

DigiVis 500

Engineering Manual Security Lock



IndustrialIT
enabled™



DigiVis 500

Engineering Manual
Security Lock

Version 1.0

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About This Book

Use of Warning, Caution, Information, and Tip Icons

This publication includes **Warning**, **Caution**, and **Information** where appropriate to point out safety related or other important information. It also includes **Tip** to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:



Electrical warning icon indicates the presence of a hazard which could result in *electrical shock*.



Warning icon indicates the presence of a hazard which could result in *personal injury*.



Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard which could result in *corruption of software or damage to equipment/property*.



Information icon alerts the reader to pertinent facts and conditions.



Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although **Warning** hazards are related to personal injury, and **Caution** hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process performance leading to personal injury or death. Therefore, comply fully with all **Warning** and **Caution** notices.

Typographic Conventions

All text entries, shortcuts, prompts, system messages, menu items, screen elements etc. comply with the Microsoft Windows conventions.

Terminology

You will find a complete and comprehensive glossary at the end of this Manual. This glossary contains terms and abbreviations that are unique to ABB or have a usage or definition that is different from standard industry usage. Please make yourself familiar with the glossary.

Related Documentation

The following list gives an overview of the documentation relating to the DigiVis 500 system.

Title	Number
Getting Started	2PAA104347R0103
Engineering Manual, DigiVis 500 Graphics Builder	2PAA104345R0101
Operators Manual, DigiVis 500 Operations	2PAA104346R0101



The manuals listed above are for the DigiVis 500 system only. These manuals should be supplemented by the AC500 related documentation (PS501 CD, Documentation).

Section 1 Security Lock

General Description

Security Lock is a **separate auxiliary program** for the scalable control system DigiVis 500. It provides access control for configuration with DigiVis 500 Graphics Builder and for **operation and observation with DigiVis 500 Operations**. The access control system can be implemented for an entire DigiVis 500 System with a single Security Lock licence.

It is possible, even **without** Security Lock, to specify during configuration with DigiVis 500 Graphics Builder whether or not the operator at an operator station is allowed, for example, to alter a controller set-point. This specification influences the access rights for every operator on the operator station.

In contrast, **with** Security Lock, it is possible to give operator A permission to operate a controller but not operator B.

A prerequisite is that the set-point has been marked as adjustable in the controller parameter mask. Then with appropriate entries in the tag list, permission to operate the controller is given to operator A and denied to operator B.

In a system with Security Lock installed, users are required to **login** before using DigiVis 500 Operations or DigiVis 500 Graphics Builder.

Technical Limitations:

Number of access groups (user profiles)	max. 16
Number of users.	max. 1000

Procedure Overview

On the Engineering Station

- Installing Security Lock on engineering station (PC with DigiVis 500 Graphics Builder)
- Assign groups to project with DigiVis 500 Graphics Builder (Project Tree -> Edit -> User groups).
- Using DigiVis 500 Graphics Builder, specify the project rights of each group in the tag list and in the project tree.

On the Operator Stations

- Installing Security Lock on the operator stations (PCs with DigiVis 500 Operations)
- Determine the groups and their system rights with Security Lock. (if necessary by copying the file DIGIMAT.UID from the engineering station to the control station).
- Add user and assign to the groups

Security Lock Installation

Security lock can be installed on every PC which is to be used in the DigiVis 500 System. If there is an operator station without security lock, the users on this station have all rights.

Security lock installation is carried out by selecting the option security lock in DigiVis 500 setup. This program puts a file named SECURITYLOCK.EXE in the DigiVis 500 EXE directory.

Starting Security Lock Setup

The setup of Security Lock is done while installation using the DigiVis 500 Installation CD. Check the Security Lock Option for the PC during installation.

Using the Task Bar, the program can be started as follows:



Start ->Programs-> ABB Industrial IT -> DigiVis 500 -> Security Lock



After the installation of Security lock, the user GUEST is logged in DigiVis 500 Graphics Builder and DigiVis 500 Operations.

He has no rights, that means:

- **GUEST is not able to configure with DigiVis 500 Graphics Builder,**
- **GUEST is not able to operate and observe with DigiVis 500 Operations.**

For solving this problem you have to configure users, groups and their rights immediately.

Initial Password for starting Security lock



The Initial Password required to run Security lock for the first time after installation is: **admin**

When the program is first run, this password should be changed.

Call-up of Security lock

There are three possibilities to call-up Security lock:

Call-up from DigiVis 500 Graphics Builder



DigiVis 500 Graphics Builder opening menu ->Options ->Run Security Lock

Prerequisite: The user logged into DigiVis 500 Graphics Builder must be authorized to configure the Security Lock.

Call-up from DigiVis 500 Operations



DigiVis 500 Operations menu ->Options ->Run Security Lock

Precondition: The user logged in to DigiVis must be authorized to configure security Lock.

Call-up from the Windows XP Task Bar



Start ->Programs-> ABB Industrial IT ->DigiVis 500 ->Security Lock

Security Lock Password

General Note on Security Lock Password

The password must be given each time the Security Lock configuration dialog is started.



