

Desktop Transporter

VERSION 2.6
DOCUMENTATION



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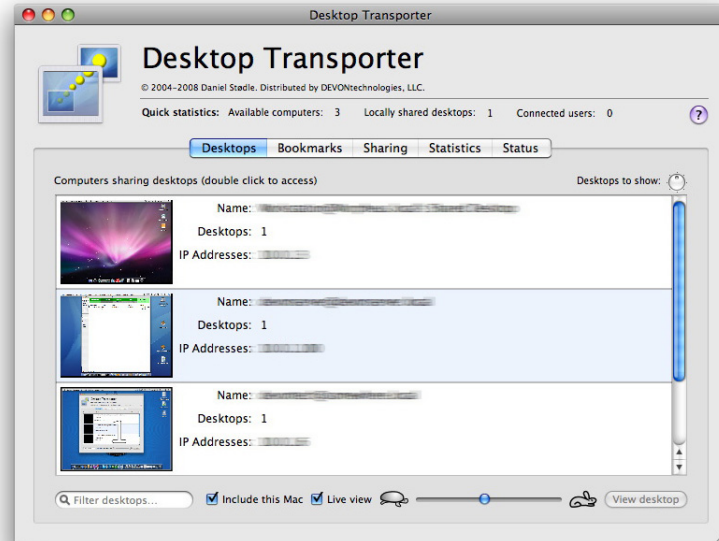
INTRODUCTION

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Desktop Transporter is an application that allows you to share the desktop of one or multiple users of your Mac, as well as connect to other shared desktops. The application works best with a reasonably fast network connection between the shared Macs, say an Airport (11 mbps) or Ethernet network, and requires Mac OS X 10.3 or later.

THE DESKTOP TRANSPORTER ADVANTAGE

With Desktop Transporter, it is possible to get access to your Mac from anywhere. Connect to any Mac set to share and control it from your desktop. Switch between all available shared Mac desktops and use copy/paste to transfer text and graphics between the local and remote machine.



Bonjour support makes it easy to discover shared machines on your local area network (LAN), while password protection keeps your data away from unauthorized eyes.

Some other key features:

- *Multi-monitor support:* Desktop Transporter supports sharing multiple desktops from all attached monitors simultaneously, allowing for greater flexibility and choice.
- *Fast user switching:* Your displays remain shared even if your user is switched out by another user. This means that two or more people can use the same Mac simultaneously, with one user working locally and the remaining users accessing the Mac remotely.
- *Full screen access:* Work with a remote Mac as if it was your local one in full screen mode. If the remote screen is too large, Desktop Transporter shows only a part of it , following the mouse pointer.
- *Non-English keyboards:* One of the biggest disadvantages of VNC outside the English-speaking world is that it doesn't support non-English keyboards. Desktop Transporter plays well with any keyboard, from French to German to Russian.
- *Synchronized clipboards:* Desktop Transporter lets you seamlessly copy and paste both text and images from one connected machine to the other.
- *Menu extra:* There is no need to keep the main application running to share or access your displays. Desktop Transporter

comes with a handy menu extra that gives you instant access to displays available on your local network, as well as allows you to change your local sharing settings.

- *Faceless sharing:* Desktop Transporter uses a background process, known in Unix-terminology as a 'daemon,' to manage shared displays. This means that you can optionally leave your displays shared, without having the menu extra or the main application running. The daemon also offers command-line control for advanced users.
- *Share-on-login:* Desktop Transporter can automatically share your displays when you log in.
- *Password protection:* Access to your displays can be protected using a password.

WHAT'S NEW

VERSION 2.6

Version 2.6 adds a number of features, both above and below the hood.

- *NEW*: Live View: All Macs with Desktop Transporter running on your local area network, assuming you have access to them, can be watched in real-time from the main browser window.
- *NEW*: Server-side scaling: Desktop Transporter saves bandwidth by scaling down the desktop to fit the window size in use.
- *NEW*: Server-side clipping: When you are viewing remote desktops at one-to-one scale, the server saves bandwidth by only transferring screen updates for the area that is actually visible in your viewer window.
- *NEW*: Desktop filtering: If you manage many Macs, you now have the ability to filter the list of shared desktops.
- *NEW*: Keychain support: Desktop Transporter can store passwords to access shared desktops in the Keychain.
- *Improved*: More efficient compression when viewing desktops in millions of colors.

- *Fixed:* A crash on Leopard has been resolved.

VERSION 2.5

Version 2.5 adds several new features, including bookmarks and port mapping, and fixes a number of bugs.

- *NEW:* Bookmarks: Remote Macs running Desktop Transporter can be bookmarked for easy access even when the Mac isn't on your local network or discoverable using Bonjour.
- *NEW:* Wake from sleep: Bookmarked Macs can be remotely woken up from sleep.
- *NEW:* Port mapping: Desktop Transporter now has the ability to make your Mac accessible from the outside when it is located on a wireless network using Apple's Airport base stations (NAT-PMP).
- *NEW:* Desktop Transporter can be controlled using AppleScript.
- *NEW:* Ability to start Desktop Transporter at boot or on login for all users (10.4 and later only).
- *Improved:* More responsive remote control.
- *Improved:* Desktop arrangement in the Sharing tab now reflects the true desktop layout.

- *Fixed:* The list of available desktops is now sorted in both the menu extra and main application.
- *Fixed:* A problem that would make Desktop Transporter crash when too many network interfaces were present. This problem was commonly encountered after installing Parallels Desktop, which adds a number of virtual network interfaces to the system.

VERSION 2.0.1

Version 2.0.1 adds some minor features and fixes some bugs.

- *NEW:* Added the Status tab, which lists the local Mac's IP addresses as well as the port which Desktop Transporter is currently listening on.
- *NEW:* Added ability for clients to configure the depth of remote desktops.
- *NEW:* Added setting to customize the port Desktop Transporter listens for connections on.
- *NEW:* Added setting to make Desktop Transporter listen for connections on the localhost interface only.
- *NEW:* Added Toggle Drawer command to the Window menu.

- *Fixed:* When a remote machine is only observed, the clipboard is no longer synchronized.
- *Fixed:* Changed Desktop Transporter's Bonjour service type to conform to DNS-SD rules. Note that you must update all Macs with the new version of Desktop Transporter in order for Bonjour discovery to work between the updated Macs.
- *Fixed:* Entering an empty password when accessing a password-protected remote desktop no longer causes the Desktop Transporter client to crash.
- *Fixed:* A crashing issue with Desktop Transporter on 10.3.9 has been fixed.
- *Fixed:* The Enter Fullscreen menu item is no longer disabled all the time.
- *Fixed:* A bug causing viewer windows on 10.3.9 to lose the ability to be closed has been fixed.

VERSION 2.0

Desktop Transporter 2.0 is a major rewrite of the application, and includes both major and minor changes (as well as important bug fixes). The following list of changes outlines the most major changes and new features.

- *NEW*: Native Universal Binary support of both PowerPC and Intel-based Macs.
- *NEW*: Support for Fast User Switching; your desktops remain shared even when your user ID is switched out.
- *NEW*: A handy menu extra lets you change your sharing settings, and access shared displays, without keeping the main application open.
- *NEW*: By keeping a process running in the background, Desktop Transporter is able to share your desktops without having the main application or the menu extra running.
- *NEW*: Desktop Transporter allows you to view remote desktops in fullscreen without scaling them down to fit on your own display.
- *NEW*: Improved clipboard synchronization; synchronized clipboards work more reliably than in previous versions of Desktop Transporter.

- *NEW*: Desktop Transporter can share your displays automatically once you log in.

REQUIREMENTS

Desktop Transporter is a Universal Binary application, meaning that it fully supports both PowerPC and Intel based Macs. It requires Mac OS X 10.3 or later. Desktop Transporter is not compatible with other remote desktop solutions available for Mac OS X, such as Apple Remote Desktop or VNC.

COMPUTER REQUIREMENTS

Desktop Transporter works fine with any Mac that runs Mac OS X 10.3 or later, and typically uses between 5 and 20MB of RAM, depending on the number of desktops you are connected to.

Sharing one or more desktops will not usually overly tax your RAM, although you may notice that the performance of the Mac sharing its display(s) will be somewhat lower than usual.

NETWORK REQUIREMENTS

Desktop Transporter also requires a good network connection between the Macs sharing and accessing the displays. To illustrate the necessity of a fast network, a display running at 1024x768 pixels in millions of

colors takes 3MB to store. Normally, the entire display isn't updated all at once, but even so, the bandwidth requirements per second tend to approach 0.5 to 1.0 MB/s. Broadband connections are highly recommended.

For best performance, connected Macs should be on the same local area network (LAN). You can use Desktop Transporter on a wireless network, however you should consider reducing the quality of the shared displays in order to reduce network load.

The port mapping feature requires a router that supports the NAT-PMP protocol. This protocol is among others available on Apple Airport base stations.

For more info on optimizing Desktop Transporter's performance, [click here](#).

INSTALLING, UPDATING, REMOVING

INSTALLING AND UPDATING

To install Desktop Transporter onto your Mac, just move the Desktop Transporter application package to the Applications folder (or alternate destination of your choice).

To update an existing version of Desktop Transporter, simply copy the application package from the disk image to your Applications folder, replacing the old version.

Note: Make sure that you update all the Macs you use Desktop Transporter on, as older versions may not be compatible with newer versions.

REMOVING DESKTOP TRANSPORTER FROM YOUR MAC

To remove Desktop Transporter from your Mac, trash the following files and folders (~ stands for your Home directory):

- Desktop Transporter

- ~/Library/Preferences/com.danielstoedle.
DesktopTransporter.plist
- Open System Preferences, remove 'Desktop Transporter Status
Menu' and 'Desktop Transporter Share-on-Login' from the
Login Items if necessary.

