

CrossOver Users Guide

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Chapter 1

Introduction

CrossOver allows you to run your favorite Windows applications and games on an Intel Macintosh. Unlike similar products which run the Windows operating system on a virtual machine, CrossOver bridges directly between Windows software and OS X, allowing applications to run at full speed on your Macintosh desktop.

CrossOver is tested for performance with many common productivity applications such as Microsoft Word and Outlook, and also with many games, such as Half-Life 2. It also works well with a wide variety of other programs.

CrossOver is easy to install, and requires a small footprint on the system. Its minimum requirements are as follows:

- An Intel Macintosh (CrossOver does not work on PowerPC systems)
- Mac OS X 10.6.8 or higher.
- 200MB of available disk space

Tip

You will also need disk space for whatever Windows applications you plan to install.

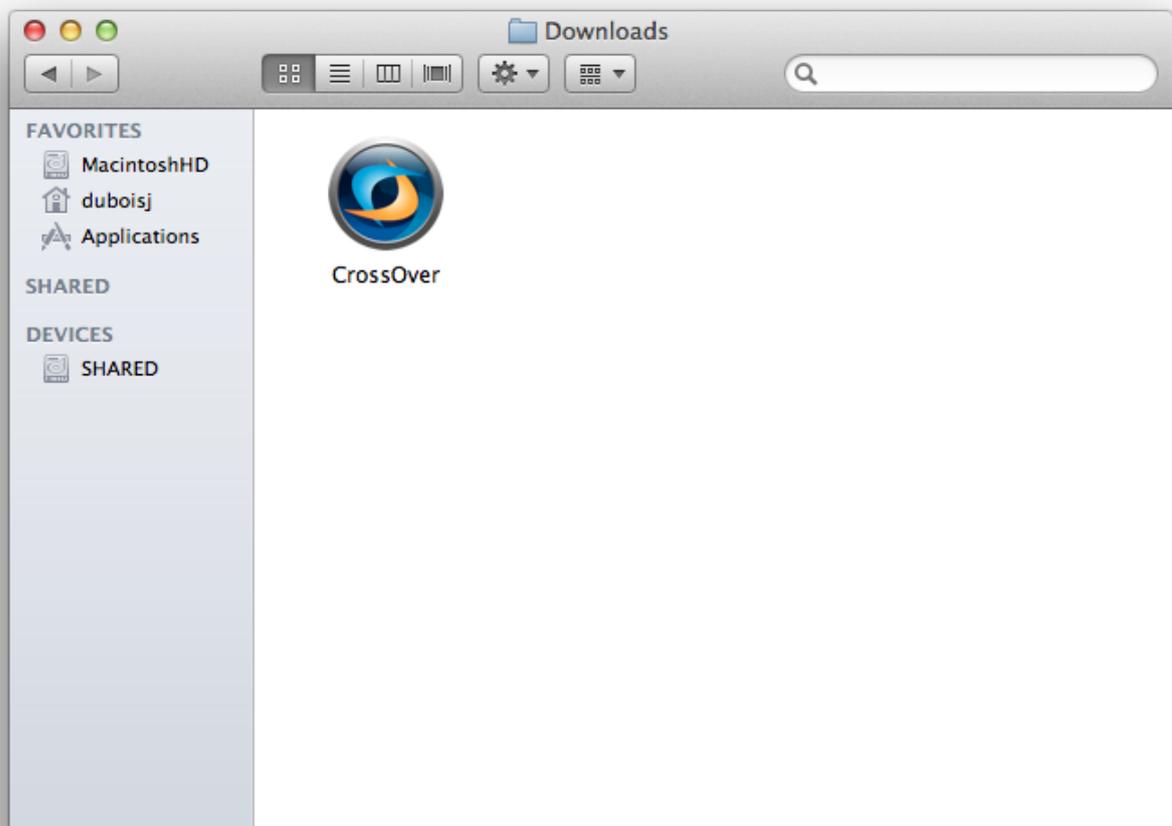
Chapter 2

Quick Start Guide

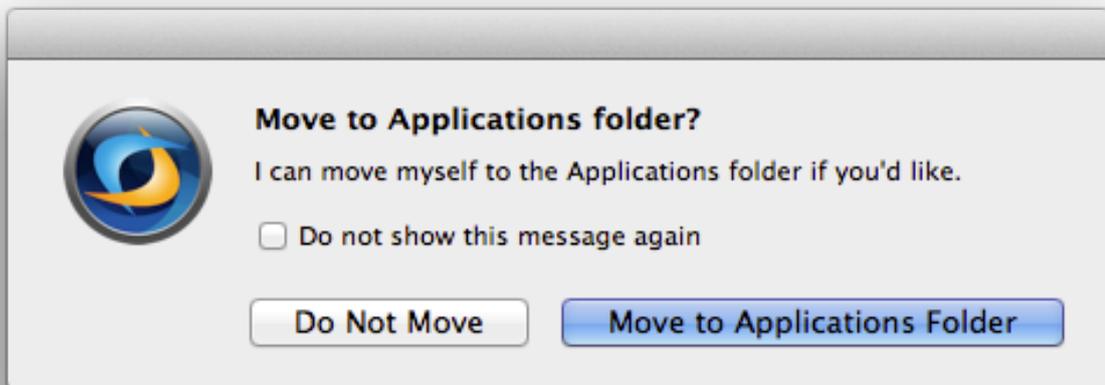
If you are familiar with other versions of CrossOver or you are comfortable making mistakes, this chapter should get you started running Windows software in a few minutes. For greater detail about the concepts and features in CrossOver consult the later chapters in this guide.

Installing and running When you download CrossOver from our website, your web browser should automatically create a CrossOver item in your Downloads folder.

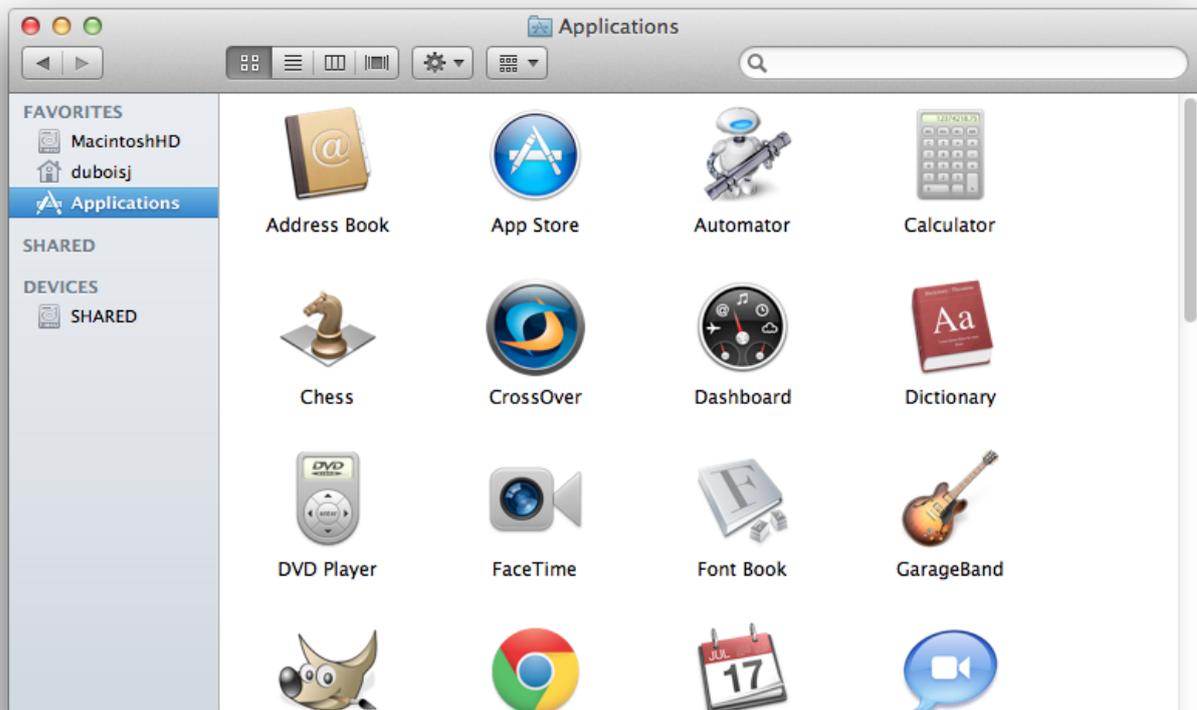
To run CrossOver for the first time, find the CrossOver icon (shown below) and double-click on it.



The usual place to install CrossOver is in the Applications folder. CrossOver will offer to move itself there the first time it runs. Unless you wish to install it in a custom location, click Move to Applications Folder.

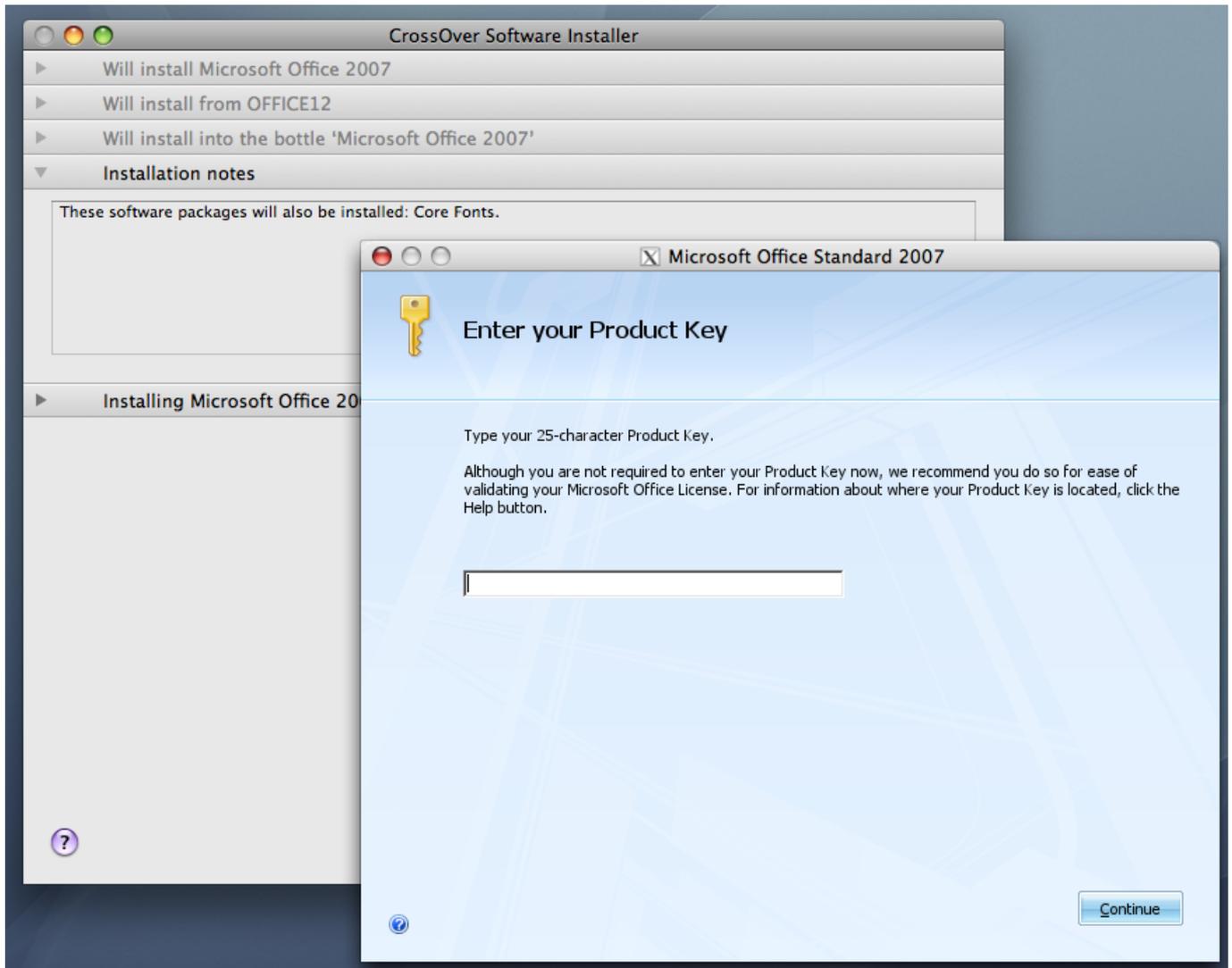


To run CrossOver, browse to the Applications folder and double-click the CrossOver icon.

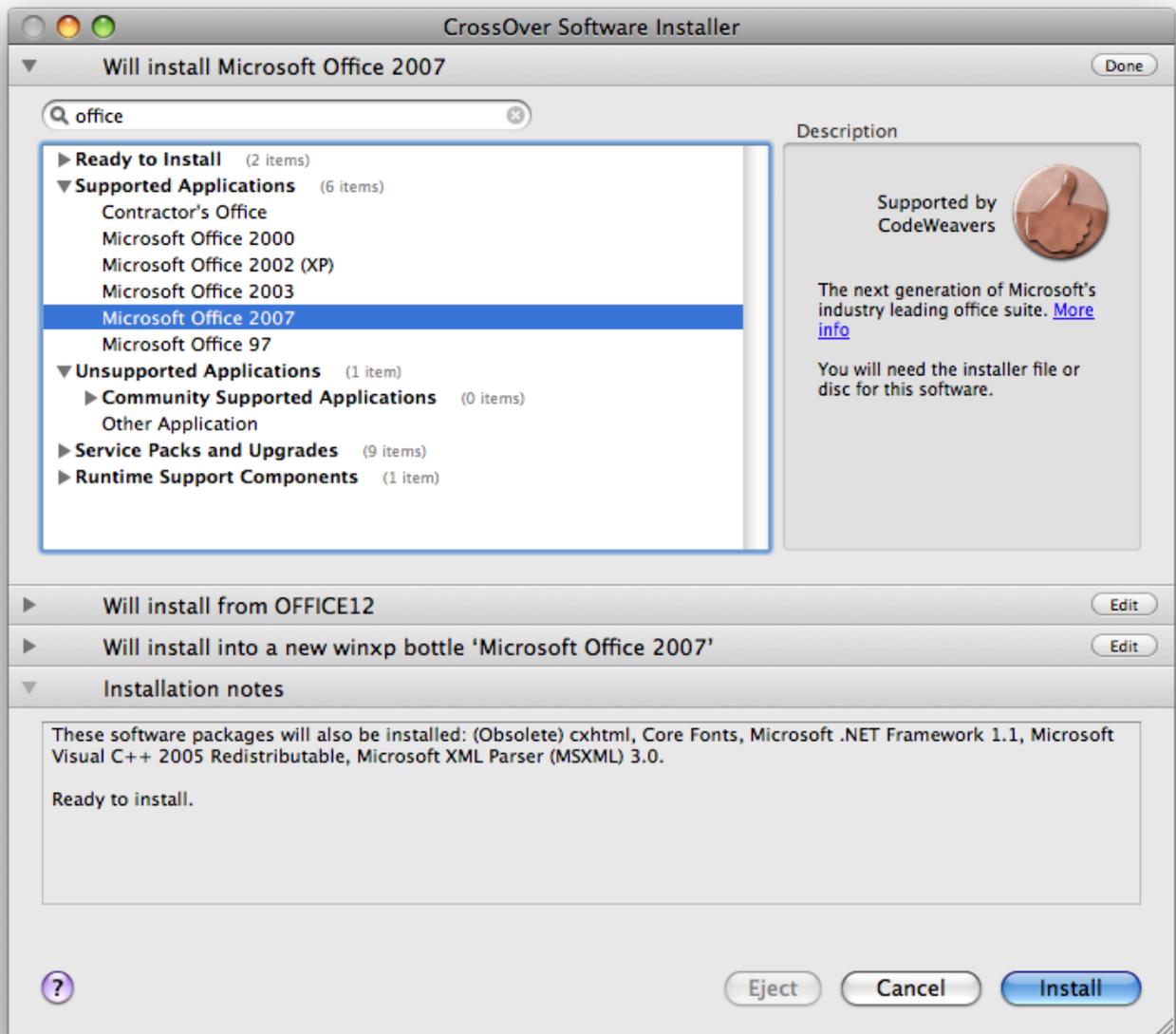


Installing a Windows program To install software off a CD or DVD, simply insert the disk now. CrossOver will detect the disk and offer to install. Then follow the steps provided by the [CrossOver Software Installer](#).

