

EFW and HORM Configuration Utility for Rockwell Automation Industrial Computers

About This Publication

This publication provides instructions on how to use the Enhanced Write Filter (EFW) and Hibernate Once/Resume Many (HORM) configuration utility. This utility is available only on these Rockwell Automation industrial computers that come with the Windows Embedded Standard 2009 (WES 2009) operating system:

- 6155F compact non-display computers
- 6181F integrated display computers

You can view or download this publication at <http://rockwellautomation.com/literature>.

About the EWF and HORM Utility

EFW protects a volume from write access by caching writes to another location. This helps extend the life of solid state media and can help reduce possible corruption to the operating system due to unplanned power outages. HORM allows the system to boot from a hibernation file while EWF is enabled.

For more information on EWF and HORM, go to the Microsoft website at <http://www.microsoft.com>.

Managing EWF

EFW can be managed on the run-time image in these two ways:

- Rockwell Automation EWF/HORM configuration utility
- Microsoft EWF/MGR command line utility

The EWF/HORM configuration utility provides commonly used features of the Microsoft EWF/MGR utility and an easy to use graphical interface.

For more information about managing EWF with the EWF/MGR command line utility, see the Microsoft website at <http://www.microsoft.com>.

Start the Utility

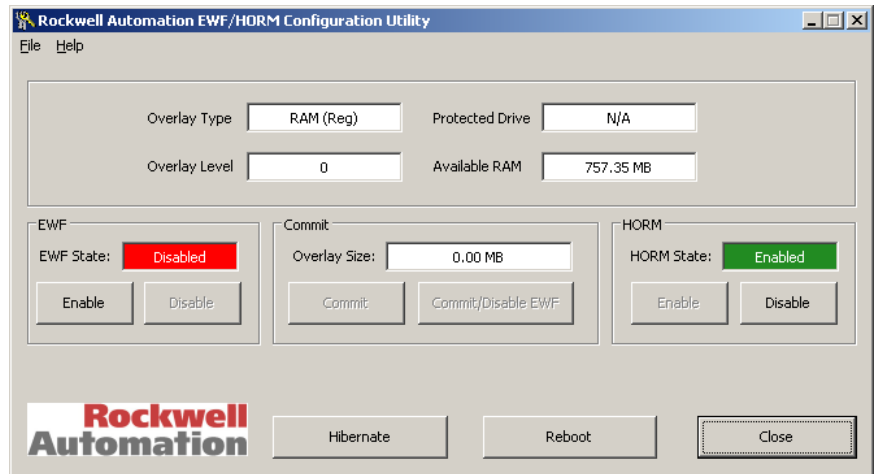
The EWF/HORM configuration utility is pre-installed on all WES 2009 images and can be found as 'EWFHORM Utility.exe' in C:\Program Files\EWFHORM Utility\. A shortcut has been provided for the initial administrator logon.

TIP Only users with administrator rights can make changes to the EWF/HORM utility.

To start the utility, double-click the EWFHORM utility shortcut.



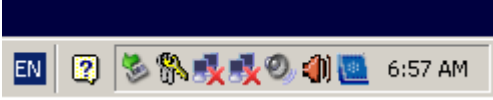
The shortcut loads the utility and displays this dialog box.



Field Descriptions

Field	Description
Overlay Type	Displays the current mode of EWF. RAM (Reg) is the only mode supported on Rockwell Automation WES 2009 images and cannot be changed. This mode caches all writes to the physical random access memory (RAM) and the configuration information is stored in the system registry.
Protected Drive	Displays the volume protected by EWF. This will default to C: and cannot be changed on the run-time image.
Overlay Level	Some EWF configurations can allow multiple overlays. The RAM (Reg) mode allows only a single overlay and cannot be changed.
Available RAM	Displays the amount of physical RAM available to the system. EWF can attempt to allocate more physical RAM than is installed on the computer. The system can become unstable and unresponsive if the amount of physical RAM is too low. See Commit Changes to Disk for methods to free up physical RAM. For instructions on adding more RAM, see your computer's user manual.
EWF Status	Displays the current status of the EWF. For more information on managing EWF, see the following sections.
Overlay Size	Displays the current size of the overlay size. This must be less than the amount of available RAM or else the system can become unstable. For more information on managing the overlay size, see the following sections.