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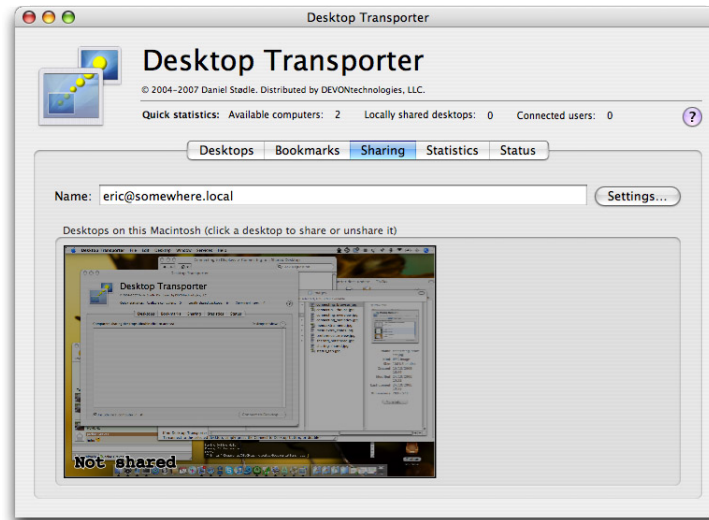
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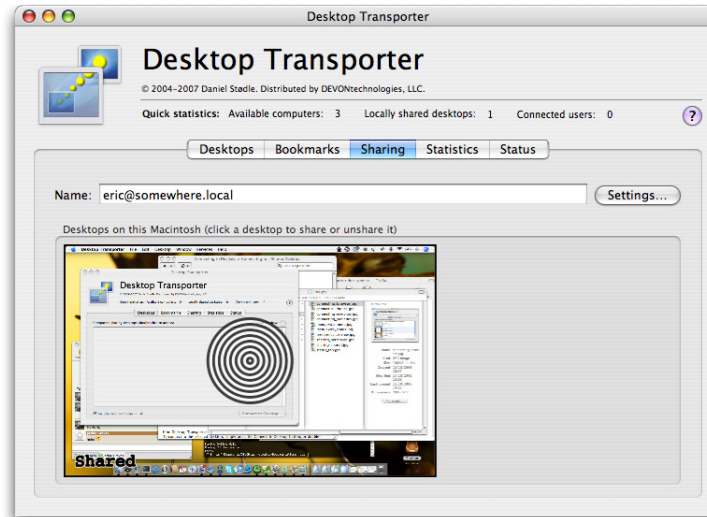
Sharing your desktop with Desktop Transporter is very simple. In fact, the first time you start Desktop Transporter, your desktop (or each of your screens if you are using more than one monitor) will be shared by default. To start or stop sharing a desktop or screen, follow the instructions in this chapter.

SHARE YOUR DESKTOP

Sharing your desktop with Desktop Transporter is very simple. You change the sharing status of your desktop or your separate screens on the Sharing tab in Desktop Transporter's browser window. To share your desktop, simply click its corresponding miniature version. On Macs with multiple monitors attached, Desktop Transporter shows multiple miniature screens.



When a desktop is shared, the text 'Shared' appears in the miniature's lower-left corner, the preview appears in color and 'radio waves' emanate from the center of the image. When a desktop isn't shared, it appears in grayscale with the text 'Not shared' in its lower-left corner.



You can change the name of your shared desktop(s) by entering a new name in the name field. The name is used when your desktop(s) are advertised using Bonjour. To change other settings, click the Settings button or select Desktop Transporter > Preferences.

When you share or unshare your local desktop(s), you will see the counter for 'Number of locally shared desktops' under the Desktop Transporter heading change to reflect the current sharing status. Also, if you have checked 'Include local computer in list' on the Desktops tab, you will also see your computer appear or disappear as you share and unshare your desktop(s).

SHARING OVER THE INTERNET

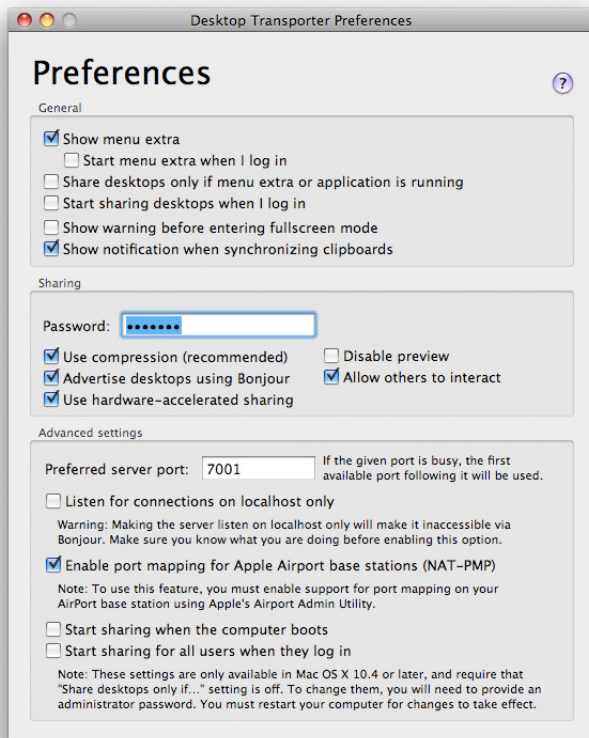
With a little effort, you can share your desktop not only on the local area network but also over the Internet. Please see our [Using Desktop Transporter over the Internet section](#) for more about setting up port forwarding.

UNSHARE A DESKTOP

To unshare a desktop, simply click on the miniature version of a shared desktop. The radio waves disappear, and the image grays out with the text 'Not shared,' indicating that the desktop is no longer shared.

CONTROLLING ACCESS WITH A PASSWORD

Desktop Transporter lets you control access to your desktop(s) using a password. Set your password in Desktop Transporter's Preferences panel, which you access by selecting Desktop Transporter > Preferences.



Once you have opened the preferences panel, you set a password by entering it in the Password field. The password takes effect immediately.

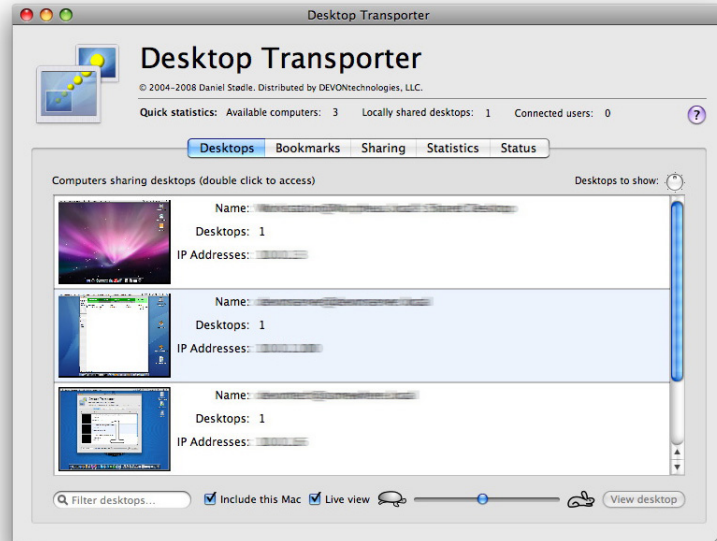
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Connecting to a shared display is as simple as double-clicking it in the list of shared desktops, visible in the Desktops tab in Desktop Transporter's main window.

CONNECTING TO A SHARED DESKTOP

Connecting to a shared desktop is as simple as double-clicking it in the list of shared desktop, visible in the Desktops tab in Desktop Transporter's main window. If the other Mac has previews enabled, you see a preview of the remote desktop in the list as well, otherwise you will merely see a black square with a number in it.



The number indicates which remote desktop you are seeing a preview of. If the other Mac has more than one shared screen, you will only see a preview of one of the screens.

You can make the previews larger and smaller using the little adjustment wheel at the right side of the window, above the previews.

CONNECTING USING THE BROWSER WINDOW

If no Desktop Transporter browser window is opened, open one using File > Open Browser. To connect to the selected desktop, simply press the Connect to Desktop button, or double-click the remote Mac's entry in the list of shared systems. You can also single-click on the preview image. Doing this will open Desktop Transporter's viewer window. If the remote Mac requires a password for access, you will be prompted for this password. Otherwise, the remote Mac's first shared screen should appear in the main viewer window after a brief pause.

Note: If Desktop Transporter appears to become unresponsive when you select a Mac in the list, it is likely that you are running into firewall problems. Please see the [Troubleshooting section](#) for more information.

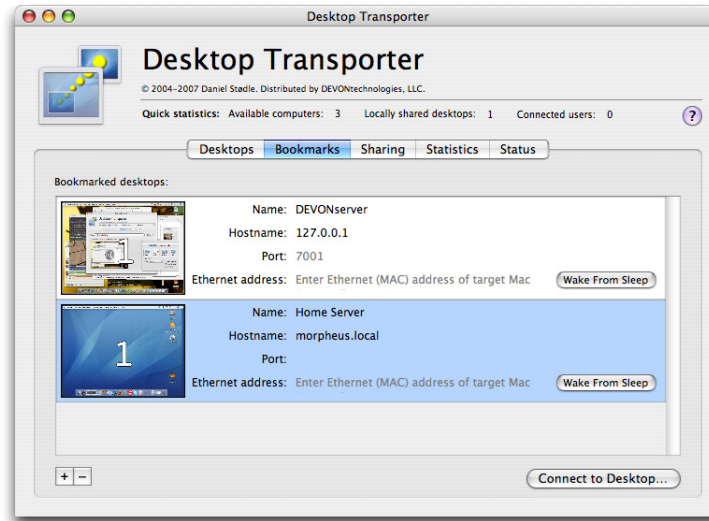
CONNECTING MANUALLY

If you don't see the computer you wish to connect to in the list, you can add it by selecting Desktop > Connect to Shared Desktop or by pressing Command-K. This will bring up a dialog box that allows you to enter the address and the port number of the remote desktop (it is usually OK to leave the port as-is). This is necessary if the remote Mac isn't on the same

local network as you are, or if the remote Mac doesn't advertise its desktops using Bonjour. The address can either be an IP address or a hostname.

