

# **Auto Start Manager v1.5**

## ***Introduction***

Auto Start Manager extends the functionality of the Windows StartUp folder by giving the ability to conditionally start programs either at startup time or after a specified time delay.

Programs added to the Windows StartUp folder are run every time Windows starts. Sometimes it is useful to have additional control - for example, to backup important files the first time the machine boots each week. By defining programs to the Auto Start Manager instead of the Windows StartUp folder, you gain the ability to define the conditions under which the program is started.

Auto Start Manager is not a scheduler. The program is itself called from the StartUp folder when Windows is starting. It then simply evaluates the defined time and configuration dependent conditions on each of the defined programs, before deciding which programs to start. Tests are provided for day of week, time of day, time elapsed since last run, start configuration, and power mode (if APM installed). The programs are then started either immediately or after a specified time delay.

## ***Installing/Uninstalling***

Run setup.exe included in the distribution package to install Auto Start Manager. To uninstall, use the Add/Remove Programs option from the Windows control panel.

## ***Updating existing version***

If you already have a version of Auto Start Manager installed, then you can install over the previous version, or alternatively download the smaller update archive (asm15u.zip) from the Cool Bay web site, and simply replace your existing files with those from the archive.

## ***What's new***

- v1.5    Released 9<sup>th</sup> of July 1998
  - Add optional wait for idle or completion after starting item.
  - Allow editing of global entries via menu option.
  - Add export/import function to allow saving of startup definitions.
  - Use new style flat buttons on toolbar.
  - New install/uninstall routine used.
- v1.4    Released 8<sup>th</sup> of March 1998
  - Add optional delay time before any items are executed.
  - Allow entries to be temporarily disabled without having to delete the definitions.
  - Global entries can be defined common to all users under NT.

- v1.3 Released 27-Nov-97  
Runs the associated program if a non-executable file (e.g. "readme.txt").  
Shortcuts and other files can be dropped onto main screen.  
Some small changes to User Interface:
- Show delay timer on main screen
  - Shows delay countdown if screen opened from system tray
  - Allow sorting of items on main screen (by clicking column header)
  - Add browse button for program parameters (if parm is filename)
  - About box has clickable link to home page
  - Default name for new items no longer has extension
- Fix some bugs:
- Execute button was not starting tasks with delays specified
  - Frequency specified as months/years was starting every time
  - Cursor was not positioned correctly on definition screen
- v1.2 Released 25-Sep-97  
Timer functions added:
- delayed execution
  - automatic close/restore/minimize/maximize after specified time
  - minimizes to system tray when timer function pending
- Add testing on "change" of config/power/user  
Command line parameter /r to force execution  
Remembers position of program definition screen
- v1.1 Released 23-Aug-97  
Now runs on NT 4.0  
Add testing on time of day  
Add testing on userid  
Start directory dialog now includes network neighborhood  
Validate defined programs are executable  
File open dialog mask includes all executables  
Icon was not changing if program changed  
Fix load icon error for program without icons (e.g. ms-dos applications)  
Fix bug which allowed duplicate on name of first item  
Documentation included in pdf format
- v1.0 Released 06-Aug-1997

## ***Updates***

The latest version of Auto Start Manager can be found at the home page.

<http://indigo.ie/~bryan/coolbay.htm>

Please send any queries, comments or suggestions to **bryan@indigo.ie**. Your input is always welcome.

## ***Registration***

Auto Start Manager may be evaluated for 30 days. After this time you must register the program if you wish to keep using it. The registration fee is \$10, which entitles you to use this and all future versions of the program. Credit card registration is possible by following the registration link on the page <http://indigo.ie/~bryan/auto.htm>, or by faxing your order, with email and credit card details to 425-392-0223.

Alternatively, you can send cash of \$10, or the approximate equivalent in your local currency, to me at the address below. Please include your email address for the registration key. It is also a good idea to email me if you have sent cash in the post, so that I can send you a registration key immediately. No cheques please - bank charges would simply exceed the value of the cheque!

Brendan Ryan  
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## ***Acknowledgements***

Auto Start Manager is written using Inprise's C++ Builder v3.0 (<http://www.inprise.com/>).

The help file was produced using helpMATIC Pro v1.21 (<http://users.aol.com/harbsg/>).

