

# Practical Apple Remote Desktop Applications

P212

Macworld Boston 2005

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# What We'll Cover

- What is Apple Remote Desktop (ARD)?
- Why, when, how to use ARD
- Configuring ARD
- Practical ARD applications
  - Software installations, file copying, sending UNIX commands, creating reports
  - Automating functions

# What is ARD?

- Easy-to-use, powerful desktop management software for all of your networked Macs.
- Based on open standards (PostgreSQL, WBEM/CIM)
- IT pros can remotely control and configure systems, install software, observe and/or control end users and create reports for one or many clients on a Mac network

# Why use ARD?

- Manage, help and interact with clients remotely
- Maintain, upgrade and distribute software
- Collect system information for any Mac on your network, store the results in a SQL (PostgreSQL = free!) database AND create reports

# When to use ARD?

- Software updates (.pkg or .mpkg)
- Service reconfiguration
- Changing file or folder permissions
- Taking inventory and generating reports
- Housekeeping (power settings, locking screens, clearing disk space, changing startup disks)
- Helping users remotely

# Who should use ARD?

- Help desk and support professionals
- Teachers in a classroom lab
- Systems administrators
- Internet service providers
- Anyone with family, friends and clients at remote locations!

# Hardware Requirements

- Requirements: Apple Remote Desktop 2.2 10-client edition (\$299) or unlimited license (\$499)
- Hardware: eMac, iBook G3/G4, PB G3/G4, PM G3/G4/G4, Xserve G4/G5; Mac OS X 10.2.8, 10.3, 10.4, HFS+ hard drive, system running VNC-compatible software server
- Ethernet (recommended); Airport, FireWire or other network connection

# How to install ARD

- Install ARD on admin computer (all v. 1.2 + versions should transfer existing computer lists to new window)
- Refresh computer list(s) and/or create new
- Enable Remote Desktop sharing on clients, and grant ARD administrator privileges
- Install client software on Mac OS X 10.3 manually, or upgrade through Manage --> Upgrade Client Software feature



# Remote Desktop Interface

The screenshot shows the Remote Desktop application window. The title bar reads "Remote Desktop". The toolbar at the top includes icons for Add, Get Info, Observe, Control, Share Screen, Send Message, Lock Screen, Copy Items, Install Packages, Send UNIX Command, Set Startup, System Overview, and File Search. On the left, there is a sidebar with "Master List", "Scanner", and "Saved Tasks". The main area displays a search for "AirPort" on the "Local Network". Below the search bar is a table of discovered devices. At the bottom, there is a "Task history" table showing the results of various system reports.

Name	IP Address	Hostnam	ARD Version	Network Interface
	192.168.0.255			AirPort
192.168.0.15	192.168.0.15			AirPort
192.168.0.55	192.168.0.55			AirPort
Shelley's Computer	192.168.0.119		2.2	This Computer

Task	Target	Last Run	Status
System Overview Report	1 computer	Today 3:36:50 PM	Failed...
System Overview Report	No computers	Yesterday 6:11:12 PM	Failed...
Administration Settings Report	No computers	Yesterday 6:10:53 PM	Succee...
Wake Computers	No computers	Yesterday 6:00:44 PM	Failed...
System Overview Report	No computers	Yesterday 5:46:25 PM	Failed...

Toolbar

Scanner list

Saved tasks

Task history

# ARD Network Best Practices

- Limit Airport client connections
- Do not use Bonjour as network 'extender'
- Use switches, not routers
- Ensure large MTU setting (1200 or greater) if passing through firewalls
- If going across WAN or MAN, turn off defrag bit on router
- NAT issues: Need TCP and UDP port forwarding on ports 3283 & 5900 to admin computer; router must forward TCP & UDP ports to client

# Installing Software

Remote Desktop

Local Network Searching: AirPort

Name	IP Address	Version	Netw
192.168.0.255	192.168.0.255		A...rt
192.168.0.15	192.168.0.15		A...rt
192.168.0.55	192.168.0.55		A...rt
Shelley's Computer	192.168.0.119	2.2	T...r

Install Packages

Install packages on the target computers.