BOOKMARKS

Desktop Transporter lets you create bookmarks for computers you use often, but can't easily access using Bonjour. Bookmarks appear both in the Desktop Transporter main application, as well as in the menu extra. To add a bookmark, simply click the Plus button in Desktop Transporter's Bookmarks tab. Give the bookmark a name, then enter the IP address or hostname of the remote Mac. You can also enter a custom port number if necessary.



Bookmarks also lets you wake sleeping Macs up remotely. To do this, you need to enter the remote Mac's Ethernet address in the corresponding field of the bookmark. You can find the remote Mac's Ethernet address by opening System Preferences and selecting the Network pane. In the 'Show:' menu, select Built-in Ethernet, and then select the Ethernet tab. The Ethernet address appears as 'Ethernet ID', and is a number like "12:34:56:78:AB:CD". Enter this address (including the separating colons) in the bookmark's Ethernet address field.

Note: Waking up remote Macs is only possible if they connect to the Internet using a wired connection, as the wireless network is always offline when the Mac sleeps.

Once you have the Ethernet address of the remote Mac, the remote Mac must also be configured to allow itself to be woken up remotely. In System Preferences on the remote Mac, select the Energy Saver pane. Click the Options tab and make sure that the setting titled 'Wake for Ethernet network administrator access' is checked (you may need an Administrator password to change this setting).

To wake up the remote Mac, simply click the Wake From Sleep button for the Mac you wish to wake up. Waking from sleep will succeed if the remote Mac's hostname or IP address can be resolved, and the remote Mac isn't behind a firewall. The remote Mac should be directly connected to the Internet.

Note: Port forwarding will help in cases where the remote Mac isn't directly connected to the Internet. However, even if you successfully enable port forwarding, the port must stay open even while the computer is sleeping. This is generally not the case, as port mappings expire after some time. To learn more about port forwarding, see the [chapter on using Desktop Transporter over the Internet](#).

LIVE VIEW

If you manage multiple Macs, you may find the combination of Live View and desktop filtering useful. Live View lets you see other Macs you have access to directly in the main browser window, obviating the need to open one window for each Mac. To enable Live View, click the 'Live view' checkbox under the Desktops tab of Desktop Transporter's main browser window. The slider controls Live View's update frequency, from once a minute (all the way to the left) to as much as 30 times per second (all the way to the right).

Note: Live View only works with Macs that are on the same local network as you are and that advertise their presence using Bonjour. From these Macs, Live View only works with Macs that do not have a password configured in Desktop Transporter, or Macs where you have stored the password in your Keychain.

USING A CONNECTED MACHINE

When you connect to a remote Mac, Desktop Transporter will open a viewer window for you before automatically selecting the first available screen. At this point, you can interact with the remote desktop almost as if it was local.



USING THE DRAWER

When the viewer window opens, it will, by default, have a drawer attached. The drawer opens and closes when you click the viewer window's toolbar button, located in the top-right corner of the viewer window's title bar. It can also be shown or hidden by selecting Toggle Drawer from the Window menu.

The drawer contains a number of controls that let you navigate the remote desktop, as well as select which remote desktop to access. The drawer's Status area contains information about the connection, as well as one or more miniature previews. They indicate the screens shared by the remote Mac, and you can switch between the available shared desktops by clicking the different miniature preview buttons. The currently selected desktop's button will have small radiowaves radiating from it.

In the Controls area of the viewer window's drawer, you will see a miniature version of the currently viewed remote desktop, as well as two checkboxes: one, that let you control whether to only observe the remote desktop, and a second which decides whether the remote desktop's contents should be scaled to fit inside the viewer window. When Scale to fit is disabled, you can scroll the visible area of the remote desktop by dragging the black, outlined rectangle in the miniature display. (The rectangle will only appear when 'Scale to fit' is disabled.)

Note: In some cases the 'Only observe' checkbox will be disabled. There are two reasons that this may happen. First, that you are looking at your own, shared screen (in which case it wouldn't make sense to interact anyway), or second, that the remote party wants to prevent others from interacting; that is, the other Mac's 'Allow others to interact' box is not checked in Desktop Transporter's Preferences.

In the Controls area, you can also directly set the color depth at which the remote desktop is shared. Changing the color depth here only impacts what you see - others accessing the remote Mac will see it shared with the color depth they select.

INTERACTING WITH THE REMOTE MAC

When connected to a remote Mac, you will be able to interact with it only if the remote end has interaction enabled. If the remote end allows interaction, you should be able to use it almost as if the machine was local.

Note: When you are running in windowed mode, some keyboard shortcuts will affect the local Mac rather than the remote Mac. These include Command-Tab and the Exposé shortcuts (most

others will be sent to the remote Mac). When you are running the remote desktop in fullscreen mode, all keyboard shortcuts work as you would expect on the remote Mac, including Command-Tab and Exposé.

In cases where the remote desktop becomes unavailable, or when you disconnect from it by clicking on the radiating button in the desktop window, the remote desktop will appear grayed out.

USING COPY AND PASTE

Desktop Transporter supports synchronized copy/paste. This means that you can copy and paste text or graphics from a remote desktop to your local system, and vice versa.

Desktop Transporter supports copy/paste of most text and graphics objects, although you may come across objects that won't work properly. When you copy something from a remote desktop, you will briefly see a notification appear in the viewer window, informing you that the clipboards are being synchronized. The notification will disappear once the synchronization is complete. You can disable the notification in

Desktop Transporter's Preferences. Text is typically synchronized instantaneously, while graphics may take a little while longer. Copy/paste support is always enabled.

MINIMIZING A VIEWER WINDOW

When clicking the green Zoom button in the window's title bar, the window will reduce to a small 'mini-view' of the remote desktop. You can still manipulate the remote desktop while in this zoomed state, although not with as much precision as you would were you not zoomed in.

ENTERING AND LEAVING FULLSCREEN MODE

To enter fullscreen mode, you can either select Desktop > Enter Fullscreen, Command-click the drawer button in the top right corner of the window's titlebar, or click the Enter Fullscreen button in the viewer window's drawer. You will be presented with a dialog box informing you on how to exit fullscreen mode. You will also be given the option of disabling the Enter Fullscreen dialog for future invocations.

You leave fullscreen mode by pressing Command-Control-F. All other key combinations are sent to the remote machine.

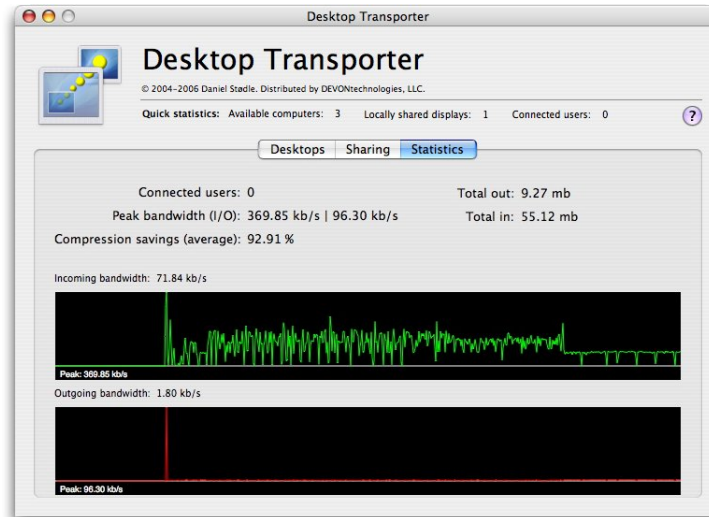
If you have checked the 'Scale to fit' checkbox in the viewer window's drawer, the remote desktop will be scaled down in order to fit your current screen's resolution. If the 'Scale to fit' checkbox isn't checked, the remote desktop will not be scaled down, and you can navigate it by moving your mouse to the edges of the remote desktops's visible area.

Note: If your local physical display is running at a resolution larger than the remote screen, no scaling will take place, regardless of the 'Scale to fit' checkbox' state.

You can select the screen on which Desktop Transporter shows the remote desktop in fullscreen by moving the desktop window to the screen which you want to use before entering fullscreen mode.

GETTING STATISTICS

In the Statistics tab of a Desktop Transporter's browser window, you are presented a live graph of Desktop Transporter's bandwidth usage, an estimate of how much outgoing bandwidth is saved by using compression, total amount of data transferred, and peak bandwidth.



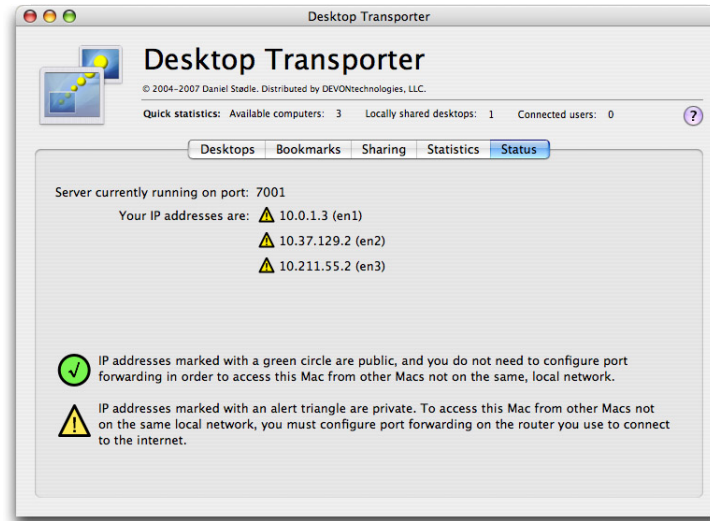
The Statistics tab can be useful to see how Desktop Transporter uses the available bandwidth, and to examine the effects of reducing color depth or resolution of your shared desktops.

