Scheduler Contents

Click on an item from the **Scheduler Overview** window to receive specific information on that item.

Task Scheduler – Thursday, April 14, 1994 4:52 PM

Next Event: Reminder - Backup the Network
Countdown: 7 min

Events	Scheduled	Action
Reminder - Backup the Network	Weekdays at 17:00	Msg: It's time to run the network backu
Virus Scan Hard Drive	Daily (Timeless)	Run: c:\vnpro\vn /hard
Virus Scan Memory	Always	Run: f:\lansd\vn f: /nofile /noboot

Add...   Edit...   Copy...   Delete   Setup...   Exit   About
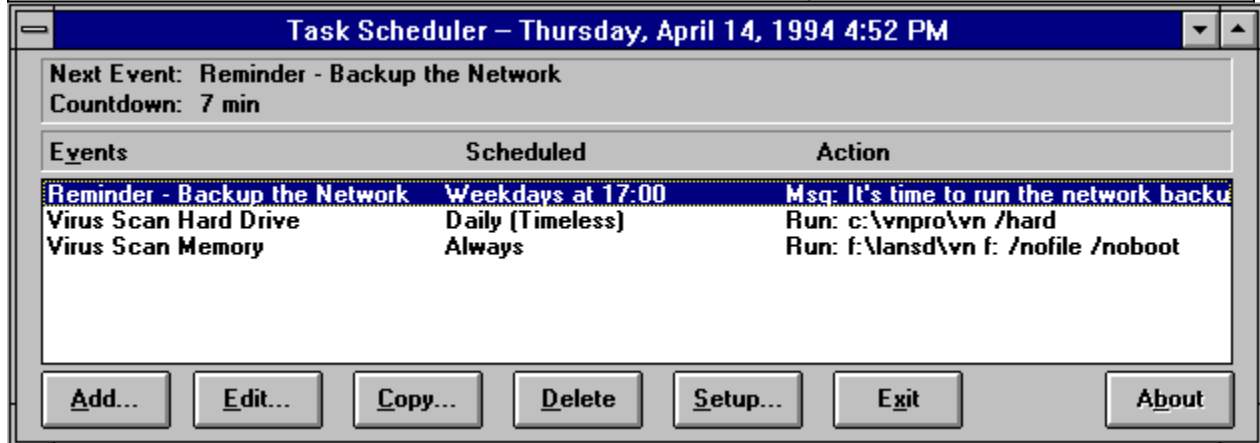
The Task Scheduler runs events at specific times or intervals.   Events can include programs, batch files and messages.   Tasks can be run from Windows, during network login, or during workstation bootup.

There are three programs which have Scheduling abilities:

SCHEDWIN.EXE   -   Windows-based scheduler which manages private workstation schedules and performs scheduled DOS and Windows events.   It is run in the background during Windows startup or from an icon in the Program Manager.   SCHEDWIN is also used to manage Network Schedules when it is run from the LANSD Windows Network Console.

LANAGENT.EXE   -   When used with the /RUN parameter (LANAGENT /RUN), LANAGENT will run scheduled events from a batch file or network login script.   Its other duties include managing software distribution and the workstation virus monitor.

SCHEDDOS.EXE   -   DOS-based scheduler which manages private workstation schedules and performs scheduled events, either in a batch file such as AUTOEXEC.BAT or through its full screen interface.   When run in a batch file to perform events, the /RUN command-line switch must be used (SCHEDDOS /RUN). SCHEDDOS is also used to manage Network Schedules from the LANSD DOS Network Console.

Command Buttons

Add   -   Creates a new scheduled event by accessing the <u>Edit Event</u> window.

Edit   -   Edits the highlighted event by accessing the <u>Edit Event</u> window.   If an ! precedes the event title in the list, the event can only be edited by the network administrator.

Copy   -   Creates a new event by making a copy of the highlighted event and displaying the <u>Edit Event</u> window.

Delete   -   Deletes the highlighted event.   If an ! precedes the event title in the list, the event can only be deleted by the network administrator.

Setup   -   Accesses the <u>Setup Window</u>, where program-wide options can be changed.   If the scheduler is being maintained from the network, this button will not be available to workstation users.