Packages
Student_Materials_Installer

Restart target computers after installation

No computers

Save Install

System Overview Report No computers Yesterday 5:46:25 PM

Select one or more clients

Select one or more install packages

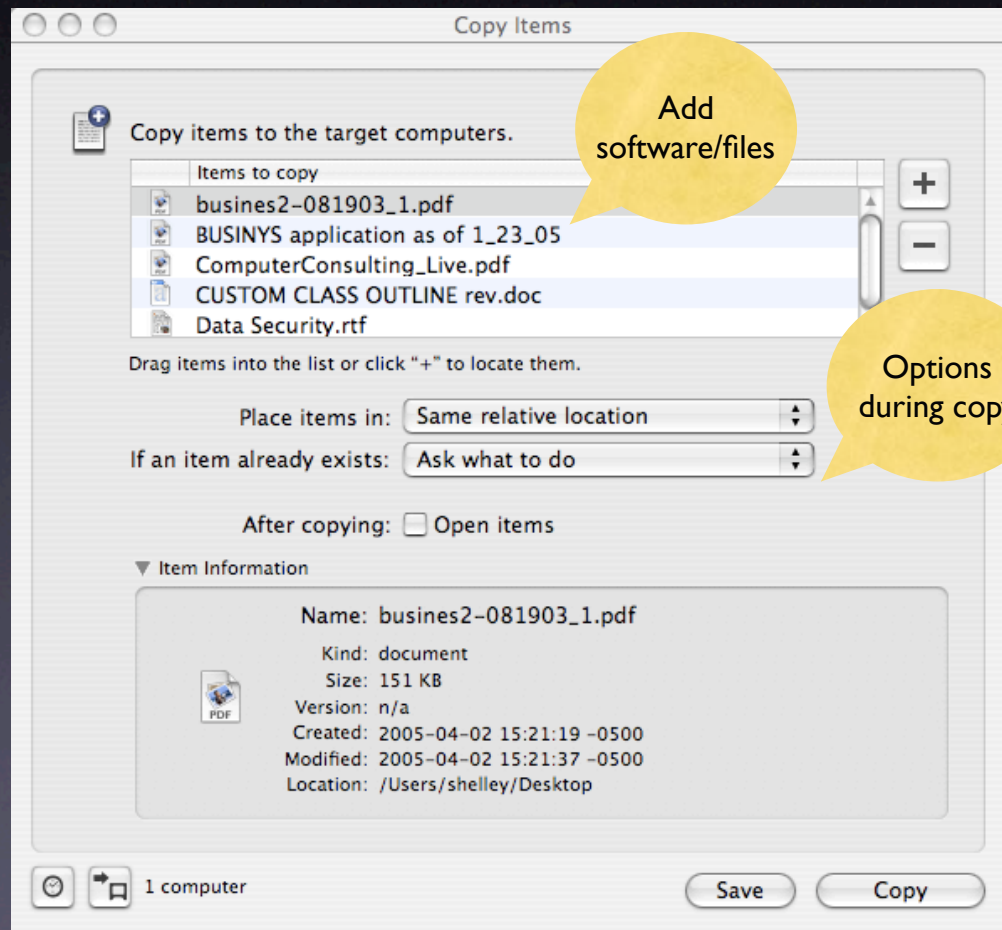
You can restart clients post-install

You can save this task

# Upgrading Software

- Determine if piece needs updating
  - Run Software Version report
- Remove outdated software version
  - If original installed via package/metapackage, automatic removal
- Use appropriate install method for new version installation

