Windows Enforcer, Version 3.0c, 1996

Windows Enforcer protects systems that are accessible to many people and require a consistent configuration and a consistent, limited selection of services. It is also great for <u>child-proofing</u> a system. This is accomplished by insuring that specified tasks either never run, always run, or are allowed to run. It is easy to configure and requires little to no modifications to your current system configuration. Windows 95 is required.

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Installation

Copy the files enfrun.exe, enfrun.hlp, enfset.exe, tada.wav, and boom.wav to the Windows directory (c:\windows, c:\winnt, etc..). Place the <u>enforcement program, enfrun.exe</u>, in your startup group so that it is executed whenever your 32-bit version of Windows (Windows 95 or NT) starts up or follow the more detailed steps in the <u>security section</u> for Windows 95. Use the <u>setup program, enfset.exe</u>, to define your password, which is used to terminate Windows Enforcer, and the tasks to enforce. When enfrun.exe starts, it will flash on the screen once to let you know it is running and then appear as an icon in the system tray. Once these steps are complete, reboot and you are ready.

If for some reason you wish to remove Enforcer from your system just reverse the steps you took to install it. First make sure enfrunces is not running. Then remove the files you copied to the Windows directory. Finally, undo the method you used to get enfrunces to execute on Windows startup.

System Requirements: Windows 95 or Windows NT.

Task Definition (Main Dialog, enfset.exe)

Uptions Hegister Help	
ask List:	
	OK
	Cancel
	Add Task
	EditTask
	Delete Task
	Stop Dessured

Task List: This list displays the currently enforced tasks. To add a task, press the **Add Task** button. To edit a task, select the desired task and press the **Edit Task** button. To delete a task, select the desired task and press the **Delete Task** button.

Add Task: Press this button to display the <u>Add Task</u> dialog and add a new task to the Task List.

Edit Task: Press this button to display the <u>Edit Task</u> dialog and edit the settings of the task that is selected in the **Task List**.

Delete Task: Press this button to delete the task selected in the Task List.

Stop Password: This button will display the <u>**Stop Password</u></u> dialog</u>. You may enter a stop password if one has not been defined or change the current stop password. The stop password is used to terminate the execution of the <u>Enforcement Dialog</u> software. This is the only manner in which Windows Enforcer can be terminated. Other attempts such as CTRL+ALT+DEL, ESC, etc. are protected against.</u>**

OK: This button saves the current settings and dismisses the dialog. If the <u>enforcement</u> <u>software, enfrun.exe</u>, is currently running the changes made will take affect in approximately a minute.

Cancel: This dismisses the dialog without saving the changes.

Dialog Menu:

File -> Close: Dismisses the dialog (the same as Cancel)

Options -> Only Specified Tasks To Run: Only tasks marked as <u>Task Execution Optional</u> or <u>Task Must Always Run</u> will be allowed to execute if this option is checked. If it is not checked, any task that is not marked <u>Task Must Never Run</u> will be allowed to execute. **Options -> Event Sounds (WAV files)**: Displays the dialog to control Enforcer's <u>Event</u> <u>Sounds</u>.

Register -> Register...: Displays the <u>**Registration**</u> dialog.

Help -> Help...: Displays this help file.

Help -> About Windows Enforcer...: Displays the About dialog.

Stop Password

Stop Password	
Old Password:	ОК
New Password:	Cancel
Confirm:	

The **Stop Password** dialog defines or changes the password that halts the execution of the **<u>enforcement software</u>**. A **Stop Password** must be defined.

Old Password: This field accepts the current password, if one exists, prior to a change.

New Password: This field accepts the new or changed password.

Confirm: This field accepts the new password again as a confirmation that it was typed correctly.

OK: This button saves the changes and dismisses the dialog.

Cancel: This button dismisses the dialog and does not save the changes.

Enforcement Dialog (enfrun.exe)

OK

The **Enforcement Dialog** will run as an icon in the system tray and is used to accept the Stop Password to halt execution of enfrun.exe. The password is required for the process to terminate. Windows Enforcer cannot be terminated in any other way.

Password: This field accepts the <u>Stop Password</u> defined using the Stop Password dialog of the <u>Task Enforcement setup</u> software (enfset.exe).

OK: This button accepts the password.