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The initial password, which must be used when starting Security Lock for the first time after installation, is: admin

The password is masked using * to prevent it from being compromised.

Changing the Security Lock password



Security Lock ->File ->Password

A screenshot of a Windows-style dialog box titled "Security Lock password". It contains three text input fields: "Old password:", "New password:", and "Please retype:". Below the fields are two buttons: "OK" and "Cancel". The dialog box has a standard Windows title bar with a close button (X) in the top right corner.

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In order to set a new password, the old password must be re-entered. The new password must then be typed in twice identically. Clicking OK stores the new password immediately; it must then be used for future starts of the Security Lock configuration dialog.



If you forget the password, please contact our technical service personnel.

User interface

Menu overview Security Lock

File	Save	save current file
	Backup	backup of the current file
	Restore	restore file from backup
	Password	Change the password of security lock
	Exit	Exit Security lock
Edit	Add	Add a new entry
	Delete	Delete entries
	Modify	Modify entries
	Rename	Rename users or groups
	Set password	Change user password
View	Users	User data
	Group	group data
	Toolbar	Switch on/Switch off
	Status bar	Switch on/Switch off

Description of the Toolbar

All important functions are represented by buttons in the toolbar.

Ext. diag. launches DTM's on DigiVis (only in a Freelance 800F system)

Group entries can be modified, deleted or created with the Edit menu or with the appropriate tool from the toolbar.



The group GUEST is always available and cannot be edited, renamed or deleted. These settings apply to every project run on the associated engineering station.

Add a new group



Edit>Add>Enter a new group

Delete a group

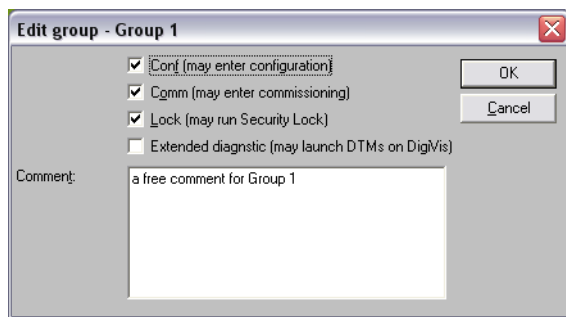


Edit->Delete

Modify group entries



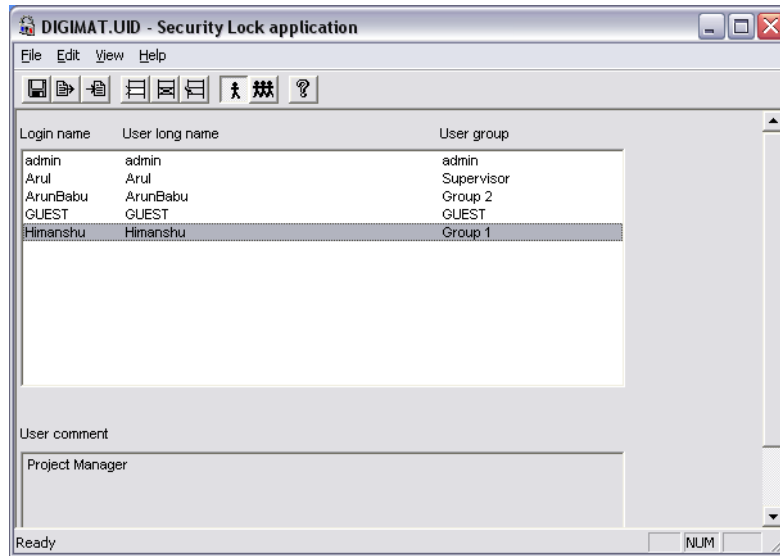
Edit->Modify



User Data



View->User



User entries can be edited, deleted or created with the Edit menu or with the appropriate tool from the tool bar.



Only the user GUEST cannot be edited, renamed or deleted.



A user obtains the system rights of the group assigned to him/her.

Login name

Name of the user, to be used for logging in into system. May be 8 characters long.

User long name:

Arbitrary text. Preferably the exact identification of user.

User group

Name of the group the user is assigned.



A user can be assigned to several groups through different login names

Add a new user



Edit->Add ->Enter a new user

Delete an user

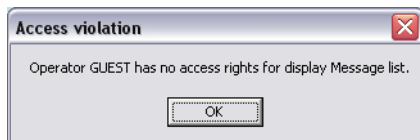


Select user entry->Edit-> Delete

Modify user entries



Select user entry->Edit-> Modify



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Change user password

User password is initially set to the corresponding login name. The password can be changed by the user, either in DigiVis 500 Operations or in DigiVis 500 Graphics Builder.

If a user changes his password, the new password is not changed for all PCs in the DigiVis 500 system. The user has to change his password on every PC in the DigiVis 500 system, if he wants to have the same password everywhere as the configuration of Security lock is stored locally. See also [Security Lock and several PCs](#) on page 18.

If necessary the supervisor can input a new password for each user.