USING DESKTOP TRANSPORTER OVER THE INTERNET

If you intend to use Desktop Transporter over the Internet, you may find that you need to configure 'port forwarding' in order to access the target Mac. The simplest way of determining whether port forwarding is necessary or not, is to look at the Status tab in Desktop Transporter's browser window. If there are yellow warning signs next to the IP address(es) of the target Mac, you need to configure port forwarding in order to access that Mac over the Internet.

Note: It is not necessary to configure port forwarding if all you need to do is access the target Mac from the same local area network.

The screenshot below shows an example of the Status tab. In this case, the user has two IP addresses: One on a wired network, and another on a wireless network. The first IP address is private. The second IP address is public (marked green), and it is possible to connect directly to Desktop Transporter without configuring port forwarding.



Note: In the case above, it is possible to connect to the target Mac without configuring port forwarding if the green IP address is used. However, since wireless networks are slower than wired networks, it may be desirable to configure port forwarding to access the Mac over the wired network instead.

PORT FORWARDING WITH APPLE'S AIRPORT BASE STATIONS

If you use any of Apple's Airport base stations to connect to the Internet, Desktop Transporter can automatically configure port forwarding for you. To make use of this feature, follow these directions:

- *Step 1:* In Desktop Transporter's preferences, make sure that the option named "Enable port mapping for Apple Airport base stations (NAT-PMP)" is checked.
- *Step 2:* Open Apple's Airport Admin Utility, usually located in the Utilities folder in your Applications folder, and configure your base station as follows.
- *Step 3:* In the configuration window that appears, click the "Base Station Options..." button in the AirPort tab of the window.
- *Step 4:* In the new window, check the button titled "Enable NAT Port Mapping Protocol." This setting is off by default, preventing port mapping from working.
- *Step 5:* Save the changes to your base station's configuration.

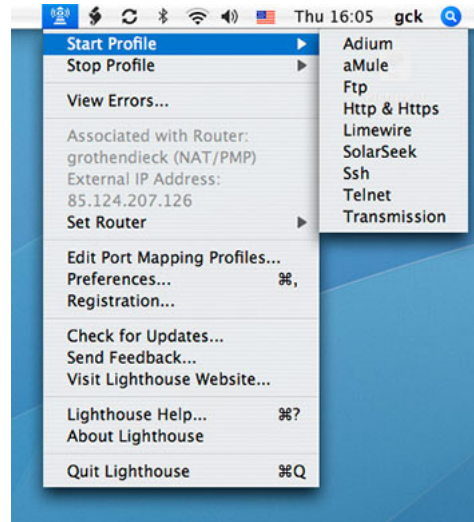
At this point, Desktop Transporter will automatically configure port forwarding. You can check the current status of port forwarding by looking at Desktop Transporter's Status tab. When port forwarding is working,

you will see the router's public IP address and port point at your local IP address in the Status tab. To connect to Desktop Transporter from other computers on the Internet, give them the public IP address and port shown there.

Even if you don't have an Apple Airport base station, Desktop Transporter may still be able to configure port forwarding on it, if the router supports the NAT-PMP protocol. Check your router's manual to determine if it supports NAT-PMP, and which steps you may need to take to enable it.

USING THE LIGHTHOUSE UTILITY

If your base station or router is not an Apple Airport base station or does not support NAT-PMP, another way to configure port forwarding is to use the shareware utility [Lighthouse](#). With a little luck, Lighthouse automatically finds your router and configures port forwarding for whatever ports you want. It installs as a menu extra and allows you to configure multiple settings for different applications.



To set up Lighthouse for Desktop Transporter, follow [these instructions](#). Put in port 7001 instead of the 9100 of the example.

To download Lighthouse and to learn more about how it works and how to set it up for your network, please refer to [Lighthouse's homepage](#).

PORT FORWARDING DONE MANUALLY

The following is only a rough outline of the steps needed to configure port forwarding manually. The precise way to do it varies from router to router. You will need to consult the manual for your router in order to determine exactly how to set things up. To configure port forwarding, follow these steps:

- *Step 1:* Begin by determining the target Mac's public IP address. This can be done by visiting a website like <http://www.whatismyip.com/> from the target Mac.
- *Step 2:* Determine the port on which Desktop Transporter runs on the target Mac. The port is listed under the Status tab in Desktop Transporter's browser window. The port is usually 7001 unless it has been changed in Desktop Transporter's preferences, or the preferred port was busy.
- *Step 3:* Determine the target Mac's private IP address. The IP address is usually of the form 10.x.y.z, 192.168.y.z or 172.16.y.z. You can find the target Mac's private IP address in Desktop Transporter's Status tab, or by going to the Network preferences panel in System Preferences and looking it up under TCP/IP for the interface you are using (Built-In Ethernet or Airport).

- *Step 4:* Decide on a public port for Desktop Transporter. The port should be in the range 1025-65500. We suggest that you use port 7001, which is the default Desktop Transporter port.
- *Step 5:* Configure port forwarding on your router. The steps to do this vary from router to router, but all of them require you to provide these details: Public port, private destination IP and private destination port. You found the private destination port in step 2, and the private destination IP in step 3, and you selected the public port in step 4. If you are in doubt about how you configure your router to do port forwarding, you need to consult the manual that came with your router. It is usually done through a web-based interface or custom-built administration application. For instance, Airport routers can be configured using the Airport Admin Utility.
- *Step 6:* Save the configuration changes on your router, and restart it if required. At this point, you are ready to connect to the target Mac.
- *Step 7:* From the client Mac, select Connect Manually... from Desktop Transporter's Desktop menu. Enter the public IP address you found in step 1, and the public port you selected in step 4. Click OK, and if everything went well, you should be connected.

Setting up port forwarding can be tricky, but the difficult part is mainly in determining how to configure your particular router. If you are in doubt, try googling your router's name and combine it with a search for 'port forwarding' or 'port mapping.'

SCRIPTING DESKTOP TRANSPORTER USING APPLESCRIPT

Desktop Transporter can be scripted using AppleScript to connect to hosts, as well as list available Bonjour hosts and current bookmarks. The following examples demonstrate how you can script Desktop Transporter.

Desktop Transporter has one command, "connect", that lets you connect to a remote host. This command takes the following parameters:

```
connect [to <hostname[:port]>] [with port <port>] [using  
password <password>]]
```

All the parameters are optional. If no options are given, Desktop Transporter shows the "Connect manually" dialog, allowing you to enter a host and port to connect to. If a hostname is given, the port and password parameters are optional. Port 7001 is assumed if no port is given. The following example shows three ways to use the connect command:

```
tell application "Desktop Transporter"  
    connect -- simply bring up the Connect manually dialog  
    connect to "mymac.myhost.com" with port 7002 using  
password "secure-password" -- connect to the given host  
using the given password
```

```
connect to "mymac.myhost.com:7002" -- connect to port
7002, but prompt for password
end tell
```

You can combine the connect command with Desktop Transporter's bookmarks and currently available Bonjour hosts like this:

```
tell application "Desktop Transporter"
    set theHosts to bonjourHosts -- theHosts now contains
visible Bonjour-advertised hosts
    set myHost to item 1 of theHosts
    connect to (|hostName| of myHost) with port (|port| of
myHost) -- connect to the first host returned
end tell
```

Similarly, you can access the current list of bookmarks as follows:

```
tell application "Desktop Transporter"
    set theBookmarks to bookmarks -- theBookmarks now
contains Desktop Transporter's bookmarks
end tell
```

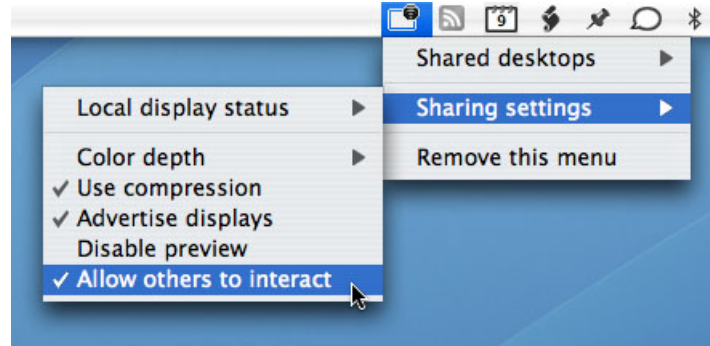
USING THE MENU EXTRA

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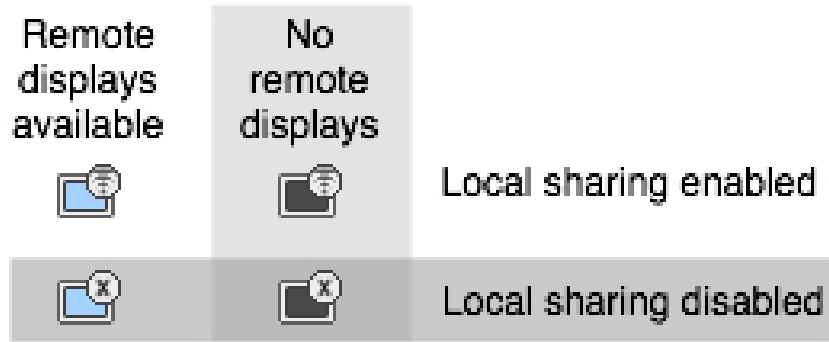
Desktop Transporter comes with a menu extra that lets you access shared desktops on your local network without going through the main Desktop Transporter application.