Exit   -   Exits the Task Scheduler.   If any changes are pending, the <u>Exit Scheduler</u> is displayed, prompting you to save changes.

About   -   Displays information about the program.   Also on this screen is a check box which allows scheduled events to be temporarily suspended for this session.

Scheduler Setup Window

The Setup Window allows you to customize system-wide options, such as when the scheduler runs, and how it tracks completed events.   This window is accessed from the **Setup** button of the Scheduler Console.   If the LANSD Network Console is used to create network-wide schedules, all settings pertain to the entire network group being modified.

> *Note: This window is not be accessible by a workstation scheduler being controlled from the network by the LAN Scheduler & Distribution (LANSD) product.*

Run Scheduler during Windows startup -   Loads and runs the Scheduler during Windows startup.   Changes to WIN.INI will be made automatically for the stand-alone and network versions (LANSD) of the scheduler.

Run Scheduler during computer startup -   Runs the DOS Scheduler (SCHEDDOS.EXE) as part of the workstations AUTOEXEC.BAT file.   Changes in this setting will automatically add or remove the DOS Scheduler for the stand-along and network versions (LANSD) of the scheduler.

Hide Scheduler icon when minimized -   This option will hide the Scheduler icon from the Windows desktop when the Scheduler is minimized. It is used especially when the Scheduler is loaded with Windows (see above).

Write completed events to the Event Log -   This option will write a log file of the completed events.   The DOS version of the scheduler will also record the Errorlevel returned by a program, allowing you to monitor program return codes.

Command Buttons

Password -   Allows you to assign a password required to modify scheduled events and settings.

View Log -   Views the log of completed Scheduler events.   It is used in conjunction with the Record completed tasks in the scheduler log option above.

Scheduler Editing Scheduler Events

The Edit Event window allows you to configure scheduler events.   It is accessed from the Scheduler Console from the **Add**, **Edit** and **Copy** buttons, or by double-clicking on a highlighted schedule event.

Description: The title of the event.   This title will appear in all references to the event.

Type of Action
    Run Program: Configures the event to run a program (COM, EXE, BAT, etc.)
    Display Message: Configures the event to display a message

Command to Run: Displayed when Type of Action is set to "Run Program", the Command to Run should contain the complete command-line required to run the event, including any program extensions such as .COM, .EXE or .BAT.

Message Text: Displayed when Type of Action is set to "Display Message".   Type in the message to display when the event is activated.

Schedule

    Frequency: Choose between One Time, Always, Hourly, Daily,   Weekdays (Mon-Fri), Weekly, and Monthly.   All frequencies except One Time are repetitive.

       One Time: Select the Time, Date and Month the event will run.   After the event is run, it will be removed from the list.
       Always: An event marked to run Always will run once each time the Scheduler is run. Always events will run before any other events scheduled to run.
       Hourly: Run the event at the specified minutes past each hour.
       Daily: Run the event at the specified time each day.
       Weekdays: Run the event at the specified time each Monday through Friday.
       Weekly: Run the event on the specified day at the specified time each week.
       Monthly: Run the event at the specified time on the same numeric day each month.

     Time: Select the hour and minute to run the event (24 hour clock).
     Timeless: Launches the event on the specified day as soon as the scheduler is run.   For example, to perform a virus scan each day when a workstation is booted, select Timeless.

    Run if scheduled time missed: Select this option to run the event even if the scheduled time is missed.   If this box is not selected, the Scheduler will not run any scheduled events which were missed by more than one minute.

    Day: Select the day of the week the event is to run.   This option is not be displayed for all frequencies.

    Date: Select the numeric day of the month that the event will run. This option is not displayed for all frequencies.

    Month: Select the month that the event will run. This option is not displayed for all frequencies.

    Year: Select the year that the event will run. This option is not displayed for all frequencies.

Command Buttons

Option: Access advanced options for this event from the <u>Event Option Window</u>.

Browse: Displays the <u>File Window</u> for easy selection of the Command to Run.

Scheduler **File Window**

Select the program to run for the current event from the available drives and directories.   When the appropriate program has been chosen, select the OK button.

Scheduler Event Option Window

The Event Option Window allows you to set advanced options for the scheduled event.