IMPORTANT: To Insure Proper Security

- Place the enforcement program in your startup group so that it executes as soon as Windows starts. The enforcement program can also be started when Windows starts by performing step #2 below.

- If you have a system with highly sensitive data and/or that is prone to be tampered with by "hackers", then Windows Enforcer should only be part of the security measures you take. To protect against tampering through system reboots, a BIOS password or similar boot password utility should be utilized. To protect against a safe-mode reboot without a reboot password here is an alternative.

1) Windows 95 creates a hidden, read-only system file named MSDOS.SYS in the root of the computer's boot drive (usually c:). Change the properties on this file and edit it to change or add the following in the [OPTIONS] section to increase security. These values are Boolean with a value of 1 (enabled) or 0 (disabled).

BootGUI=0 : This will disable automatic graphical startup into Windows 95.

BootKeys=0 : This will prevent any startup keys (F5, F6, and F8) from functioning.

BootFailSafe=0 : This will disable Safe Mode for system startup.

This will prevent a safe-mode reboot. DISABLED SAFE-MODE WARNING: Make sure you have a reboot floppy available in case you need to correct any problems that may be encountered in the future.

2) Add the following to the bottom of you autoexec.bat file

win c:\windows\enfrun.exe

This will execute enfrun.exe as soon as Windows comes up without enfrun.exe being in your startup group. This can be used independent of step #1 if you wish enfrun.exe to be executed at Windows start without placing it in your startup group.

This assumes that you placed enfrun.exe in c:\windows. Simply change the path to where you placed enfrun.exe and you're set. Only one of these lines can exist in your autoexec.bat.

- A task name is usually the text displayed as the title of the main window of a program. Sometimes it is not. In these rare cases the <u>Browse</u> feature can help determine the task name of the program you wish to enforce. The Task Browser dialog will display the task names of the active tasks at the time it is displayed is run. The task list it displays will not update automatically but can be updated by selecting the <u>Update</u> button.

- It is best to setup the tasks you wish to enforce and then start or restart the enforcement software (enfrun.exe) to insure that all desired tasks are properly enforced.

- For additional security try WorkStation Lock and Windows Task-Lock. These programs provide password access to your system and specified tasks on your system. WorkStation Lock, wrklckxx.zip and Windows Task-Lock, sgllckxx.zip (where xx is the version number) can be found on the major on-line services and the WWW.

Registration

If you use an unregistered **Windows Enforcer** you will notice that every time you accept a password on the <u>Enforcement Dialog</u>, a box appears indicating you are unregistered and it displays the password you entered using the <u>Windows Enforcer Setup Dialog</u>. When you send in your registration, I will return you a registration number that you will enter on the registration dialog of the <u>Windows Enforcer Setup Dialog</u>. This dialog can be reached from the menu of the <u>Windows Enforcer Setup Dialog</u>. This will register the software and you will no longer get the annoying box that displays your password.

🔒 Reg	istration		×
Regis	tration Number:		
	ОК	Cancel	

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Stephen A Jernigan PO Box 21015 Huntsville, AL 35824 USA

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Please report any bugs, suggestions for improvement or new features you would like to see. I can be reached through email at 103672.2634@compuserve.com

- Version 1.0

- Initial Release
- Version 1.1
 - Corrected a bug that allowed shutdown during error dialog.
- Version 2.0
 - Added the Execution Optional task setting and removed the 50 task limit on the number of tasks that could be defined.
- Version 2.1
 - Enforcer (enfrun.exe) now runs from the system tray instead of the Taskbar and a conflict with Windows Task Lock was corrected.
- Version 3.0
 - Optional user specified wav files for the Startup and Access Denied events. Protection against multiple copies of enfrun.exe running, task name matching from the beginning or at the end, a few bugs fixed and better performance when used with WorkStation Lock.
- Version 3.0b
 - Corrected a bug that disabled the screen saver on some systems and a bug that truncated longer program filenames on the Add Task dialog.
- Version 3.0c
 - Command line arguments now allowed on Must Run tasks.