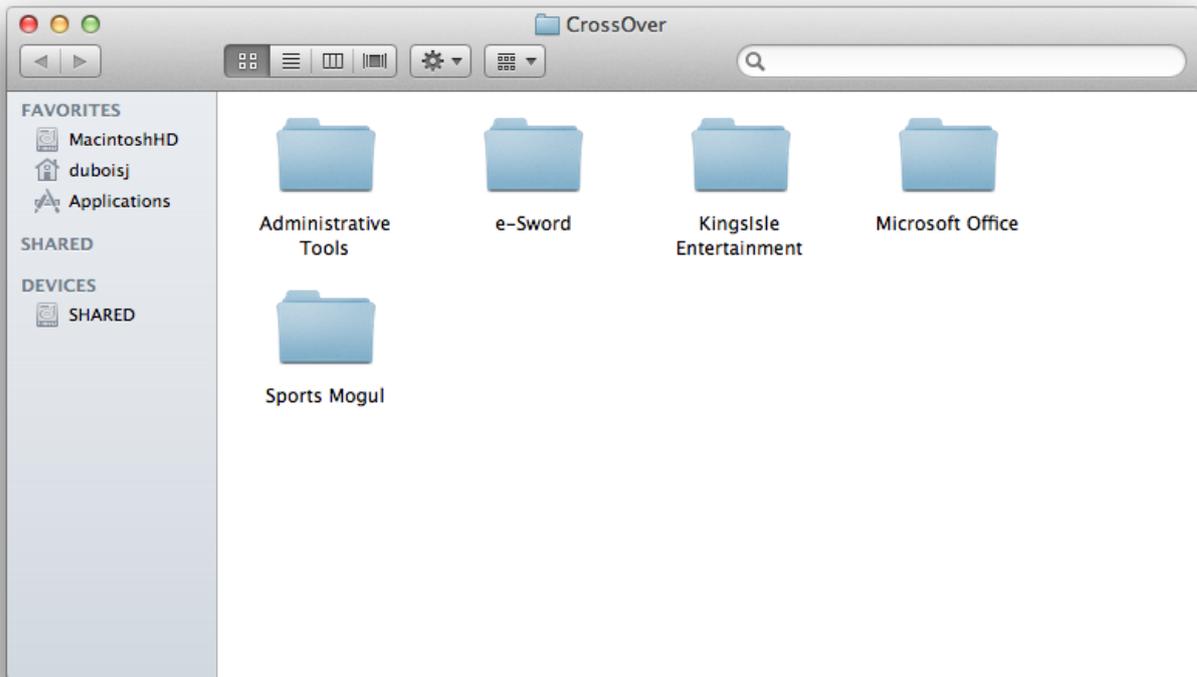




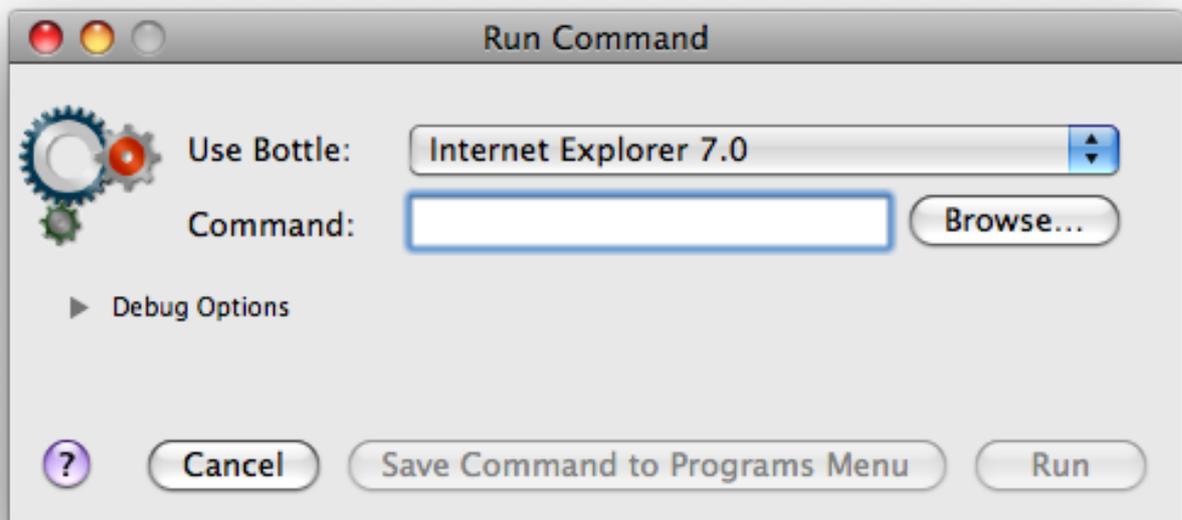
To install from a single installer file or install one of CrossOver's automatic packages, click on the Configure → Install Software... menu. Then select the name of the package from the list provided. If the program you want to install is not specifically named, select **Other Application**. Then follow the steps provided by the **CrossOver Software Installer**.



Running a Windows program If all went well, a launcher icon appeared for the application you just installed. This icon is in your home directory for later use.



If your program did not create any icons, you can still launch it through the Programs → Run Command... menu.



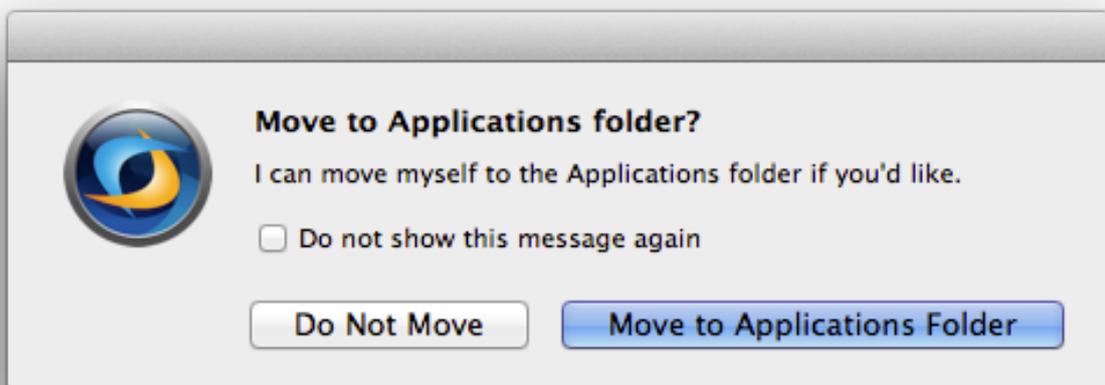
Have fun!

Chapter 3

Installing CrossOver

CrossOver can be installed anywhere on your system (via dragging and dropping).

The usual place to install CrossOver is in the `Applications` folder -- this will make it available to all the users on your system. Any time CrossOver runs from another folder, it will offer to move itself there. To allow CrossOver to do so, simply click `Move to Applications Folder` when CrossOver prompts you.



Note that if you have already put CrossOver in the `Applications` folder prior to the first time you run it, you will never see the dialog pictured above. The reason is that when CrossOver detects that it is already running from the `Applications` folder, it has no need to move itself because it is already where it expects to be.

Chapter 4

Registering CrossOver

When you download CrossOver from the CodeWeavers website, you have a trial version which will last for 15 days. This trial version of CrossOver has all the functions and features of the full version. Any Windows software that works on a full version will also run in the trial version, and vice versa. The important limitation of the trial version is that bottles can only be used for 15 days. This means that any Windows packages that you install using the trial version will cease to work no more than 15 days after their installation.

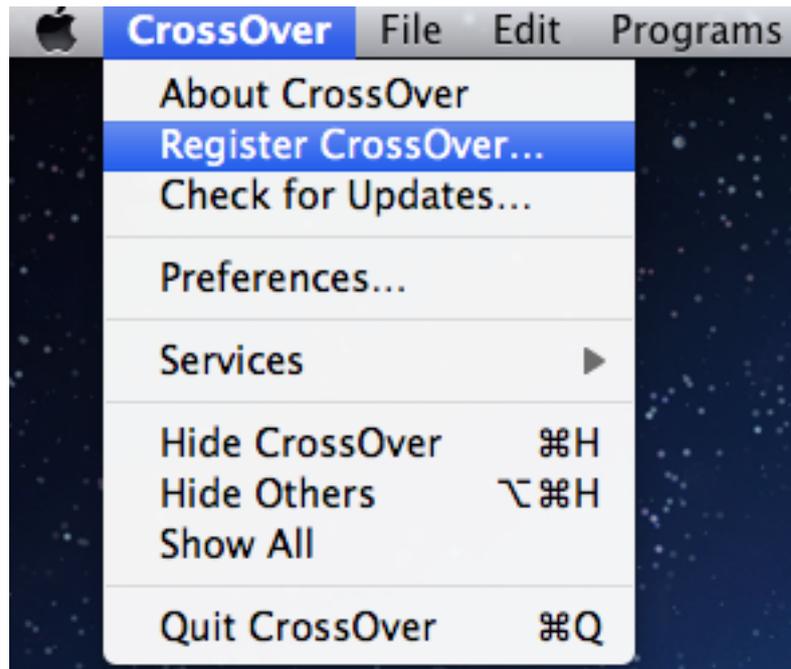
CrossOver will warn you periodically of the approaching expiration.



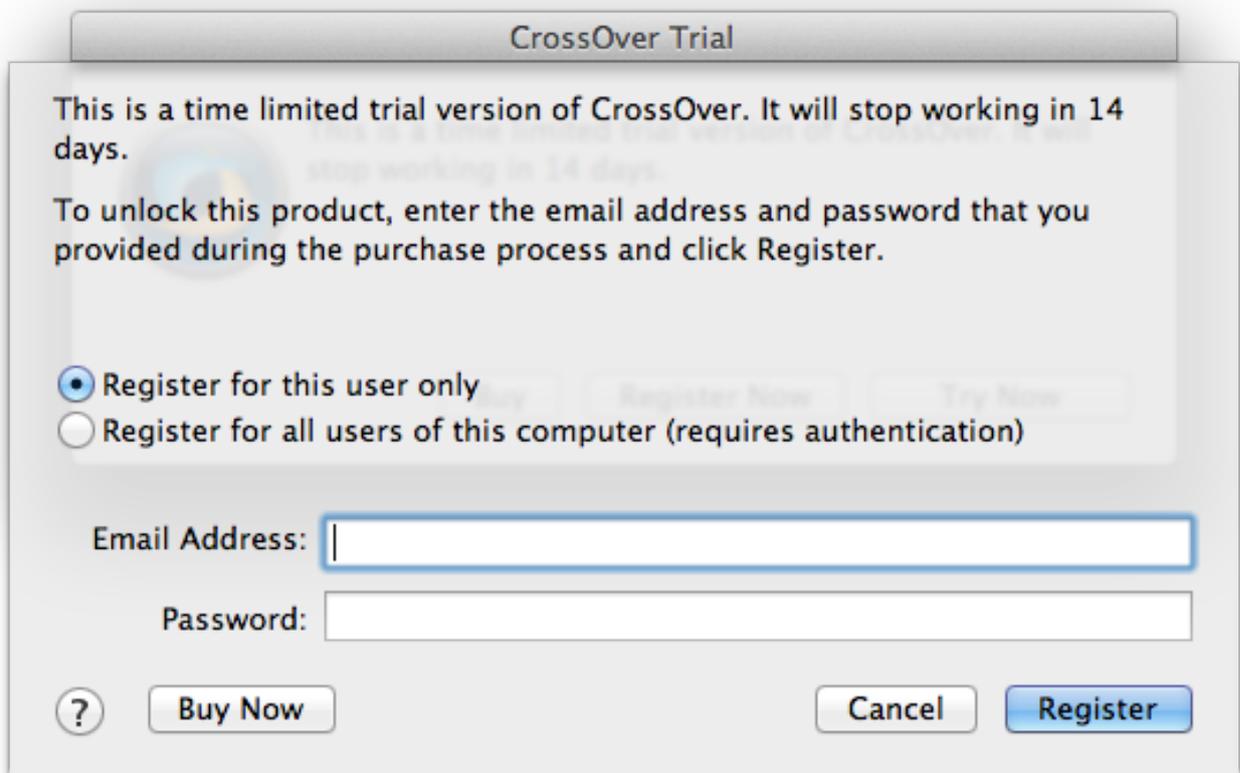
You may purchase CrossOver at any time from the [CodeWeavers store](#). Doing so will allow you to permanently activate CrossOver so it will not expire.

When you visit the CodeWeavers website to purchase CrossOver, you will be asked for an email address and you will get to choose a password. You must remember the email address and password you enter into the website when you purchase CrossOver. You will use this same email address and password to register CrossOver.

You can then register CrossOver at any time from the CrossOver → Register CrossOver... menu, as pictured below (note: you must be connected to the Internet in order to register):



When you choose to register CrossOver, you will see the following dialog:



When you see the dialog pictured above, remember the email address and password you entered into the CodeWeavers website when you purchased CrossOver. Enter that same email address and password into the registration dialog and click the Register button. Your version of CrossOver will then be registered.

When you have registered CrossOver, all existing bottles and applications are unlocked.

Chapter 5

Installing Windows Software

5.1 Using the CrossOver Software Installer

The CrossOver Software Installer is an assistant that will guide you through the process of installing Windows software. It can be launched from the Configure → Install Software... menu or from the Bottle Manager [Applications](#) tab.

Tip

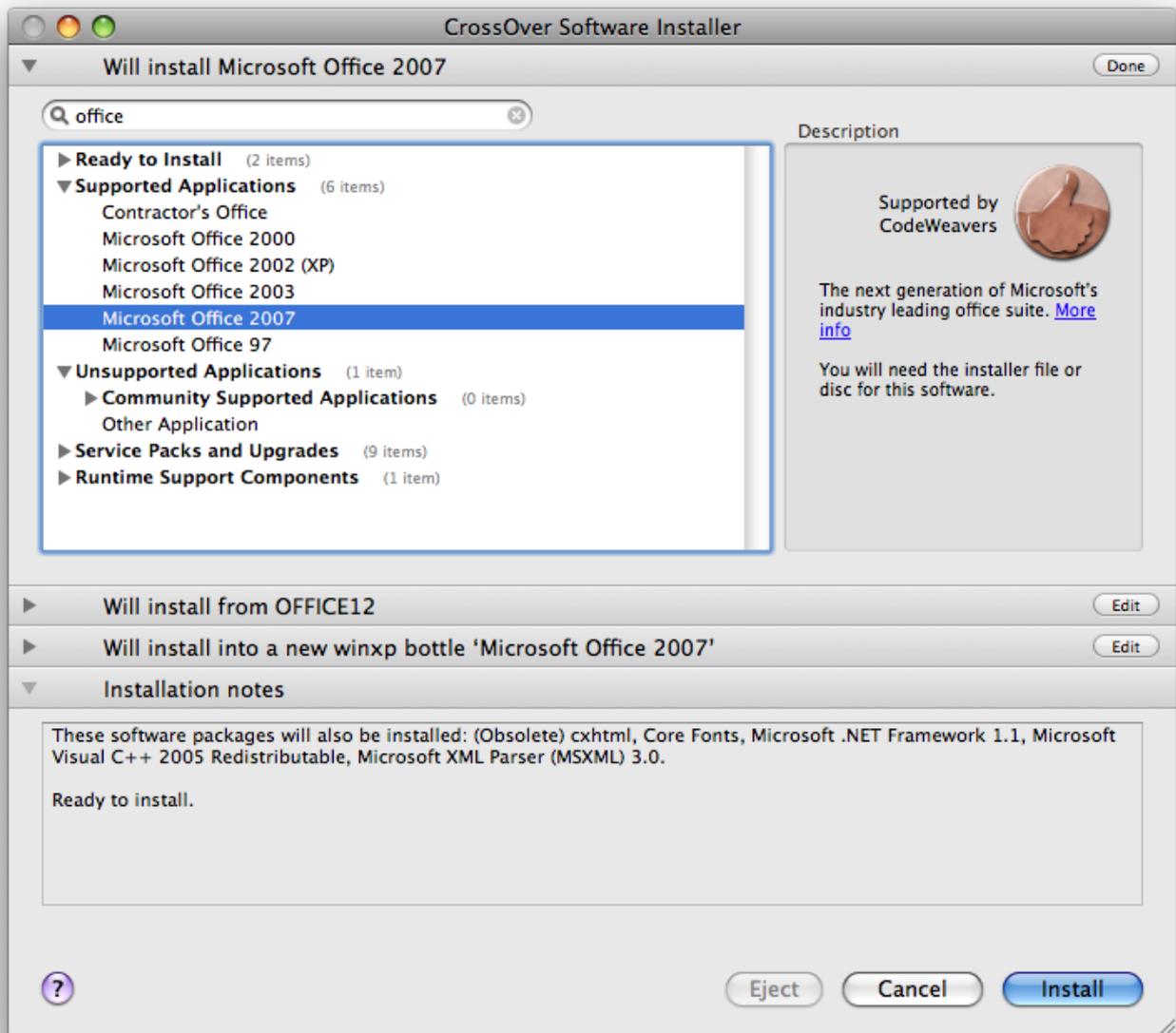
The CrossOver Software Installer contains extensive knowledge about the specific conditions and parameters that make applications install and run well. When software is installed without using it (for instance by running Wine directly) or when it is misinformed about what's being installed (for example if one application is installed when a different one has been selected from the selection panel), suboptimal settings may be used and the subsequent application behavior may be less reliable.

5.1.1 Choosing what to install

The first panel displays a list of applications that CrossOver knows how to install. To install a program, select its name from the list and proceed to the next panel.

In many cases (especially for downloadable software) the assistant will immediately display the Install button. This means that it was able to pick good default values for all the other settings and is ready to begin. You may browse settings in the other panels by clicking on the title bars of each section, or proceed with a default install by clicking Install.

If the assistant requires more information before installing, it will display a Proceed button. Clicking on it will result in a prompt for the next bit of necessary information. At any point you may adjust your selections by selecting any section of the assistant.



Supported Applications CrossOver has been tested and tuned to optimize the behavior of this select list of applications. CodeWeavers tech support will also provide assistance when difficulties arise with these programs.

Community Supported Applications The users of the [CodeWeavers CrossOver Compatibility Center](#) have contributed installation strategies for a long list of applications. These programs are not officially supported by CodeWeavers, but help may be available in the Compatibility Center forums.

Other Application If you wish to install software that is not otherwise listed, select the Other Application option. Keep in mind, though, that unsupported software may work poorly or not at all. In addition, installing it in an existing bottle may prevent the other Windows applications in that bottle from working. So it is generally recommended that unsupported applications be installed in a new **bottle** for testing purposes.

Before installing an unlisted application, you may benefit from looking it up in the [CodeWeavers CrossOver Compatibility Center](#) where you may find tips and tricks on getting it to work.

Service Packs and Upgrades Many applications require downloadable service packs to be applied for best performance. The advisability of each package is indicated by the medal rating.

