not detected
- 16450 Setting RTF text adds invalid chars in the field on Linux
- 16445 setting hiliteFill of a button sets its autoArm property
- 16434 Array intersect and union differences between 6.7 and 7
- 16411 Linux uninstaller is named incorrectly on non-x86 platforms
- 16410 Linux uninstaller is installed without executable bit set

- 16407 Splitting by empty causes a hang
- 16395 bitNot dictionary example incorrect
- 16391 Going to a card forces a stack onscreen
- 16368 Hiding a mobile player does not automatically hide the controller on Android
- 16308 Incomplete RTF generated when text contains hyperlinks
- 16306 Fix text layout when printing to PDF on Linux
- 16292 recordCompressionTypes crash LC 7.1.1 rc 1 if dontUseQt is true
- 16288 Crash on standalone shutdown
- 16283 create script only stack doesn't automatically update Project Browser
- 16280 the (global) linkhilitecolor is always "0"
- 16279 [LC 7] mobileCreateLocalNotification with empty payload causes crash
- 16278 Release Notes should clearly state supported Xcode versions
- 16259 there is a folder empty returns true
- 16239 Touch interaction with iOS native scrollers doesn't work until after the scroller has been scrolled.
- 16238 Cannot choose to include DataGrid library in standalone settings
- 16228 The controllIDs property reports empty lines after the id of an empty group.
- 16223 'the folders' doesn't return "." if there are no other folders on MacOSX
- 16221 Hiliting lines in a field are not accurate or working correctly with word selection
- 16220 ArrowKey left in tabbed field stuck if first column empty
- 16218 Popup menu can get corrupted when click-drag out of the list
- 16210 Setting the styledText wipes out listStyle
- 16203 Parsing a Uint list fails in LC 7 if it contains "empty"
- 16193 Strange behaviour of combo boxes after resizing
- 16177 stack height keeps being changed between LC sessions
- 16162 "infinity" is not always equal to "infinity"
- 16156 DataGrid crashing app in sim
- 15862 "substring is not in string" Description is wrong
- 15706 Mac - Icons to display on ask and answer dialogs - not showing
- 15689 Media player callbacks are not called with the right defaultStack
- 15097 Ensure 'the effective rect of stack' is more accurate on Linux
- 14388 Documentation of is a number is not consistent with the LC Engine
- 13636 export snapshot not working on Android
- 13277 scalefactor doesn't change player size in browse mode
- 7414 listBehavior fields don't become the selectedField if focused by any means other than clicking.

#### Specific bug fixes (7.1.1)

- 16495 LiveCode 6.7.8 (RC4) will not test launch app in iOS Simulator 9.1

#### Specific bug fixes (7.1.1-rc-4)

- 16453 repeat for each codepoint / item / line subtlety broken
- 16393 Stack location locked in y-axis when stack height greater than monitor height
- 16389 Cannot deploy iOS app if name contains a ' ' character

## Specific bug fixes (7.1.1-rc-3)

- 16299 Unable to mobileControlSet URL with http:// URL on iOS 9.1 Simulators and Devices
- 16284 First iOS standalone build with Xcode 7.0/7.1 causes "linking for arm" error
- 16268 Use the server-revdb.dll external for Windows server

## Specific bug fixes (7.1.1-rc-2)

- 16258 Remove unneeded load-time dependence on QTKit.
- 16257 When switching between windows on Mac
- 16243 Successive sorts do not preserve order of equal elements.
- 16234 MobileControlDelete crashes app in LC 6.7.8 (RC 1) on iOS sim 9.0
- 16232 Externals in the Copy Files of a standalone causes the app to crash in the iOS simulator