Menu security Lock -> Edit ->Set password

Security lock on Operator Station

Group and user data must also be configured on every control station. This can be done in the same manner as described on [Configuring users and groups with Security Lock](#) on page 11.

To spare unnecessary work, the file DigiMat.UID from the engineering PC can be copied to operator stations after configuring the groups and users.

On the operator station (with DigiVis 500 Operations), the Security Lock operator sees the following:

- Each user must log in before being allowed to perform any operations.
- The user name always appears in the status line.
- Entries or operator actions recorded in the signal sequence log can include the login name.

Standard user names

- NOLOCK No Security Lock licence
- GUEST No user logged on, e.g. just after start of DigiVis 500 Operations
- SYSTEM System-initiated operation events (may appear in the signal sequence log)

When a user without proper authorization attempts to operate a display, the following message box will pop up:



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In addition, the lack of authorization will be signalled in the status line by highlighting the user name and focus icon in red.

Access rights configuration for the project

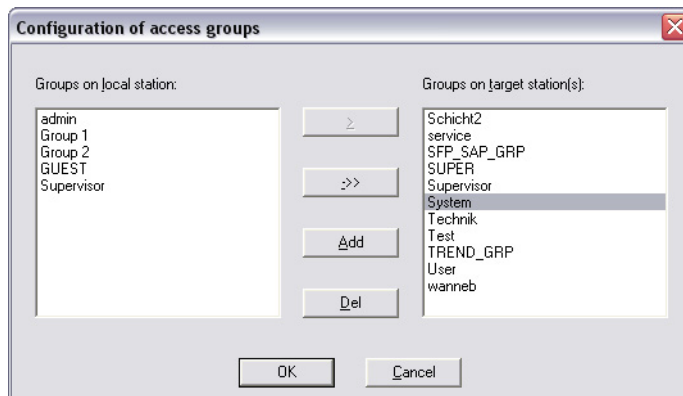
Specification of target PC user groups in the project

Different user groups can be defined on the engineering station and the operator stations. For this reason, the user groups of the target PC must be specified in the project.

The project tree has a submenu for configuration of access groups.



Edit ->User Groups



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- > The selected local engineering station groups are added to this project
- >> All groups on the local engineering station are added to this project.
- ADD Add a new access group to this project.
- DEL Delete an user group from the project.

Configuring access rights to displays and logs with DigiVis 500 Graphics Builder.

Which faceplates can be accessed by which user groups is specified in the DigiVis 500 Graphics Builder tag list. See also Engineering Manual, DigiVis 500 Graphics Builder.



Project tree ->System ->Tag list

select one or more tags by dragging the mouse over them (with the mouse button depressed)

Edit ->Access rights

Which **standard displays, logs, graphic displays and reports** can be accessed by which access groups is specified in the DigiVis 500 Graphics Builder project tree



Project tree ->select one or more displays in the project tree by dragging to mouse over them (with the mouse button depressed)

Edit->Access rights

Inheritance hierarchy of access rights

On inserting a new object, this object will obtain the access rights of its next-higher project tree node (parent node) as a default entry.

The following inheritance hierarchy has been established in order to simplify the configuration

- An existing object has to get the modified access rights that applies to its next-higher project tree node (parent node).



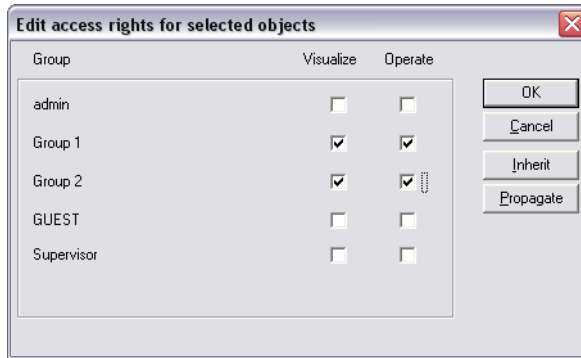
access rights dialog ->INHERIT

- The rights currently applying to a project tree node can be forcibly assigned to all of the objects under it (it's children).



access rights dialog ->PROPAGATE

When an object is moved or copied, its rights (or those of the copy), remain unchanged.



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- ✓ Access right applies to all selected objects (displays or tags)
- Access right applies to only some of the selected objects.
- Access right does not apply to any of the selected objects (displays or tags).

INHERIT Set the rights over each of the selected objects to those of the project tree node above it.

PROPAGATE Force the currently configured access rights applying to the selected project tree node to apply to all of the objects below it (child objects).

Security Lock and several PCs

If a user changes his password on a PC, the new password is not changed for all PCs in the DigiVis 500 system. The configuration of Security Lock (user names, passwords and the assigned user groups) is stored in a file called DIGIMAT.UID in the Windows directory.

The user has to change his password on every PC in the DigiVis 500 system, if he wants to have the same password everywhere.

Alternatively copying the file DIGIMAT.UID to the other PCs will change the password. This is however not possible if the operator station is active.



The configuration of Security Lock is local.



This makes it possible for one user to be assigned to different groups on several control stations and therefore to obtain different rights, depending on which control station is logged in.

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