Run this Event from:

DOS Scheduler - Select this to run the event from <u>SCHEDDOS.EXE</u>. This event is usually selected when the schedule is to run during workstation bootup.If you remove the check from this option, the event will not be run from the DOS Scheduler.

Windows Scheduler - Select this to run the event from SCHEDWIN.EXE. This event is usually selected when the schedule is to run during Windows startup. If you remove the check from this option, the event will not be run from the Windows Scheduler.

Network Login Script - Select this to run the event from LANAGENT.EXE. This event is always selected when the schedule is to run from the network login script. If you remove the check from this option, the event will not be run from the Network Scheduler (<u>LANAGENT</u> /RUN).

DOS Return Code: Place a check mark in front of the Errorlevel choice to activate that choice. Then type the number of the Errorlevel to monitor. If that Errorlevel is returned by the event, the command defined by the **Run** choice will be launched. Up to three DOS return codes can be monitored.

Mark the event as completed: Select this option if you still want the event to be treated as completed, even though the selected Errorlevel was returned. Leave this choice blank if you want the scheduled event to be performed again if the Errorlevel is returned.

Example: The scheduler is run when the workstation logs into the network. If a virus is detected during a weekly virus scan, a LOGOUT batch file will be run to send an alert message to the network administrator and log the workstation off the network. Instead of allowing the workstation to log into the network again and not be scanned until the following week, by leaving this "Completed" choice unmarked, the virus scan event will be launched the next time the workstation logs into the network. As long as a virus is found on the workstation, the LOGOUT.BAT file will be run. When the workstation is virus free, the virus scanner will not return the virus Errorlevel, and the workstation will be allowed to log into the network.

Run: Type in the command-line that should be run when the Errorlevel is returned.

Run Style: In Microsoft Windows, programs can be run in Normal, Minimized, or Maximized windows. Select the window type to use when the Scheduled Event is run.

Scheduler **Managing Scheduled Events**

To add, edit, copy and save scheduled events, follow these steps:

Adding a New Event
1. From the Scheduler Overview window, select the **Add** button to display the Edit Event window..
2. Type in the title or description of the event on the Edit Event window.
3. Select the Type of Action for the event, either a Program to run, or a Message to display.
4a. If the event is a Program, type in the Command to Run or select the **Browse** button to find the program.
4b. If the event is a Message, type in the text of the message.   Up to 128 characters can be typed.   To start a new line, type \n where the new line should start.   Then continue typing.   When the message is displayed the \n will be replaced by a new line and will not be displayed.
5. Select how often the event should be run (its frequency), ranging from One Time Only to every Hour to every Year.
6. Depending on the frequency selected, indicate the time and date that the event should run.
7. Select the **Options** button to access the Event Option Window screen.   If any advanced options are required, select them there.
8. Return to the Scheduler Overview window by selecting the **OK** button on each window.   The new event will be displayed in the schedule list.

Editing an Existing Event
1. From the Scheduler Overview window, highlight the event to edit.
2. Select the **Edit** button or double-click on the highlighted event to display the Edit Event window.
3. Modify the event settings using the standard Windows editing keys.
4. If advanced options are required, select the **Options** button to access the Event Option Window. Then make any required changes.
5. Return to the Scheduler Overview window by selecting the **OK** button on each window.

Copying an Existing Event
1. From the Scheduler Overview window, highlight the event to copy.
2. Select the **Copy** button to display the Edit Event window.
3. Modify the event settings using the standard Windows editing keys.
4. If advanced options are required, select the **Options** button to access the Event Option Window. Then make any required changes.
5. Return to the Scheduler Overview window by selecting the **OK** button on each window.   The new event will be displayed in the schedule list.

Saving Scheduler Changes
1. When finished editing your choices, save the changes by selecting the **Exit** button on the Scheduler Overview screen and selecting the **OK** button on the Exit Window.   If you do not want to save the changes, remove the check from the Save changes before exiting box.   Then select the **OK** button.

Scheduler Implementing Schedules During Workstation Bootup

To implement scheduling during workstation bootup, follow these steps:

1. Follow the steps in the Managing Scheduled Events section to make a list of scheduled events.

2. For each event that should be run during workstation bootup, highlight the event from the Scheduler Overview window and select the **Edit** button.   This will bring up the Edit Events window.

