



Active Distribution Console

Facts

The Active Distribution Console is a complete solution for multicast file distribution and real-time multi-station remote control, application installations and network inquiry.

The ADC is an application that interactively runs on one central station. The receiving agent is a service – on all client stations – that works in the background.

The Active Distribution Console is as fast and as sure as if you were only copying from one server to another. But here's the difference: There can be as many targets as you want, and you have real-time feedback on the central console.

The central console controls its clients completely, from installation to activation, de-activation and clean-up. The status of clients is always real-time available and shown in the screen.

Distribution method

The Active Distribution Console uses the IP Multicast protocol to distribute data. Where regular TCP/IP always requires that data is sent over to each individual target, multicast makes it possible to send data over an IP network to multiple receiving stations at once.

This means that a central station only has to send its data one time, and this can be received by multiple target stations in the network at the same time.

Limits

The maximum file size is currently around 50 GB, but actually depends on the block size used. The transfer speed can be adjusted from extremely slow for modem or satellite transfer to over 90MB/s driving a 1Gb network to its limits. The factual transfer speed is mostly limited by the receiving (and saving) speed of the slowest target station. The number of files in one distribution can be over 20.000.

Why multicast ?

The main benefit of using multicast is reducing the network load. Instead of using the point-to-point TCP/IP connection and sending the data for each station again, the data is sent only one time over the network. An enormous gain can thus be reached with data that actually has to be distributed to many stations.

Compared to regular distributions, multicasting can save hundreds of megabytes per station in your network. An example: before 200 stations can install a Windows 2000 (TM) Service Pack of 100MB, it will take hours to copy the total amount of 20GB using regular network connections. Using the multicast protocol, the network load is brought down to only one time sending the 100MB and - watch it - within a minute the data is on all stations. Because of the low network load, this multicast file distribution or server synchronization can be done during office hours and save many hours of overtime.

The number of receivers is actually unlimited. Note, that for distributing over different network segments, the routers have to allow multicast traffic. The help information provides some very easy guidelines for quickly configuring a router to support multicast.

Features

- Extremely **fast** and reliable **one-to-many** distribution of data files or software.
- Meant for any organization that needs **software or data distribution** to many stations.
- Simultaneous execution of **remote installation commands** on multiple stations.
- The ADC works on any IP network of **10-10000 stations**.
- **Ease of installation and usage**, no requirements for extensive administrator training.

Above all, the ADC is really fast in distributing data to many stations simultaneously. That's because of this special network technique – multicast. With the ADC there is no need anymore to schedule big distributions, like other products do. Just start the distribution and watch the megabytes arrive on every station in your site. The ADC really pushes the data, not like conventional distribution software that uses the term 'push' but only triggers its clients to pull their data.

Security

The ADC client agent only connects to and only receives data from the ADC master station that has activated it. Next to this, strong encryption on transfer and authentication is optionally available.

Installation and configuration

Master installation

The Active Distribution Console is installed on a central station by running the executable one-file installation package, commonly named `X_ADCnnn.exe`. After acceptance of the license agreement a dialog asks for the destination folder. The rest of the master installation is fully automatic. The first time that the ADC runs after a new installation, it automatically displays the about box and opens the help file. On client stations, this installation package is not necessary.

Choosing parameters

The default parameters make the ADC work right out of the box, so changing settings is usually not necessary. The help information describes the parameters that can be configured. Default the first available network adapter is used, but this can be changed. The transfer speed is default 1 MB/s but actually should be chosen based on the network hardware and desired load.

Activation of clients

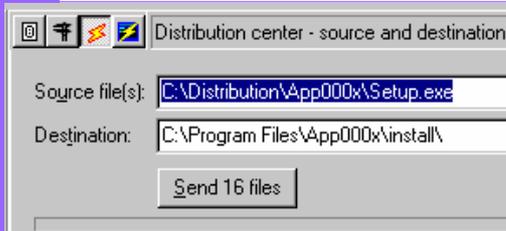
In one simple action the ADC can remotely install and activate its client agent on a specified list of other Windows stations. When activating a client station the ADC will automatically copy the appropriate files to the local systemroot folder on the target machine and, if necessary, define the client service before starting it (on Win98 by DCOM). Clients always join the activating console's multicast group.