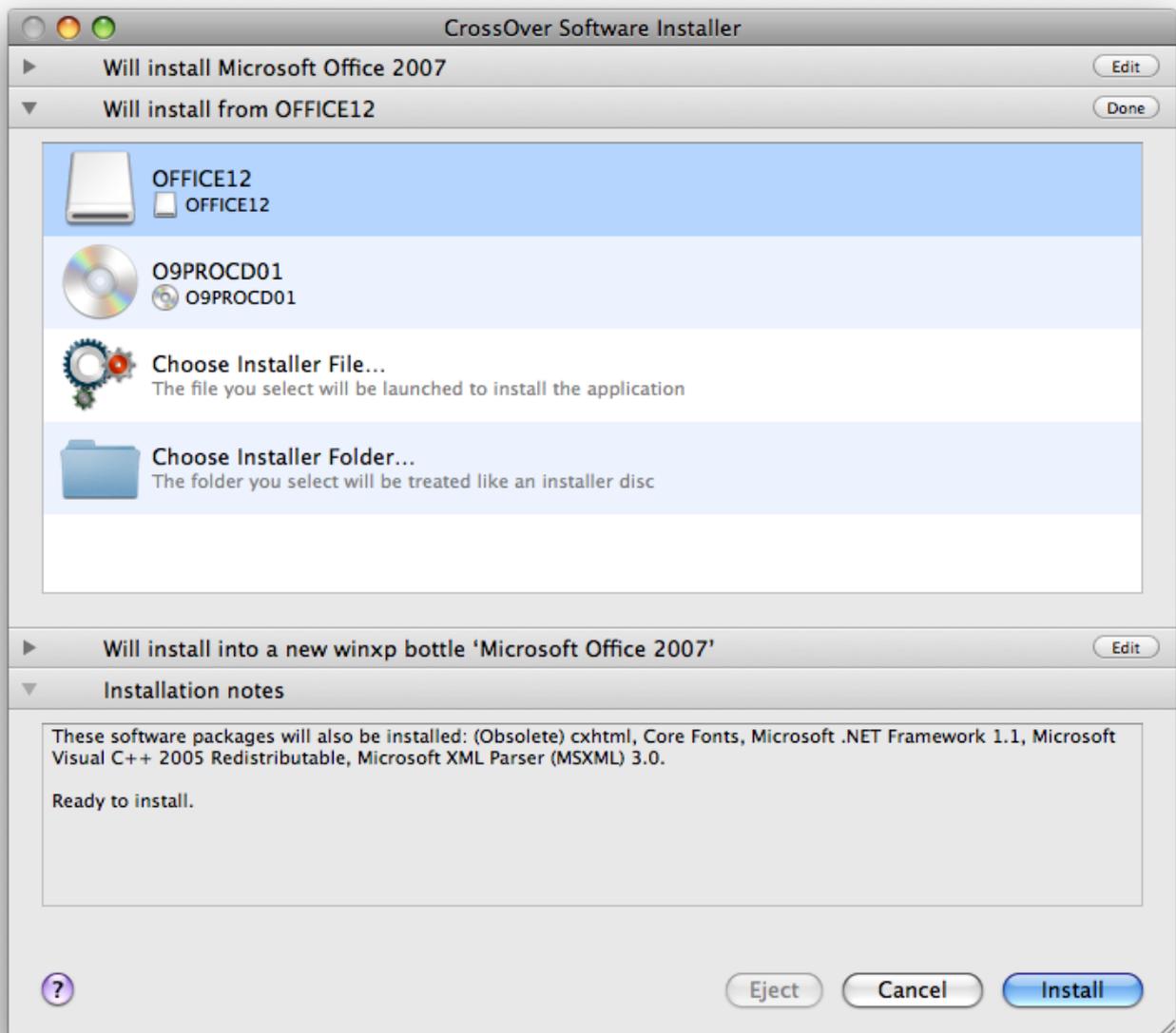
Runtime Support Components In most cases you will not want to install the software in this section manually. Many of these packages are requirements for the successful install of supported applications, and will be automatically installed as part of the predetermined install process.

**Important**

If a specific bottle has not been previously selected, the assistant will install the software into a new bottle whenever possible. If it detects conflicts between the selected package and the default bottle, the **bottle panel** will guide your installation into a more appropriate bottle.

5.1.2 Selecting an installation source

When installing software from a CD or DVD, the assistant will allow you to pick a volume, file or directory to use for the installation.



Volume Selection At this point, you should be able to select any CD, DVD, or mounted ISO or disk image. When a volume is specified, the assistant will search that drive for an installer or autorun file. This option is the default, and will work for most cases where the application comes on a disk.

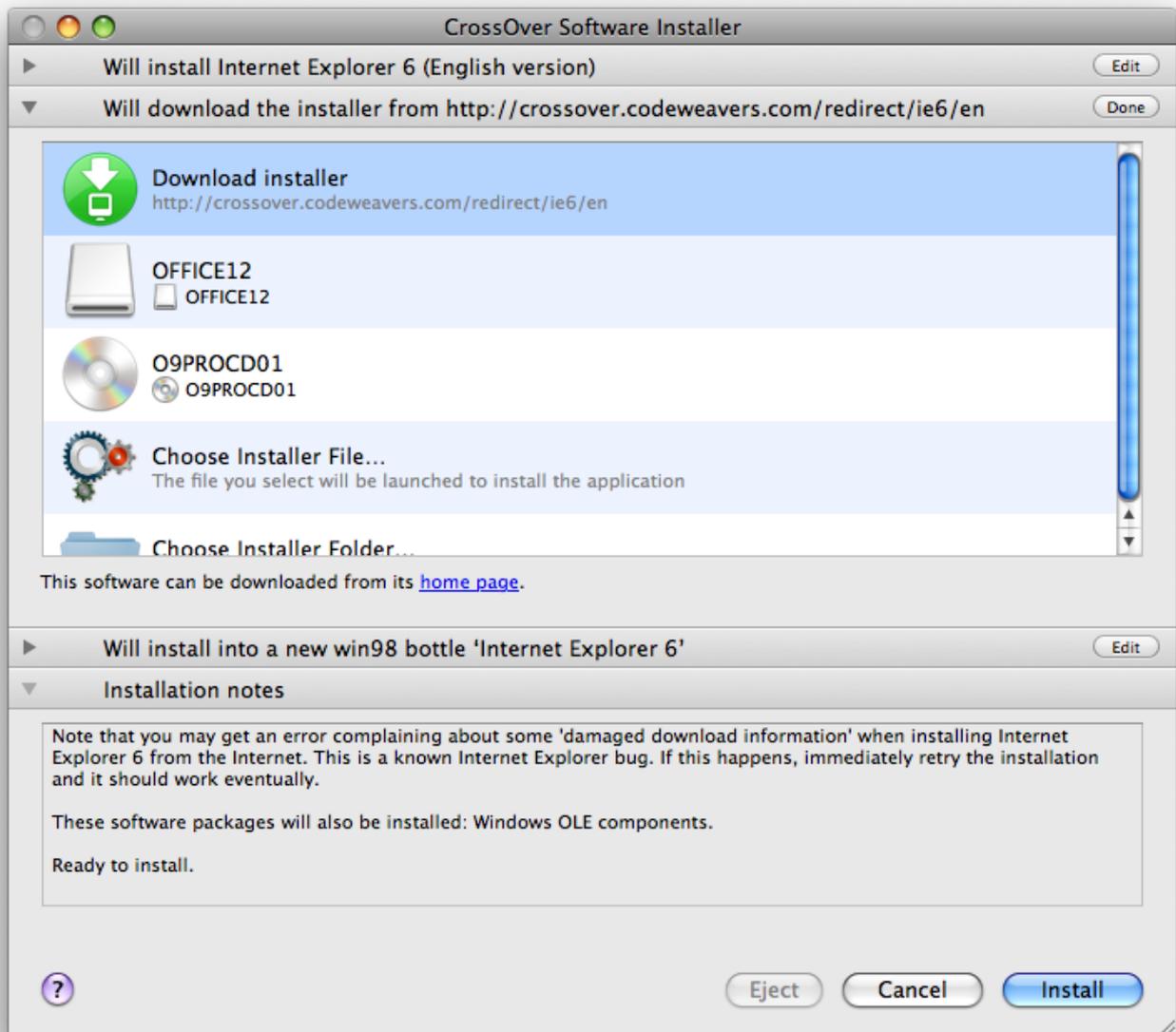
Choose Installer File... If you want to install software off your hard drive, or off a CD that contains several installers, select this option and specify the desired installer. In some cases, CrossOver will be unable to locate a default installer file when you select one of the CD-ROM options. In those cases, you will need to locate the installer file on the disk yourself, using this option.

Choose Installer Folder... This option is useful if the content of a CD has been copied into a folder on your local hard drive. It may also be necessary if you are installing from a disk that contains multiple installers in subdirectories.

The Choose Installer Folder... option will treat the selected folder as if it was an installer disk. So if it does not contain an obvious installer or autorun file the installation will likely fail.

5.1.3 Downloading an installer

Many supported applications can be downloaded from the Internet. For most of those, the assistant can automatically download the installers for you. Make sure that you have an active connection to the Internet if using this facility.

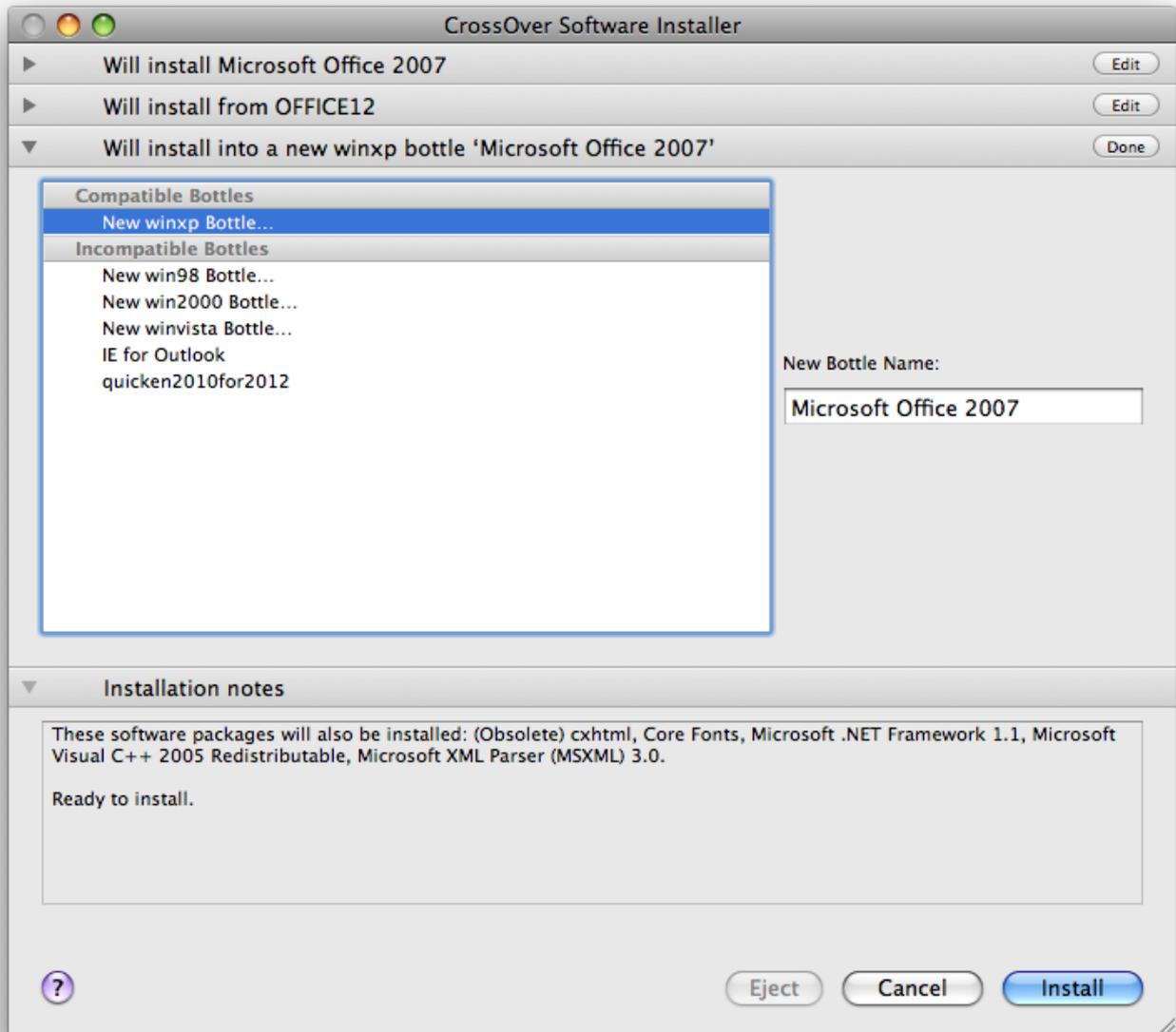


The assistant will cache downloaded installers. So if you install the same component frequently it should only require a single download. And if you have an installer file already located on your hard drive you can always select it via the Choose Installer File... option.

5.1.4 Selecting a bottle for installation

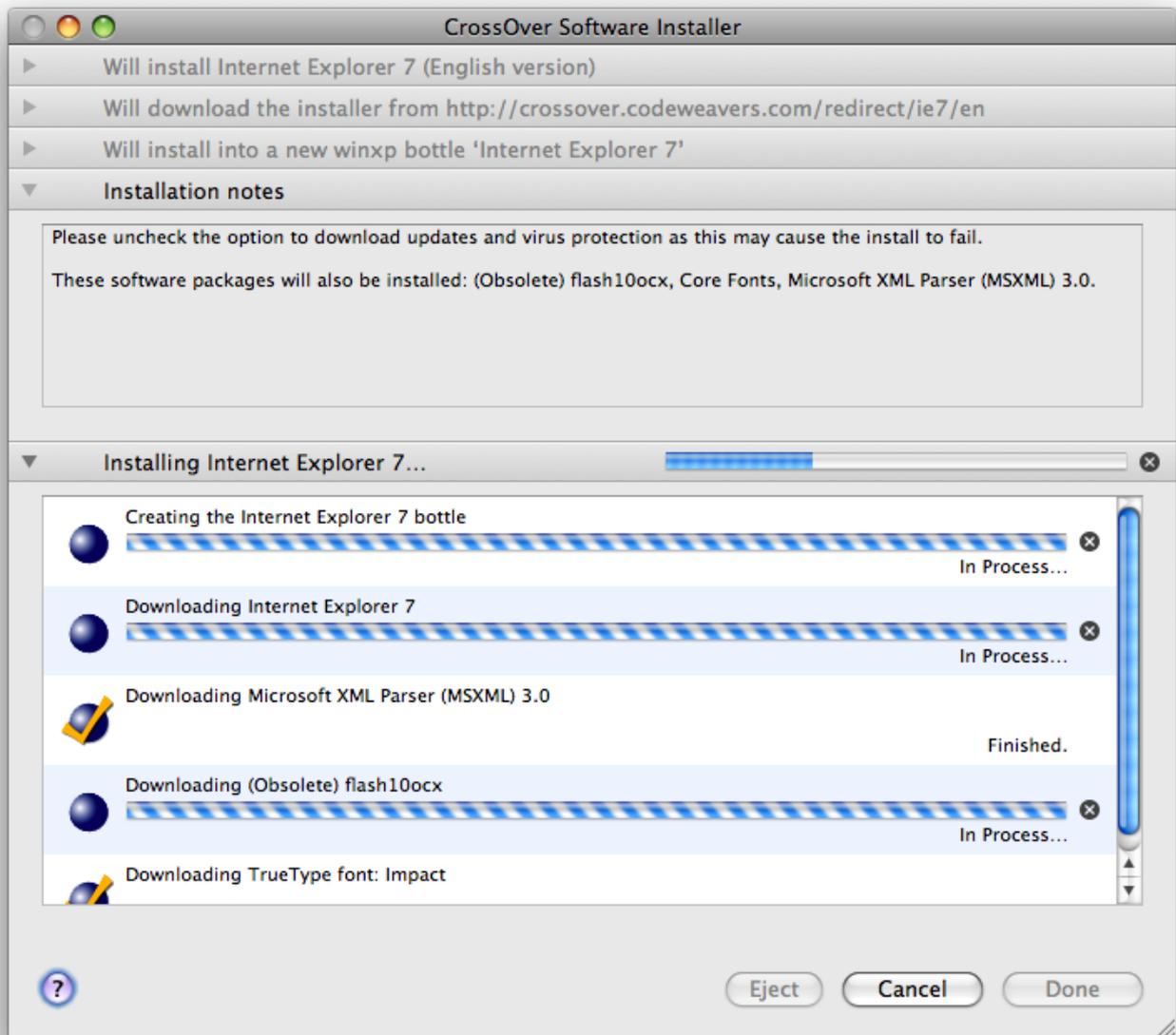
**Important**

In most cases, CrossOver will install the software into a new bottle and you will have no need to visit this panel. The exception to this rule is when installing a service pack or upgrade, in which case you may need to manually select the bottle that contains the software to upgrade.



5.1.5 Completing the installation

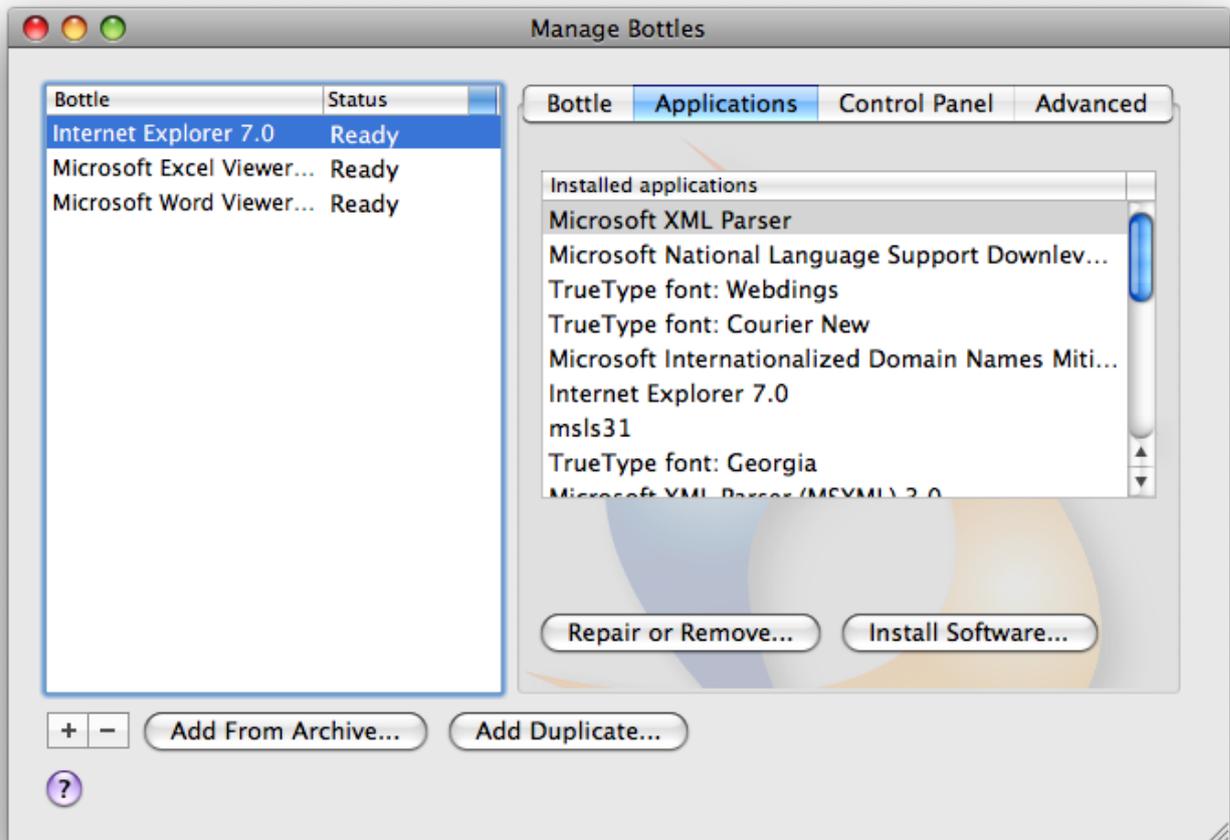
Once you click Install, your interaction with the CrossOver Software Installer is mostly finished. Various Windows installers may prompt you for interaction, while the assistant keeps a running tab of the completed steps.