3. Select the **Options** button to bring up the Event Option Window.   Make sure the event is run from DOS by selecting the DOS Scheduler choice.   If you do not want the event to be run during network login, or from Windows, remove the check marks in front of those choices.

4. Select **OK** to leave the Event Option Window, and then select **OK** to return to the Scheduler Overview window.

5. Select the **Setup** button from the Scheduler Overview window to display the Scheduler Setup window.

6. Place an X in front of the Load Scheduler during computer startup option.

7. Select the **OK** button to return to the Scheduler Overview screen.

8. Select the **Exit** button, save any changes from the Exit Window, and exit the program.

For stand-alone versions of the Scheduler, the workstation AUTOEXEC.BAT file will be modified to include the SCHEDDOS /RUN command.   This will run pending events during workstation bootup, and then continue with the boot process.   If you have the LAN Scheduler and Distribution program, and are setting up a network wide event, the LANAGENT program will update each workstation when it is run during network login.

Scheduler Implementing Schedules From Windows

To implement scheduling during workstation bootup, follow these steps:

1. Follow the steps in the <u>Managing Scheduled Events</u> section to make a list of scheduled events.

2. For each event that should be run during workstation bootup, highlight the event from the <u>Scheduler Overview</u> window and select the **Edit** button.   This will bring up the <u>Edit Events</u> window.

3. Select the **Options** button to bring up the <u>Event Option Window</u>.   Make sure the event is run from Windows by selecting the Windows Scheduler choice.   If you do not want the event to be run during workstation bootup or during network login, remove the check marks in front of those choices.

4. Select **OK** to leave the <u>Event Option Window</u>, and then select **OK** to return to the Scheduler Overview window.

5. Select the **Setup** button from the <u>Scheduler Overview</u> window to display the <u>Scheduler Setup</u> window.

6. Place an X in front of the Load Scheduler during computer startup option.

7. Select the **OK** button to return to the <u>Scheduler Overview</u> screen.

8. Select the **Exit** button, save any changes from the <u>Exit Window</u>, and exit the program.

For stand-alone versions of the Scheduler, the Windows WIN.INI file will be modified when the Scheduler is exited and changes are saved.   If you have the LAN Scheduler and Distribution (LANSD) program, and are setting up a network wide event, the <u>LANAGENT</u> program will update each workstations WIN.INI file when it is run during network login.

Implementing Schedules During Network Login

To implement scheduling during network login, follow these steps:

> *Note: Network scheduling is only possible with the network version of the scheduler.   This version found in the LAN Scheduler & Distribution product.*

1. Follow the steps in the <u>Managing Scheduled Events</u> section to make a list of scheduled events.

2. For each event that should be run during workstation bootup, highlight the event from the <u>Scheduler Overview</u> window and select the **Edit** button.   This will bring up the <u>Edit Events</u> window.

3. Select the **Options** button to bring up the <u>Event Option Window</u>.   Make sure the event is run from the network by selecting the Network Login Script choice.   If you do not want the event to be run during workstation bootup or from Windows, remove the check marks in front of those choices.

4. Select **OK** to leave the <u>Event Option Window</u>, and then select **OK** to return to the Scheduler Overview window.

5. Select the **Setup** button from the <u>Scheduler Overview</u> window to display the <u>Scheduler Setup</u> window.

6. Select the **OK** button to return to the <u>Scheduler Overview</u> screen.

7. Select the **Exit** button, save any changes from the <u>Exit Window</u>, and exit the program.

8. Modify your network login script to run the <u>LANAGENT.EXE</u> program on each workstation that requires network scheduling.   Remember to use the `/G=` command-line switch if the workstation is to run a schedule for a group other than Default.

Select the Exit button from the <u>Scheduler Overview</u> to exit the Scheduler.   If any changes were made which were not already saved, the Exit Scheduler window will be displayed.   To save the changes, place an X in the Save changes before exiting prompt.   Then select the **OK** button.   To exit the program without saving any remaining changes, remove the X from the prompt and select the **OK** button.   If you do not wish to exit the program, select the **Cancel** button.

This is a list of the scheduled events.   The first column displays the event title or description.   Next, the scheduled time for the event is displayed.   If the schedule is reoccurring, it will be contain the word Every.   If the scheduled interval contains a + after it, the event will run on or after that time.   For example, if an event is scheduled every Monday and contains a + after Monday, the event can run on Tuesday or after if it did not run on Monday.