Auto Start Manager uses the freeware Delphi component TTrayIcon written by Derek Stutsman (dereks@metronet.com) and modified by Pete Ness (PeteNess@raex.com) and Alexander Meeder (ameeder@dds.nl).

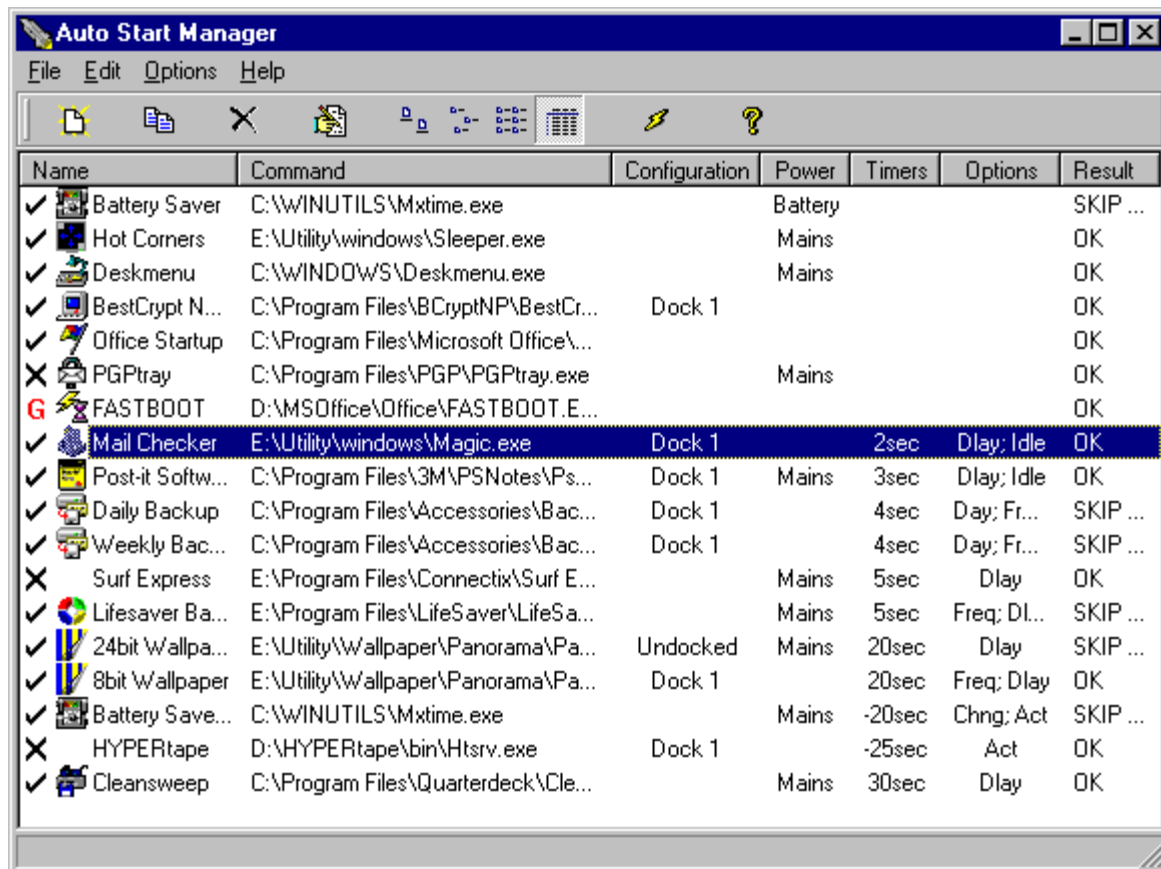
Auto Start Manager also uses the freeware C++ Builder component TExeVer by Imran H (imranh@summitdata.com).

Auto Start Manager installation uses the freeware Inno setup program v1.09b <http://www.connect.net/jordanr/> written by Jordan Russell (jordanr@iname.com), with some modification by Brendan Ryan.

Thanks too go to the numerous users who have provided suggestions for improving the program.

## Main Screen

When you start Auto Start Manager you will be presented with the main application screen, showing all the programs defined to the Auto Start Manager along with an overview of the conditions associated with each program. From this screen you can create, edit and delete entries.