Functions

Software distribution

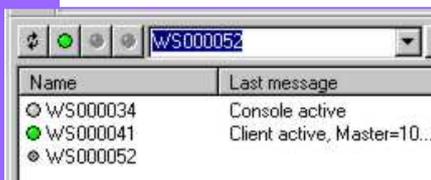
Specifying the list of files or folders in your distribution is very easy. For example using drag-and-drop from explorer. Then check your series of client stations to distribute to and hit the 'send' button.



While the ADC is sending you real-time watch the megabytes of data arrive at the target location on your clients: ready to execute, process or install.

Client control

The Console always shows all clients with a color-coded status indicator. In Detail mode, a second column is shown with each station's status or last message.



Client stations can be remotely activated, deactivated, paused or uninstalled. Note that for activating, 'administrators' rights on the target computers are needed.

Adding a complete site of client stations has been made very easy. The ADC can read them from a text file list, but can also discover a specified subnet by pinging.

Logging – color-coded feedback

The ADC shows a colored message line on each action or communication with clients. The regular messages are mostly sufficient for following your distribution or installation. For examining problems there is an option for Detailed Logging.

Multicast technics

Multicast is an agreement in the IP standards to reserve a range of IP addresses that cannot be used to uniquely identify one station. Addresses in this range are called Class D addresses and do not belong to a single station, but multiple stations can join to it: they form a Multicast Group.

Multicasting is not limited to one network segment. Routers can register hosts that join a multicast group just like any other (extra) IP address that can be configured for a network adapter. If multicast routing is needed, this probably requires configuring a router. The few commands needed are indicated in the Help information.

Protocol used

For Multicast, there is no IP standard like FTP (File Transfer Protocol). Instead there are many proposals for reliable multicast transfer standards. On all command traffic the ADC uses a redundant messages system to ensure that all clients keep up. On file distribution the ADC guarantees that all clients receive all data by using a NACK-based protocol where clients only report missing or corrupt data blocks and do not have to acknowledge reception of every data block.

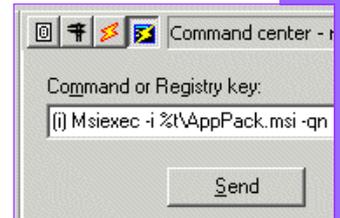
Application deployment

Once a package has been distributed, the Remote Command feature can perform the application installation. The most common installation types are supported – MSI (WISE), SMS installer, InstallShield, Web packages – but the actual installation command can be fully customized. Custom actions can be specified for any type of unattended installing packages.

Remote Commands

The Command Center executes commands on all – or just on the selected – client stations simultaneously.

A remote command can be any command, e.g. 'type' to just display a file. Output from text-mode commands is collected and displayed centrally at the console. The remote command can also be a simple or advanced registry query, e.g. to list the applied hotfixes or all applications installed on stations in the network.



Additional features

The output from a command or registry query can be pasted into an Excel spreadsheet, by using Clipboard copy from the Client Status box.

The enterprise version includes a Log-to-database option and a history viewer and reporting tool.

A small utility is available on request: EasyCast, for sending from Windows Explorer.



The ADC supports several command-line parameters for usage from batch. A scripting interface is built in for usage from VB scripts. This facilitates automated and scheduled operation. For information contact Xyro B4 Software.

Licenses

Licenses are available in various types, adapted to any specific environment:

- The Personal License, for usage from one specified station – available for 10 or 20 clients.
- The Site License, for usage from any master station – available for any number of clients.
- The Enterprise License, including database logging and viewer tool for environments with more than 100 stations.

For the Personal and Site license, prices and online registration are available at RegSoft. (www.regsoft.com).

For the Enterprise License and other prices, e.g. for support contracts etc, contact Xyro B4 Software.

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