Field Descriptions

Field	Description
HORM Status	Displays the current status of HORM. This is enabled by default. For more information on managing HORM, see Enable HORM and Disable HORM .
Hibernate	Hibernates the system. HORM must be enabled for the system to hibernate. If hibernation is not enabled on the system, the Hibernate button will put the system into standby.
Reboot	Restarts the system.
Close	Closes the application. Minimizing the application at any time will then display an icon in the system tray. 

Enable EWF

The factory image comes with EWF in the disabled state.

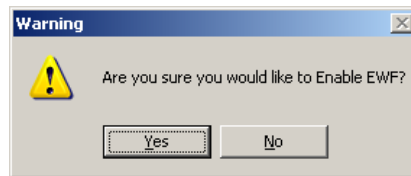
Follow these steps to enable EWF.

1. Click Enable.



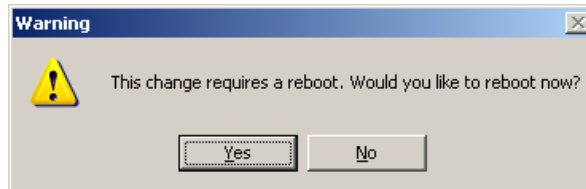
TIP Enable is unavailable if EWF is already enabled.

2. Click Yes to enable EWF.

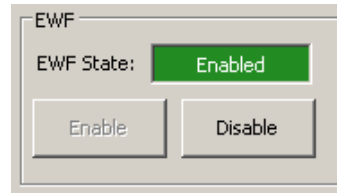


Enabling EWF requires a system restart.

3. Click Yes to restart.



Once EWF is enabled, the status screen displays Enabled.



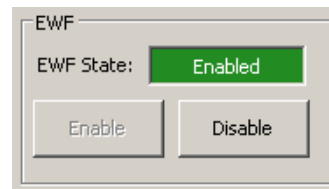
Disable EWF

The following method is used to clear the contents of the overlay and disable EWF for RAM (Reg) overlay types.

Please see [Commit Changes to Disk](#) if you would like to commit changes in addition to disabling EWF.

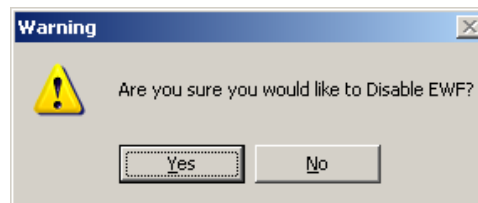
Follow these steps to disable EWF.

1. Click Disable.



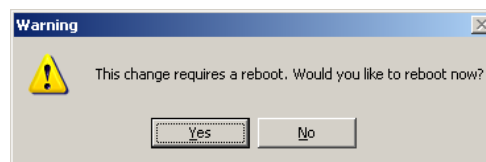
TIP Disable is unavailable if EWF is already disabled.

2. Click Yes to disable EWF.



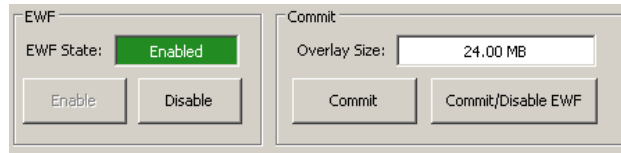
Disabling the EWF requires a system restart.

3. Click Yes to restart.



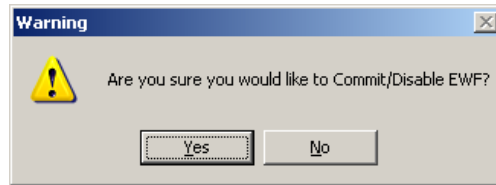
4. Once the system restarts, start the utility.
5. Click Commit/Disable EWF to complete the disable process.

This will make sure the overlay is empty and immediately disable EWF.

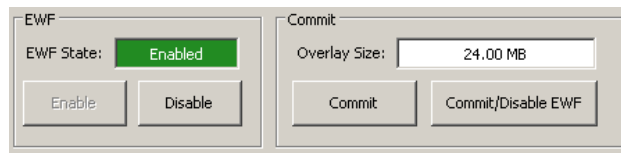


No restart is necessary after this step.

- Click Yes to commit/disable EWF.



The EWF state will then change to disabled and all RAM utilized for the overlay will be returned to the operating system.



Commit Changes to Disk

All changes to a system are lost on a power outage or restart while EWF is enabled, unless they are committed to disk.