# Copying Files: Part I



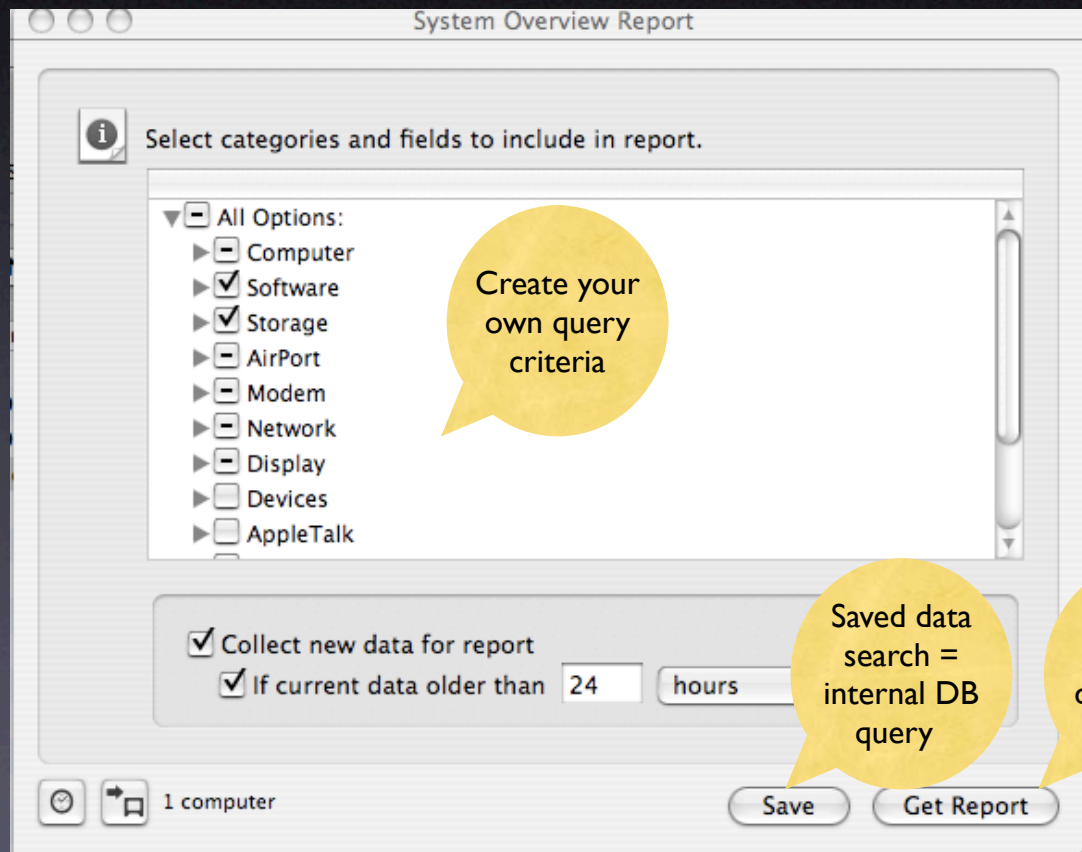
# Copying Files: Part II

- You can drag and drop! Watch!!

# Creating Reports

- You can query clients for many kinds of information:
  - Installed software
  - Network speed/reliability
- You can use reports as shortcuts when copying files and/or organizing computer lists

# Creating Reports





# Maintaining Systems

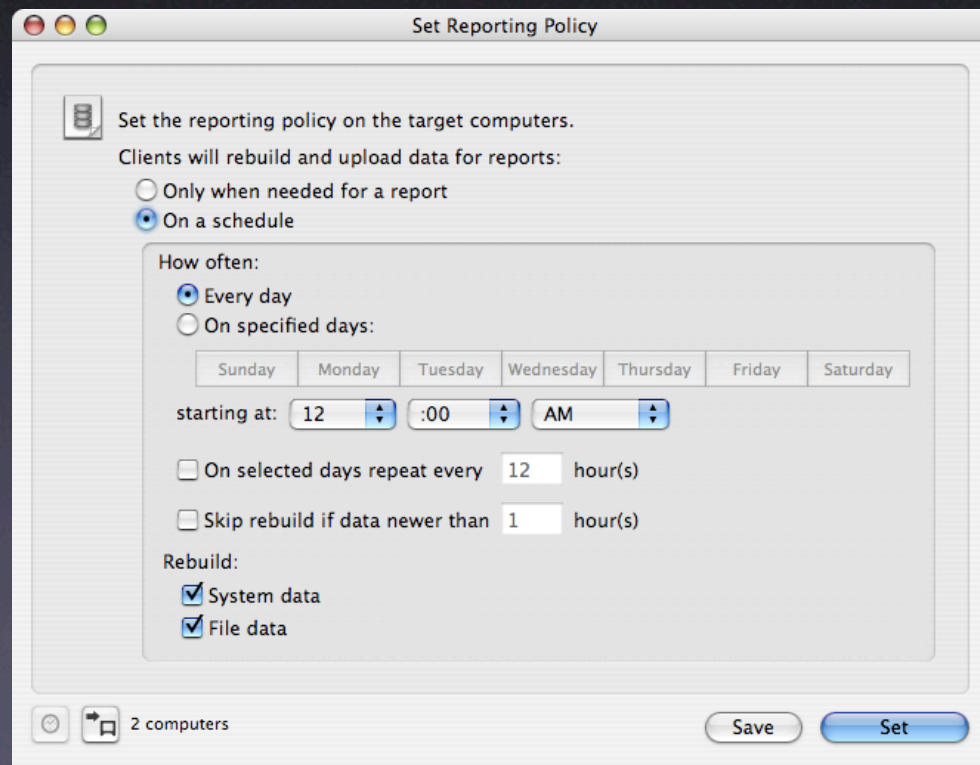
- Delete files
- Empty trash
- Set startup options
  - Startup Disk
- Rename computer(s)

