

Protect & License an Excel Workbook

Excel Software

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There are several ways to protect, license and sell an Excel workbook as a protected product with computer unique activation. The best solution for your project will depend on your technical requirements, desired user experience, marketing goals, development budget and income opportunity for the product.

This paper describes how to protect an Excel workbook with computer unique activation, apply various types of licenses, support human managed or online activation and automate the sales and distribution process for Mac or Windows products sold from your web site, mail order CD, resellers or affiliates.

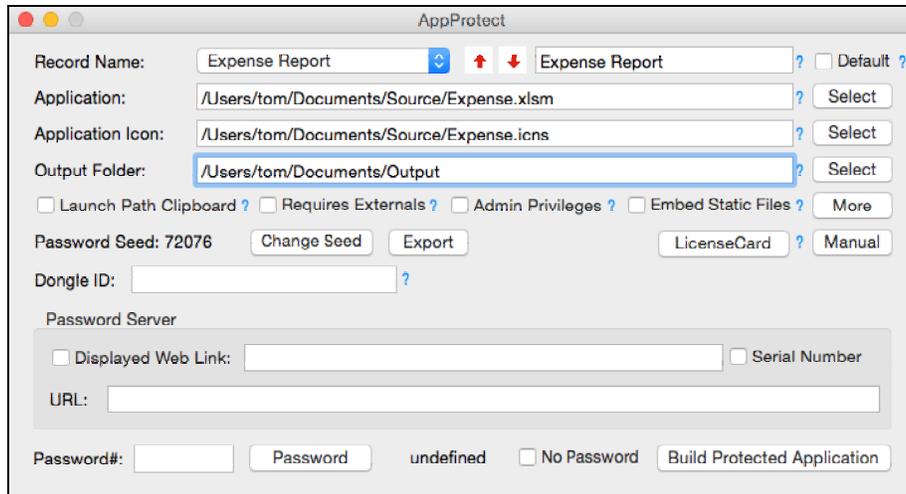


The protection and licensing features are applied to your spreadsheet using either AppProtect or QuickLicense depending on the project requirements and budget.

With either approach, start with a finished Excel workbook with protected cells and hidden formulas as desired. Save your document as a Macro-Enabled Workbook (.xlsm file). First, a basic product license is discussed using AppProtect, then other license types, advances features and user interface enhancements are described using QuickLicense.

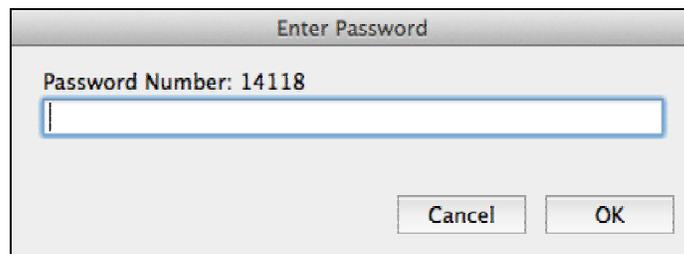
AppProtect and OfficeProtect

OfficeProtect consists of some VBA code in a text file with instructions to copy and paste it into your spreadsheet. Using AppProtect, select your spreadsheet document. Click to build a protected EXE file for Windows or APP file for Mac. Your product is single file with its own icon ready for distribution to customers, just like any normal Windows or Mac OS X application.



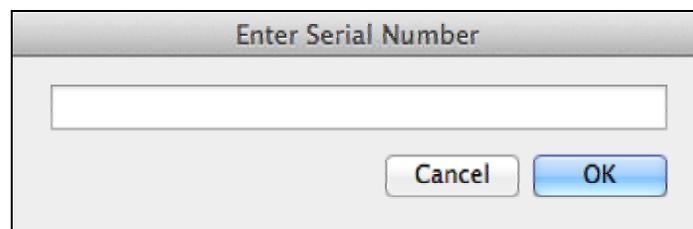
Build Protect Application from Excel Workbook

On first launch on a customer computer, the Enter Password dialog is presented. The customer provides the password number, the vendor enters it into AppProtect and returns the unique password needed to activate the application on that machine. The application now runs forever, but only on that computer.



Enter Computer Unique Password to Activate Product

The activation process can be automated with an online activation server. On first launch on a customer computer, the Enter Serial Number dialog is presented. The customer enters the Serial Number received at the time of purchase.

