Using FreeBSD to Render Realtime Audio & Video

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The Weather Channel
Topics

- What is a Weather STAR?
- Demonstrate Video Rendering
- Changes made to FreeBSD
- FreeBSD Issues
- Scripted Installs
Where STARs Live
Weather STAR's Tasks

- Collect and Store Relevant Weather Data
- Render Weather Presentations Using the Stored Data
  - Local Forecast Products
  - Sensor Line
Video Rendering

- Draw Graphical Objects
- Display Live Video
- Simultaneous NTSC (Analog) and ASI (MPEG Digital) Output
Sample Products
Changes to FreeBSD

- ACPI Backported to Support Soft Off
- Driver Updates and Fixes
- Installation Program Improvements
FreeBSD Issues

- Nice is too Unnice
- Userland Threads
  - Large `read(2)`s Broken Up
  - Thread Priorities
  - Scheduling Signal
  - FreeBSD 5.x
# Choose install type and perform install
command=sh /stand/installtype.sh
system
cfgFile=/stand/doinstall.cfg
loadConfig

dialog ...
read itype < /tmp/foo
echo "configFile=/stand/${itype}.cfg" > \
/stand/doinstall.cfg
echo "loadConfig" > /stand/doinstall.cfg

install.cfg

package=apache
packageAdd

web.cfg

package=postfix
packageAdd

mail.cfg
Conclusion

• Weatherscan Deployed in Q1 2003
• Core U.S. Network Scheduled for 2004
• Q & A