Name	Command	Configuration	Power	Timers	Options	Result
✓ Battery Saver	C:\WINUTILS\Mxtime.exe		Battery			SKIP ...
✓ Hot Corners	E:\Utility\windows\Sleeper.exe		Mains			OK
✓ Deskmenu	C:\WINDOWS\Deskmenu.exe		Mains			OK
✓ BestCrypt N...	C:\Program Files\BCryptNP\BestCr...	Dock 1				OK
✓ Office Startup	C:\Program Files\Microsoft Office\...					OK
✗ PGPTray	C:\Program Files\PGP\PGPTray.exe		Mains			OK
G FASTBOOT	D:\MSOffice\Office\FASTBOOT.E...					OK
✓ Mail Checker	E:\Utility\windows\Magic.exe	Dock 1		2sec	Dlay: Idle	OK
✓ Post-it Softw...	C:\Program Files\3M\PSNotes\P...	Dock 1	Mains	3sec	Dlay: Idle	OK
✓ Daily Backup	C:\Program Files\Accessories\Bac...	Dock 1		4sec	Day: Fr...	SKIP ...
✓ Weekly Bac...	C:\Program Files\Accessories\Bac...	Dock 1		4sec	Day: Fr...	SKIP ...
✗ Surf Express	E:\Program Files\Connectix\Surf E...		Mains	5sec	Dlay	OK
✓ Lifesaver Ba...	E:\Program Files\LifeSaver\LifeSa...		Mains	5sec	Freq: DI...	SKIP ...
✓ 24bit Wallpa...	E:\Utility\Wallpaper\Panorama\Pa...	Undocked	Mains	20sec	Dlay	SKIP ...
✓ 8bit Wallpaper	E:\Utility\Wallpaper\Panorama\Pa...	Dock 1		20sec	Freq: Dlay	OK
✓ Battery Save...	C:\WINUTILS\Mxtime.exe		Mains	-20sec	Chng: Act	SKIP ...
✗ HYPERtape	D:\HYPERtape\bin\Htsrv.exe	Dock 1		-25sec	Act	OK
✓ Cleansweep	C:\Program Files\Quarterdeck\Cle...		Mains	30sec	Dlay	OK

## Display Columns

The displayed rows can be sorted in ascending or descending order for any of these columns, by clicking on the title bar of the corresponding column. The columns displayed are as follows:

**Name** Name assigned to the defined item. New items will by default be allocated the name of the module executed (with a numeric suffix if this name is already in use). You can rename the item by selecting it and then single clicking it, or by right clicking and choosing "Rename" from the popup menu. This name can contain any meaningful text that you wish, but must be unique.

The checkmark to the left of the icon shows if this definition is enabled or disabled. Entries with a checkmark ✓ currently enabled, while disabled entries are shown

with an ✕ beside them. Entries defined globally (see section on Global user definitions in NT), are shown here with the letter G.

<b>Command</b>	Displays the module name to execute. Any command line parameters are not displayed here.
<b>Configuration</b>	If the program is only to be run for a specific start configuration, then the name of the configuration will be displayed here. If this column is blank, then the program applies to all configurations.
<b>Power</b>	Displays the power status (mains/battery) for which this program should be run. For desktop machines, or if the program should be run irrespective of battery or mains (plugged-in) operation, this column will be blank.
<b>Timers</b>	Displays the delay time (if set) before the program is started, and/or the time after execution before the specified automated action. Positive values indicate delay timer value, negative values automated actions. If no timers are set, this column will be blank.
<b>Options</b>	<p>Gives an indication that additional restrictions apply. Any combination of the following texts may be displayed.</p> <ul style="list-style-type: none"><li>• "Day" if the program should only run on certain days of the week.</li><li>• "Time" if the program should only run if starting between specific times of day.</li><li>• "Freq" if execution depends on when the program was last executed (e.g. once per day).</li><li>• "User" if execution depends on the logged on user.</li><li>• "Delay" if execution occurs after time delay.</li><li>• "Chng" if execution depends on changes in environment.</li><li>• "Act" if a close/restore/minimize/maximize message is to be sent to the application after a predefined time.</li><li>• "Idle" if wait for idle occurs after starting this program.</li><li>• "Wait" if wait for completion occurs after starting this program.</li></ul>
<b>Result</b>	<p>Displays the result of the last condition test or execution. Possible values displayed here are:</p> <ul style="list-style-type: none"><li>• "OK" - execution performed without errors</li><li>• "SKIP" - condition tests not passed - see statistics display for exact reason.</li><li>• "ERROR" - error occurred start the program - see statistics panel for more details on the error.</li></ul>

### ***Drag & Drop Support***

If you drop one or more files onto the main screen (i.e. drag a program from explorer window to the Auto Start Manager main window), then a program item will be automatically defined for each of the dropped files. This is a convenient way of adding new items.