The Cancel buttons should be used sparingly. Canceling a step may result in an unrecoverable problem that will require you to discard the target bottle.

5.2 Removing Applications

To remove an application, go to the Bottle Manager **Applications** tab and select it in the installed software list. Then click on the Repair or Remove... button, as pictured below. This will start the application's repair / uninstallation facility.



If the application you want to remove is not in the list, or if the Repair or Remove... button is disabled, then it means it did not register an uninstallation procedure. It may propose an uninstallation option if you insert its CD-ROM and start the installation procedure again. Refer to your software documentation for other possible uninstallation options.

Tip

When removing an application, be sure to completely uninstall it, including any system extensions that were associated with it. Otherwise, the Bottle Manager may not recognize that it has been uninstalled and you may have trouble reinstalling it.

Chapter 6

Using CrossOver

6.1 Running Windows applications

6.1.1 The CrossOver Welcome Window

When CrossOver launches, it will display the welcome screen pictured below.

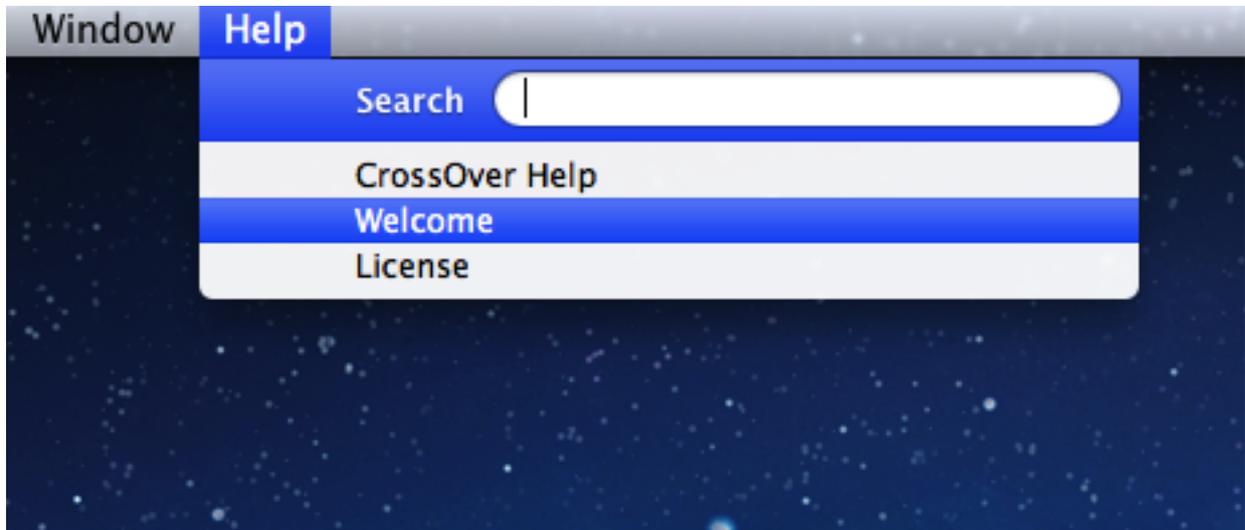


From the welcome window you can click on Install Windows Software to install Windows applications.

You can also click on Run Installed Software to run your Windows applications. This will display a Finder window with shortcuts to the Windows software which you have installed, as described in the section on [Running Windows applications](#).

If you do not want CrossOver to display the welcome window when it starts up, you may click the checkbox labeled Don't show this window at startup in the lower-left corner, and then close the welcome window. It will not appear next time you launch CrossOver.

If you want the welcome window to appear again, navigate to the Help → Welcome menu.



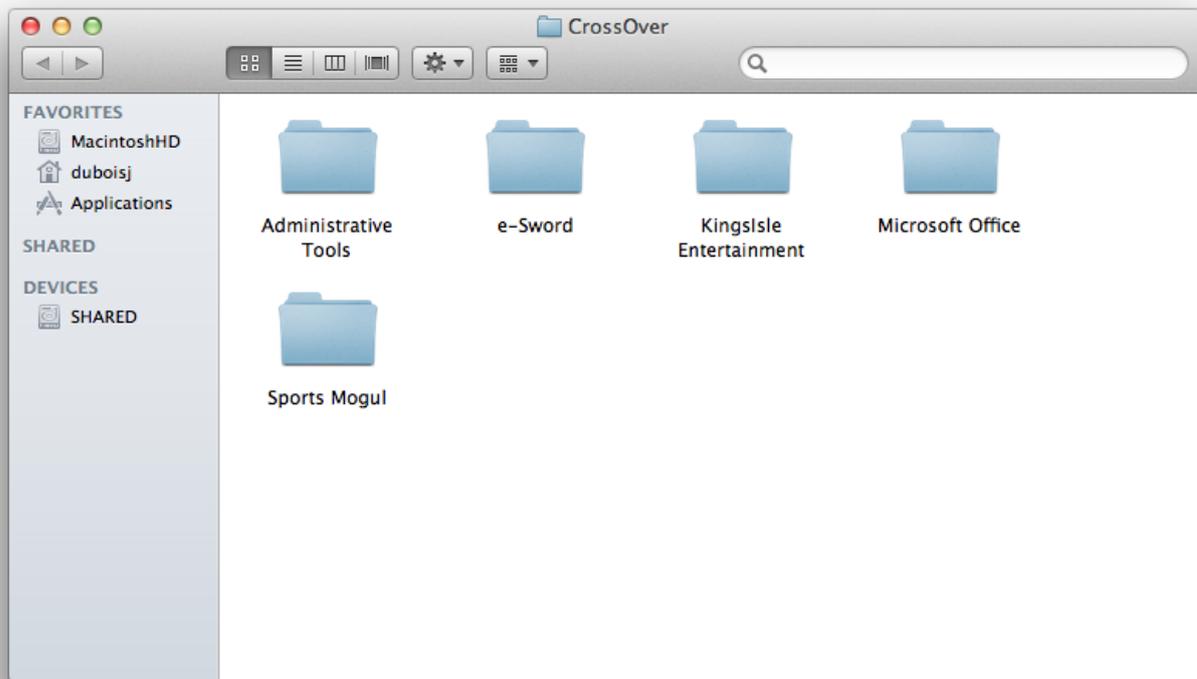
You can then uncheck the Don't show this window at startup checkbox and CrossOver will again begin to display the welcome window every time you launch it.

6.1.2 Running Windows Applications from the Finder

When you install Windows software, CrossOver will create 'Helper Applications' that correspond to the Windows Start Menu. Each helper application will launch CrossOver and start the associated Windows program.

The default location for the helper applications is in the Applications/CrossOver folder in your home account. You can customize this location via the [Preferences Dialog](#).

An example of the Applications/CrossOver folder in your home directory is shown below. You can navigate inside of this folder and launch applications just as you would from any other Finder window on your Mac.



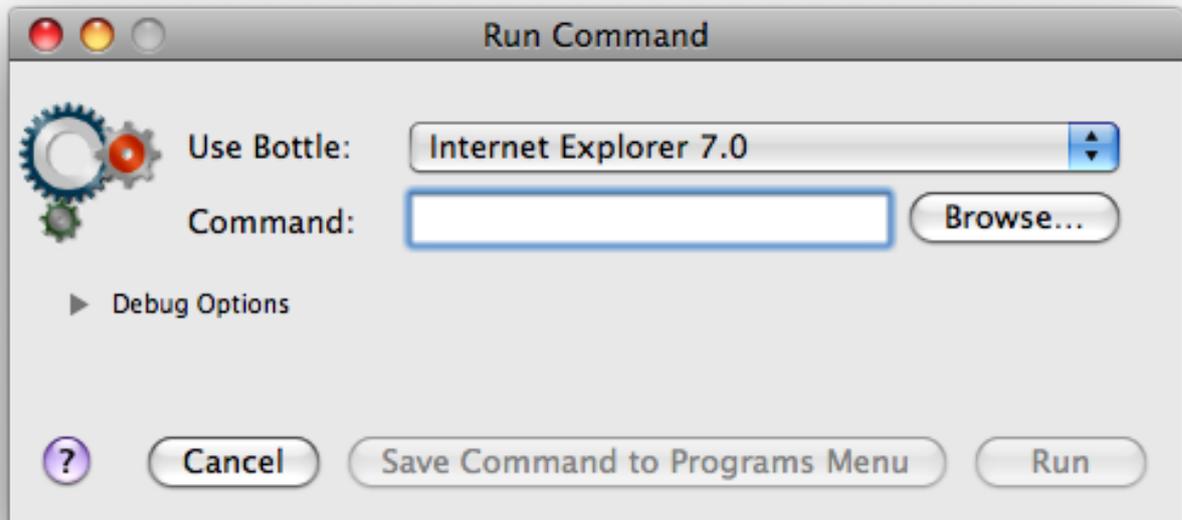
When CrossOver is running, you can also access your Windows programs by right-clicking on the CrossOver icon in the dock. This will display a menu with your Windows software. An example is pictured below.



Any change you make in the Applications/CrossOver folder will be reflected in these two places as well. You can restore all of these menus to their original state with the Configure → Clear and Rebuild Programs Menu... menu.

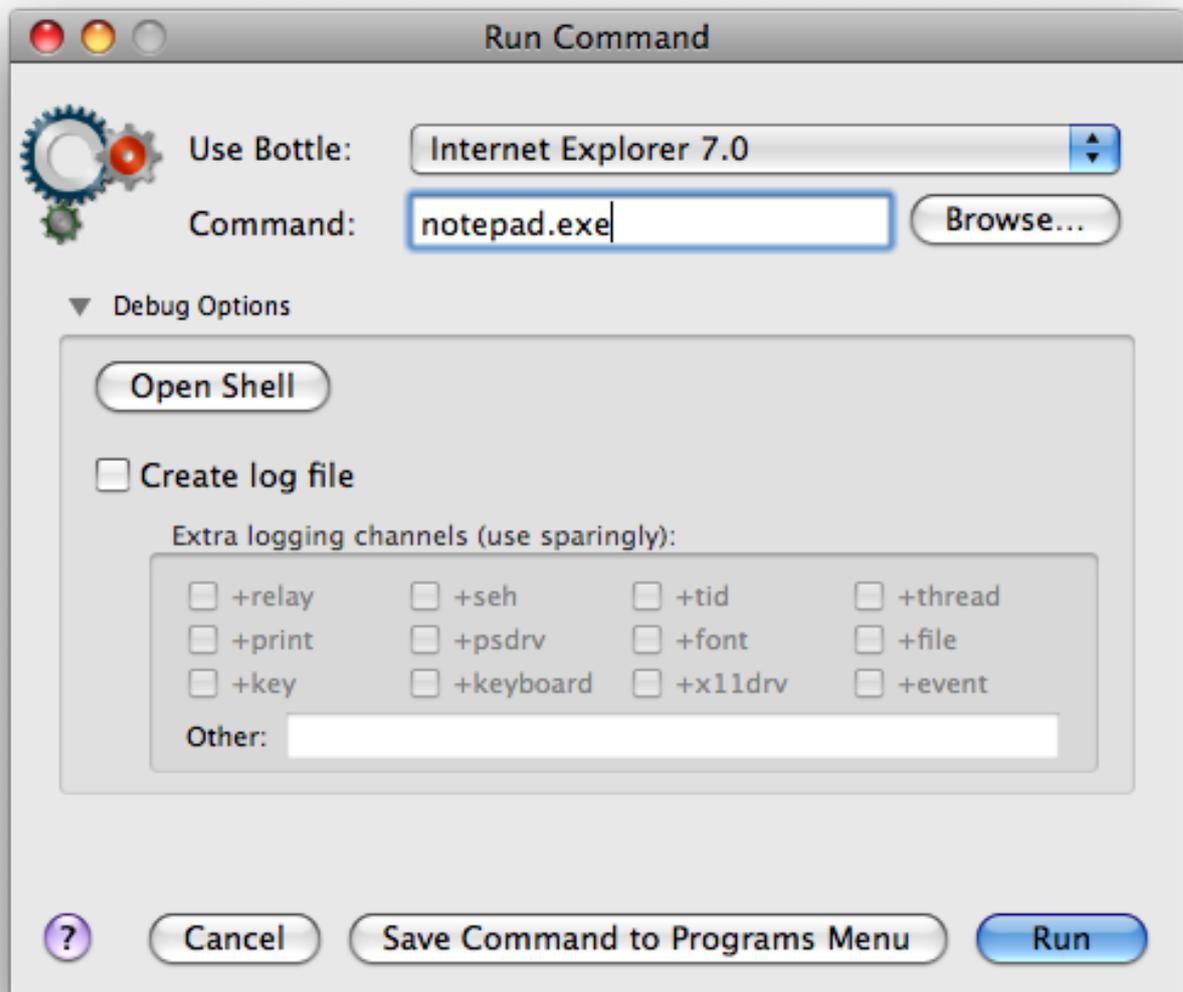
6.1.3 Running Windows applications with the Run Command dialog

The Programs → Run Command... menu provides a simple way to run a Windows command-line in CrossOver. This can be a useful way to run standard Wine tools such as regedit or notepad, and can also be used to run applications which don't create icons or shortcuts.



If you need to run the same command regularly you can create a shortcut for it by clicking on the Save Command to Programs Menu button.

This dialog provides several logging and debugging functions as well. These options may be useful if you talk to [CodeWeavers tech support](#) or if you are trying to make an unsupported application behave. To display these options, click on the Debug Options reveal control.



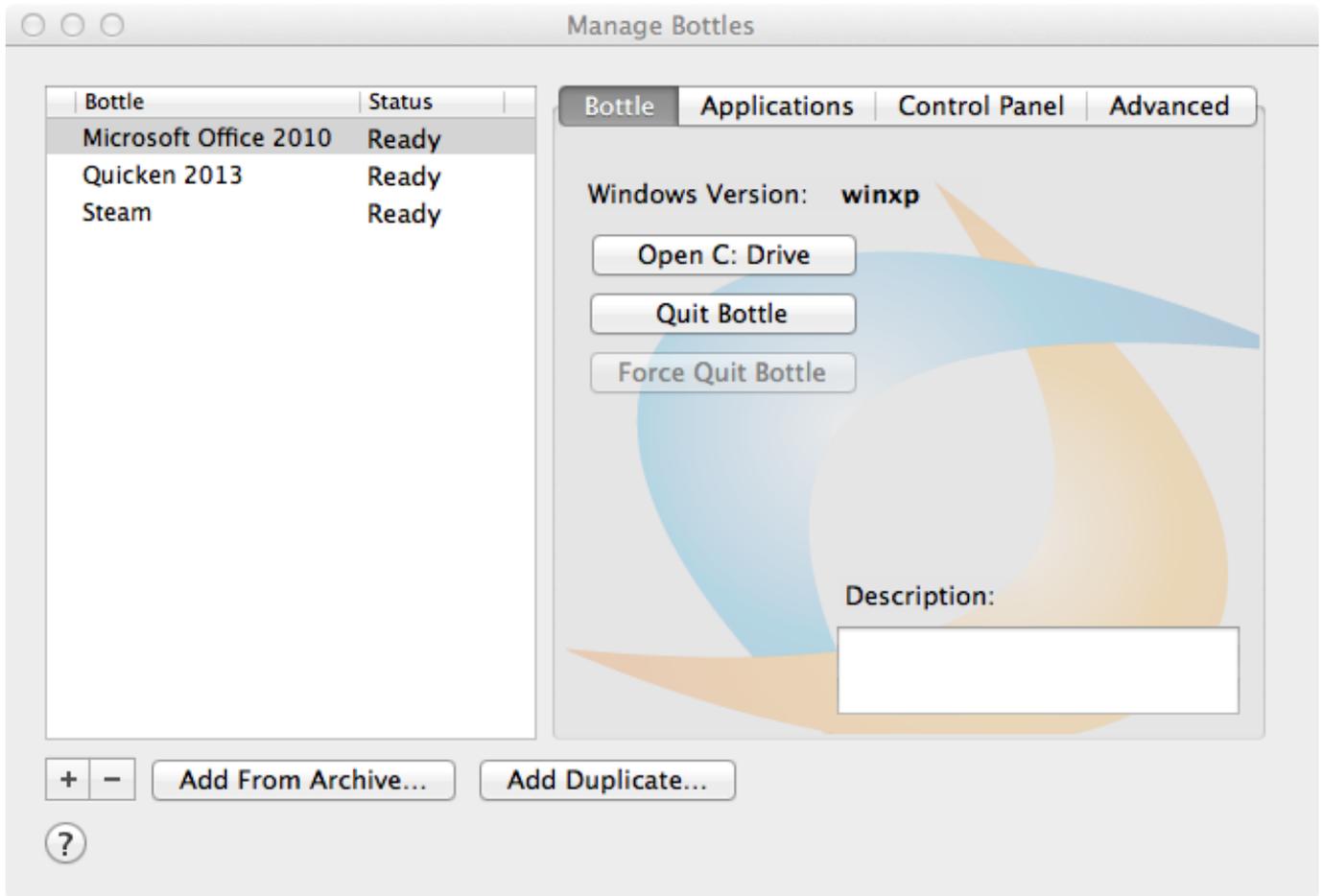
Open Shell This option will launch an interactive shell, preconfigured for use with the selected bottle. This may be useful for running text-only programs.