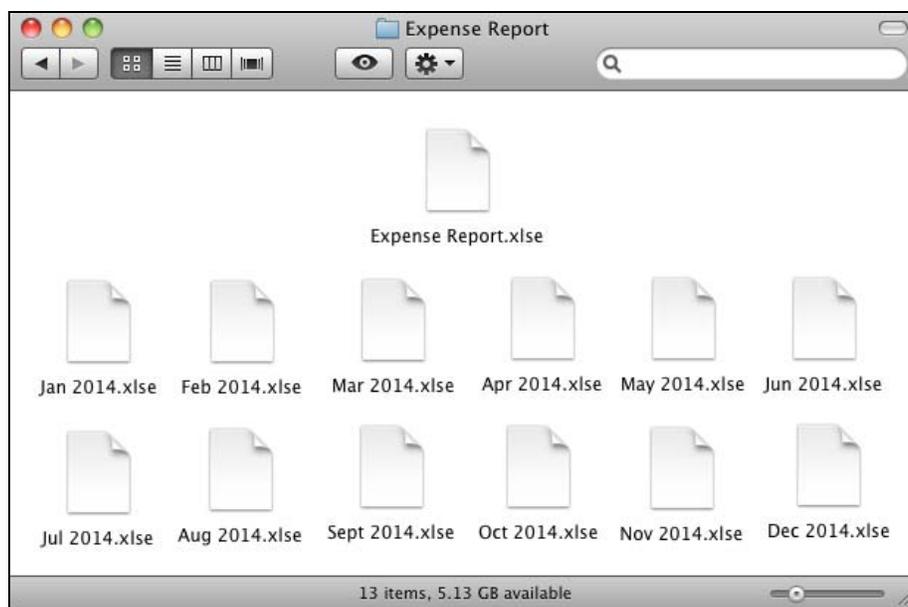


Enter Serial Number for Automated Online Activation

Once your protected application is activated on the user computer, the user simply double-clicks the application to present your spreadsheet in Microsoft Excel. All features work the same except for save and close which shuts down Excel and saves the user's work to an encrypted data file on disk.

If your user needs to make multiple copies of the encrypted file to store unique data for each client, project, etc., instruct them to copy, paste and rename the original data file stored with a .xlse file extension. When the user double-clicks your application, they are presented with a popup menu that allows them to select the specific workbook file they want to open.

Once a user has activated your license, any number of copies of your spreadsheet can be used on that computer. The encrypted spreadsheet file cannot be copied and used on another computer unless the user has purchased and activated a license for that machine.



Encrypted Workbook Files on Disk

QuickLicense and OfficeProtect

QuickLicense offers more license types (Trial, Product, Try/Buy, Subscription), advanced features (license release, restore, suspend, reset), automated subscriptions, customization features and supports two different protection models.

VBA Bound License

With a VBA Bound License, your spreadsheet is distributed as a typical .xlsm file. It contains VBA code provided by OfficeProtect that binds the spreadsheet to a specific Ticket file that defines your license and a runtime file that handles the activation and licensing process.

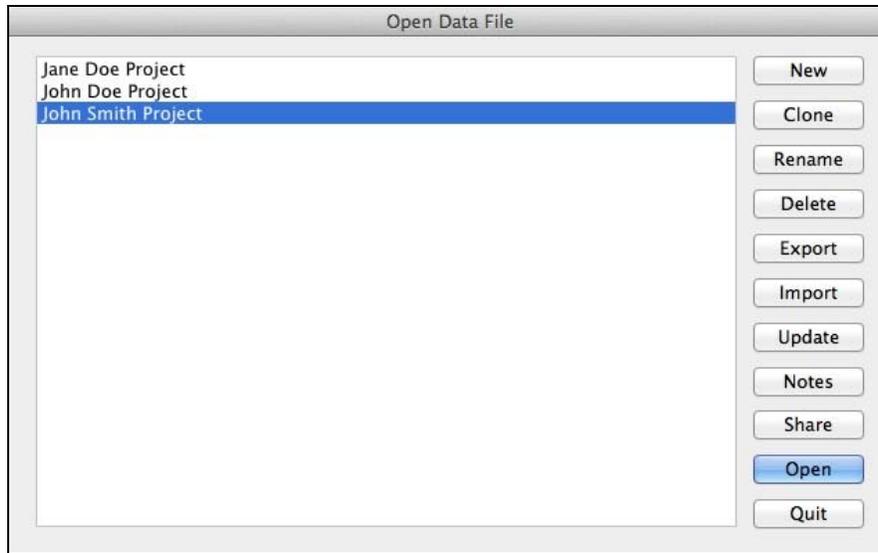
This protection approach depends on Microsoft's VBA password so it is not as secure as the Encrypted XLSM approach discussed below. There are three variations of the VBA code to choose from depending on whether your spreadsheet will always be at a fixed folder location, always be stored in the same movable folder as the runtime and Ticket file or whether it needs to be freely moved across the computer to any location.