If a shortcut is dropped on the main screen, then Auto Start Manager will automatically extract the program name, parameters, working directory and run style from the shortcut, and create the appropriate program item.

## ***Popup Menu***

A popup menu is accessed by right clicking on an item. The menu items are as follows.

<b><u>E</u>dit Properties</b>	Calls the program definition dialog for the selected item. Same as menu Edit Properties
<b><u>D</u>isable</b>	Disable this entry. Disabled entries are ignored at startup. This is a convenient way of temporarily removing entries from the startup processing, which may be required again at a later date.
<b><u>E</u>nable</b>	Enables entry that was previously disabled.
<b><u>T</u>est</b>	Evaluates the conditions defined for this item, and displays whether the conditions are satisfied, or have failed.
<b><u>R</u>un</b>	Executes (launches) the program defined in this item immediately. This bypasses the conditional tests.
<b><u>R</u>un <u>w</u>ith <u>A</u>ction</b>	Same as run, but will also perform specified “action” (close/restore/minimize/maximize) after specified time. This option is only visible if an “action” is defined for the program.
<b><u>C</u>ancel <u>A</u>ction</b>	Cancels the outstanding “action” timer for this program. This option is only visible if the program was started, and an “action” event is currently pending. When the timer is cancelled, the specified action will not take place.
<b><u>C</u>ancel <u>R</u>un</b>	Cancels the outstanding “run” timer for this program. This option is only visible if the program is due to be started when the specified delay has elapsed. When the timer is cancelled, the program will not be started.
<b><u>C</u>opy</b>	Duplicates this item, and jumps to the program definition dialog for the copy. Same as menu Edit Copy.
<b><u>D</u>elete</b>	Deletes the selected item. Same as menu Edit Delete.
<b><u>R</u>ename</b>	Enters edit mode on the name field. Allows you to place any meaningful name that you want on the selected item. The new name must be unique - if it is not, then when you press enter the old name will be restored.

## **Main Menu**

### **File Menu**

- Save** Saves the program definitions, and remains in the Auto Start Manager.
- Export...** Saves the program definitions to a text file. This text file serves as a backup and can also be used to copy the definitions to another user or machine.
- Import...** Loads the program definitions from a text file (produced by the export command). If existing definitions of the same name already exist, then you will be given the option of overwriting these.
- Exit** Exits the application. If any changes were made, a dialog box will ask you if you want the changes saved or not.

### **Edit Menu**

- Undelete** Allows the recovery of deleted program definitions. Items deleted during the current program execution can be undeleted any time before exiting the program. Undeletion occurs in LIFO (last in first out) order.
- New** Creates a new blank entry and switches to the program definition screen. If you exit the program definition screen using the cancel button, then no new item is created.
- Copy** Creates a copy of the currently selected item, and switches to the program definition screen with this copy. If you exit the program definition screen using the cancel button, then no copy item is created.
- Delete** Deletes the currently selected item.
- Properties** Switches to the program definition screen for the selected item. Here you may modify the program definition, or the conditions associated with this item.
- Global** Switches to editing the global definitions. Global definitions are provided for use on NT machines where different users logon. The global definitions apply to all users of the machine. This menu option only appears when currently editing local (standard) definitions, and when the user has sufficient authorisation (i.e. administrator rights) to edit global entries.
- Local** Switches back from editing the global definitions to editing the normal definitions.

## Options Menu

**Advanced...** Displays the advanced options dialog box. This is described below.

**Registration...** Displays the registration dialog screen where your registration name and key can be entered. The registration key is an eight digit number that will be emailed to you on receipt of your registration.