OPENING REMOTE DESKTOPS, CHANGING SETTINGS

Besides listing the available remote desktops, the menu extra lets you configure your own shared desktops, and conveys the current state of remote and locally shared desktops to you using its in-menu icon.



A small cross appears in the circle when no local desktops are shared, otherwise tiny radiowaves appear in the circle. When Desktop Transporter discovers desktops shared on the local network using Bonjour, the small screen will light up and be highlighted with a light, blue color.



The menu extra offers its options through two sub-menus. The first, called Shared desktops, lets you access any desktops visible on the local network. Select any desktop advertised on the network via Bonjour to open a viewer window for it.

The second sub-menu, Sharing Settings, lets you configure the sharing state of your local desktops, as well as change the sharing depth, use of compression, Bonjour advertising, and remote previews. For an in-depth explanation of these settings, see the chapter on [Preferences](#).

REMOVING THE MENU EXTRA

To remove the menu extra from your menu bar, select the 'Remove this menu' menu item. If you don't want the menu extra to appear when you launch Desktop Transporter, you can disable it in Desktop Transporter's Preferences. You can also configure the menu extra to start as soon as you log in. To do this, check the 'Start menu extra on login' item, also located in Preferences.

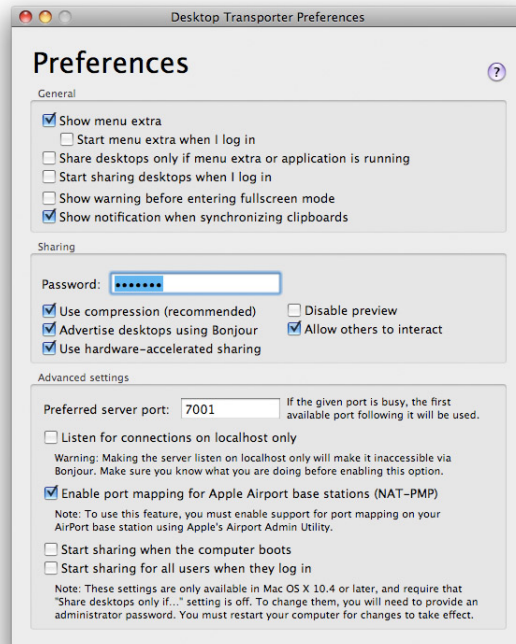
PREFERENCES

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Desktop Transporter has a number of settings that can be tweaked to configure its behaviour to best fit your needs. To configure these settings, choose Preferences from the Desktop Transporter menu.

GENERAL SETTINGS

The following describes Desktop Transporter's general settings.



CONTROLLING THE MENU EXTRA

The first block of options allow you to control if the menu extra shall be shown and if yes, if it shall be started automatically after you log in.

- *Show menu extra:* With this setting enabled, Desktop Transporter's menu extra will start when launched. The menu extra allows you to access desktops advertised using Bonjour as well as change your sharing settings without having to open the main Desktop Transporter application.
- *Start menu extra when I log in:* Enable this option to launch the menu extra whenever you log in. This is accomplished by adding an item to your login items. Uncheck this option to remove the menu extra from your login items.

CONTROLLING BACKGROUND SHARING

The next few options control whether Desktop Transporter will share your desktop; even if the menu extra and main Desktop Transporter application are not running.

- *Share desktops only if menu extra or application is running:* This setting, which is on by default, makes sure that your

desktops are not shared once you quit both the menu extra and the main application. If this setting is disabled, your desktops will remain shared until you log out, even if neither the menu extra nor the main application is running.

- *Start sharing desktops when I log in:* This setting lets you share your desktops immediately after you log in, without having to start the main application or the menu extra. This is accomplished by adding a helper application to your login items that starts the 'desktoptransporterd' background process (daemon). This setting is grayed out (disabled) if you have 'Share desktops only if menu extra or application is running' enabled.

OTHER SETTINGS

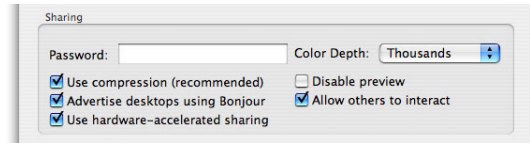
The last two general options let you switch on-screen notifications on and off.

- *Show warning before entering fullscreen mode:* This setting lets you control whether or not a warning appears before entering fullscreen mode.
- *Show notification when synchronizing clipboards:* When this setting is selected you will see a notification in Desktop

Transporter's viewer window whenever the clipboards of the remote and local machines are being synchronized. The notification persists until the synchronization is complete.

SHARING SETTINGS

The following settings affect how your local desktop are shared with other Macs running Desktop Transporter on your network, and if they're advertised using Bonjour or not.



CONTROLLING ACCESS TO YOUR DESKTOP

Your data is valuable. Protect access to your Mac by mandating that users enter a password; those who can't are then prevented from interacting with your machine.

- *Password:* Enter a password here to restrict access to your shared desktops. Note that the password you enter here will be stored as clear text in Desktop Transporter's preferences file, so be sure to choose a unique password (in other words, a password for this use only).

- *Allow others to interact:* When this box is checked, other users — once connected to your desktop — will be able to interact with it (move the mouse, click, enter text, and so on). If you only wish to allow others to observe your desktop, uncheck this box.
- *Disable preview:* Disabling preview will prevent others from seeing a miniature version of your shared desktops. If you are concerned about security, you should enable this option. Instead of seeing your desktop, other users will only see a black box, filled with a number indicating which physical screen it is (the number is the same as that you also see embossed on the desktop preview on the [Sharing](#) tab).

CONTROLLING THE SHARING

Fine-tune your sharing settings for optimum performance.

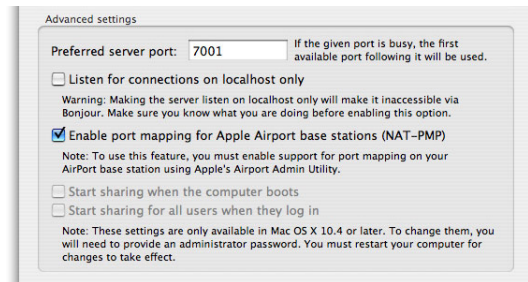
- *Use compression:* This option enables the use of Run Length Encoding, a fast and simple way of reducing network traffic while not adding too much latency to the shared desktop. Use of this option is highly recommended.
- *Advertise displays using Bonjour:* With this option on, other Macs on your local network are able to automatically discover

your shared desktops. Highly recommended for convenience, though if you are concerned about security, we recommend you disable it.

- *Use hardware-accelerated sharing:* This setting allows you to enable the use of OpenGL for accelerating shared desktops. Using hardware-accelerated sharing is a good idea if you are on a fast network and the content of the screen you are sharing changes often. You may notice that the sharing Mac's performance is somewhat slower with this setting enabled.

ADVANCED SHARING SETTINGS

If you need it, you can configure some of Desktop Transporter's advanced sharing settings here.



Use these settings to define the port, port mapping, and if and when to start sharing automatically.

- *Preferred server port:* Enter a port between 1025 and 65500. This is the port Desktop Transporter will listen on, and that you should specify when connecting manually to the Mac you put it on. You should only change the port if you have problems using the default port (7001). Keep in mind that the port specified here is advisory only: If the port is already in use, Desktop Transporter will keep trying the ports following the preferred port until it succeeds.
- *Listen for connections on localhost only:* When enabled, Desktop Transporter will only listen for connections on the localhost (lo0) interface. When enabled, you can not connect to the target Mac without first setting up a tunnel to it using a tool like SSH.
- *Enable port mapping for Apple Airport base stations (NAT-PMP):* When enabled, Desktop Transporter tries to map an external port on your Airport or NAT-PMP enabled router to your local Mac. This allows you to connect to your Mac using Desktop Transporter even when not on the local network. See [the chapter on using Desktop Transporter over the Internet](#) for more information. Keep in mind that you must also

configure your Airport base station to allow port mapping using NAT-PMP. How to do this is also [described here](#).

- *Start sharing when the computer boots:* When enabled, Desktop Transporter will start the Desktop Transporter daemon when the computer boots. This allows you to access your Mac remotely even when no users are logged in.
- *Start sharing for all users when they log in:* When enabled, Desktop Transporter will start the Desktop Transporter daemon for each user that logs in, without having to configure this manually using Desktop Transporter and a log-in item. Note, however, that this is generally a very insecure solution, as Desktop Transporter uses default settings if the user has never run Desktop Transporter before. This means that the user's desktop will be accessible without providing a password.

The last two settings are only available on Mac OS X 10.4 or later, and you need an administrator password to change them. The 'Share desktops only if menu extra or application is running' setting must also be disabled; otherwise the Desktop Transporter daemon will exit shortly after being started. Desktop Transporter will use the settings you have configured when you enable either setting, including name of the shared desktop

and password. Any changes you make afterwards will not be reflected until you reset either the 'Start sharing when the computer boots' or 'Start sharing for all users when they log in' setting.

OPTIMIZING PERFORMANCE

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Lowering Processor Usage	78

Using a remote desktop over a network connection puts a very heavy load on your network, and a slow connection can significantly impair usability. Here are some tips on how to improve the performance.

In general, there are a number of ways for you to increase performance when using Desktop Transporter. The optimizations mainly fall into two categories: Decreasing the amount of data sent over the network, and decreasing processor usage on the Macintosh sharing desktops (leaving more time for the applications on the shared computer to do their work).