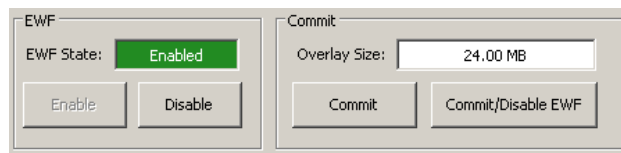


ATTENTION: Enabling EWF for long periods of time can fill the RAM overlay. The system will become unstable if changes are not committed to disk or restarted before the physical RAM is depleted.

If the overlay continually becomes full, examine your applications' use of RAM or consider adding more RAM to your system. For more information about adding RAM to your system, see your computer's user manual.

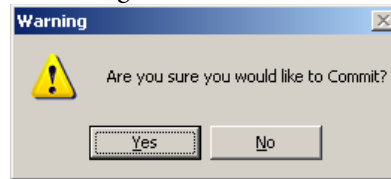
Follow these steps to commit changes to disk.

- Click Commit.



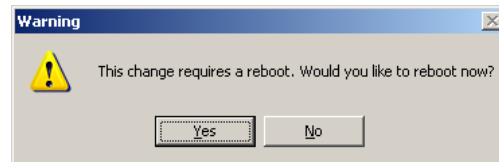
TIP Commit is unavailable if EWF is not enabled.

2. Click Yes to commit changes.



Committing changes requires a system restart.

3. Click Yes to restart.

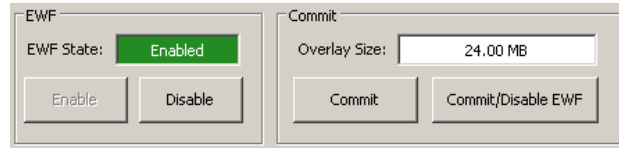


The changes will be committed and EWF will remain enabled once the system restart.

Commit Changes and Disable EWF

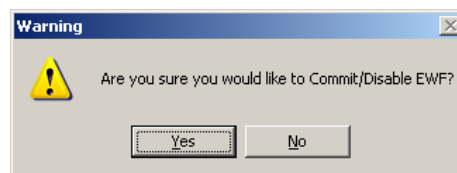
Follow these steps to commit changes and disable EWF.

1. Click Commit/Disable EWF.



TIP The Commit/Disable EWF button is unavailable if EWF is not enabled.

2. Click Yes to commit/disable EWF.

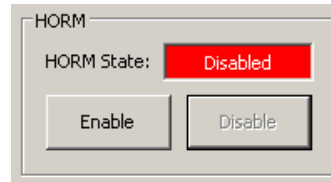


No restart is necessary after this step. The changes will be written to disk and EWF will be in a disabled state.

Enable HORM

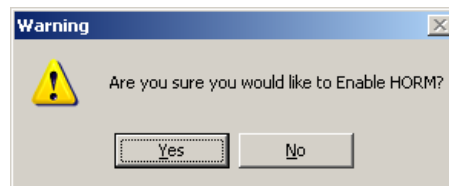
Follow these steps to enable HORM.

1. Click Enable.

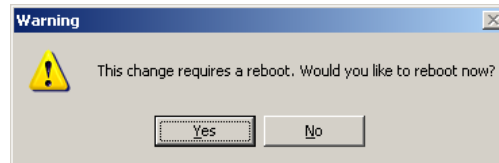


TIP Enable is unavailable if HORM is already enabled.

2. Click Yes to enable HORM.



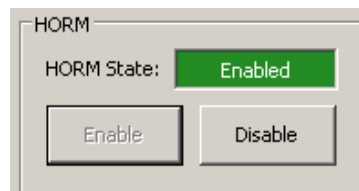
3. Click Yes to restart.



Disable HORM

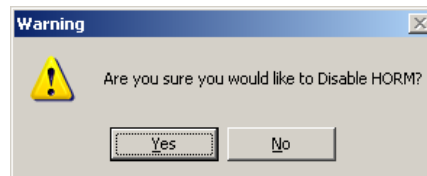
Follow these steps to disable HORM.

1. Click Disable.

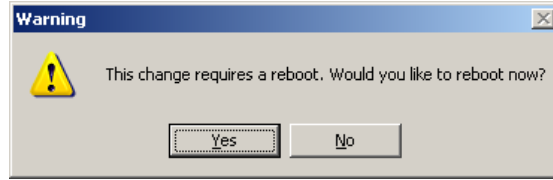


TIP Disable is unavailable if HORM is disabled.

2. Click Yes to disable HORM.



3. Click Yes to restart.



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Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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