Create log file If this option is turned on, CrossOver will prompt you for the name and location of a log file before the command is run. This log file will contain a variety of debugging information about the run.

Turning on specific logging channels will determine what information is written to the log file. Many of these channels include a large volume of information, so generally they should be used singly or in pairs.

6.2 Stopping misbehaving programs

There may be occasions when Windows applications become unstable or stop responding. You can terminate all of the applications running in a given bottle by clicking on the Quit Bottle button in the [Bottle Manager](#).



Tip

Forcing a bottle to quit will cause all that bottle's Windows applications to exit. Any unsaved changes to documents will be lost.

Chapter 7

Using the Bottle Manager

The Bottle Manager is the main tool for configuring CrossOver. You can access it from the Configure → Manage Bottles... menu.

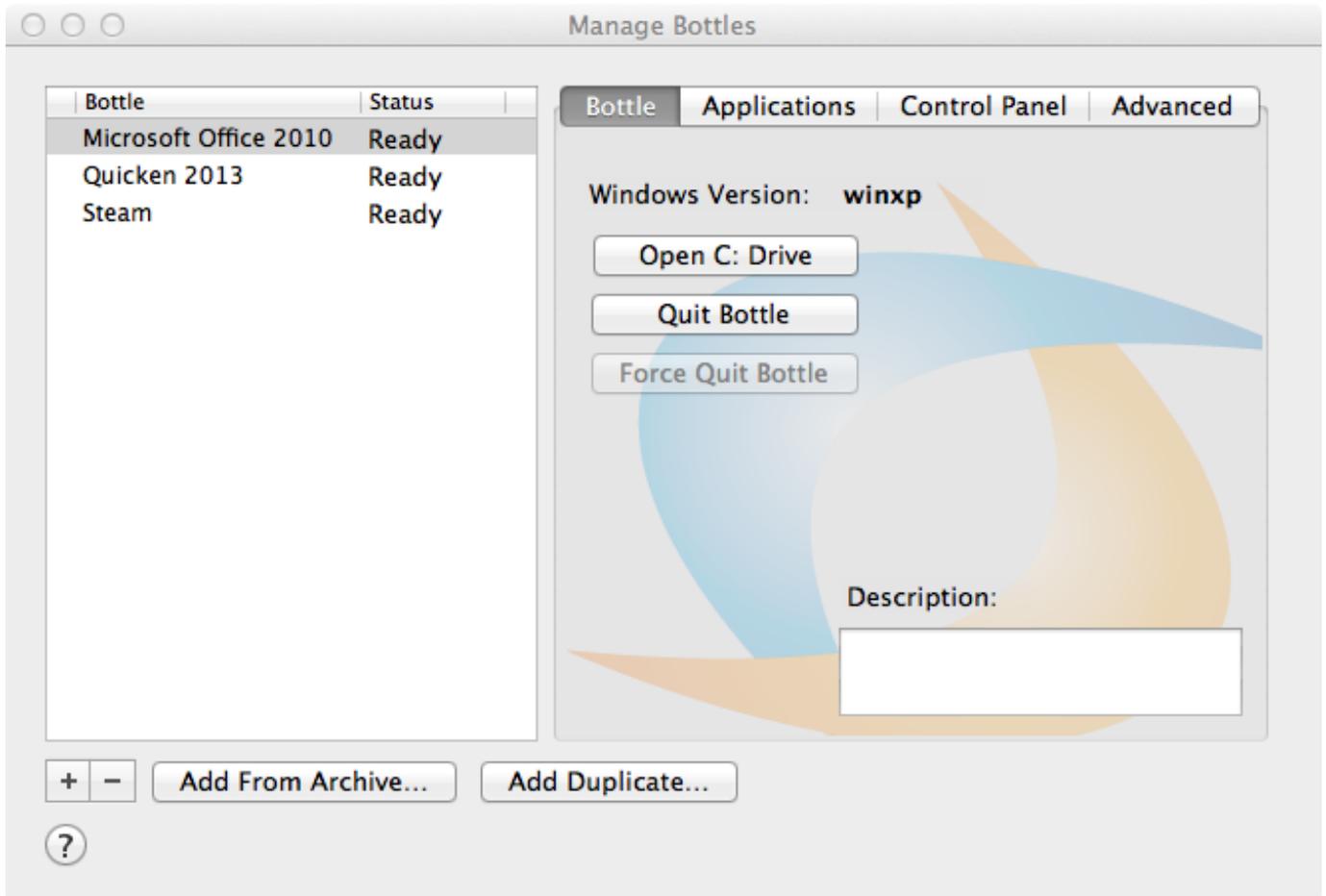
7.1 Managing Bottles

A bottle is a virtual Windows environment. Each bottle contains a unique C: drive and all its standard folders: Windows, Program Files, etc. A bottle also contains a complete Windows registry, a full set of most CrossOver settings, and one or more Windows applications.

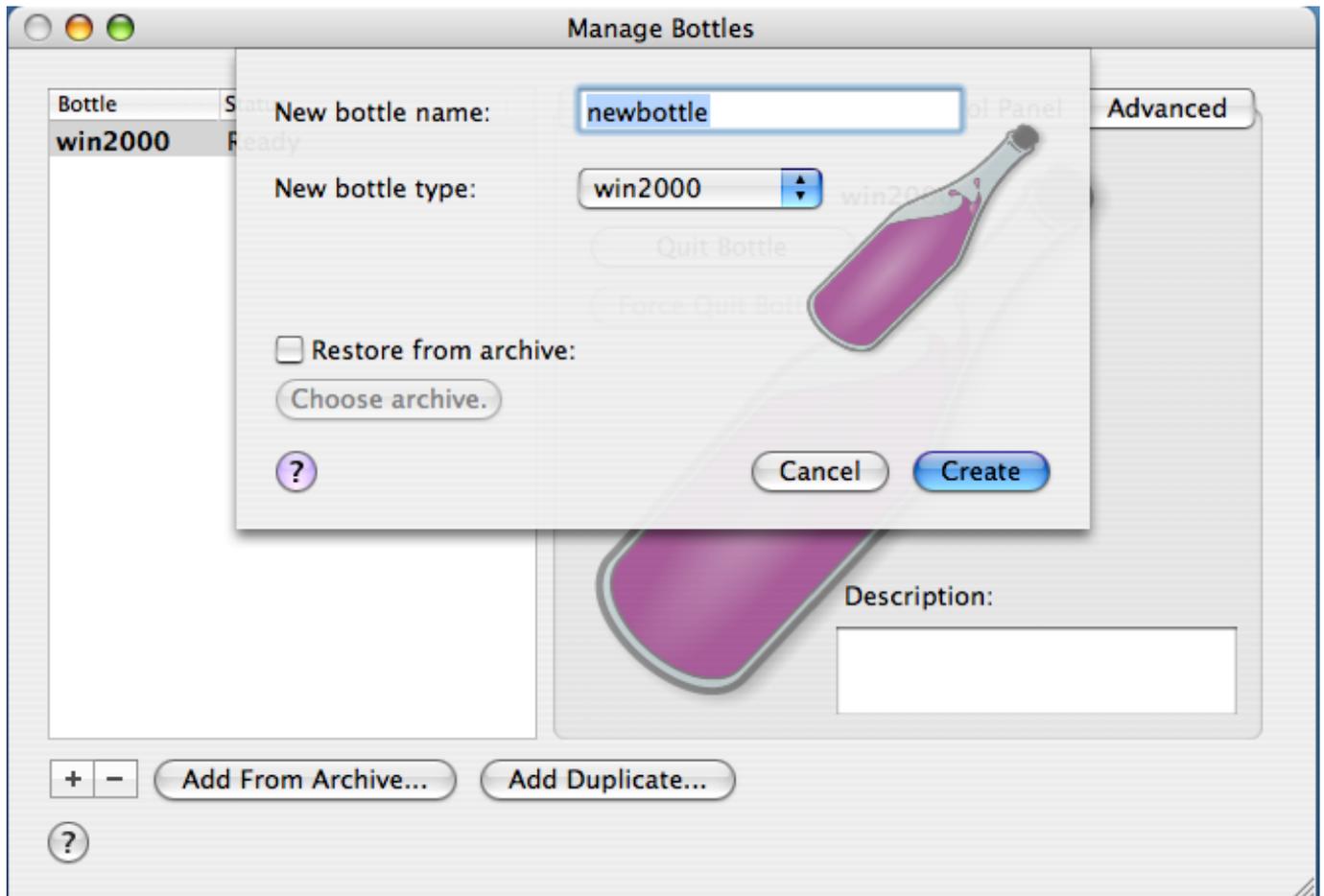
CrossOver allows you to maintain multiple bottles in one CrossOver installation. This is like having several different Windows machines operating together on your computer. This is useful any time you want to install multiple applications yet prevent them from interacting or damaging one another. For instance you could test out a new version of Microsoft Office in one bottle while keeping an older one for your day to day needs in another bottle.

Multiple bottles are also useful whenever a particular application requires special system settings that are otherwise undesirable. It is also possible to maintain bottles that emulate different **Windows versions**. For instance you could run an ancient application that runs best in a Windows 98 bottle side by side with more modern ones that require a Windows XP bottle.

The bottle manager allows you to create, delete, and modify the bottles in your CrossOver install. For the most part, the **CrossOver Software Installer** will take care of creating appropriate bottles, but this dialog provides more direct control.



+ This button creates a new bottle. You will have an opportunity to choose which **Windows version** the bottle emulates.



- This button deletes the selected bottle after asking for confirmation. Note that this removes all the applications, settings, and documents that are inside this bottle.

Add From Archive... This button lets you pick a bottle archive created with the Make Archive... button, and restores it so it can be used again. This also lets you pick the name of the newly restored bottle.

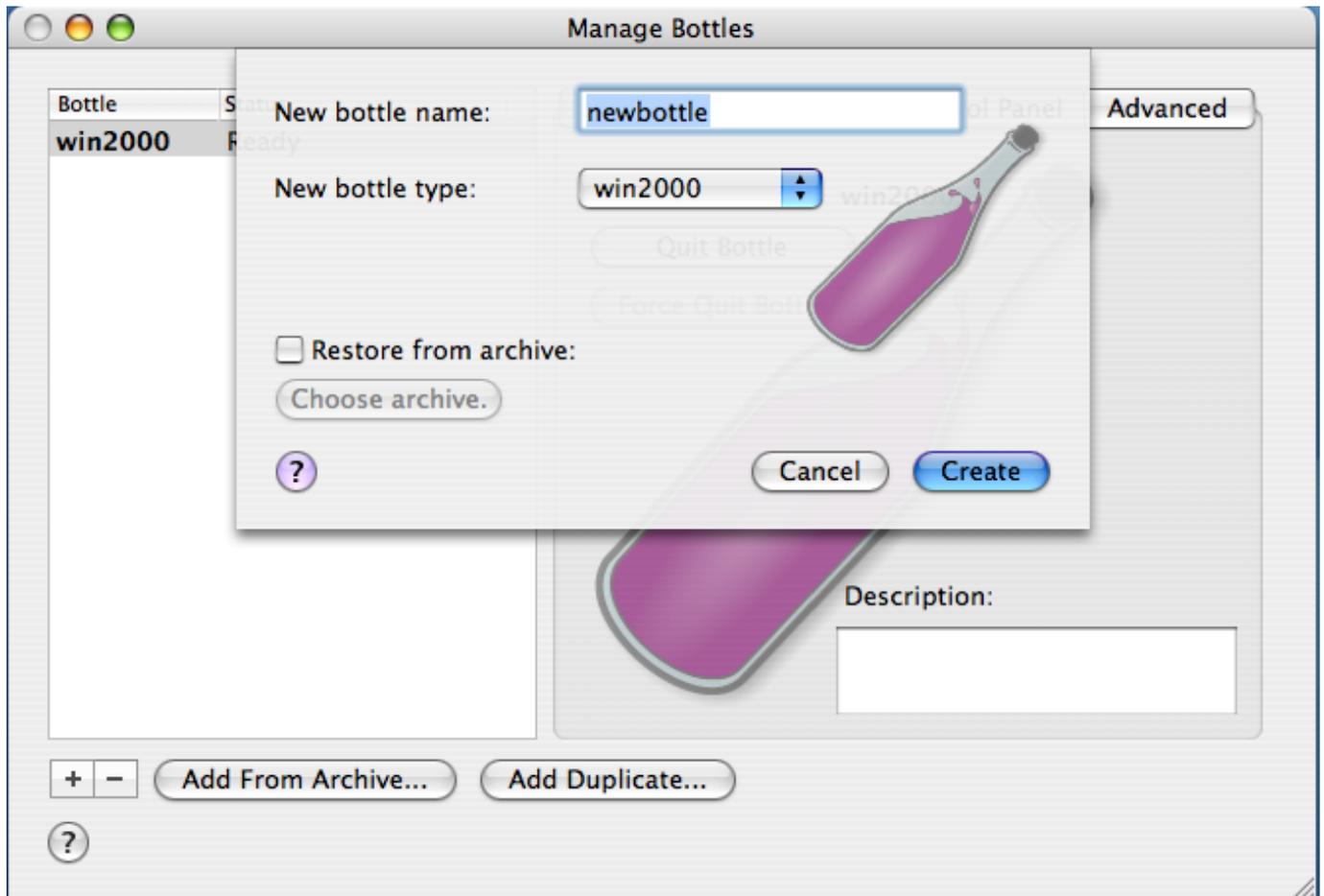
Add Duplicate... This button allows you to create a duplicate of an existing bottle. The duplicate will contain the same applications and settings as the original.

Open C: Drive This button opens a new Finder window displaying the contents of the current bottle's C: drive.

7.1.1 Bottle Windows versions

Most bottle settings can be adjusted once a bottle is created. The Windows version of a bottle, however, must be chosen when the bottle is created.

When creating a new bottle to install a known Windows application CrossOver's Software Installer automatically picks the most appropriate Windows version. But if you are creating a bottle by hand you must pick one yourself.



Most supported applications run best when emulating Windows XP. When installing unsupported applications, a good starting point is to pick whichever of Windows 98, Windows XP or Windows Vista was most current when the application was released. If the first try does not yield good results, your best guess is with one of the other versions in this list as the other versions usually yield the same results as one of these.

7.1.2 Bottle modes

CrossOver supports bottles of two types: private and published. A given installation of CrossOver may make use of both bottle types at once.

Private bottles A private bottle is used by a single user, and is generally placed in that user's home account. Applications installed in a private bottle are unavailable for use by other users on a system. New bottles are always created in private mode.

Published bottles Published bottles are created within the CrossOver subdirectory, and can be used by all the users on a system. Applications in a published bottle can be run by any user, and each user is able to configure and customize existing applications.

Published bottles save space and time by requiring only a single installation of each Windows application. However, some applications (those not properly designed for multi-user use) may perform erratically.

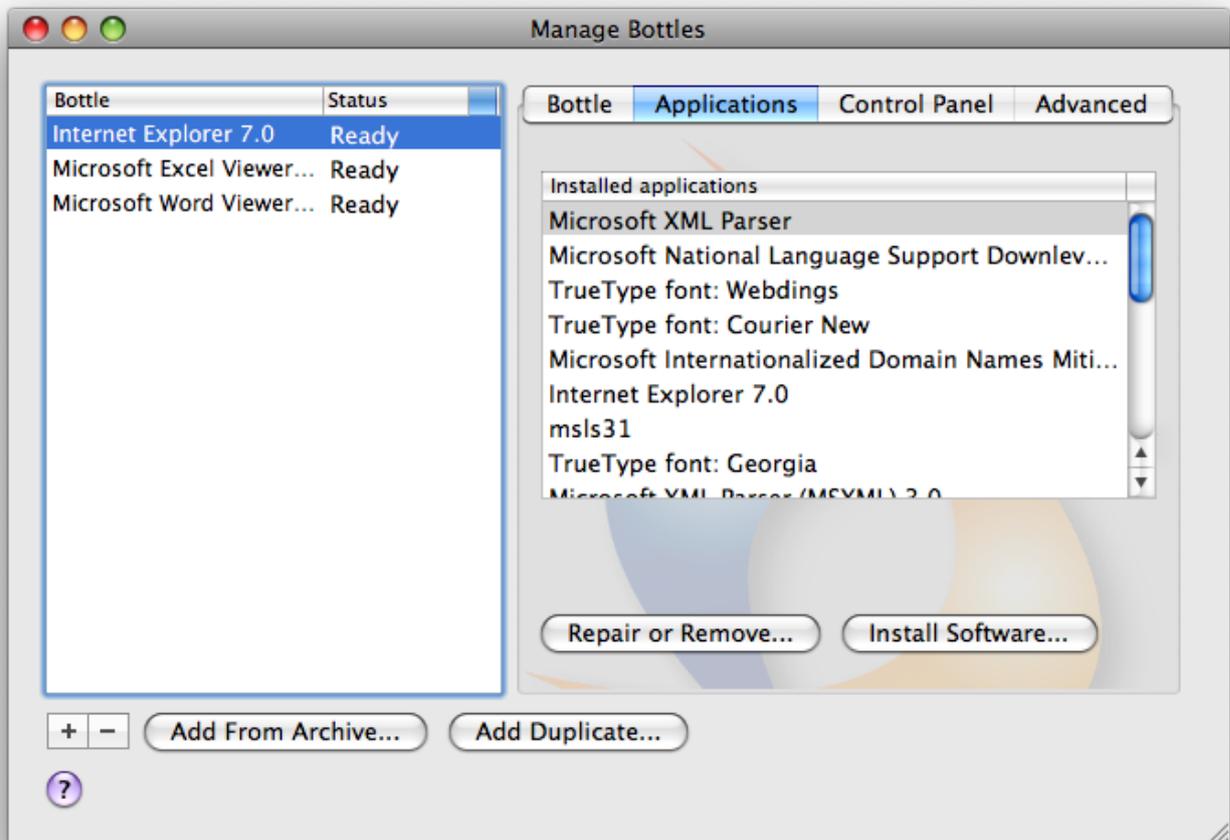
When a user accesses a published bottle, a 'stub bottle' will be created in their home account. Stub bottles contain a user's custom alterations to the bottle, and contain symbolic links that refer to most large files and directories in the published bottle. A stub bottle has the same name as the published bottle to which it refers.