This area displays the title of the next scheduled event and the amount of time remaining until that event is run.   In the network version of the scheduler (found in LANSD), this area will display the name of the network group that is being edited.

Scheduler LANAGENT.EXE

LANAGENT is part of the LAN Scheduler & Distribution (LANSD) package. It is not available in the stand-alone version of the scheduler. It is more fully described in the help and documentation of LANSD.

The LANAGENT program implements the anti-virus, scheduling, and software distribution settings defined by the Network Console. It reads the configuration defined on the network and performs the required action for each workstation. LANAGENT must be run from the directory where the other LANSD support files are located. It uses files in its program directory to administer the workstation.

LANAGENT is usually run from the network Login Script each time a workstation logs into the network. If no login script exists for your network, run LANAGENT from a batch file that loads the network drivers. This will ensure that workstations are maintained during network login.

Syntax: **LANAGENT [optional switches]**

> *Note: If LANAGENT is run from the Netware Login Script, it must be run with its full pathname. For example,* **F:\LANSD\LANAGENT**. *If it is run without the full pathname, it may not be able to find the directory where its definition files are located.*

Optional Switches

/RUN   Any events that are scheduled to run will be run now.

/G=GROUP   Specifies a group other than the Default group. **GROUP** is the name given to a particular network group. This name is defined in the Group Edit Window. For simplicity, this name should match the name of an existing network group.

/S=SNAME   Sets the workstation name to **SNAME** (defined by you) when writing to the log file

/E=ENVVAR   Gets the workstation name from environment variable **ENVVAR**. If this parameter is not used, the default variable **STATION** is used.

/Q   Quiet switch (No screen output)

/T   Pauses 60 seconds after any errors and then continues without user intervention

Examples:

LANAGENT
>   Uses Default group settings to update the Anti-virus and Scheduler settings. Maintains Software Titles defined for the Default Group. The Scheduler is not run but its workstation settings are updated.

LANAGENT /S=DAVE1
>   Same as above but sets the workstation name to DAVE1 in the Event Log.

LANAGENT /E=STATION
>   Similar to the above example, but gets the workstation name from the value of the **STATION** environment variable.

LANAGENT /T
>   Similar to the first example, but pauses for errors for only 60 seconds before continuing. This is ideal for unattended workstations used for dial-in.

`LANAGENT /RUN`
> Similar to the first example, but also runs any scheduled events.

`LANAGENT /G=CAD`
> Similar to the first example, but settings for the CAD group are used.

`LANAGENT /RUN /G=CAD`
> Same as above but also runs the Scheduler.

Scheduler **SCHEDDOS.EXE**

The DOS Scheduler enables DOS users to maintain and run schedules.   It is fully compatible with the Windows scheduler.   Besides managing and running the schedule list, the DOS Scheduler is also placed in the workstations `AUTOEXEC.BAT` file, allowing it to run pending events during workstation bootup. When implemented this way, the `/RUN` command-line switch must be used.   Once the pending events have been completed, the workstation will continue its bootup process.

Syntax: `SCHEDDOS [Optional Switches]`

Optional Switches

`/RUN` Runs pending events and then returns to DOS.

`/MONO` Displays pending messages using monochrome colors.

`/NORUN` Prevents the scheduler from running events which become due while the scheduler is run.

Password Protected Area

A password is required to access this area. Please type it exactly as it was originally entered. Lowercase letters will automatically be converted to uppercase.

If you need assistance, please contact your supervisor.

New Password Window

A Password can be set to prevent access to the various features.

If you are supplying a new password, you will be asked to verify the password by typing it a second time. Type the password exactly the same as you typed it the first time.

Note: Once the password is entered correctly, you will not need to enter the password during this session.

To delete a password, leave the password empty when prompted to change the password.

Log File Viewer

The Log File Viewer is accessed from the <u>Scheduler Setup</u> window.   It displays the date, time and description of events that have been performed.   If the event is a program, the Errorlevel may also be recorded in the log file.   Program events are prefixed with Run and Message events are prefixed with Msg.

Command Buttons

Delete - Deletes the log file.