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enfset.exe enfrun.hlp enfrun.exe boom.wav tada.wav readme.txt

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Add Task/Edit Task

Add Task	×
Task Must Never Run:	OK
C Task Must Always Run:	Cancel
O Task Execution Optional:	
Task Name:	
	Browse
Program Name:	
	Browse
Run Normally	

The Add Task and the Edit Task dialog function in the same manner. The Add Task starts with the defaults and the Edit Task with the settings of the task selected from the Task List on the main dialog. If you want to <u>enforce the MS-DOS Prompt</u> to Never Run then special steps need to be taken to properly set the Properties.

Task Must Never Run: This indicates that the specified **Task Name** must never be allowed to run. For this option the **Program Name** is not required.

Task Must Always Run: This indicates that the specified Task Name must always run. The **Program Name** is required for this option.

Task Execution Optional: This indicates that the specified **Task Name** may or may not execute as the user desires. This option is useful if you want to allow only a few known tasks to be executed as needed and you need to lock out any other applications. This is particularly useful when you don't know what those other apps might be. For this option to be enforced, the <u>Only Allowed Tasks To Run</u> option must be checked under the <u>Options</u> on the main menu. For this option the **Program Name** is not required.

Some examples on using these settings are provided.

Task Name: Enter the name of the task you wish to enforce in this field. The task name is usually the same as the text displayed as the window title. You do not have to enter the whole title. The comparison will be done only on the portion you enter. For example, if you enter *Notepad* as the task name the enforcement software will enforce *(Untitled) - Notepad* or *mytext.ttx - Notepad*. This is an example of task name matching at the end. If you enter *File Man* as the task name, the enforcement software will enforce *File Manager*. This is an example of task name matching at the beginning. The software will not enforce a task that has it's name defined as a substring interior to the task name. For example, *Man* entered as a task name **WILL NOT** result in the enforcement of *File Manager*. To select from a list of the currently running tasks use the **Browse** button.

Browse: This button displays the Task Browser dialog.

Task Browser	l
Selected Task:	ОК
	Cancel
	Update

Simply select the task you wish to enforce from the list box. The task name will appear in the **Selected Task** field. You may return this name as selected to the **Task Definition** dialog or edit it. If some new tasks have started you may select **Update** to refresh the list box. As always **OK** dismisses the dialog accepting the selected task and **Cance**l simply dismisses the dialog.

Program Name: Enter the full path and filename of the executable you wish to always run. This is not required if you have specified the task to Never Run. If you do not know the exact path or name of the executable, then use the **Browse** button. Under the **Program Name**, is a select list with two options: **Run Normally** or **Maintain Maximum Window**. This selection indicates if the program should simply be executed in a normal manner or if it should always be kept as a maximized window. When executed, this program must show up with a title that will match the name specified in the Task Name field or multiple copies of the program may be executed.

Browse: This button displays the **Program Browser** dialog.

Program Browse	51		? ×
Look jn:	🛾 Windows	• 🗈	
Command	🚞 Help	🚞 Pif	🚞 System
📄 🚞 Config	🧰 Inf	🧰 Recent	🚞 System32
📄 🚞 Cursors	🧰 Media	🚞 SendTo	🚞 Temp
📄 Desktop	🧰 Msapps	🚞 ShellNew	🚞 Wangsam
📄 Favorites	🧰 Msremote.sfs	🚞 spool	& Accstat.ex
📄 Fonts	🧰 NetHood	🚞 Start Menu	T Arp.exe
📄 Forms	🧰 New Folder	🧰 Sysbokup	🧱 Calc.exe
1			•
File <u>n</u> ame:			<u>O</u> pen
Files of type: F	Program Files (*.EXE)	•	Cancel

The **Program Browser** is a standard file finder dialog. Simply browse the drives and directories of your choice to find the desired file. Select **OK** when you are done and the program name with a full path will appear in the **Program Name** field.

OK: This button saves the changes and dismisses the dialog.

Cancel: This button dismisses the dialog and does not save the changes.

Special Steps for Enforcing the MS-DOS Prompt

To properly enforce the MS-DOS Prompt, the Properties must be set a certain way. Bring up the Properties dialog and select the Screen tab. When the tab appears, select the Window radio button in the Usage section. This insures that the MS-DOS Prompt will appear as a Window. This is required for the Windows Enforcer to work properly.