DECREASING BANDWIDTH USAGE

The following optimizations will decrease bandwidth usage:

- Share your desktop as grayscale instead of thousands or millions of colors (you can change this on the fly).
- Make sure compression is enabled.
- Change the shared screen to a lower resolution.

LOWERING PROCESSOR USAGE

These optimizations will decrease processor usage, possibly improving update latency:

- Make sure that the desktop is shared with the same number of colors as it is actually displaying (ie, if your display is currently running with millions of colors, you should share it using millions of colors as well). This does not apply to Grayscale; for grayscale mode, you should have your screen set to millions of colors.
- Enable hardware-accelerated sharing. Enabling hardware acceleration can dramatically lower the CPU usage of the Mac sharing its desktop(s). It may interfere with some applications using OpenGL, however, and you may also notice that local graphics performance is somewhat sluggish.
- Disable compression. This has a very low impact on performance, and the benefits are not great. You risk severely increasing bandwidth usage by doing this, but if network performance is not an issue, it might be worthwhile, especially when you are attempting to watch quickly-changing content (such as an animation, a movie, or a game).

TROUBLESHOOTING

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As Desktop Transporter is a very network oriented application, there are many things that can go wrong, despite the software's best efforts. A number of common problems, and their solution, are presented here.

APPEARS TO HANG WHEN CONNECTING

Desktop Transporter may appear to hang (as indicated by the spinning rainbow of death) in cases where the remote host is not responding. This is typically caused by the remote host running firewall software, and is most easily solved by opening port 7001 on the remote Mac. If the remote Mac is running the default firewall software, follow these steps to open up port 7001:

- Open System Preferences
- Select Sharing and click the Firewall tab
- If the firewall isn't running, the firewall is not the cause of your problems. Read on below for other possible causes.
- If the firewall is running, proceed. To open port 7001, click New and select Other in the menu that appears.
- Enter 7001 in the field for port number, and a description (such as "Desktop Transporter" or similar)
- Click OK, and make sure that the checkbox for Desktop Transporter is checked in the list of open ports

Note: The firewall status of the client Mac is of no importance, unless that Mac is also sharing its desktop.

If there are multiple users sharing their desktops on the same Mac, you will also need to open up ports 7002, 7003, and so on. Desktop Transporter may use ports in the range between 7001 and 7021.

PROBLEMS LOCATING THE REMOTE DESKTOP

If you don't see shared desktops in the list of shared desktops or not the ones you are interested in, there are a number of things you can do:

- First, check that the sharing computer is 1) sharing its desktop(s), and 2) that it is advertising it or them using Bonjour (the 'Advertise desktops using Bonjour' checkbox should be checked).
- If both of the above conditions are fulfilled, it is possible that the other Macintosh is on a different subnet, where Bonjour isn't getting through. You can solve this by connecting manually to the remote desktop. To do this, you need to know the hostname or IP address of the Mac to which you wish to connect, and then enter this information after choosing Desktop > Connect to Shared Desktop.
- Generally, if you are able to use iTunes Music Sharing to share music between your Macs, you should also be able to use Desktop Transporter's auto-discovery of shared desktops. iTunes Music Sharing can be a useful test to determine if Bonjour is working properly between Macs.

PROBLEMS INTERACTING WITH THE REMOTE DESKTOP

In some cases, you may experience problems interacting with a remote desktop, either in full screen mode or in windowed mode.

MOUSE AND KEYBOARD DON'T DO ANYTHING

First, make sure that the 'Only Observe' checkbox is unchecked, otherwise, you will not be able to interact with the remote desktop at all. Also, ensure that the computer sharing the desktop has the 'Allow others to interact' checkbox on the Sharing tab checked.

To access the 'Only Observe' checkbox, you need to open the viewer window drawer for the display in question. Click the window's toolbar button (the long button in the top-right corner of the viewer window's titlebar).

MODIFIER KEYS REACT STRANGELY

A common reason for problems or inconsistencies when interacting with the remote desktop is that the state of the modifier keys (Command, Shift, Option, and Control) has become inconsistent. This means that the remote computer thinks that, for instance, the Command key is pressed, whereas in reality it isn't.

To fix this, simply press and release, in turn, the modifier keys on your keyboard. This should return the remote state to normal, allowing you to interact with the remote desktop as usual.

PROBLEMS WITH NETWORK ADDRESS TRANSLATION (NAT)

Network Address Translation, or NAT, often causes problems when you attempt to connect manually to a remote Macintosh. You can determine if this is a likely cause of your problems by inspecting the status tab in Desktop Transporter's browser window. If you see a yellow warning sign next to the IP address(es) of the Mac you are trying to connect to, and the Mac is not on the same local network as your own, you must configure port forwarding.

PROBLEMS WITH FAST USER SWITCHING

If you frequently use Desktop Transporter in a fast-user switching environment, you may occasionally experience problems with switched-out users' desktops disappearing. This can happen due to a race condition between Mac OS X notifying Desktop Transporter that it is about to switch users, and a remote user using Desktop Transporter to view the desktop that is being switched out. Disabling Hardware accelerated sharing can help, but ultimately the safest solution is to either (1) leave the menu extra or main Desktop Transporter application running, or (2) enable the "Start sharing for all users when they log in" setting (requires Mac OS X 10.4 or later).

PROBLEMS WITH LIVE VIEW

If you try to use Live View, but instead get a regular preview or just a black box, you are likely encountering one of the following problems. First, if the remote desktop requires a password which is not stored in your Keychain, you must connect to the desktop, enter your password and check the box to save it in your Keychain. At this point, turn live view off and back on again, and you should see the remote Mac appear in your browser window.

If the desktop appears black, it is also possible that the remote Mac's monitor is blanked or a screen saver is running. If this is the case, you must either connect to the remote Mac to 'wake it up,' or disable the Mac's screen saver.

Finally, keep in mind that you can adjust Live View's update frequency, from once a minute all the way up to 30 times per second. Keep in mind that higher update frequencies may adversely affect the performance of the remote Mac.

ADVANCED USAGE

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As of version 2.0, Desktop Transporter has been split up into multiple pieces. One of the advantages to this is that parts of Desktop Transporter can be started and configured from the command line. This chapter tells you more about this functionality, and shows you how to harness the flexibility of this new, split architecture.

THE DESKTOP TRANSPORTER DAEMON

Desktop Transporter consists of four main pieces:

- The Desktop Transporter application
- The menu extra
- The Desktop Transporter daemon
- The helper application Desktop Transporter Share-On-Login

The menu extra, the daemon, and the helper application are located inside the application package and are controlled from application's Preferences pane. The Share-On-Login application only does one thing, namely to start the Desktop Transporter daemon, which is called "desktoptransporterd."

The Desktop Transporter daemon, 'desktoptransporterd,' is the application that is responsible for sharing your desktop. For regular use, this is all you need to know. However, if you are interested in sharing your desktops remotely, you may want to read on.

When the daemon desktoptransporterd is launched, it opens a random port in the high range (usually 40,000 to 65,000) on which it listens for control connections. The port is opened only on the 'localhost' device,

which means that you will only be able to connect to the port from the local machine. This is a security measure. If you need to start or configure the daemon remotely, you should enable the Remote Login feature of Mac OS X, which allows you to connect to your computer using SSH.

RUNNING 'DESKTOPTRANSPORTERD'

The Desktop Transporter daemon is located inside Desktop Transporter's main bundle. To locate it, simply execute the following command in a Terminal window:

```
cd "Desktop Transporter.app/Contents/Resources/"
```

The daemon can then be started by executing it as follows:

```
./desktoptransporterd
```

If you supply the `-h` or `-help` switch, the daemon will print some brief usage information before it exits. To make the daemon detach from your terminal (daemonize) when it starts, supply it with the `-daemon` switch.

Keep in mind that to prevent the daemon from exiting immediately, you must disable the Preferences setting that unshares desktops if neither the menu extra nor the main application is running. Besides using the Desktop Transporter application, you can also change this setting from the command line (the following command should be all on one line):

```
defaults write com.danielstoedle.DesktopTransporter  
share_only_when_running -int 0
```

CONFIGURING THE DAEMON

The daemon is configured by connecting to it, usually using a telnet client.

CONNECTING TO THE DAEMON

To connect to the daemon, you will first need to know its port number. To determine the daemon's port number, you can use the 'lsof' command. 'lsof' is a command that lists the open files on your computer, including sockets. We're only interested in TCP sockets in listen mode, so to discover the daemon's control socket, type the following on the command line:

```
lsof -iTCP@localhost | grep LISTEN | grep desktop
```

You should see output similar to this:

```
desktoptr 4268 daniels 4u IPv4 0x052123a0 0t0 TCP  
localhost:61404 (LISTEN)
```

The important part is the port number, which is the number located after the colon (example: 'localhost:number'). Take this number, then connect to it using a telnet client as follows:

```
telnet localhost <port number>
```

Replace <port number> with the port number you discovered in the previous step. If all goes well, you should be connected.

AUTHENTICATING TO THE DAEMON

Now, before the daemon will allow you to change or view any settings, you must authenticate to it. To do this, you will need to know the authentication key required by the daemon. This is an additional line of security. The key is stored in Desktop Transporter's preferences file, and is accessible from the command line:

```
defaults read com.danielstoedle.DesktopTransporter  
local_authentication_key
```

Executing this command should produce an authentication key, assuming that either Desktop Transporter or the daemon is running or has been run once before. A typical key looks like this:

'AB8E848F-AD3A-11DF-862D-00145622368C.' Now, to authenticate to the daemon, enter the following in your telnet session to the daemon, and then press return:

```
authenticate AB8E848F-AD3A-11DF-862D-00145622368C
```

Naturally, you should substitute the key given above with the key you have just extracted from Desktop Transporter's preferences. Once this is done, the daemon should respond with a message stating that authentication was successful.