Encrypted XLSM (EXE or APP)

This protection approach is similar to that described for AppProtect with more customization options. Start by selecting the desired license options in QuickLicense and then generate a Ticket file. Prepare your .xlsm as previously discussed, then select it, your icon file and the Ticket file from the AddLicense wrapping tool provided with QuickLicense.

AddLicense offer options to present an Open Data File screen when launching an activated application. Select a specific data file to open or click buttons on the right to name, clone, delete or perform other actions on the collection of encrypted workbook files.

The Update button provides a convenient way to update your spreadsheet on the user's computer if you make changes. The Notes button presents a support page from your website in the user's default browser. These buttons can be hidden or other features customized within the AddLicense tool when building your protected EXE or APP file.



Open Data File Screen Presented on Application Launch

License Types

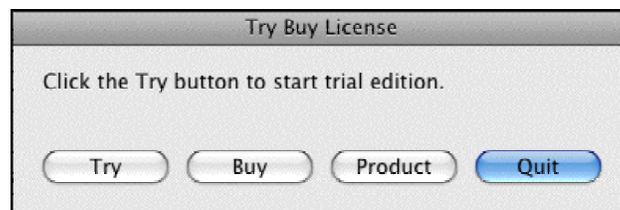
QuickLicense supports many license types including Trial, Product, Try/Buy and Subscription. All options related to a specific license are defined in the Ticket file. Everything related to licensing and activation is a point and click configuration process so you can stay focused on the core features provided by your application.

- **Trial License** - Some vendors provide a free Trial edition that runs for a number of hours, days or launches before it expires. The customer can try it out before committing to a purchase. A Trial license can be configured to auto-activate on first launch or first collect some customer data that is sent to the vendor, then activate to start the Trial period.
- **Product License** - Once activated with a human or online process described below, a Product license allows the customer to run the software forever on a specific computer.
- **Try/Buy License** - Some vendors combine the Trial and Product license into the same application. This allows the customer to try it for a while, then buy and activate the Product without downloading another application. During development, you will define separate Trial and Product ticket files then combine them into one application with AddLicense.

- **Subscription License** - A Subscription license requires a periodic Subscription Code to continue to use the application. The monthly, quarterly or annual Subscription Code can be provided by phone or email and entered by the customer. An online activation server can fully automate a Subscription license as discussed below.

A Try/Buy license combines the Trial and Product license into one application. When launched on a new computer, a Try Buy License dialog is presented. The user starts by clicking on the Trial button. On each application launch, the user will see this dialog.

Click the Trial button to continue the Trial process, click the Buy button to present the vendor website in the default web browser or click the Product button to activate the Product license. Once the product is activated, the Try Buy License dialog is never presented.

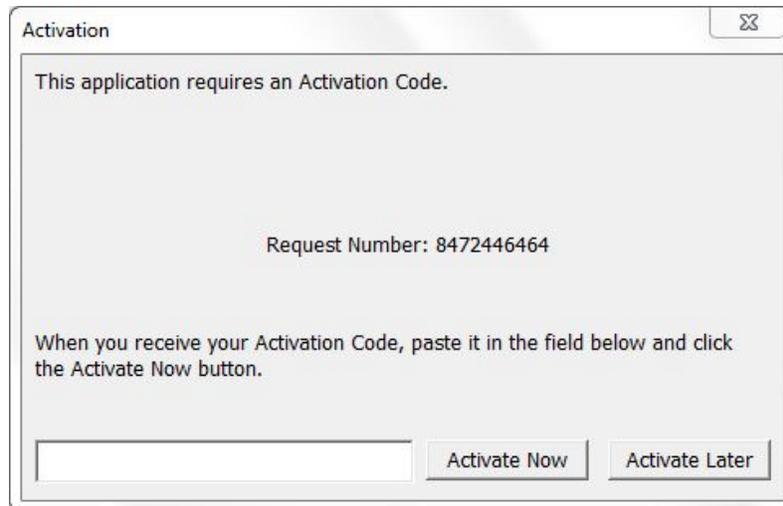


Combined Trial and Product License

Activation Process

On first application launch, the license is activated to a specific computer. For a Trial edition, you might choose to have the application activated without user involvement. Most license types will use a manual or online activation process that presents an activation dialog to the user on first launch.