# Managing Computers

- Control multiple clients simultaneously, while issuing commands from Remote Desktop menu, and more...
  - Open files, folders, applications
  - Put computer(s) to sleep, wake it up
  - Lock/unlock screen
  - Log out current user
  - Restart computer(s)

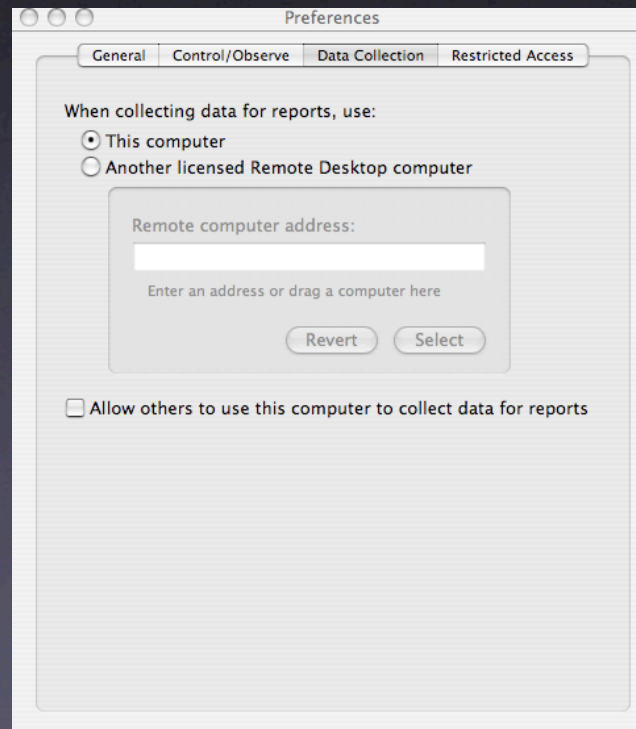
# Automate Functions

- Any command or function can be automated



# Automate Functions

- You control the function criteria and where data is stored in Remote Desktop preferences

