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## Security Reinforcement Software

# MEIDEN

## AhnLab WhiteShield for MEIDEN

Protecting your controllers against the threat of viruses and worms



# Prevention of Human Errors and Intrusion by Viruses and Worms



WhiteShield  
for MEIDEN

WhiteShield offers a high level of authority management by which the Windows system administrators is controlled through compulsory access in order to protect the controllers against the intrusion of viruses and the like. When WhiteShield is loaded on a controller, it functions as a filter driver between the applica-

tion and the kernel. When a process or a user tries to access a local system, access control is activated for the resources based on the preset permission list (white list) irrespective of the competence of the OS. This product prevents the intrusion of viruses and worms and also human errors.

## Features

### Easy introduction to manufacturing sites

Virus intrusion and other malicious actions can be avoided by incorporating this software in controllers and industrial PCs used in the manufacturing sites where introduction of anti-virus software is difficult to accomplish.

### Prevention of new virus types possible without suspension of fieldwork

In an environment where WhiteShield has been introduced, virus pattern filing and program updating are unnecessary to carry out. It is unnecessary to stop production. It is possible to prevent new virus types for which pattern recognition is impossible with normal anti-virus software.

### No influence upon CPU loads

Stable operation of controllers and industrial PCs can be realized while perfect security is maintained since there is no high load on the CPU like virus scanning, etc.

### Provision of folder protection functions

Thanks to the folder protection functions that control the accessible applications for specified folders, confidential data and files relating to production are protected with a high degree of security.

## Modal changes enabled

Operation mode	Functions
Enable Mode	The white list is active and data are saved in a log if a violation of access occurs. In this case, such violations are stopped.
Disable Mode	No white list is active and data are not saved in the log even if a violation of access should occur. In this mode, WhiteShield functionality is turned off and the ordinary OS is actuated.
Install Mode	This mode is used when installing an application. If there is any executable file, it is automatically added to the white list.
Test Mode	The white list is active and data are saved in the log if an access violation occurs. However, violations are not interrupted. This mode is used to test if there is any problem in the preset white list.

## Scope of WhiteShield applications

- Security-based measures taken for controllers and industrial PCs
- Prevention of diffusion of viruses and worms
- Protection of confidential data

## Configuration

WhiteShield is composed of the agents in charge of executing security functions and the manager in charge of security policy setup and management of such agents.

**● Agent**  
An agent is defined as the main WhiteShield program installed in the controller that is being protected. Based on the white list, it performs access control for the processes and users. According to the managerial needs and requests, measures are taken for responses and transactions. Therefore, the manager is never called by an agent.

**◆ Hardware environment Least specifications**  
CPU: Intel Celeron M/600MHz or above  
RAM: 256MB or more  
HDD: 50MB or more  
Network: 10Base-T/100Base-TX

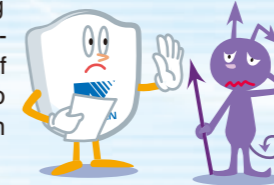
**● Manager**  
A manager is defined as a managing program intended to control one or multiple agents. In order to control the agents, there are functions to establish, revise, and circulate the white list to be applied to the respective agents. It is possible to put agents in groups by examining each agent log.

**◆ OS environment**  
Windows XP Embedded SP1/SP2/SP3  
Windows XP Professional SP2/SP3  
Windows 2000 Professional SP4  
Windows Server 2003 SP2  
Windows Embedded Standard 2009

## Functions

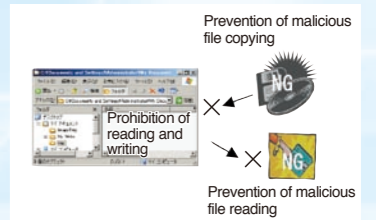
### Starting process restrictions with the White List system

When a process or a user tries to access a local system, access control is carried out for the resources based on the preset permission list irrespective of the competence of the OS of the process or the user. This permission list is called the white list. When the white list is adopted, by controlling the accessing actions, WhiteShield is powered to prevent the intrusion of viruses and worms and also misoperations due to human errors.



### Folder access control

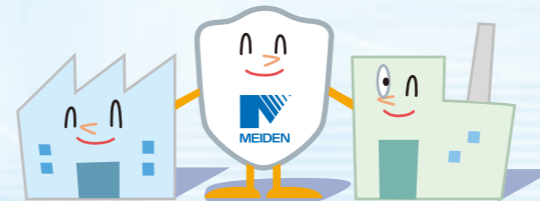
By setting up an accessible process for a folder, access control becomes possible for this folder. With this function, it is possible to protect important files and prevent the leakage of confidential files.



- Since data writing is impossible, no data can be copied into a file. = No intrusion of viruses
- Since data reading is impossible, files cannot be fetched by unscrupulous means. = Prevention of information leakage

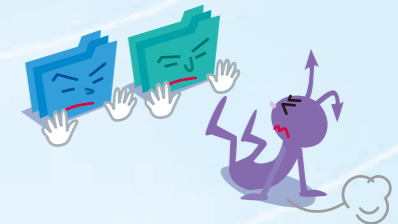
### Low resources

Industrial controllers have been optimized where conditions are rigorous in terms of hardware resources. Therefore, operation with low resource utilization is possible.



### File access control with extensions

For files with extensions that are considered liable to be attacked by hackers, intrusion of malicious files can be prevented by controlling the usage-enabled files in advance.



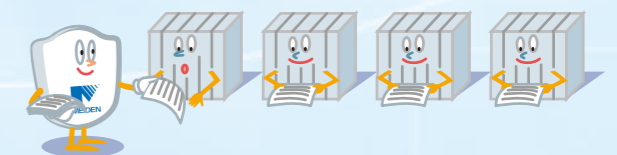
### Audit log functions

If there is any action that violates the preset white list, information about the violation is recorded.



### Simultaneous distribution of policy

For controllers under the same environment, the same white list can be distributed all at once. By taking such an action, it is possible to unify the security level easily.



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