For a manual process, the Activation dialog shows a Request Number and accepts an Activation Code. The Request Number is unique to each computer based on various hardware and software characteristics at the time of activation. The customer gives the Request Number to the vendor by phone or email and gets back an Activation Code that uniquely activates the license on their machine.

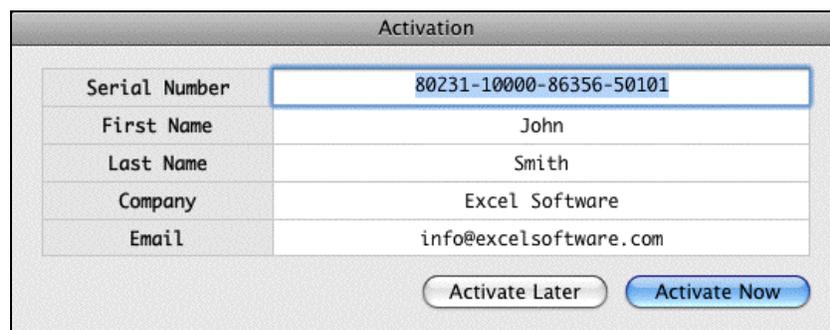


Manual Activation Dialog

The vendor generates an Activation Code by typing or copying the Request Number into QuickLicense and clicking a button. That code is given to the customer to complete the Activation dialog.

An online activation process uses an activation server on the Internet to instantly activate the license on a customer computer. A Serial Number is given to the customer during the purchase process.

On first launch, the Serial Number and other optional data is collected in an Activation dialog. When the customer clicks Activate Now, the license is immediately activated. The customer data is stored in the server.



Online Activation Dialog

With an online activation process, the customer can activate an application within minutes of making a purchase. Each Serial Number can grant a specified number of active licenses to an application. Other features in the licensing system can be fully automated without vendor participation such as the ability to securely move an active license from machine to machine or software subscription management.

Most customers have Internet access when purchasing an application, so online activation is quick and easy. When activating a license on a computer without Internet access, a dialog is presented with instructions on how to do a manual activation. The customer can use an Activation Code retrieved from a web page with another computer or received from the vendor by phone or email.



Select Activation Type Dialog

License Features

Imagine that your customer has purchased and activated your product on their computer. A few months from now they might decide to buy a new machine and want to move your application to the new computer. QuickLicense supports Block and Unblock codes that will ensure a license is blocked from running on an old computer before activation is allowed on a new computer.

With a manual activation process, the customer contacts the vendor to exchange Block and Unblock codes when securely moving a license from machine to machine. With an online activation server, that process can be fully automated with a few customer button clicks.

Some vendors allow a 10-day Trial license. It is not uncommon to have a potential customer activate the trial and then leave for a two-week vacation. When they return, the license has expired. QuickLicense can generate an Expiration Code that extends the license to a specific date when entered by the customer into a dialog presented by a special key sequence. Expiration Codes are computer specific and that process can be used any number of times for each license.

QuickLicense has many customization options. A License agreement or other information can be presented in a dialog prior to activation. Information messages like time remaining in a Trial license can be presented on each launch. All text, buttons and titles of licensing dialogs can be customized with QuickLicense Pro. If your application supports different human languages like Spanish or Japanese, create a custom text file for each language to control all text seen by a customer.

Activation Server

QuickLicense and AppProtect each support three online activation servers. Safe Activation is an online service, while the other two are self-hosted servers that run on your own website.

- Safe Activation
- Desktop License Server
- WebActivation

Safe Activation is an online service where you log into your account with a browser, setup some information for each product that you sell and give each customer a Serial Number to activate your software. Safe Activation is available with different account sizes and features in Service 1, 2 or 3.

Service 1 provides basic activation features for each product that you sell, a form that collects customer data during activation and a list of Serial Numbers that each allow X computers to be activated. When activations occur, a customer record is added that stores the customer-entered data.

Service 2 adds licensing features like release, restore, reset and suspend. It also has features to manage a software subscription based on the Serial Number.