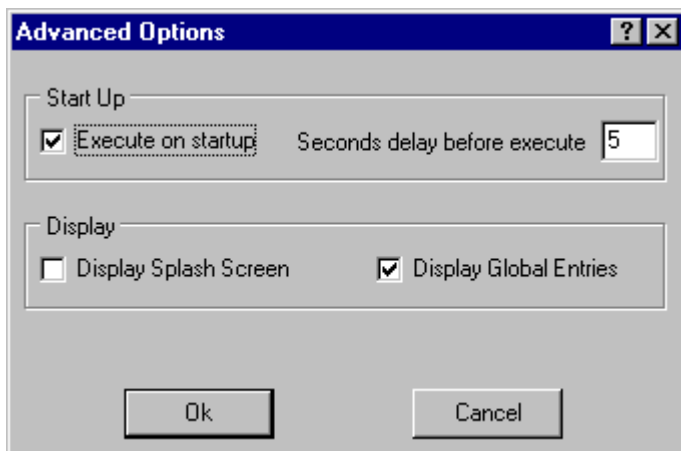
## Help Menu

**Contents** Displays the contents page of the Auto Start Manager Help file.

**About...** Display the About dialog box. This displays the current start configuration and power mode in addition to the program version number and registration details.

## Advanced Options

The advanced options dialog screen is selected from the options menu.



## Start Up Group

Defines the behaviour of Auto Start Manager when executed.

**Execute** If this item is checked, then on the first time Auto Start Manager is run during the current Windows session, it will evaluate the conditions for each program defined to it, and execute those whose condition are satisfied. On completion of this, the program will terminate automatically. If this option is not checked, or if it is not the first time the program is run in the current Windows session, Auto Start Manager will simply display the main screen when called. For normal operation this option should be set, and Auto Start Manager should be included in the



Windows StartUp folder. Unregistered versions will have this feature permanently disabled after the 30 day trial period has elapsed.

As an alternative to setting this indicator, Auto Start Manager can be instructed to execute automatically by passing it the command line parameter /r. This parameter is set by the installation routine on the shortcut in the startup folder.

**Seconds delay** Specifies an optional delay time before Auto Start Manager will start any programs. During this time Auto Start Manager will be minimised and will show the delay countdown in the title text. During this delay time, the application may be closed by right clicking on the program icon, and choosing the menu item "Close". In this case no program will be started.

## Display Group

Set some display options.

**Splash Screen** If checked, the Cool Bay splash screen will be displayed when the program is starting up. Unregistered versions will have this feature permanently checked after the 30 day trial period has elapsed.

**Display Global** If checked, then all definitions will be displayed. If unchecked, Global entries will be suppressed. Global entries are definitions common to all users of this PC. This feature is provided mainly for use with NT where each logon user has his/her own startup folder.

## ***Global user definitions in NT***

When using Auto Start Manager under NT, and depending on system policies possibly also under Win 95/98, different users of a machine each have their own desktops. In such a situation the users will also have their own copies of Auto Start Manager definitions. To allow the sharing of these definitions, Version 1.4 introduced support for globally defined entries that are shared by all users.

Global entries are normally suppressed from the main screen display, but can be included by setting the option "Display Global Entries" on the Advanced options dialog. Global entries are displayed with the letter **G** before the program name on the main screen. These entries may only be viewed/copied in this mode.

To create or alter a global entry, select the menu item "Global" in the Edit menu. You must have Windows Administrator rights to do this - if you don't then this menu option will not be displayed. Global entries can then be created or altered. For convenience your own non-global entries are displayed (with the letter **L** before the entry) and these can be copied if required into global entries.

Global entries should only be used if different users logon to the one machine, and if you find that definitions made by one user are not visible to another user.

## ***Tray Icon***

When timers (delay/action) are used then Auto Start Manager minimizes to the system tray (beside the clock) while these timers are counting down during execution. You can open the main screen by clicking on the Auto Start Manager icon in the system tray. The timers will be shown counting down on the main screen. You can minimize or close the screen without effecting the timers.

Individual timers can be stopped by selecting Cancel Action or Cancel Run on the corresponding items popup menu. To stop all timers, select Exit from the tray icon popup menu. When all the timers have executed, the tray icon will be removed. If the main screen is open this will remain active, otherwise the application will terminate.

### **Tray Icon Popup Menu**

**Open**            Opens the main screen.

**Open on Top**   Opens the main screen so that this remains on top of all other screens.

**Exit**            Terminates the program, cancelling any outstanding timers.

## ***Toolbar Buttons***

The toolbar buttons are as follows:



Create a new program entry - same as menu Edit|New



Create a copy of the selected item - same as menu Edit|Copy



Delete the selected item - same as menu Edit|Delete



Edit the selected item - same as menu Edit|Properties



Display large icons



Display small icons



Display in list mode



Display in report style (default)



Start all programs which meet their conditions now!