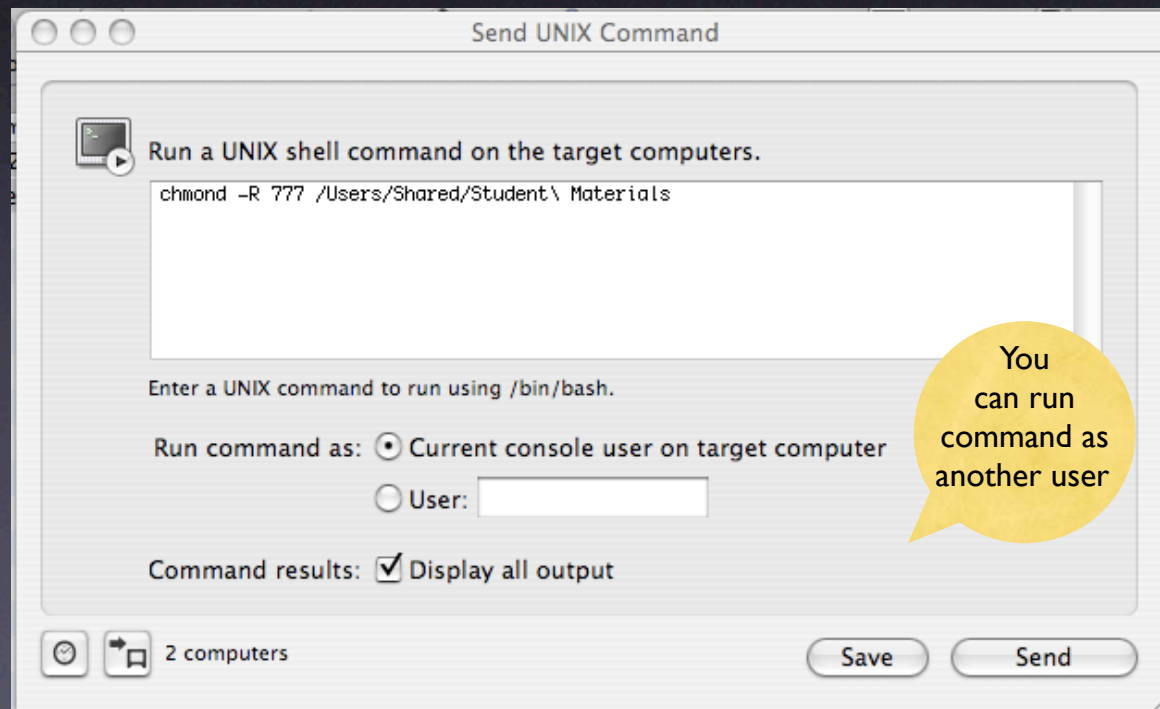


# Send UNIX Commands

- Clients must have BSD subsystem installed (optional 10.3 and below; standard on 10.4)
- You can write script with conditionals, loops, and other functions, not just send one command
- ARD comes with two commands:
  - networksetup: Create/modify network locations, change IP addresses, etc.
  - systemsetup: Alter time zones, energy/sleep settings, etc.

