

# Protect MAX Applications

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MAX is an interactive graphical programming environment from Cycling 74. Mac or Windows applications created with MAX can be protected with AppProtect or QuickLicense to ensure that only licensed users can run an application and the source code is hidden from hackers.



Software activation is the process of enabling newly installed software to run on a specific computer. Software vendors use an activation process to ensure that only paid customers can run their software and to enforce license restrictions.

For a low volume application, AppProtect can protect the application and present an Enter Password dialog on first launch. Each customer requires a computer-unique password that can be generated by the vendor with AppProtect from the Password Number shown on the customer's computer.

A screenshot of a dialog box titled "Enter Password". The dialog has a close button (X) in the top right corner. Below the title bar, it displays "Password Number: 50601". Underneath is a text input field with a blue border and a cursor. At the bottom of the dialog are two buttons: "OK" and "Cancel".

For higher volume applications, AppProtect can be used with an activation server to fully automate the activation process. On first launch, a dialog can accept a Serial Number and activate the software license using an online activation server.

A screenshot of a dialog box titled "Enter Serial Number". The dialog has a close button (X) in the top right corner. Below the title bar is a text input field with a blue border and a cursor. At the bottom of the dialog are two buttons: "OK" and "Cancel".

By using a computer-specific activation process, the protected App can only be used on licensed computers. Files cannot be copied and shared with other computers or users.

For more sophisticated licensing requirements, MAX applications can be protected and licensed with QuickLicense. QuickLicense supports Trial, Product, Try/Buy, Subscription, Floating and other license types. It allows a protected application to be securely moved from an old computer to a new computer with a few button clicks. QuickLicense is part of a family of tools for software protection, license management, offline or online activation and automated order processing and delivery.

## Protect macOS Application

To protect a Mac application, double-click AppProtect to present its window.

Click the **Select** button to pick the application and an output folder. Click the **Build** button.

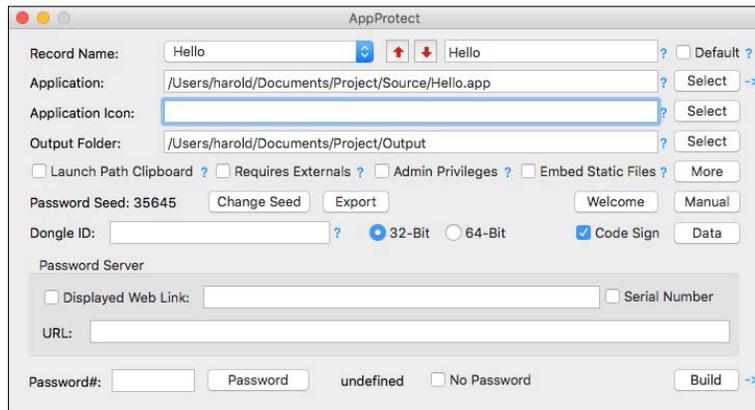
In this example, the name of the MAX application was Hello.app.

Unless you specify a different output folder, the protected App is placed in the same folder as the original application. By default, the App gets “My32bit “ or “My64bit “ as a prefix to the application name, but you can then rename it to anything you want.

The App can now be distributed to any user. On first launch on a customer computer, the Enter Password dialog is presented.

Enter the Password Number from that dialog into AppProtect on your computer and click the **Password** button to generate the computer unique password needed for that computer.

AppProtect can hold a separate named record for each App you distribute to customers.

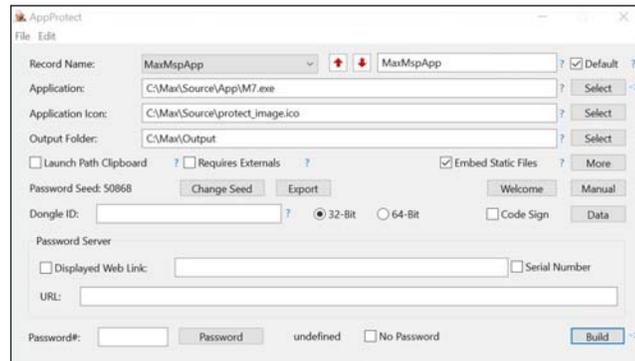


## Protect Windows Application

To protect a windows application, create a Source and Output folder. Your account needs read/write access to these folders so put them in your Documents folder or in a folder directly on drive C.