Service 3 adds order process automation. There are no setup costs, time commitments or web programming required with Safe Activation. You can grow your account size as needed or cancel the service at any time.

Software Subscription

Some vendors offer their product as a monthly, quarterly or annual service rather than a one-time product purchase. This lowers the entry cost for new customers and encourages long-term relationships between the vendor and customer.

For a Subscription license, an Activation Code is needed on first launch and a unique Subscription Code is needed on first launch of each new subscription period. These codes can be generated with QuickLicense and provided by phone or email to the customer.

The easiest way to automate a software subscription is to let the activation server do all the work. Simply set the Subscriber checkbox for all new Serial Numbers and clear that checkbox for a specific Serial Number if the subscription is cancelled. The protected product and activation server will manage the subscription automatically. This automated process requires Safe Activation Service 2 or 3, Desktop License Server or WebActivation.

Paypal has a nice feature for software subscriptions. Within the merchant account you can create a Subscription button. When purchasing with this button, a reoccurring charge item is added to the buyer's Paypal account.

When Paypal posts the order data to Safe Activation Service 3, an email message with download link and Serial Number is sent to the customer. If the customer later cancels the subscription, Paypal posts that data to Safe Activation to clear the Subscriber checkbox associated with that Serial Number. This fully automated system allows subscriptions to be purchased, maintained or cancelled without vendor participation.

USB Dongle Protection

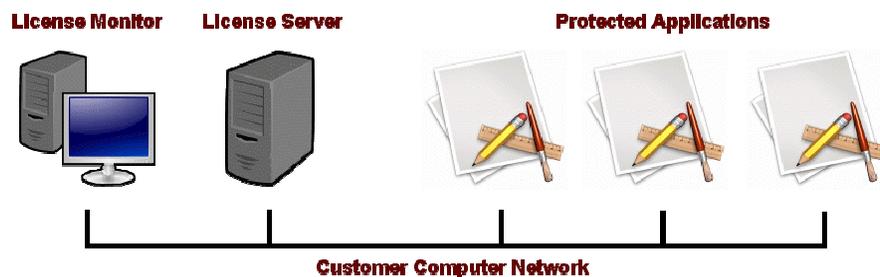
MakeDongle is a Mac or Windows application that allows you to make software protection dongles from generic USB drives. A dongle can be used with either AppProtect or AddLicense on either Mac or Windows. Your application only runs when the dongle is present in the computer.

When using QuickLicense and MakeDongle to create a protected EXE or APP file, there is an option to store the encrypted spreadsheet files and your application itself on the dongle. This optional setup allows the user to easily move your application and documents to any computer where the dongle is present.

Floating License

So far we have discussed licensing an application for use on each computer. That is the most common approach when selling applications to companies, organizations or individual users.

For some corporate environments, a floating license server may be a better solution. A specified number of active licenses can float between computers in the network. A floating license system runs self-contained within the network with no Internet access required.



Floating License for Protected Spreadsheet

There are three parts to a floating license system, the license server, the license monitor and the protected application. The license server runs silently at a fixed IP address on one computer in the network and grants a license to run the application on up to X computers within the network.

The license monitor is used to start and stop the license server, monitor the number of active licenses and increase the number of active licenses allowed on the network by entering a code provided by the vendor.

The license monitor is activated on a specific computer to control use of the floating license system within each organization. Your protected application can be freely copied to any computers on the network. The server must grant a temporary license each time the application is used.

Users on the network simply launch your application from any computer. A no license available message is presented if there are too many current users.

A license server running on a Windows computer can serve licenses to applications running on Mac or Windows. Likewise, the license server or monitor running on a Mac computer can serve licenses to applications on any platform. If the license server is configured to support ten active licenses, the application can run on any mix of ten Mac or Windows computers.

No programming is required to generate the license server and monitor. This point and click development process takes a few minutes to complete and yields a royalty-free floating license system that can be distributed to any number of organizations.

Summary

This article presented many options to protect, activate, license, sell and automate the order process for your Excel workbook. Features and pricing are scalable starting with a basic product license using AppProtect and OfficeProtect. Most capabilities discussed require QuickLicense Standard instead of AppProtect.

Excel Software offers free tech support on all of our tools. If you would rather not setup the license, activation, order process and protection yourself, ask for a free quote to have us do it for you. Demonstration videos are available on the Excel Software website for tools and methods presented in this article. Excel Software offers a large suite of protection and licensing tools for any digital product or OS.