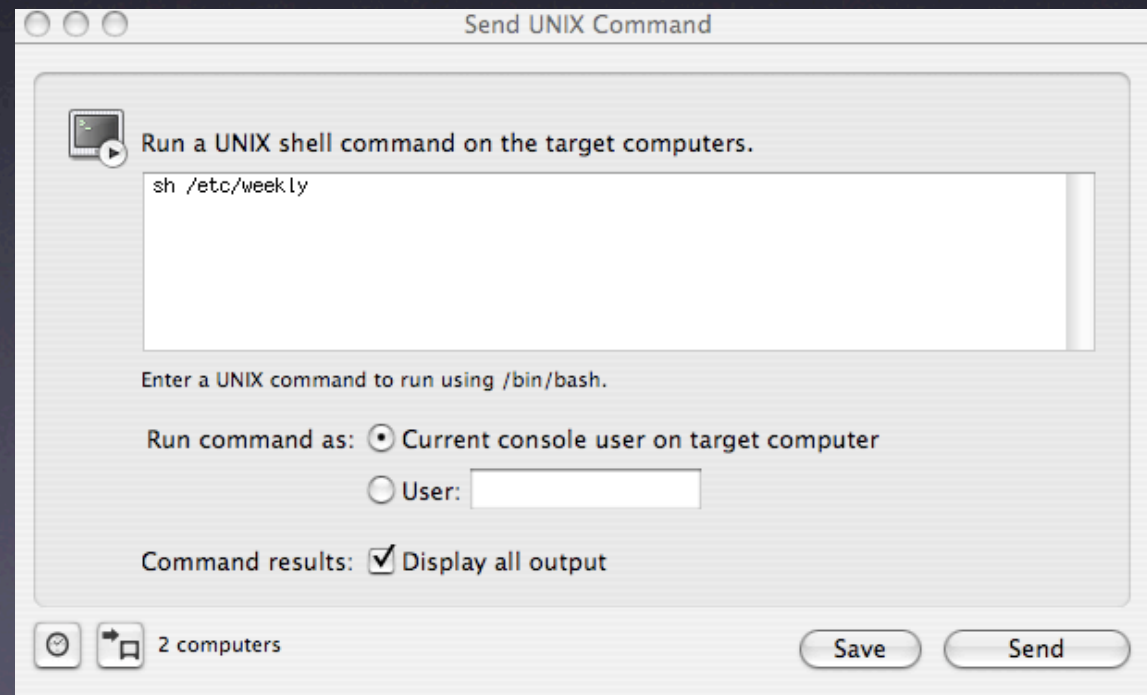
# Send UNIX Commands

- Executing single command



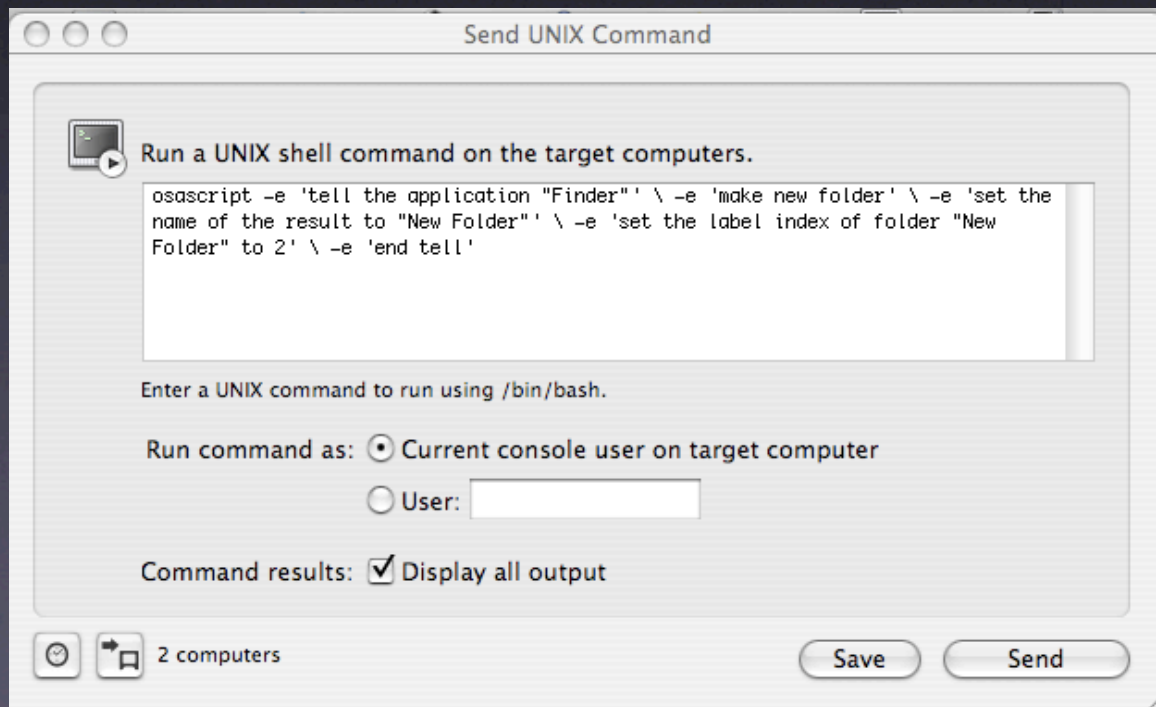
# Send UNIX Commands

- Executing shell script
- Need to copy your script to clients first



# Send UNIX Commands

- Executing Applescript script
- Need to copy your script to clients first



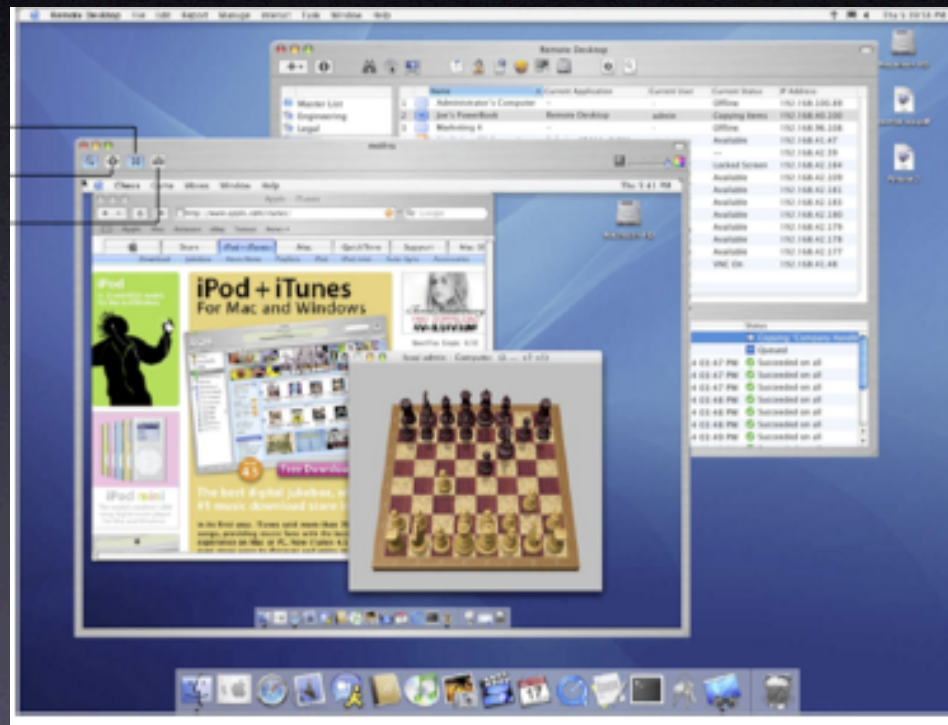


# Interacting with Users

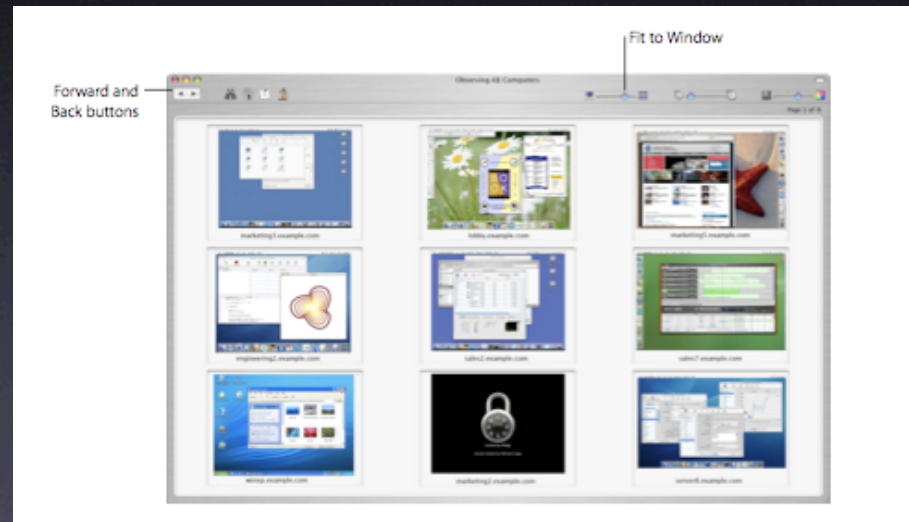
- Control or observe screen(s)
- Text messaging with remote users
- Share your screen with others

# Controlling Screens

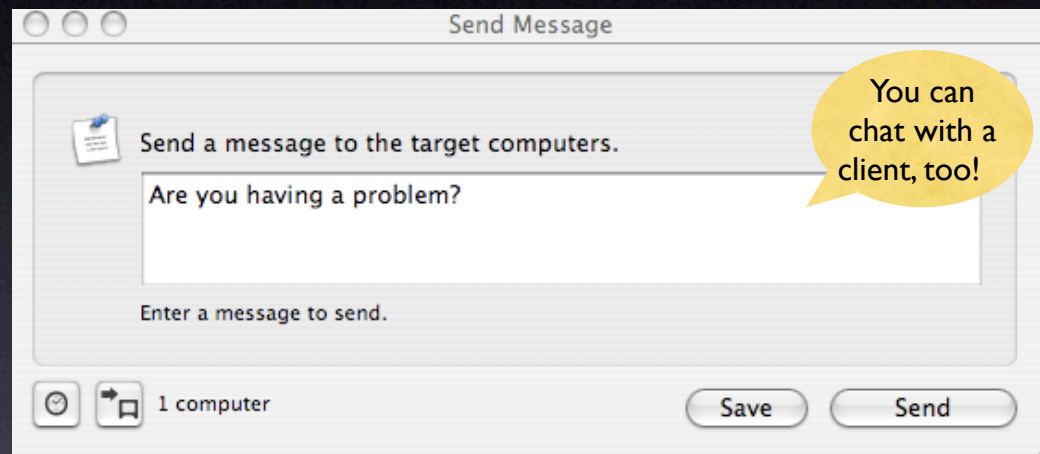
- Fit to window
- Share control
- Screen shot



# Observing Screens



# Sending Messages



# More Performance Tips

- Reduce animations on remote computers (i.e., no 'genie' effect, hiding/showing or magnification on Dock)
- View client screens with fewest colors
- Close admin software when finished
- Share screens only on local networks

# Security tips

- Store your admin password in a keychain item AND lock it when you leave your desk
- Limit client access to Remote Desktop through Accounts pane of System Preferences
- Limit admin access to clients through System Preferences on client computers
- Use non-dictionary words as passwords
- Use password-protected screen saver with hot corners

# ARD Resources

- Apple Remote Desktop website:
  - <http://www.apple.com/remotedesktop>
- ARD Support website:
  - <http://www.apple.com/support/remotedesktop>
- Online discussions forum:
  - <http://discussions.info.apple.com/applremotedesktop>

Thank You!

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