Put your MAX application and support files and folders in the Source folder.

Launch AppProtect and select the application EXE file and an output folder. Since a MAX application on Windows will require an external folder of support files, set the "Embed Static Files" checkbox too. Click the **Build** button.



Your collective file and all support files are built into a single protected EXE that can be distributed to any number of customers.

The source code in your collective file is embedded in the Windows EXE, but it is still somewhat readable with an editor program. MaxEncryptor can add additional optional protection, by first encrypting this file before building it into an EXE.

To encrypt this file, drag and drop the main mxf file on to the MaxEncryptor application. The encrypted mxfe file is generated. Replace the mxf file with the mxfe file in your Source folder. Now build the protected EXE.



## Sell Application

There are many ways to sell your application and manage licenses.

You could use a manual activation process. The customer buys your protected application and on first launch will see an Enter Password dialog. The customer gives you the password number and you return the computer-unique password needed.

You could use an online Serial Number activation process with an account on Safe Activation. First setup some data in an online activation server that holds a list of Serial Numbers for each product you sell. The customer gets a Serial Number when they purchase your product and can instantly activate your license.

There are many ways to automate the order process and deliver the Serial Number to the customer at the time of purchase. Your order process might consist of a simple Buy button and a Paypal merchant account to process credit card orders. When an order occurs, Paypal sends you an email containing the customer details. You can email a Serial Number to the customer.

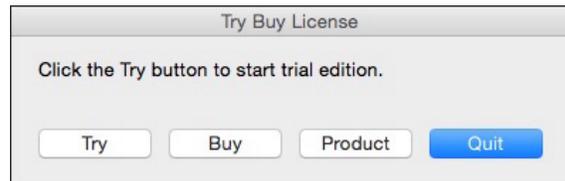
To further automate the process, Paypal can post order data directly to the Safe Activation server. Now when an order occurs, the customer immediately receives an email message containing the download link and Serial Number for your protected application.

## Summary

AppProtect makes it easy to protect MAX applications. To fully automate the activation process, link the Protected Application to the Safe Activation server. Safe Activation is an online service to automate the activation process, license and subscription management and the online order process.

If you need more sophisticated licensing options, use QuickLicense to configure the license, then apply it to the application with the AddLicense tool.

QuickLicense can create a time-limited Trial edition, a combined Try/Buy license, a software subscription or a floating license.



Both AppProtect and QuickLicense can be used with Safe Activation. Alternatively, these tools also work with WebActivation or Desktop License Server if you want to host an activation server on your own website.

For added protection, the MaxEncryptor tool can be used with AppProtect Windows or the AddLicense tool from the QuickLicense Windows product. The runtime code built into a protected EXE file will automatically decrypt the mxfile when launching the application.

Since mxfile encryption is built into the macOS edition of AppProtect and AddLicense (included with QuickLicense), the extra drag and drop step is not required.

## More Information

This paper shows how to quickly protect a MAX MSP application on Mac or Windows with AppProtect using a simple Enter Password dialog. There are other PDF white papers and videos on the Excel Software website to answer other questions you may have.

To apply a Serial Number activation process, refer to the “*AppProtect and Safe Activation*” paper.

A similar protection process can be applied using the AddLicense tool from QuickLicense giving you the ability to configure a wide range of license types and advanced features. Refer to the “*QuickLicense and Safe Activation*” paper.

When it comes to automating the order process, you have many options. The “*Protect, License and Sell Xojo Apps*” provides detailed information about different ways to automate the order process. That information will be equally applicable to MAX developers.