## Specific bug fixes (7.1.1-rc-1)

- 16154 Allow audio playing when app is on background on iOS
- 16120 [Global Jam] Can't deploy to iOS 9 Simulator when using referenced images
- 16111 Save As dialog always opens in a folder deep in LiveCode's app bundle
- 16081 Crash when fetching 'the shadow' property of an object.
- 16069 Crash when closing button menu by clicking outside of it
- 16066 revOpenDatabase missing from Dictionary
- 16050 revZipOpenArchive stops working on LC 7.1 and xcode 6.4
- 16047 open process / launch does not work with quotes around the executable name
- 16035 Check for update does not work
- 16033 Empty converted to 0 in object id chunk expression
- 16027 Android audio/video controller disappears after some seconds of inactivity
- 16017 Message box doesn't remember where it was placed
- 15994 play stop does not work in LC 7.x on mobile
- 15987 iOS environment variable is built using libc environ
- 15971 strokeGradient in subgraphics of polygon is off
- 15969 Playing a video back on iOS crashes the application when touching the screen
- 15948 Array intersect is completely wrong in LC 7
- 15946 \$\_POST\_RAW key value pairs used for form checkboxes are not converted to arrays in \$\_POST
- 15934 Holding down the SHIFT key while pressing the Backspace key does nothing
- 15929 reading huge portion of text from Unicode files is extremely slow in LC 7
- 15925 MobileControl Player on Android Needs Parity with IOS for Monitoring Data Buffering
- 15895 Using put with only the first half of a surrogate pair in the message box locks up IDE
- 15878 Fix a crash caused by waiting during modal window setup
- 15875 Rotating Android causes app to restart if minimum version is set above 3.1 at deployment
- 15873 Closing a minimized stack in LC676 saves the stacks rect as -32000
- 15844 mobilePickDate "time"
- 15822 watchedvariables and breakpoints property parsing too strict
- 15816 MobilePick does not display Cancel Done if index is filled in
- 15814 Can't read a file using UNC path in Windows

- 15799 Some arrays encoded in 6.7 format from 7.0 won't load into 6.7.
- 15763 Can't select the last control by chunk expression
- 15750 Documentation updated for URL("file:") and Unicode files
- 15649 cursor property not reset to empty at cursor unlocking in LiveCode 7
- 15606 systemVersion reports incorrect value from Windows 8.1
- 15417 mobileGetLaunchData isn't updated if app is resumed to handle request.
- 15273 setting imagesource in tabbed field hides text and gives wrong width
- 15255 Windows videograbber should default to DirectX
- 15245 Only the first character of a line prints on Linux.
- 14786 Android fontsize change cause crashes
- 14706 Request to add beta testing entitlement to iOS apps
- 14640 Linux: force the LiveCode window to the top when going fullscreen
- 14638 Ensure the old stack rect is restored when leaving fullscreen mode
- 14447 [[Docs]] QTVersion of QuickTime return 0.0
- 14423 revCapture - revCaptureListVideoCodecs() results in crash
- 13820 Player object cannot play a midi file on Yosemite.
- 13754 Changing the scalefactor might hide the stack off screen
- 13537 Global variables should not trigger a strict compilation error if a local variable has the same name in another object script
- 13527 Outdated documentation for delimiters in LC 7.0
- 11709 Set the vScroll property of a native scroller does not work on Android
- 11133 uninstall noui does not trigger uninstaller with no UI
- 9942 The "system time" is always returned in long format on Linux
- 9744 iOS video playback starts with black frames
- 1751 command "flip the selobj vertical" returns errors

#### Specific bug fixes (7.1.0)

- 15753 App crash during launch on iPad2 with iOS min version set to 5.1.1 (LiveCode 7.1 RC+DP)

#### Specific bug fixes (7.1.0-rc-3)

- 15898 Building 32-bit slice only causes app to crash on iPad 1

#### Specific bug fixes (7.1.0-rc-2)

- 15764 Android mobileControlCreate "player" not working
- 15756 various codepoint and codeunit functionality broken in standalones
- 15743 iOS standalone engine do not build anymore in Debug mode
- 15738 The "My LiveCode/Plugins" folder isn't created by the IDE when updating the BAF
- 15723 Incorrect wording in Business edition activation screen
- 15719 An error in a preOpenStack script aborted openStack
- 15718 'SSL library not found' error thrown on iOS when using SSL & Encryption library
- 15705 strange flash occurring under iOS with visual effect push left/right
- 15703 iOS app saved with minimum version 8.4 won't install on a device running iOS 8.4
- 15685 Fix the path to the OSX standalone engine on Linux
- 15684 "extras" key in array returned with mobileGetLaunchData is empty

15676 Unicode chars in a script can make the Script Editor crash on script opening

#### Specific bug fixes (7.1.0-rc-1)

15700 iOS sockets only accept a single connection  
 15692 [Docs] Dictionary entry for "flip" command is missing text  
 15675 IDE crashes on startup if DataTree is installed  
 15654 LiveCode 6.7.7 RC 1 / 7.1.0 DP 1 won't install on 10.6.8  
 15648 Exporting text to RTF text generates invalid output if there is the backgroundColor has been changed  
 15646 Memory leak when using 'put into of '  
 15642 revZip fails to open archive in 64-bit iOS  
 15633 ceiling (\*ceil()\* synonym) is missing from the dictionary  
 15625 "record sound" is not replacing existing sound file  
 15623 machine() returns "unknown" in LiveCode 7.x on OSX  
 15619 Opening sqlite on iOS return "revdberror"  
 15602 Recursionlimit property cannot be set by script > 65535  
 15597 LiveCode 7 fail to export valid RTF text if lists are used  
 15592 memory leak in shell() on Mac  
 15590 Crop image within a repeat loop causes crash to desktop after a few iterations  
 15514 Blocking socket syntax now works in LiveCode Server.  
 15379 Regular Expression with binary input fails in LC 7  
 15200 Default cursor doesn't reset when set to empty  
 15096 Escape key does not dismiss the 'answer color' dialog  
 13923 formattedHeight of a button is incorrect if button has an icon  
 13575 Dictionary - iphoneSetKeyboardReturnKey examples  
 12108 Better argument handling for livecode server scripts  
 11569 Scrolling a group crashes LiveCode when hiding scrollbar  
 7217 selectionChanged not sent on arrow navigation