Tip

Published bottles are created using the **Publish...** button.

7.2 The Applications tab

The Applications tab shows the list of installed Windows applications and lets you install and uninstall them.



Installed Applications This lists all of the software that CrossOver has installed. Because many software packages contain or depend on other items, you will often see items in this list that you did not explicitly install.

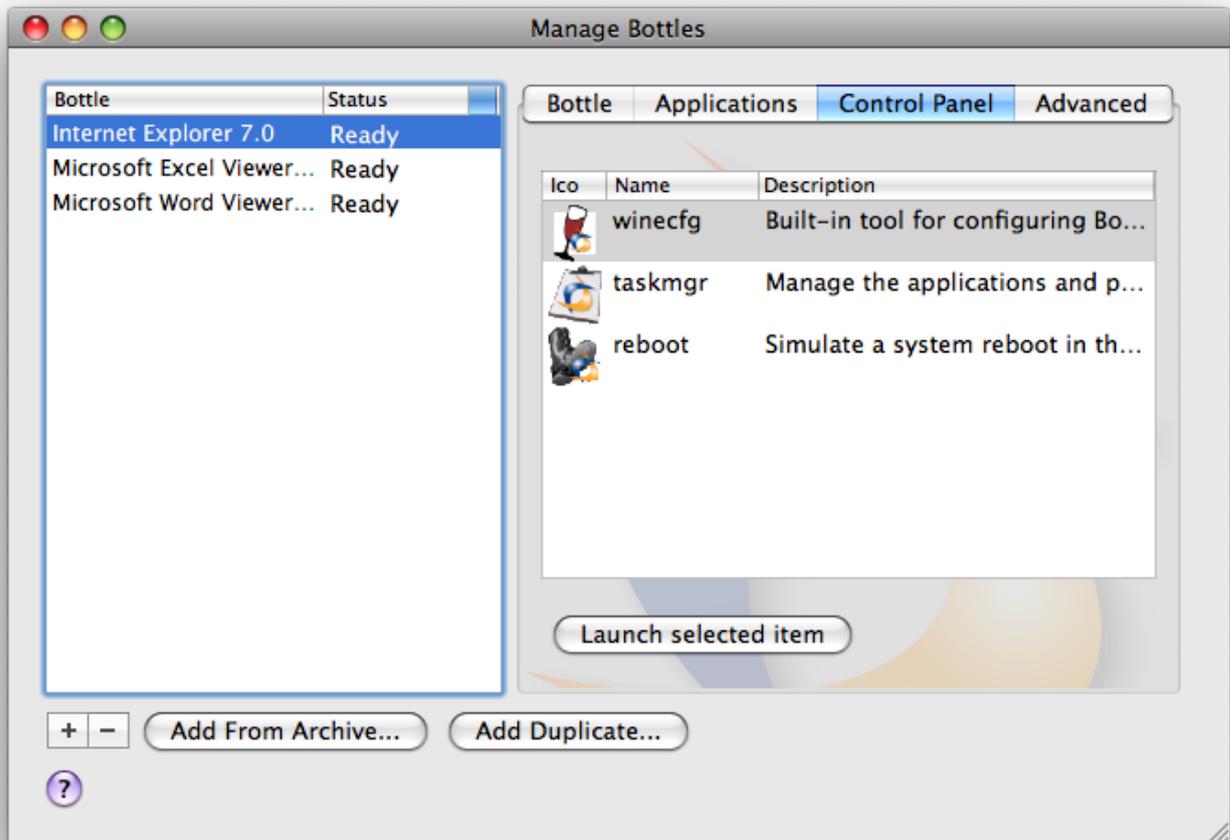
Install Software... To install new Windows applications in the selected bottle, click the Install Software... button. This will launch the **CrossOver Software Installer** which will guide you through the rest of the process.

Repair or Remove... Some Windows applications can uninstall themselves; other packages contains automatic repair or modification tools. In order to run these tools, select an item from the list and click Repair or Remove...

If the Repair or Remove... button is disabled for an application, that means that no uninstall tool is provided by that package.

7.3 The Control Panel tab

The Control Panel tab lets you launch control panel items that are installed by Windows programs, as well as some standard bottle-configuration tools.



To launch, select the entry for the control panel that you wish to use and click Launch Selected Item.

Tip

The vast majority of settings on your system should be changed using the configuration tools that come packaged with your OS and distribution. Most Windows control panels are unsupported applications, and their behavior may be unreliable, erratic, or destructive.

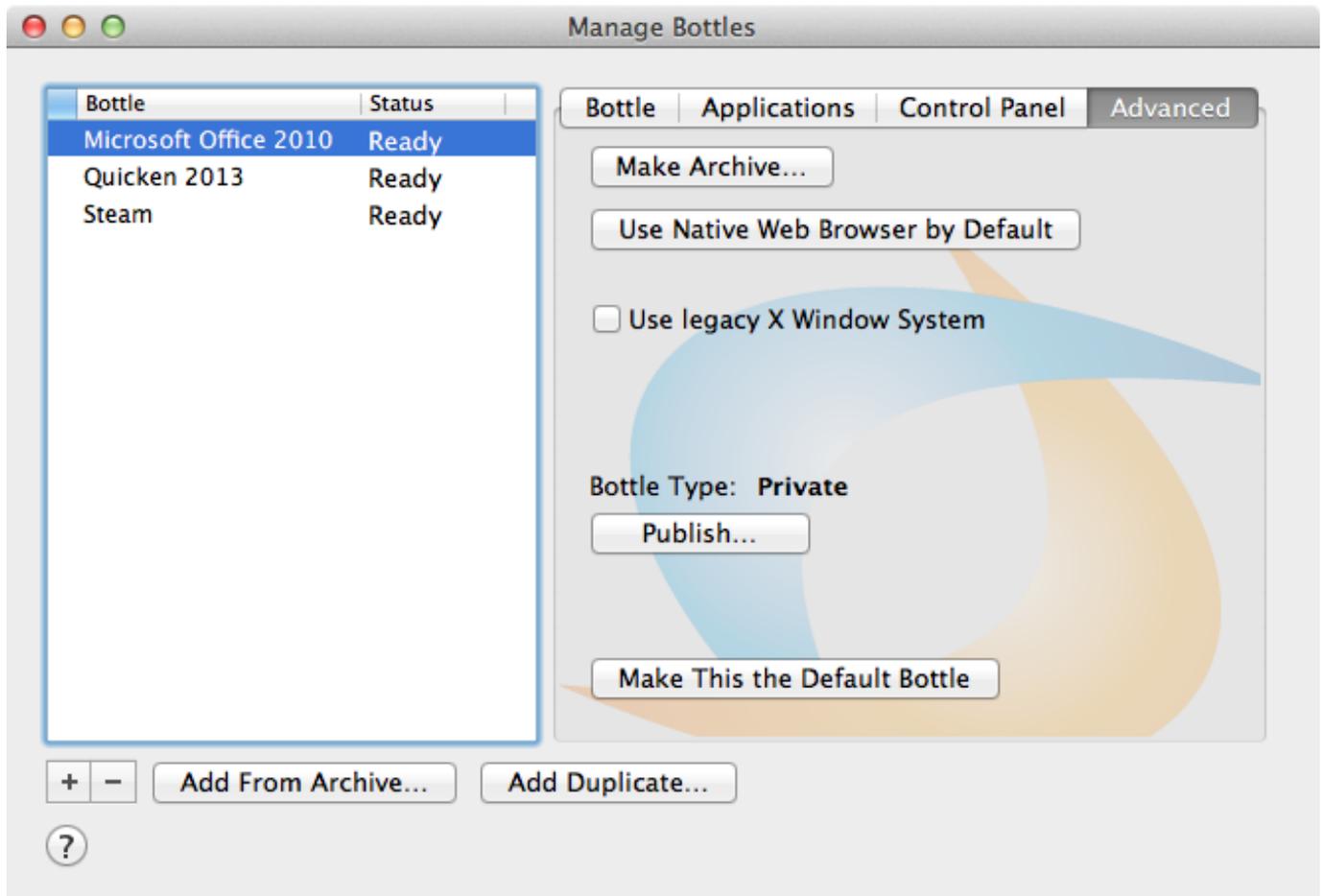
In addition to the tools that are installed by software installers, CrossOver provides several built-in control panel tools.

Simulate Reboot Some Windows applications require a system reboot to complete certain tasks. Also, occasionally, Windows programs get stuck in indeterminate states where their behavior is erratic or unreliable. Both of these problems can be addressed without rebooting your system -- just launch the reboot tool and simulate a reboot within a specific bottle.

Task Manager The task manager will display a list of processes running within a bottle. This tool may be useful to selectively halt programs which have stopped responding.

Wine Configuration This tool provides access to a wide range of bottle configuration settings. This tool is occasionally useful for solving issues with system integration -- if you contact tech support, you may be instructed to make changes with it.

7.4 The Advanced tab



The Advanced tab provides infrequently used bottle options. Most of the settings available here will be automatically set to reasonable defaults.

Make Archive... This button creates a compressed archive of the selected bottle. It is often prudent to make a backup archive of a bottle before installing new software or modifying bottle settings. Archives can be restored using the Add From Archive... button.

Use Native Web Browser by Default Often when a web browser is installed in a bottle, URLs are automatically opened by the browser in the bottle. Click this button to redirect those URLs to your standard system browser instead.

Use legacy X Window System Prior to CrossOver 12.5.0, CrossOver used a technology called the X Window System to control input such as keyboard and mouse movement, as well as output such as drawing windows and images to the screen. CrossOver no longer uses this technology by default, but you can use this checkbox to enable it for a given bottle.

Bottle type All bottles, when created, are of type 'private'. A private bottle can only be used by a single user on the system, and is stored in that user's home folder.

A 'published' bottle is stored in a public directory (in `/Library/Application Support/CrossOver/Bottles`) and can be used by any user of your system. Published bottles cannot be modified -- any changes that a user makes to the bottle are stored for that user only. The only way to make public changes to a published bottle is to make a private copy of the bottle, modify the private copy, and then re-publish.

Publish... The Publish... publishes a copy of the selected bottle under the specified name. Once the bottle is copied, all the users of your system will have access to the applications and data in that bottle.

Tip

Any private data that is stored in a bottle's C: drive (for example, passwords, login information, private emails, etc.) will be available to all users on the system. Generally it is best to publish a new bottle before you have configured or used any of the applications it contains.

Make This the Default Bottle The default bottle is displayed in boldface in the bottle list. It is used to handle files and documents that are passed to CrossOver directly without any indication about which bottle should be used.

Chapter 8

Migrating from CrossOver Games

CrossOver comes with tools to migrate from CrossOver Games. Because CrossOver Games is no longer current, CodeWeavers recommends that CrossOver Games users migrate to CrossOver.

By default, when CrossOver starts, it will search for software which needs to be migrated from CrossOver Games. If CrossOver finds games which need to be migrated, it will offer to do so automatically. Allowing CrossOver to migrate from CrossOver Games automatically is the simplest option.

This chapter explains migration in detail, and describes advanced migration options available for advanced users.

8.1 CrossOver's default migration tool

When CrossOver detects that software is available to be migrated from CrossOver Games, it will offer to migrate them automatically, as shown below.



If you click Migrate CrossOver Games Bottles, CrossOver will move all of your CrossOver Games software into CrossOver. You will be able to use all of your old CrossOver Games software with CrossOver, but it will no longer be installed under CrossOver Games. (You may be prompted to quit CrossOver Games before the import.)

After all of your CrossOver Games software has been migrated to CrossOver, CrossOver will offer to delete CrossOver Games from your computer, as shown below.



Once you have migrated all of your software from CrossOver Games to CrossOver, you can safely delete CrossOver Games from your computer. You may also choose to keep CrossOver Games if you wish.

8.2 Advanced migration options

Advanced options are available for migrating from CrossOver Games. To access these features, expand the Advanced Controls section, as shown below.



This gives you a list containing each bottle CrossOver found in CrossOver Games. For each bottle in the list, you can click on the drop-down menu to the right of the bottle's name to select one of three options for how CrossOver will treat the bottle during import.

CrossOver can handle a bottle in one of three ways during migration. The options are shown below.



Move to CrossOver This option will move the bottle from CrossOver Games to CrossOver. If you select this option, the bottle will no longer be available to CrossOver Games after the operation is complete. This option is the fastest and will not use extra disk space. This is the default option.

Copy to CrossOver This option will copy the bottle from CrossOver Games into CrossOver, leaving the original in place. When this operation is complete, two separate copies of the bottle will exist: one in CrossOver Games and another in CrossOver. This operation may take a long time for a large bottle. Also, having two copies of the bottle means twice as much disk space will be used.

The Copy to CrossOver option is useful if you want to test whether your application runs better in CrossOver or CrossOver Games. In almost all cases, you will want to use CrossOver, because CrossOver Games is obsolete. However, in rare cases, some applications may continue to work best with CrossOver Games and you can use this to fine-tune how CrossOver migrates your software.

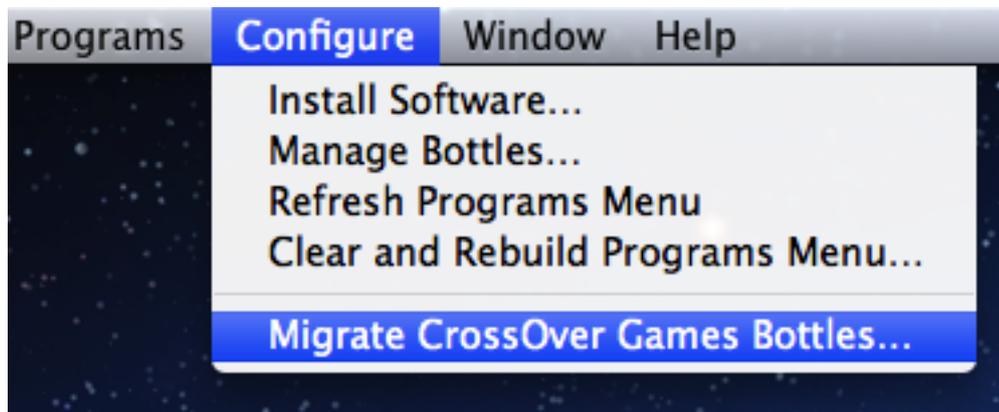
If you choose to copy a bottle and later decide that you only want to use it with CrossOver, and never again with CrossOver Games, you can safely go into your old CrossOver Games application and delete the bottle from there to save disk space. Your new copy inside of CrossOver will not be impacted.

Ignore This option tells CrossOver to ignore the bottle during migration. The bottle will be neither copied nor moved to CrossOver.

CrossOver will not be able to use any bottles you choose to ignore during migration. They will continue to be available in CrossOver Games.

Do not ask at startup Checking this box will cause CrossOver to stop asking about migration of CrossOver Games bottles when it launches.

If you check this box but later want to migrate games bottles, you can access the bottle migration tool at any time from the **Configure → Migrate CrossOver Games Bottles...** menu. If that menu option is not present, it means CrossOver has not detected any CrossOver Games bottles available for migration.



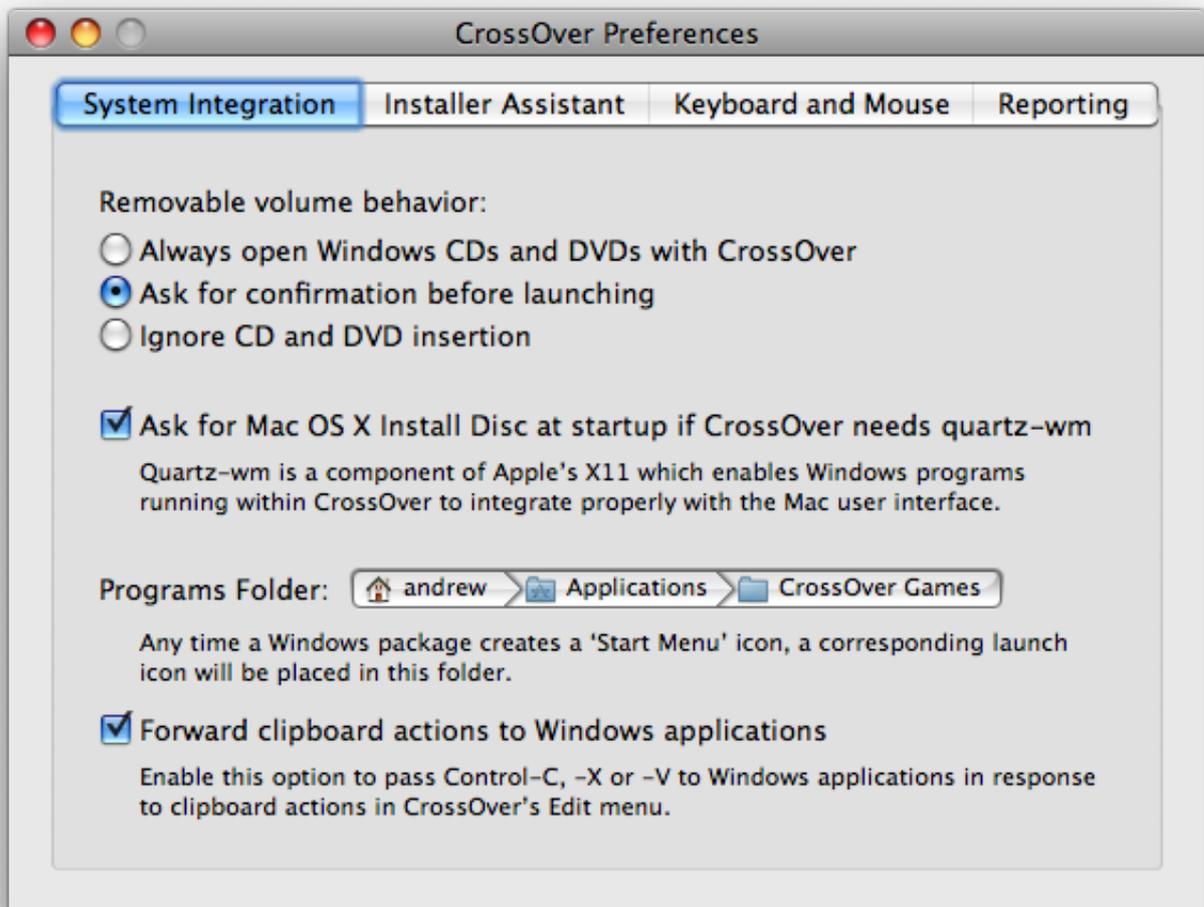
Chapter 9

Preference Settings

The CrossOver preferences are available from the CrossOver → Preferences menu. The preference settings modify the behavior of CrossOver as a whole, affecting all bottles uniformly.