Display Help "About" screen - same as menu Help|About

## Program Definition

Use the program definition dialog to define the execution parameters, the conditions for selection, and to view the test/execution results. The program tab is shown below, where the execution parameters and the configuration conditions are defined.

The screenshot shows the 'Auto Start Manager - Program Definition' dialog box with the 'Program' tab selected. The dialog has four tabs: 'Program', 'Frequency', 'Timers', and 'Statistics'. The 'Program' tab contains the following fields and controls:

- Name:** Mail Checker
- ☐ Disable execution
- Program:** E:\Utility\windows\Magic.exe (with a 'Browse...' button)
- Parameters:** (empty text box with a 'Browse...' button)
- Start in:** E:\Utility\windows (with a 'Browse...' button)
- Run style:** Normal (dropdown menu)
- Configuration:**
  - ☐ All configurations
  - ☒ All Users
  - Specific Configuration:** Dock 1 (dropdown menu)
  - Specific Userid:** (empty dropdown menu)
  - Power State:**
    - ☒ Always
    - ☐ Mains Only
    - ☐ Battery Only

At the bottom are 'OK', 'Cancel', and 'Help' buttons.

The fields on this screen are described below.

The Disable execution check box shown after the name allows the disabling of the program definition. Disabled entries can still be edited and started manually (from the popup menu on the main screen), but will not be considered for execution at program startup. Disabled entries are shown with an **X** beside the entry on the main screen. Enabled entries have a checkmark **✓**.

### Program Group

Defines the parameters required to start the program.

**Program** Specifies the program, complete with path name, to be run. Note that an executable (exe, com, bat, pif) must be defined here. If the specified program is not an executable, then an error message will be issued at run time. Quotes are not required in this definition, even if the program or path names include blanks.

The Browse... button beside this field brings up the standard file open dialog which can be used to identify the program without having to type the full pathname.

- Parameters** Specify any command line parameters required for the program. This field is normally left blank. The Browse... button beside this field brings up the standard file open dialog which can be used if you need to pass a filename as a parameter to your program.
- Start in** Specify the start directory for the program. This will default to the directory containing the specified program. Modify directly, or use the Browse... button to call a directory dialog from which the required directory can be selected.
- Run Style** Use to specify the window size when the program starts. Valid styles are Normal, Minimised, and Maximised. Not all Windows applications react to this setting.

## Configuration Group

Define optional testing on hardware configuration and power mode.

**Configuration** If the program should start irrespective of the start (hardware) configuration then set the check box for "All configurations", otherwise uncheck this and select the specific configuration for which this program should be started. When a specific configuration is specified, then this program will only be started when Windows is booted using the specified configuration.

If you want the program to start for more than one, but not for all configurations, then simply duplicate the definition specifying different configurations in each copy.

**Users** If the program should start irrespective of the logon user (if any) then set the check box for "All users", otherwise uncheck this and select the specific user for which this program should be started. When a specific user is specified, then this program will only be started when Windows the specified user logs on during boot processing.

If you want the program to start for more than one, but not for all users, then simply duplicate the definition specifying different users in each copy.

Note the this feature will only be effective if the different users share their desktop settings. In Windows NT this is not normally the case. If the desktop is not shared, then each user must define their own list of program to start. In this case common entries can be defined by using the "Global" entries feature (see section on Global user definitions in NT).

**Power State** If your computer is equipped with Advance Power Management (APM), then these radio buttons are used to define the power mode for which the program should be started. The default value is "Always", which means that the program should start irrespective of whether running on mains or battery power.

If APM is not installed, then these buttons are disabled (greyed out).

## Frequency Definition

The frequency tab on the program definition dialog allows tests based on time dependent conditions.