MS-DOS Prompt Properties	? ×
General Program Font Memory Screen Misc	
Usage	
○ <u>Full-screen</u> Initial size: Default ▼	
Window	
Display toolbar	
Performance	
Fast ROM emulation	
Dynamic memory allocation	
OK Cancel Ac	olv

Next, select the Misc tab. Make sure the check box in the Termination section is NOT checked. This insures a clean closure of the MS-DOS Prompt window.

MS-DOS Prompt Properties	? ×
General Program Font Mem	ory Screen Misc
Foreground	Mouse <u>QuickEdit</u> E <u>x</u> clusive mode
Background Always <u>s</u> uspend	Termination □ <u>W</u> arn if still active
Low High	Other
Windows shortcut <u>k</u> eys ▼ Alt+Tab ▼ Ctrl+Esc ▼ ▼ Alt+Esc ▼ PrtSc ▼	Alt+PrtSc 🔽 Alt+Space Alt+Enter
ОК	Cancel Apply

After this is done, add the MS-DOS Prompt Properties dialog as a task to Never Run. This is done on the <u>Add Task</u> dialog.

Questions, Answers, and Examples

The following hypothetical questions cover a few generic applications of Windows Enforcer. Combinations and/or variations on the procedures presented here should allow you to set up a system with the configuration control you desire.

Q1: How do I prevent a user from executing a task using the RUN command or mess up my task bar?

Q2: *How do I set up a system to never allow the DOS prompt to run but still let anything else run?*

Q3: How do I set up a system to always run my Demo App and nothing else?

Q4: How do I set up a public system to always run a specific app, allow any of three others to execute if necessary and always lock out anything else even if I don't know what these other apps might be?

Q5: *How do I use Enforcer to child-proof my system?*

Q6: Why does Enforcer keep executing multiple copies of my app?

Q7: *My icon in the system tray is gone. What happened?*

Q1: How do I prevent a user from executing a task using the RUN command or mess up my task bar?

A: The *Taskbar Properties, Display Properties,* and the *Run* commands are accessable from the task bar and as such are child windows of the task bar. These must be added to the task list by manually typing in the titles of their dialogs (i.e. their task names) in the Task Name field of the <u>Add Task</u> dialog. Make sure the <u>Task Must Never Run</u> selection is on for each of these. When you return to the <u>main dialog</u> your task list should now contain Taskbar Properties, Display Properties, and Run. Select OK and you are ready to run enfrun.exe to never allow these commands to execute.

Q2: *How do I set up a system to never allow the DOS prompt to run but still let anything else run?*

A: If enfrun.exe is running, stop it using your <u>Stop Password</u>. Set your DOS prompt's properties as described in the <u>Special Steps for Enforcing the MS-DOS Prompt</u>. When this has been done, bring up your DOS Prompt and keep it running. Now run enfset.exe. If any tasks are defined then delete them. Look at the <u>Options -> Only Specified Tasks To Run</u> menu item and make sure it is **NOT** checked. You are now ready to add the DOS Prompt as a task. Select the Add Task button to bring up the <u>Add Task</u> dialog. Select the Browse button at the end of the Task Name field to bring up the Task Browser dialog. Select the DOS Prompt task from the list box and select OK. Make sure the <u>Task Must Never Run</u> selection is on and then select OK. On the <u>main dialog</u>, your task list should contain only a DOS Prompt to run but still let anything else run.

Q3: How do I set up a system to always run my Demo App and nothing else?

A: If enfrun.exe is running, stop it using your <u>Stop Password</u>. Start your Demo App and then run enfset.exe. If any tasks are defined then delete them. Look at the <u>Options -> Only</u> <u>Specified Tasks To Run</u> menu item and make sure it **IS** checked. You are now ready to add your

Demo App as a task. Select the Add Task button to bring up the <u>Add Task</u> dialog. Select the Browse button at the end of the Task Name field to bring up the Task Browser dialog. Select your Demo App task from the list box and select OK. Make sure the <u>Task Must Always Run</u> selection is on and then select OK. On the <u>main dialog</u>, your task list should contain only a Demo App entry. Some tasks must be specifically added to your task list for them to not execute. The *Run, Display Properties,* and *Taskbar Properties* commands are examples of this. To make sure a user does not reconfigure your system, add these tasks as detailed in the first question of this section. When you return to the <u>main dialog</u> your task list should now contain your Demo App, Run, Display Properties, and Taskbar Properties. Select OK and you are ready to run enfrun.exe to always run your Demo App and nothing else.