#### Specific bug fixes (7.1.0-dp-1\_release)

15572 French application menu is not translated.  
 11866 iphoneHeadingCalibrationTimeout returns empty

#### Specific bug fixes (7.1.0-dp-1)

15577 Execution error caused when trying to set the "visited" property of a text link  
 15571 textEncode crashes with encoding UTF-32  
 15570 Do not run "after" handlers if an error occurs.  
 15569 Referenced jpg crashes application on Linux  
 15568 Crash if SSL lib can't load properly - ARTS  
 15566 Preferences Mobile Support can't find the SDK for Xcode 6.4  
 15561 Tooltip appears for controls out of the visible window  
 15556 Mouse focus not synced when object is created  
 15511 Erroneous assertion failure logged on server when doing 'go stack'  
 15508 Allow debug mode standalone engines to load script-only TEST\_STACKS  
 15507 The filename / effective filename of the root script returns empty in LiveCode server.

- 15495 [Player] Progress Bar does not update when playing audio files and alwaysBuffer is true
- 15494 mobileControlget ID
- 15472 Invisible player appears and causes LC to hang
- 15457 Repeat for each element subtly different in 7.0
- 15439 enabledTracks "can't set this property" in LC 7
- 15321 "record sound" is not creating a file in LC7 (Windows)
- 15263 Large files can EOF prematurely on Linux.
- 15259 DataGrid library missing in standalones
- 15191 Windows - Hiding a player in Run mode does not update the screen
- 14418 Player doesn't accept filenames starting with file://
- 14289 Update SQLite to 3.8.10.2
- 14056 Cannot hide cursor on Mac from LiveCode 6.7
- 13391 [[Player]] Make default foregroundColor a colour a colour other than black
- 13390 [[Player]] foregroundColor and hiliteColor not saved with stack
- 13262 [[Player]] player object in hidden group still displays video image
- 12834 [[Player]] enhancement set colour of player controller buttons using bgcolor property
- 11803 set the RTFText of field does not work on Android
- 6791 Objects are only deleted on idle
- 5209 FormattedHeight does not take into account controller
- 4123 eraser tool in magnify palette is 1 pixel off

## IDE changes

### Specific bug fixes (7.1.2-rc-1)

- 16735 Added beta entitlement for testflight
- 16304 Visual effect broken on textChanged
- 16052 Update default font to San Francisco for MacOSX 10.11

### Specific bug fixes (7.1.1-rc-1)

- 16079 breakpoints & breaks do not work until after an answer issues
- 16058 Business edition is seen as Community edition by the Standalone Settings stack
- 15918 create/clone/copy object and setting position to negative does not work
- 14502 Return key doesn't trigger default button in Answer dialog
- 14465 Rulers don't stay fixed to the stack when moving the stack
- 14224 Combo box will not allow typing into an "Ask" dialog.
- 13826 Newly created objects are forced to appear on-screen
- 13709 some message box output in LC when aligning text using menu Text->Align->...
- 13646 graphic bug in standalone application settings window
- 13588 "at" option for "edit script" command not honored
- 11872 impossible to change the case from all caps etc
- 10267 Add Hardware accelerated option for Android Standalone Applications
- 3962 Delete key completely clear Ask dialog

### Specific bug fixes (7.1.0-rc-2)

- 15723 Incorrect wording in Business edition activation screen
- 15717 iOS Version resets to 5.1.1

### Specific bug fixes (7.1.0-dp-1)

- 15580 Mobile Support JDK path not updated after changing it
- 15545 Setting spaceAbove or spaceBelow on the first line of a table breaks it
- 15535 Magnify palette cannot be used in a standalone
- 15522 position of cell editing field in basic table field
- 15515 Find and replace does not support arrow keys
- 15510 Project Browser forces the unlocking of the cursor
- 15478 message box does not auto-scroll
- 6649 Editing a table field cell shows focus at the wrong place when margins are changed.