Preferences are stored separately for each user of a system, so changing your preferences will not impact anyone else on your Mac.

9.1 System Integration Preferences



These settings modify the way that CrossOver interacts with OS X and the Finder.

Removable volume behavior Anytime you insert a disk or attach a USB volume to your Mac, CrossOver can scan that volume, detect Windows installers, and offer to install them. By default, CrossOver will perform this scan automatically and ask for confirmation before installing anything. You can change this setting to override this confirmation, or to instruct CrossOver to ignore disk insertion altogether.

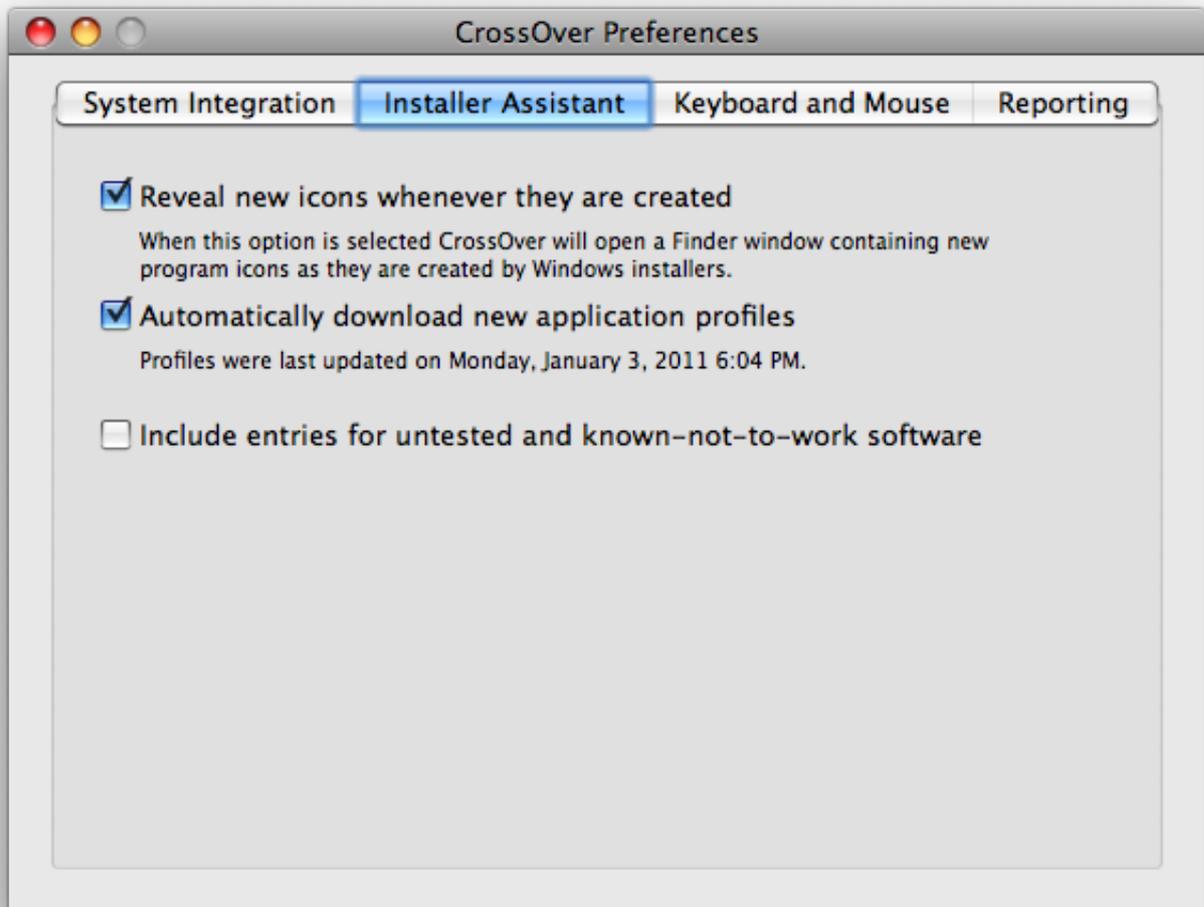
Default value: ask for confirmation before launching

Programs Folder Whenever an entry is added to the CrossOver Programs menu, an **icon** is added to a Finder folder for easy launching of that program in the future. This setting lets you specify where these icons are created.

A "~" character in this field represents your home folder.

Default value: ~/Applications/CrossOver

9.2 Installer Assistant Preferences



These settings govern the behavior of the [CrossOver Software Installer](#).

Reveal new icons whenever they are created Whenever CrossOver adds a new entry to the [Programs Folder](#) it opens up that folder in the Finder so that you can see the new entries. Turn this setting off to disable the auto-opening of the Programs Folder.

Default value: on

Automatically download new application profiles CodeWeavers staff and volunteers are constantly updating, refining, and adding to the list of community supported applications via the [CodeWeavers CrossOver Compatibility Center](#). If this option is enabled, CrossOver will periodically synchronize itself with the full list of applications on the website.

Even if this option is turned off you can still install particular applications from the website via the Install button present on many pages.

Default value: on

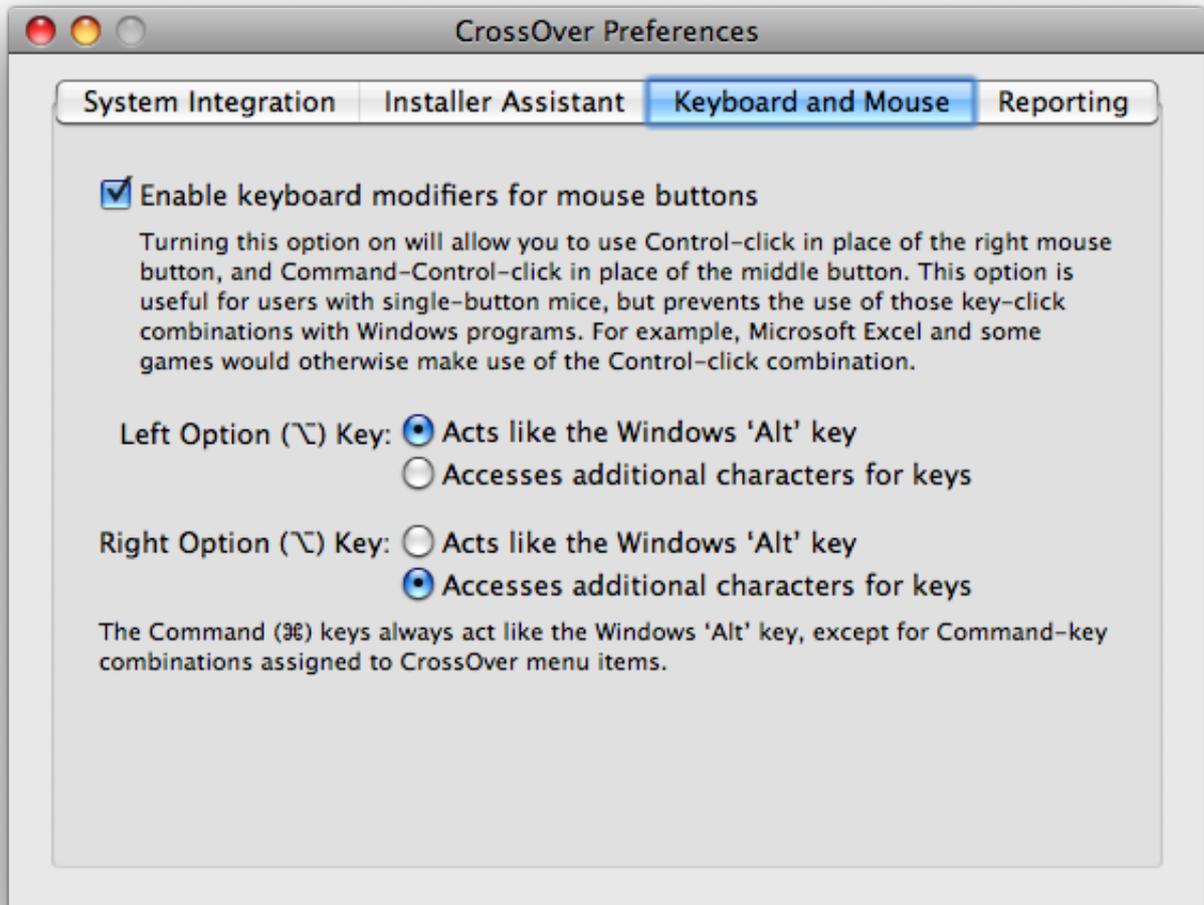
Show entries for untested and known-not-to-work software Our product and [website](#) keep track of many applications that do not yet work with CrossOver. If you are experimenting with or developing for one of those applications, it may be useful to turn on this setting in order to see such entries in the Installer Assistant.

Default value: off

Launch Installer Assistant when CrossOver opens a .exe file When this option is selected CrossOver opens the Installer Assistant whenever CrossOver is used to open a Windows executable file. Otherwise CrossOver simply runs the Windows executable.

Default value: on

9.3 X Window System



These settings only affect bottles which have been configured to use the legacy X Window System.

Because Windows PCs and Macs typically have different keyboard layouts and different mice, CrossOver provides several mechanisms for adapting your Mac input devices for use with Windows software.

Enable keyboard modifiers for mouse buttons If you have a one-button mouse you may wish to enable this setting in order to right-click in Windows applications. Turning this on may interfere with some game controls.

Default value: off

Option Key assignment Typically the Option key is assigned to act as an 'Alt' key in Windows. If your keyboard requires use of the Option key for character input (for instance, the use of accents or punctuation), then you may wish to set one of your Option keys to Accesses additional characters for keys instead.

Default value: depends on keyboard setup

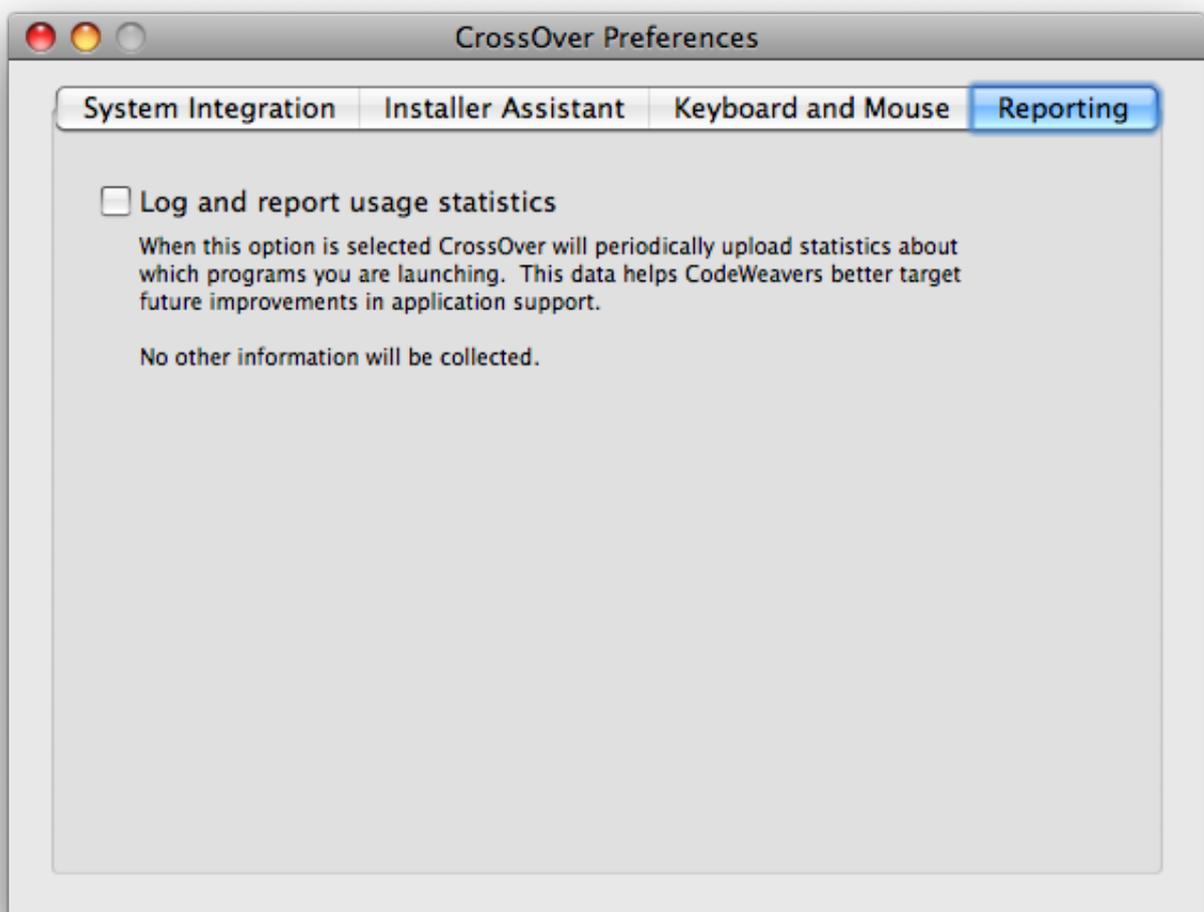
Forward clipboard actions to Windows applications On a Macintosh, clipboard actions (cut, copy and paste) are performed using the Command key: Command-X, Command-C and Command-V. On Windows the same actions are performed via Ctrl-X, Ctrl-C and Ctrl-V.

The control-key combinations are always available in Windows programs running with CrossOver. When interacting with Windows and native OS X applications at the same time it may become awkward to remember which keypresses to use, so CrossOver attempts to support the use of Command-X, Command-C and Command-V in Windows applications as well.

For example, when this option is turned on CrossOver will pass a Ctrl-V keypress to the active Windows application anytime a user presses Command-V or clicks on the Edit → Paste menu. In most cases this will result in a paste action in the Windows program. If the application uses Command-V for a different purpose, or does not support cutting and pasting, the resulting behavior may be unpredictable.

Default value: on

9.4 Updates Preferences



Check for CrossOver Updates When this option is selected CrossOver will periodically check to see whether a new version of CrossOver is available. If a new version is detected, CrossOver will display a window outlining any changes or improvements the newer version will bring.

When a new version is detected, CrossOver will give you the option to install the new version or to keep your current one.

Default value: off

Log and report usage statistics CrossOver has the ability to record a list of which applications you run and periodically upload this anonymous list to CodeWeavers. This data is then used to better target improvements to future versions of CrossOver.

This logging and reporting is entirely optional and may be disabled at any time. Check the Log and report usage statistics check box to enable logging, or uncheck to disable.

Default value: off

Chapter 10

Finding more information about running your Windows application with CrossOver

The CodeWeavers website has a database, the Compatibility Center, with information on how to run thousands of Windows applications in CrossOver. You can search for your application from the [CodeWeavers home page](#), as pictured below.

First, visit CodeWeavers at www.codeweavers.com in your favorite web browser. Look for the search section labeled 'What Runs?' at the top of the CodeWeavers home page.

Enter the name of your application in the search section and press 'enter.' Below is an example of a search for Quicken 2010.

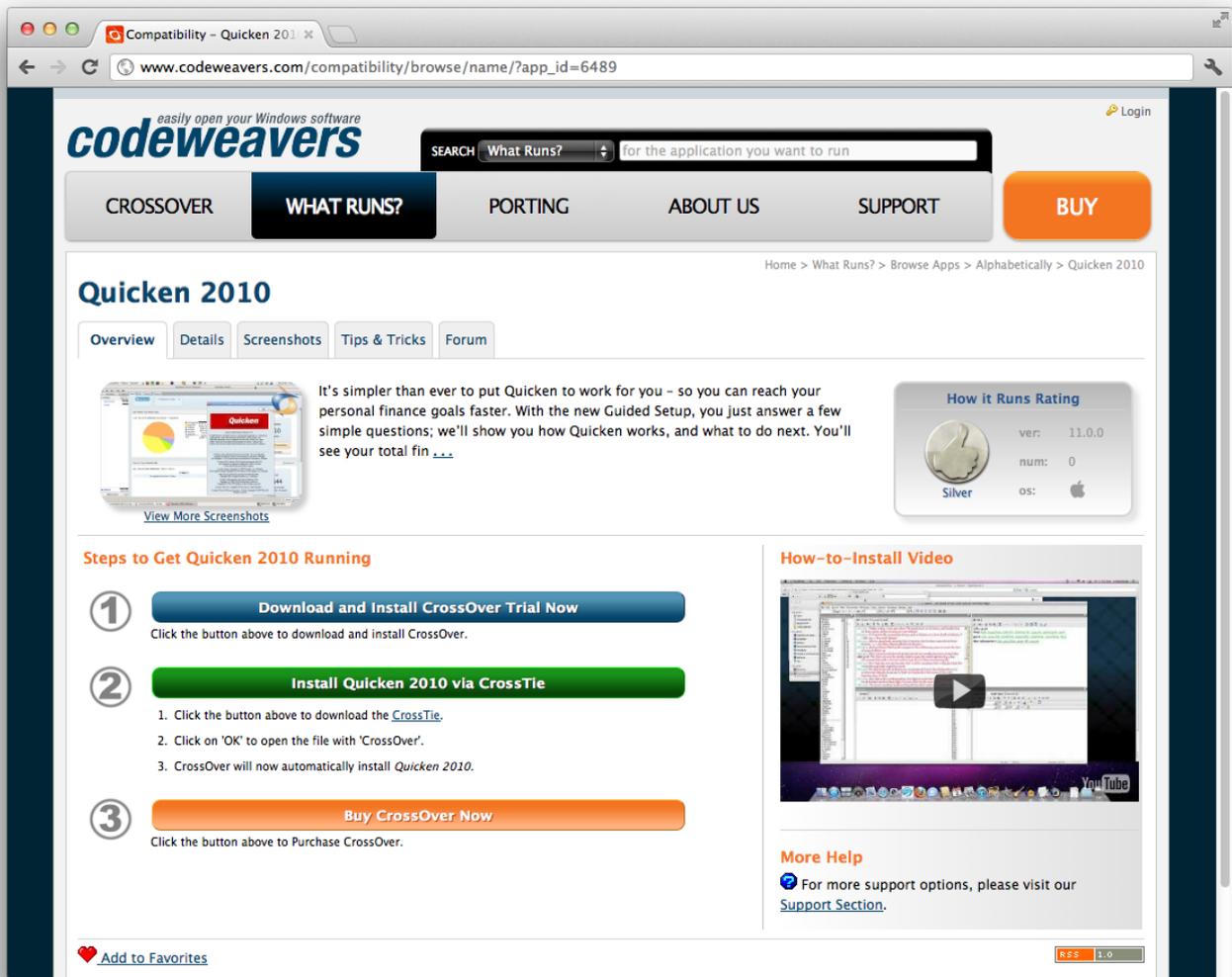


On the application's page you will find useful information, such as: the community's estimate of how well it will work in CrossOver; a forum dedicated to your application; and 'Tips and Tricks' for using your application with CrossOver.