Q4: How do I set up a public system to always run a specific app, allow any of three others to execute if necessary and always lock out anything else even if I don't know what these other apps might be?

A: Set up your task list using enfset.exe as described in the previous question. This will set up Windows Enforcer to always run your specified application and prevent all others from executing. Now, Add the three optional tasks using the <u>Add Task</u> dialog. Make sure the <u>Task</u> <u>Execution Optional</u> selection is on for each of the three optional applications. When you return to the <u>main dialog</u> your task list should now contain your specified application, Run, Taskbar Properties, Display Properties, and your three optional tasks. Select OK and you are ready to run enfrun.exe to always run your specific app, optionally run your other three and nothing else.

Q5: *How do I use Enforcer to child-proof my system?*

A: If enfrun.exe is running stop it with your <u>Stop Password</u>. Run enfset.exe. If any tasks are defined then delete them. Look at the <u>Options -> Only Specified Tasks To Run</u> menu item and make sure it **IS** checked. You are now ready to add the applications you wish your children to be allowed to run as tasks. Add each task as described above. When you are finished, your task list on the main dialog should contain only those applications that you wish you children to have access to. Now, to make sure your children do not access a program through the Run command or reconfigure your taskbar, add the Run, Display Properties, and Taskbar Properties tasks as detailed in the first question of this section. When this is complete, set up Windows to execute enfrun.exe as detailed in the <u>IMPORTANT: To Insure Proper Security</u> section This will start Enforcer as Windows comes up and only allow access to the tasks you defined. When you wish to disable the child-proofing, simply bring up the enfrun.exe dialog and type in your <u>Stop Password</u>. Now you have complete access to your system. If you wish to be able to child-proofing with a single selection.

Q6: *Why does Enforcer keep executing multiple copies of my app?*

A: If a task is defined to always run and the task name in the field does not match with the task name of the specified program, then multiple copies of this program will be executed. This happens because Enforcer can't ever find the specified task running so it executes the specified program. An example of this is as follows.

You want to always execute "Notepad" so you define a task name of "Noetpad" and define the

program file as "c:\windows\notepad.exe". Notice the task name is mis-spelled. When Enforcer executes, it will look for the task "Noetpad". It will not find it so it will execute "c:\ windows\notepad.exe". The next time it looks, it still will not find "Noetpad" so it will execute "c:\windows\notepad.exe" again.

To fix this, make sure the task name you specify matches the task name of the program you define.

Q7: *My icon in the system tray is gone. What happened?*

A: In rare cases certain sequences of events will cause the system tray to clear. Enforcer is still running, the icon has just been erased. To get the icon back, simply run another instance of Enforcer, enfrun.exe, and this will restore the icon in the system tray. Even though you have run Enforcer twice, only one copy will remain active.

Event Sounds (WAV files)

4	Eve	ent Sounds (WAV files)	×
		Preview Startup WAV	ОК
	P	review Task TerminationWAV	Cancel
		Startup WAV file:	
	◄	Tada.wav	Browse
		Task Termination WAV file:	
	☑	Boom.wav	Browse

The Event Sounds dialog allows the user to specify WAV files to be played when Enforcer starts up or when a prohibited task is kept from running.

Startup WAV file: This field contains the filename of the WAV file that will be played when Enforcer starts. The **check box** to the left of this field indicates if the specified file should be played (checked) or not played (unchecked) for this event. If you do not know the filename or specific location, choose the **Browse** button to the right of this field.

Preview Startup WAV: This button will play the WAV files specified in the **Startup WAV file** field. If this button is not active then the check box is not checked and/or the specified WAV file can't be found.

Task Termination WAV file: This field contains the filename of the WAV file that will be played when Enforcer stops a prohibited task from running. The **check box** to the left of this field indicates if the specified file should be played (checked) or not played (unchecked) for this event. If you do not know the filename or specific location, choose the **Browse** button to the right of this field.

Preview Task Termination WAV: This button will play the WAV files specified in the **Task Termination WAV file** field. If this button is not active then the check box is not checked and/or the specified WAV file can't be found.

OK: This button saves the changes and dismisses the dialog.

Cancel: This button dismisses the dialog and does not save the changes.