## LiveCode Builder changes

## Previous Release Notes

7.1.3 Release Notes	<a href="http://downloads.livecode.com/livecode/7_1_3/LiveCodeNotes-7_1_3.pdf">http://downloads.livecode.com/livecode/7_1_3/LiveCodeNotes-7_1_3.pdf</a>
7.1.2 Release Notes	<a href="http://downloads.livecode.com/livecode/7_1_2/LiveCodeNotes-7_1_2.pdf">http://downloads.livecode.com/livecode/7_1_2/LiveCodeNotes-7_1_2.pdf</a>
7.1.1 Release Notes	<a href="http://downloads.livecode.com/livecode/7_1_1/LiveCodeNotes-7_1_1.pdf">http://downloads.livecode.com/livecode/7_1_1/LiveCodeNotes-7_1_1.pdf</a>
7.1.0 Release Notes	<a href="http://downloads.livecode.com/livecode/7_1_0/LiveCodeNotes-7_1_0.pdf">http://downloads.livecode.com/livecode/7_1_0/LiveCodeNotes-7_1_0.pdf</a>
7.0.6 Release Notes	<a href="http://downloads.livecode.com/livecode/7_0_6/LiveCodeNotes-7_0_6.pdf">http://downloads.livecode.com/livecode/7_0_6/LiveCodeNotes-7_0_6.pdf</a>
7.0.4 Release Notes	<a href="http://downloads.livecode.com/livecode/7_0_4/LiveCodeNotes-7_0_4.pdf">http://downloads.livecode.com/livecode/7_0_4/LiveCodeNotes-7_0_4.pdf</a>
7.0.3 Release Notes	<a href="http://downloads.livecode.com/livecode/7_0_3/LiveCodeNotes-7_0_3.pdf">http://downloads.livecode.com/livecode/7_0_3/LiveCodeNotes-7_0_3.pdf</a>
7.0.1 Release Notes	<a href="http://downloads.livecode.com/livecode/7_0_1/LiveCodeNotes-7_0_1.pdf">http://downloads.livecode.com/livecode/7_0_1/LiveCodeNotes-7_0_1.pdf</a>
7.0.0 Release Notes	<a href="http://downloads.livecode.com/livecode/7_0_0/LiveCodeNotes-7_0_0.pdf">http://downloads.livecode.com/livecode/7_0_0/LiveCodeNotes-7_0_0.pdf</a>
6.7.9 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_9/LiveCodeNotes-6_7_9.pdf">http://downloads.livecode.com/livecode/6_7_9/LiveCodeNotes-6_7_9.pdf</a>
6.7.8 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_8/LiveCodeNotes-6_7_8.pdf">http://downloads.livecode.com/livecode/6_7_8/LiveCodeNotes-6_7_8.pdf</a>
6.7.7 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_7/LiveCodeNotes-6_7_7.pdf">http://downloads.livecode.com/livecode/6_7_7/LiveCodeNotes-6_7_7.pdf</a>
6.7.6 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_6/LiveCodeNotes-6_7_6.pdf">http://downloads.livecode.com/livecode/6_7_6/LiveCodeNotes-6_7_6.pdf</a>
6.7.4 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_4/LiveCodeNotes-6_7_4.pdf">http://downloads.livecode.com/livecode/6_7_4/LiveCodeNotes-6_7_4.pdf</a>
6.7.2 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_2/LiveCodeNotes-6_7_2.pdf">http://downloads.livecode.com/livecode/6_7_2/LiveCodeNotes-6_7_2.pdf</a>
6.7.10 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_10/LiveCodeNotes-6_7_10.pdf">http://downloads.livecode.com/livecode/6_7_10/LiveCodeNotes-6_7_10.pdf</a>
6.7.1 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_1/LiveCodeNotes-6_7_1.pdf">http://downloads.livecode.com/livecode/6_7_1/LiveCodeNotes-6_7_1.pdf</a>
6.7.0 Release Notes	<a href="http://downloads.livecode.com/livecode/6_7_0/LiveCodeNotes-6_7_0.pdf">http://downloads.livecode.com/livecode/6_7_0/LiveCodeNotes-6_7_0.pdf</a>
6.6.2 Release Notes	<a href="http://downloads.livecode.com/livecode/6_6_2/LiveCodeNotes-6_6_2.pdf">http://downloads.livecode.com/livecode/6_6_2/LiveCodeNotes-6_6_2.pdf</a>
6.6.1 Release Notes	<a href="http://downloads.livecode.com/livecode/6_6_1/LiveCodeNotes-6_6_1.pdf">http://downloads.livecode.com/livecode/6_6_1/LiveCodeNotes-6_6_1.pdf</a>