Note: The authentication key is different from the password you can set for protecting access to your desktops.

TALKING TO THE DAEMON

At this point, you can issue any other command supported by the daemon. We have listed the available commands and their parameters (if any) in a [separate section](#).

DAEMON COMMAND REFERENCE

CHANGING SETTINGS

Use the following commands to authenticate to the daemon and to adjust the settings to your needs.

- *authenticate <key>*: Authenticate to the daemon using the given key.
- *set-depth <depth>*: Configure the number of colors shared desktops are shared in. Valid values are 8 (256 colors), 16 (thousands of colors), and 32 (millions of colors).
- *set-use-compression <flag>*: Toggle the use of compression on or off. Valid values are either 1 or 0 for compression on and off, respectively.
- *set-advertise-displays <flag>*: Turn Bonjour advertising of desktops on or off, by setting flag to either 1 or 0.
- *set-disable-preview <flag>*: Enable or disable previews.
- *set-allow-interaction <flag>*: Allow or disallow interaction with shared desktops.
- *set-password <string>*: Set the password for accessing desktops to the given string. Note that leading spaces will not be part

of the password. To set an empty password, just execute the `set-password` command with an empty string.

- *set-bonjour-name* <string>: Set the name used to advertise the desktop to the given string. Leading spaces will not be part of the name, but are ignored.
- *exit*: Close the control connection. The daemon will continue to run after you disconnect.

SHARING YOUR DESKTOPS

Use the following commands to share or unshare desktops.

- *get-displays*: Returns a list of IDs for all desktops ('displays') that can be shared or unshared. You use the IDs returned by this command to share and unshare desktops.
- *share* <id>: Shares the desktop with the given ID. The ID must be one of the IDs returned by the `get-displays` command. Other IDs are ignored.
- *unshare* <id>: Unshared the desktop with the given ID.

GETTING STATISTICS

Use the following commands to retrieve statistics.

- *get-depth*: Returns the current sharing depth.
- *get-use-compression*: Returns whether compression is enabled or disabled.
- *get-advertise-displays*: Returns whether desktop advertisements over Bonjour are enabled or disabled.
- *get-disable-preview*: Returns whether previews are disabled or not.
- *get-allow-interaction*: Returns whether others are allowed to interact or not.
- *get-bonjour-name*: Returns the current name under which desktops are published.
- *get-shared-display-count*: Returns the number of currently shared desktops.
- *get-num-subscribers*: Returns the number of currently connected users.
- *get-compression-savings*: Returns the current compression savings.
- *get-peak-bandwidth*: Returns the current peak bandwidth in and out.

- *get-current-bandwidth*: Returns the current bandwidth usage.
- *get-total-bandwidth*: Returns the total bandwidth consumption.

AUTOMATICALLY STARTING THE DAEMON AT BOOT OR LOGIN

The Desktop Transporter daemon can be started automatically when you start up your Mac. This is currently only supported on Mac OS X 10.4 and later, as it utilizes 'launchd.' To start the daemon at boot or login, simply enable the corresponding settings in Desktop Transporter's Preferences. Desktop Transporter will use the settings you have currently configured, including desktop name and password, for the desktop shared at boot. Desktop Transporter will use each user's own settings for desktops shared on login. Note, however, that there are some caveats to running Desktop Transporter in a launchd context:

- *Running daemons as root:* In general, it is not a good idea to run daemons as root. However, this is currently the only way to give Desktop Transporter access to the Mac's desktop outside of a login session. Use at your own risk!
- *Daemon attaches to logged-in user:* When logging in, the daemon will be attached to the user who is logging in until that user logs out. If the computer is fast-user-switched to a different user, you will continue to look at the original user's desktop.
- *Daemon exits when user logs out:* Due to the fact that the daemon attaches to the logged-in user's Window Server, it will

be terminated when that user logs out. Launchd will restart it automatically, but existing connections to the daemon will be closed (so, if you were watching a desktop, you would have to re-connect).

- *Copy and paste:* Copy and paste will not work. This is because the pasteboard server has not been started at the time when the daemon starts, but rather is started when a user logs in. You can work around this by adding the daemon to LaunchAgents as well. Note that you must change the desktop you access after having logged in remotely to the one exported by the newly started daemon.

MANUALLY CONFIGURING THE DAEMON TO START AT BOOT OR LOGIN

You can start desktoptransporterd on start-up using launchd. Begin by configuring Desktop Transporter with the settings you need: Password, sharing depth, and so on. Make sure that you allow Desktop Transporter to keep sharing your desktop when neither the menu extra nor the main app is running. Then copy the Desktop Transporter's preferences to root's home directory (you will be prompted for your administrator password when you execute the commands listed in this section):

```
sudo cp
~/Library/Preferences/com.danielstoedle.DesktopTransporter.plist
/var/root/Library/Preferences/
```

Note: If the directory `/var/root/Library/Preferences/` doesn't exist, you must create it by running `"sudo mkdir -p /var/root/Library/Preferences/"` (without the quotes).

Next, you need to add a launchd Daemon, and optionally, a launchd Agent. The launchd Daemon takes care of starting the Desktop Transporter daemon on start-up, while adding a launchd Agent accomplishes the same as making Desktop Transporter start at login, but for all users. Copy and paste the following into TextEdit, and save as `"com.danielstoedle.desktoptransporterd.plist"` in your home directory (make sure you get the extension right, and that `.txt` doesn't somehow get appended):

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST
1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Label</key>
  <string>com.danielstoedle.desktoptransporterd</string>
  <key>Program</key>
```

```
<string>/Applications/Desktop
Transporter.app/Contents/Resources/desktoptransporterd</string>
<key>ProgramArguments</key>
<array>
  <string>/Applications/Desktop
Transporter.app/Contents/Resources/desktoptransporterd</string>
</array>
<key>RunAtLoad</key>
<true/>
<key>OnDemand</key>
<false/>
</dict>
</plist>
```

Note: You must replace the two paths in the listing above with the correct path to where Desktop Transporter is installed. If you have Desktop Transporter installed in your Applications folder, you don't need to make any changes.

After creating this file, copy it to `/Library/LaunchDaemons/`:

```
sudo cp ~/com.danielstoedle.desktoptransporterd.plist
/Library/LaunchDaemons/
```

You can also copy the file to `/Library/LaunchAgents/` in order to have Desktop Transporter start automatically whenever any user logs in.

APPENDIX

Glossary

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GLOSSARY

Become familiar with these terms to get the most out of working with Desktop Transporter.

INTERFACE ELEMENT

- *Access Control*: A mechanism for securing a system against unauthorized access. Desktop Transporter uses a password for controlling the access to a remote machine. [See also p. 70ff](#)
- *Bandwidth*: The amount of data sent and received over a network. Desktop Transporter needs a certain amount of bandwidth for send the image of the controlled screen to the controlling Mac. The more bandwidth is available, the better is the transmitted picture quality and the responsiveness of the remote control connection. [See also p. 77ff](#)
- *Contextual Menu*: The menu that appears when you Control-click (or right-click) something; the Contextual menu gives you access to frequently used commands that deal directly with the clicked object.
- *Daemon*: A background process, also known as 'faceless application'. Desktop Transporter uses a daemon as the server

that makes the desktop of a machine available to remote Macs running Desktop Transporter. [See also p. 89ff](#)

- *Desktop*: The screen(s) of a logged-in user. Any desktop of any user who is logged-in can be shared using Desktop Transporter by the use of a background daemon. [See also p. 24ff](#)
- *Menu Extra*: An application that does not show up with a menu bar and windows but installs itself with a tiny menu in the right hand side of the menu bar (a.k.a. the Menu Extras area). The iChat menu or [XMenu](#) are examples for menu extras, and Desktop Transporter also comes with a menu extras for controlling both server and client functions. [See also p. 61ff](#)
- *Screen*: See above: Desktop.

SHARING OVER THE INTERNET

- *DynDNS*: A service that provides a domain name (like: myserver.dyndns.org) for an IP address dynamically assigned to a router by an Internet Service Provider. The service is updated regularly to match the currently assigned IP address of the router by a client running on either the router or a computer in the local network. [See the DynDNS web site.](#)

- *IP Address*: A numerical address that uniquely identifies a device on a TCP/IP-based network such as most local networks, wireless networks, or the Internet.
- *Lighthouse*: A third-party utility that helps with setting up port forwarding without manually re-configuring the router. [See the Lighthouse web site.](#)
- *Port*: For each IP address the TCP/IP protocol uses up to 65536 so-called 'ports'. They are channels for incoming and outgoing traffic and usually each service using the network, from email to instant messaging, uses dedicated ports for their data streams. Desktop Transporter uses port number 7001 by default for its traffic.
- *Port Forwarding*: A mechanism used in routers that connects an outside 'port' with an internal IP address and a port. The outside and the inside port numbers do not need to be identical. Port forwarding makes it possible to reach a computer on the local network from the Internet through a predefined port. [See also p. 51ff](#)
- *Router*: A device that connects one network with another. Usually, routers connect local networks to the Internet. To the outside the router presents itself with one IP address, to the inside it often manages a whole network. Data that comes in on the outside IP address on a defined port is routed to the

right IP address and port on the inside, and traffic from the inside is routed to the outside.

- *TCP/IP*: The network protocol, the way how data is transported, used on the Internet and most local networks.

OTHER PRODUCTS

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Besides Desktop Transporter, DEVONtechnologies publishes a number of other commercial, shareware, and freeware applications, and services that you may be interested in.

AT A GLANCE

DEVONtechnologies is focused on developing innovative applications for finding, storing, and organizing information. Our main objective is to make complex yet flexible technology that is both easy to use and lightning fast.

- [DEVONthink](#)
- [DEVONagent](#)
- [DEVONnote](#)

All applications are based on the DEVONtechnology, a powerful and solid core unique to DEVONtechnologies. DEVONthink, DEVONnote, and DEVONagent are only the first of many more DEVONtechnology-applications yet to come.

Also, we publish and distribute useful shareware and freeware applications that help you in your everyday work with your Mac.

- [Desktop Transporter](#)
- [PhotoStickies](#)
- [Freeware applications and Services](#)

NEWSLETTER & FORUM

Would you like DEVONtechnologies to keep you informed about updates and new product releases? [Subscribe to the newsletter.](#)

And don't forget to have a look at our very lively [user forum](#) , where users of all skill levels meet to discuss our applications, talk about our technology, and exchange tips and tricks for DEVONthink & Co.

DEVONTHINK

Make the dream of the paperless office come true with DEVONthink and keep all your text and RTF files, scanned documents, notes, emails, images, chat logs, bookmarks, and multimedia files together in one simple to use database. DEVONthink allows you to integrate both local documents and live content from the Internet, keeping all project- related information stored in one easy-to-access place.

WHY DEVONTHINK?

DEVONthink not only stores documents, it also facilitates editing, analyzing, organizing, finding, and archiving your documents with its flexible work environment, powerful organization tools, and built-in AI architecture.

INTEGRATED WORKSPACE

Unlike Mac OS X's Finder, DEVONthink provides an integrated work environment with all the tools you need for working with information of all kinds, from simple text to PDFs and multimedia files. DEVONthink

can intelligently assist you with filing documents, finding similar files, or searching the database, saving you the trouble of having to manually manage thousands of files.

As a native Mac application, DEVONthink is also tightly integrated with the Mac OS X operating system and its frameworks. It provides a dock menu, Services menu commands, and even makes heavy use of the Safari web browser engine and Mac OS X 10.4 Tiger's advanced PDF library.

A PAPERLESS LIFE

DEVONthink Pro Office comes with a number of 'paperless office' functions not present in other editions of DEVONthink:

- Advanced email archiving
- Scanner support including optical character recognition and special support for the Fujitsu ScanSnap
- Integrated Web server for sharing information with other users

[Click here to read more about DEVONthink.](#)

DEVONAGENT

DEVONagent overcomes all the shortcomings that make Google & Co. such a pain to use for serious research projects. With more than 130 plug-ins for popular search engines, DEVONagent has scientific databases and research tools, and predefined search sets that you can use right away with amazing results. The application also has a clean, easy-to-use user interface. All this and more make DEVONagent the number one tool for finding information on the web with a Mac.

WHY DEVONAGENT

DEVONagent is much more than just an interface for web search engines; it helps you find, collect, and organize information with a powerful and flexible search architecture. It also has a simple to use built-in archive, and tight integration with DEVONthink. DEVONagent creates summaries, acts as a fast and lean web browser, and shows all items of interest in a separate drawer. DEVONagent is the easiest way to look for information on the web.

DEVONTHINK COMPANION

DEVONagent is the perfect extension to your DEVONthink database. With DEVONagent you can save found information directly to your database as plain or rich text, as a web archive, or as a PDF—all with a single click of your mouse. You can then use DEVONthink's intelligence to organize this newly collected data conveniently and quickly.

WHAT YOU CAN USE IT FOR

There are many different ways to use DEVONagent and to integrate it into your workflow. Some examples include:

- Journalists, who use Desktop Transporter to collect hot news, and who use copy-and-paste to transfer the summary to the word processing program of their choice. 'See Also' and DEVONagent's intelligent filters also help journalists eliminate junk information and/or duplicate or irrelevant pages on-the-fly.
- Analysts, who need to stay up-to-date with everything that happens in their industry. With DEVONagent they define their own search sets that return exactly what they're interested in, storing the key information in the integrated archive.

- Scientists and students, who directly access specialized databases, scan important websites, and receive relevant news via RSS. These users then transfer the most interesting articles as web archive, plain text, RTF, or PDF files into DEVONthink with a single click of the mouse.
- Lawyers, who wish to stay up-to-date with new laws, precedence setting cases and interpretations, and with their main clients. DEVONagent's scheduler does this automatically, letting the lawyers concentrate on their work, instead of searching the web for information.
- Home users, who are interested in genealogical research, finding desktop pictures, searching for long-lost friends, or simply using DEVONagent as a high-end interface for Google and MSN Search.

[Click here to read more about DEVONagent.](#)

DEVONNOTE

DEVONnote helps you take notes and keep them organized. It keeps all your ideas, documents, important information, and even your web browser's bookmarks in one single, accessible place. DEVONnote supports you with professional, easy-to-use features, and helps create structure out of chaos with its unique AI functions.

DEVONnote is the most sophisticated notepad application for Mac OS X, and the only one that uses AI (artificial intelligence) instead of relying on you organizing your data completely manually.

WHY DEVONNOTE?

DEVONnote was designed with the typical Mac user in mind—a user who is:

- Creative
- Savvy (whether at work or at home)
- Desiring quality software

Consequently, DEVONnote comes with a clean, easy-to-use interface that gives you all the tools you need in a familiar Mac-like package. Even the most complex AI functions are just »buttons«, meaning one simple click can send DEVONnote into action, digging through all of your data to find a place for your latest note, or to show you all your ideas and concepts that are similar to the one you've just selected.

BRAIN FOOD INCLUDED

Of course, creative people don't just 'have thoughts', they often need new inspiration, too. We understand that, and that's the reason why DEVONnote comes with a complete Safari-based web browser and solid, but flexible, bookmark-managing capabilities. With DEVONnote, you can browse your favourite websites, then clip and save the most important information directly to your DEVONnote notebook.

But, of course, life is not just work! Use DEVONnote to watch and organize your favorite webcams, directly within your notepad.

[Click here to read more about DEVONnote.](#)

DESKTOP TRANSPORTER

Connect to any Mac that shares its desktop, and control it from your machine. Switch between all screens attached to shared Macs and use copy/paste to transfer text and graphics between the local and the remote machine. Bonjour support makes it easy to discover shared machines on your local area network, and password protection keeps your data away from unauthorized eyes.

What you can do with Desktop Transporter:

- Find Macs that share their desktop(s) via Bonjour. Password protect your Macs to keep them secure.
- A Mac like interface with a convenient menu extra makes sharing Macs and controlling them easy.
- Display the desktops of remote Macs either in scalable windows, or switch to fullscreen mode to work completely remotely.

The top features at a glance:

- Share your Macs on your local area network or on the Internet
- Discover shared Macs via Bonjour
- Access all screens connected to a shared Mac

- Fullscreen mode
- Access other user accounts without using Fast User Switching
- Copy and paste of text and graphics
- Use a non-US keyboard (unlike, e.g., with VNC)
- Mac-like user interface
- Can run as a menu extra

[Click here to read more about Desktop Transporter.](#)

NEEDFUL THINGS

EASYFIND

As an alternative to-or supplement of-Sherlock, EasyFind finds files, folders, or contents in any file without the need for indexing. This is especially useful if you are tired of slow or impossible indexing, outdated or corrupted indices, or if you are just looking for missing features like case sensitive or insensitive search, Boolean operators, wildcards, or searching for phrases. In addition, EasyFind uses multi-threading and is therefore very responsive, even with multiple search processes running. The application provides contextual menus and Mac OS X Services, and displays the location of each item in a separate column for a better overview. EasyFind uses little memory, supports drag-and-drop and the clipboard, and optionally finds invisible items or items within packages.

PHOTOSTICKIES

PhotoStickies puts all your favorite pictures on your desktop, as stickies, floating or even borderless. Sticky pictures may reside on your computer, or on the Internet. PhotoStickies also displays live webcams on your desktop, updates them automatically, and even records them like a VCR.

Key features:

- Displays all image formats supported by Mac OS X
- Displays local images, pictures located on the Web or webcams
- Shows images as stickies or as desktop wallpaper
- Many live effects, e.g. alpha channels, transparency, color corrections
- Savable states
- Internet-based list of new webcams
- Can run as a menu extra

THUMBSUP

ThumbsUp is a simple, drag-and-drop based utility designed to create thumbnail images from batches of pictures. (The application supports all Mac OS X and QuickTime image formats, including PDF documents.) Image size, quality, sharpening, and antialiasing are configurable, and images can be scaled by percentage or limited to a maximum size. With a scaling of 100 percent, ThumbsUp may be used as an ultra-fast, comfortable image converter.

Use ThumbsUp to quickly create thumbnails, e.g., for using on your Web site or for sending by email.

XMENU

XMenu brings back Mac OS 9's Apple menu back from the dead, adding its functionality to Mac OS X. One or more global menus to the right side of the menu bar let you easily access your preferred applications, folders (and subfolders), documents and files. Furthermore, there's no explicit need for a configuration (like creating lots of folders and aliases or adding items to user-defined setups)-just activate the menus you like: Applications, Developer Applications, Home, Documents, or User-Defined (like the old Apple menu found in Mac OS 9).

FREEWARE SERVICES

Besides the full-blown freeware applications, DEVONtechnologies also offers a variety of useful services that extend the functionality of Mac OS X's Services menu and that allow Cocoa applications like TextEdit or DEVONthink to open PDFs like simple RTF files. These services include:

- BlueService
- CalcService
- HotService
- PDF2RTFService
- WordService

Also, HotService installs a second Services menu right in the top level of the menu bar, next to the Window menu. Note: This Services menu is only visible in true Cocoa applications such as TextEdit, Mail, or DEVONtechnologies' applications.

[Click here to read more about DEVONtechnologies' freeware applications and services.](#)