The screenshot shows the 'Auto Start Manager - Program Definition' dialog box with the 'Frequency' tab selected. The dialog has four tabs: 'Program', 'Frequency', 'Timers', and 'Statistics'. The 'Name' field is set to 'Mail Checker'. There are four main frequency options, each with a checkbox and a sub-group box:

- ☒ Run every day: The 'Days of Week' group box contains checkboxes for Mon, Tue, Wed, Thur, Fri, Sat, and Sun, all of which are checked.
- ☒ Run at all times: The 'Time of Day' group box contains the text 'Run only if between:' followed by two time input fields. The first field contains '00:00' and the second field contains '24:00', with the word 'and' between them.
- ☒ Run every startup: The 'Frequency' group box contains the text 'Minimum between runs' followed by a numeric input field containing '0' and a dropdown menu set to 'Minutes'.
- ☒ Run always: The 'Change Events' group box contains the text 'Run only if change of:' followed by three checkboxes labeled 'Config', 'Power', and 'User', all of which are unchecked.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

### Days of Week

By default “Run every day” is checked. If you wish the program to run only on specific days of the week, then uncheck this, and select the required day or days in the Days of Week group box.

### Time of Day

By default “Run all times” is checked. If you wish the program to run only if Windows is starting at a certain time of day, then uncheck this box, and define the time from and to during which the program should be started. Use the 24 hour clock to define the times. Valid times are from 00:00 - 24:00.

### Frequency

By default “Run every startup” is checked. If you want a minimum time to have elapsed between one execution of a program and the next - for example “only run this once per day”, then uncheck the run every startup box, and set the desired **minimum** interval between executions.

When calculating the interval, the minimum time is said to have elapsed when the start of the specified interval has elapsed. By this is meant an interval of, for example, 1 day will be said to be elapsed once 0:00 hours of the next day arrives. This would mean for example, if the interval is set at 1 day, and the program is run at 23:00 (11pm), then if the next Windows start is at midnight, then the program will be executed again. If you really don't want the execution to occur for at least 24 hours, then specify an interval of 24 hours instead of 1 day.

Note also that these tests only apply to the last time the program was started by the Auto Start Manager. Executions started externally are not counted!

## Change Events

By default "Run always" is checked. If you wish the program to run only if Windows is starting with a different Configuration, Power State, or Logged on user, then uncheck this box, and define the changes which you wish to test. If more than one of the check boxes "Config", "Power" or "User" are checked, then a change in **any** one of these items will suffice.

## Timers

The timers tab on the program definition dialog allows the setting of a delay before the program is started, and also allows the automatic sending of a system command to the started application after a predefined time has elapsed.

Delays are useful to stagger the starting of applications at startup, thereby allowing you to use the computer quicker. The automatic message actions are useful for programs which complete their task quickly, but don't close themselves, and also for programs which refuse to start minimized.

The screenshot shows the 'Auto Start Manager - Program Definition' dialog box with the 'Timers' tab selected. The dialog has four tabs: 'Program', 'Frequency', 'Timers', and 'Statistics'. The 'Name' field is set to 'Mail Checker'. There are three main sections: 1. 'Delayed Execution' is checked, with a 'Delay before starting' of 2 seconds. 2. 'Automatic Action' is unchecked, but the 'Action' section shows 'Close' selected with a 'Perform action after' time of 0 seconds. 3. 'Wait' is checked, with 'Idle' selected under 'Wait for' and a 'Limit waiting to' time of 20 seconds. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

Option	Value	Unit
Delayed Execution	2	Seconds
Automatic Action	0	Seconds
Wait	20	Seconds

### Delay

If the application start should be delayed, then check the delayed execution check box, and set the required delay time in the delay group box. The delay timer countdown starts after all other (non-delayed) items have been processed. The timer is not exact – if your machine is very busy, then the delays may be longer (but not shorter) than specified. A delay time of from 1 second to 999 days is possible.

### Action

Allows the sending of a system command to the application after a predefined time. If desired, then check the automatic action check box, and set the required action, and the time after which the action should take place. The action timer countdown starts after the program is started.



Note that Actions will not currently work for definitions where non-executable programs are specified (i.e. where the associated program is started). For example, if the program name is “readme.txt”, then notepad.exe is started by association – in this case it will not be possible to send notepad an action message.

## Wait

Stops further processing by Auto Start Manager until the started program is idle, has completed, or until the specified time limit is reached. This feature allows serialisation of programs at startup.

Because Auto Start Manager enters a wait state when this option is used, it is important that a realistic time limit is specified on the wait, as not all programs enter an idle state, or indeed finish when expected. In one case, the started program sent a message to all active windows before it completed. Since Auto Start Manager was waiting, it couldn't process the message and so both programs waited for each other!

## Statistics

The last tab on the program definition dialog is the Statistics tab. This simply shows the date & time of the last test and execution of the program, along with the result of the last test or the last execution (if the test was successful).