If the application page has a green button labeled 'Install [your application name] via CrossTie', then a simple click on that button will let you install it on your computer.

Tip

If you have the **CrossOver Software Installer** set to automatically download new profiles, then these applications will also be already present in the assistant's application list. The Compatibility Center provides an alternative route for locating the same software for users who prefer to browse a website.



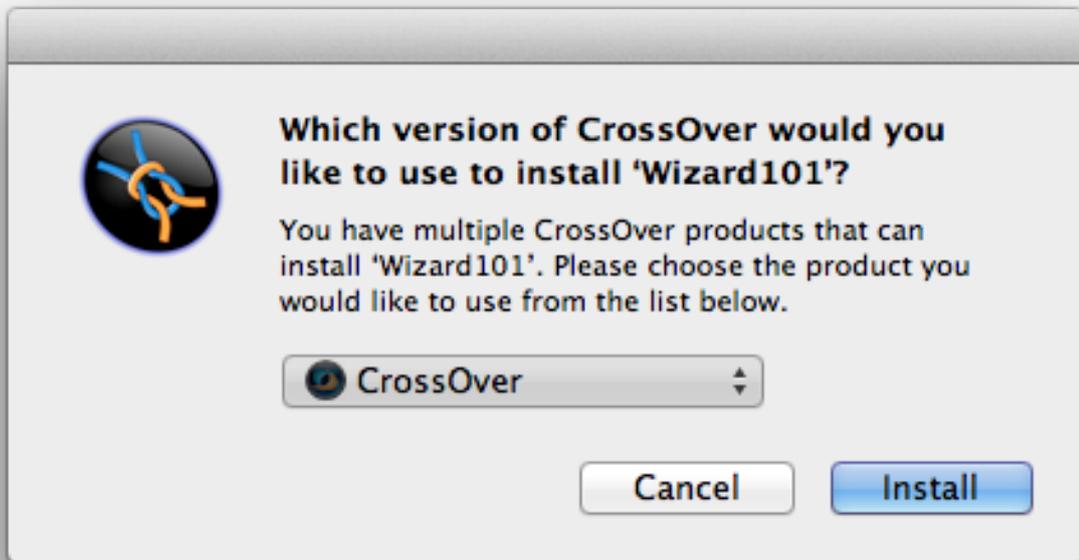
In most cases, a single click will launch the CrossOver Software Installer. With some browsers you may need to download the **CrossTie** file (it will have a .tie extension) and double-click to open it.

10.1 Using CrossTies with multiple CodeWeavers products

Starting with CrossOver XI, CrossOver will run both games and office applications like Microsoft Word. We recommend that you use the most modern version of CrossOver available to run all of your Windows software.

If you own an older copy of CrossOver Games, however, you may continue to use that alongside CrossOver XI and later if you wish to do so. If you have both CrossOver and CrossOver Games installed on your computer, you can choose which product to use when you install an application using a CrossTie file downloaded from the CodeWeavers website.

If CrossOver detects that you have more than one version of CrossOver installed which can handle a given CrossTie file, it will prompt you to make a choice about which version to use. The window below is an example of what you might see if you have attempted to install software via a CrossTie when you have two versions of CrossOver installed. Simply select the version of CrossOver you want from the drop-down menu and click Install. CrossOver will then install your software with the version you have selected.



Select your preferred version, and you'll be off and running.

Chapter 11

Advanced Manual Configuration Options

Most users will not need to use the instructions in this chapter. You should not attempt any of these procedures unless you have passing knowledge of the OS X command-line -- most of these sections require text commands to be issued.

11.1 Installing CrossOver on multiple systems

CrossOver supports rolling out Windows applications to a large number of users and on a large number of systems. The basic technique is **bottle publication** which allows all the users of a single system to share a single installation of each application. Bottle publication is simple -- just create a bottle with the included files and applications that you wish to distribute, remove any private data (for example, cached passwords and user names), and click the Publish button. After publication, all users on that system will have access to the software within the published bottle.

11.1.1 Distributing a published bottle

The simplest way to distribute a published bottle to another Mac is to copy the published bottle (typically located in `/Library/Application Support/CrossOver/Bottles`) into the same location on a new system. Users on that system only need to run CrossOver once after the bottle has been added, at which point CrossOver will create any icons that are a part of that bottle.

Depending on your needs and network configuration, you may wish to provide some or all of the following customizations before pushing packages out to client machines.

Distributing ready-made icons If you have a facility to automatically push icons onto users' docks, you may wish to include one or more icons created by CrossOver in your distribution package. An icon will still work if copied from one machine to another, as long as the bottle path is the same on both. As soon as CrossOver is launched via the icon, it will review the icon file and may replace it with an equivalent system-local icon if appropriate.

Note

After publishing a bottle, you will have two sets of icons, one of which refers to your private bottle, and one of which refers to the published bottle. Make sure you distribute the icon that refers to the published bottle.

Providing custom or ready-made preference files Many sysadmins will want to modify some of CrossOver's default behavior before rolling it out widely. This can be done either by running scripted commands in each user account, or by preparing a ready-made defaults file (Typically `~/Library/Preferences/com.codeweavers.CrossOver.plist`) and copying that file into the Preferences directory of each user account.

A few of the most useful default settings are:

- **Disabling the Welcome Window** The welcome window can be turned off by adjusting the 'UseWelcomeWindowAsUntitled-File' setting, like this:

```
$ defaults write com.codeweavers.CrossOver UseWelcomeWindowAsUntitledFile -bool NO
```

- **Prevent reveal of newly-created icons** Often when a bottle is first used, CrossOver will open a series of windows in order to demonstrate the creation of newly-added icons. This proliferation of windows can be suppressed via the `RevealNewIcons` setting:

```
$ defaults write com.codeweavers.CrossOver RevealNewIcons -bool NO
```

- **Changing where a user's bottles are located** The default user bottle directory is `~/Library/Application Support/CrossOver/Bottles`. Even when using published bottles this directory is used to store user-local settings. The location of this directory can be changed via the `BottleDir` preference:

```
$ defaults write com.codeweavers.CrossOver BottleDir /path/to/user_private/non_networked/ ↵
    bottle/dir
```

It is very important that you not point this setting to a directory that contains published bottles themselves, as user settings will conflict with the system settings.

Using a networked or remote volume for the bottle directory may result in serious performance problems and is generally a bad idea.

- **Changing where CrossOver looks for published bottles** If you want to store the published bottles on an external volume, or on one that's shared between multiple systems, you will probably need to redirect CrossOver to look in an alternative directory. This can be accomplished using the `ManagedBottleDirs` preference:

```
$ defaults write com.codeweavers.CrossOver ManagedBottleDirs /path/to/shared/non_networked ↵
    /bottle/dir
```

11.2 Adding a new drive or customizing the drive label / serial number

CrossOver allows you to add new drives to be used by Windows applications, and to change their label or serial number. If you need to create a new drive or have an application which depends on a serial number or Windows volume label then follow the examples below.

For example to make the path `/mnt` available as the drive `J:` in a bottle, you would execute the following command:

```
$ ln -s /mnt "~/Library/Application Support/CrossOver/Bottles/bottle-name/dosdevices/j:"
```

To associate this drive to the `/dev/sda1` device you would add a double colon to the command.

```
$ ln -s /dev/sda1 "~/Library/Application Support/CrossOver/Bottles/bottle-name/dosdevices/j ↵
    ::"
```

For 'real' devices, CrossOver should automatically get the serial number and label for a volume. However you can also set these manually. To set the serial number of a given mount point you need to create a file called `.windows-serial` on the root of the virtual drive.

```
$ echo '12345678' >/mnt/.windows-serial
```

To set the label you would create a file called `.windows-label` on the root of the virtual drive.

```
$ echo 'MY_LABEL' >/mnt/.windows-label
```

11.3 Customizing bottles using bottle hooks

Bottle hooks are a mechanism that lets you automatically customize the bottles created by CrossOver. Because it relies on scripts, it is very flexible. For instance it can modify drive letter assignments but also registry settings, the contents of the C: drive, etc. This mechanism is especially useful when you want to customize a bottle which you distribute to a range of machines, or to customize a published bottle for each specific user.

Bottle hooks can be created at three levels:

- System-wide hooks apply to all bottles on the system, including non-root user bottles. Thus they are ideal to adapt the bottles to the configuration or hardware of the machine. These hooks are located in the `$CX_ROOT/support/scripts.d` directory.
- User hooks are the same as system-wide hooks but apply only to one specific user's bottles. They are run after all the system-wide hooks have been run. They are located in the `~/Library/Application Support/CrossOver/scripts.d` directory.
- Finally, each bottle can have its own set of hooks. These are especially suited to configure a published bottle for use by each non-root user. This is also the only kind of hook that is automatically packaged with the bottle when it is archived, and are thus guaranteed to run when the bottle is restored later, even if this is on another computer. These hooks are located in the `scripts.d` directory in the bottle.

Each hook is an executable file, usually a shell script, and must be placed in one of the above hook directories. The name of the hook must be of the form **nn.name**, where **nn** are two decimal digits that dictate the order in which the hooks are run, and **name** must not contain any dot or tilde usually indicates the hook's purpose.

The hooks are then called as described in the following events:

- When a bottle is created

`hook create template`

The `template` parameter indicates the name of the template the bottle is based on, for instance `'win98'`.

- When a bottle is restored

`hook restore`

- When a bottle is upgraded to a new CrossOver version

`hook upgrade-from old-bottle-version`

Where `old-bottle-version` is the CrossOver version the bottle was last used with. This can help you gauge how out of date the bottle was, but note that the hooks are called only after CrossOver has upgraded the bottle.

- When a bottle stub is created

`hook create-stub published-wineprefix`

This case happens when a published bottle is used in a non-root account for the first time. In this case the `$WINEPREFIX` environment variable points to the freshly created bottle stub, while `published-wineprefix` points to root's reference copy in `/Library/Application Support/CrossOver/Bottles`.

- When a bottle stub is updated

`hook update-stub published-wineprefix`

This case happens when the administrator has updated the published bottle's reference copy in `published-wineprefix` and the user's bottle stub must not be updated to match.

In all cases the hooks are called in the Wine context. This means they don't need to use the `'--bottle'` option and that they can count on the following environment variables being set:

CX_ROOT Contains the absolute path to the directory where CrossOver is installed.

CX_BOTTLE Contains the name of the current bottle.

WINEPREFIX Contains the absolute path to the bottle directory.

Bottle hooks can also use the **wine** script to call WineLib or Windows applications to modify registry settings or other aspects of the bottle.

Here is an example of a bottle hook that modifies the drive letter assignments so that there is no Y: drive, and the H: drive points to the user's \$HOME directory.

```
#!/bin/sh
rm "$WINEPREFIX/dosdevices/y:"
if [ ! -d "$WINEPREFIX/dosdevices/h:" ]
then
    ln -s -f "$HOME" "$WINEPREFIX/dosdevices/h:"
fi
```

Chapter 12

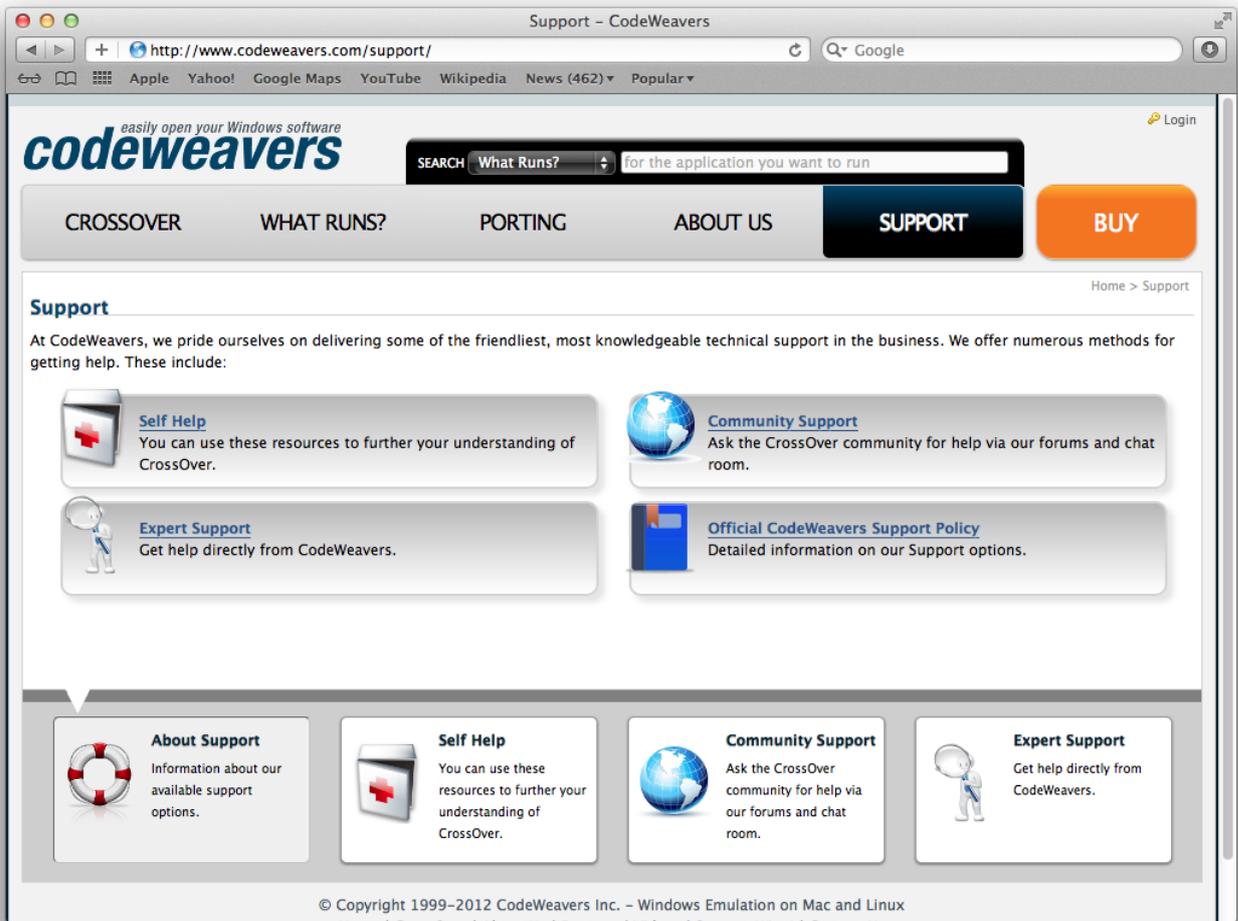
Troubleshooting

In case of problem, the first place to start is the [CodeWeavers Support Library](#). It is updated regularly to document known issues and their workarounds. With luck the solution to your problem may already be waiting for you.

You can help make CrossOver an even better product by reporting any new problem you come across to the [CodeWeavers support site](#). Before you can enter a ticket, you will need to log in to the system.

Tip

This is a *public* system. Emails sent to this address will be viewable by all. This also means that you can access past support issues and their resolution by going to <http://support.codeweavers.com>. There are privacy options available if you do not wish your request to be public. To learn more about these, read the FAQ on that site.



When reporting a problem, please include a description of actual vs. expected behavior in your reports, as well as the steps we should go through to reproduce the problem.

Appendix A

Glossary

A.1 Bottles

**Important**

CrossOver includes support for multiple bottles. A bottle is a virtual Windows environment with its own isolated C: drive, fonts, registry, and software.

Bottles are especially useful when installing unsupported software or when testing the behavior of a new application. They can also be used to run different versions of the same program (Microsoft Office, for example) at the same time.

A.2 Published Bottles

A published bottle is a bottle that is available for use by all users on a system. These bottles are stored in the `/Library/Application Support/CrossOver/Bottles` folder and can be copied or deleted but not modified. A private bottle, by contrast, is a bottle which is stored in a single user's home and can be accessed only by that user.

Any user may run the applications in a published bottle. All files that are created or changed during use are stored in that user's home folder and do not affect other users on the system.

For example, if a user wants to install Internet Explorer and then provide it for use by other family members, he or she would install Internet Explorer into a private bottle, and then publish that bottle. Subsequently, other users can run CrossOver and launch Internet Explorer without engaging the bottle manager or installing anything.

Once a bottle has been published, it cannot be modified. In order to modify a published bottle it is necessary to make a private copy, modify it, and re-publish. Any copy of a published bottle is automatically made private.

A.3 CrossOver Software Installer

The CrossOver Software Installer is an assistant that will guide you through the process of installing Windows software. See the [Installing Windows Software](#) section of this guide for more details.

A.4 CrossTie

CrossTie profiles are small files that contain instructions that tell the [CrossOver Software Installer](#) how to install and configure a given Windows application so it works best with CrossOver. You can find out more about CrossTies and how to acquire them in the [Compatibility Center](#) section of this guide.
