

**OMC System Software**

**High-performanceHMI**

**VxBackup**

**User Manual**

**IM41S99-E**

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# VxBackup User Manual

## Section 1 Introduction

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VxBackup is mainly used to back up the history data.

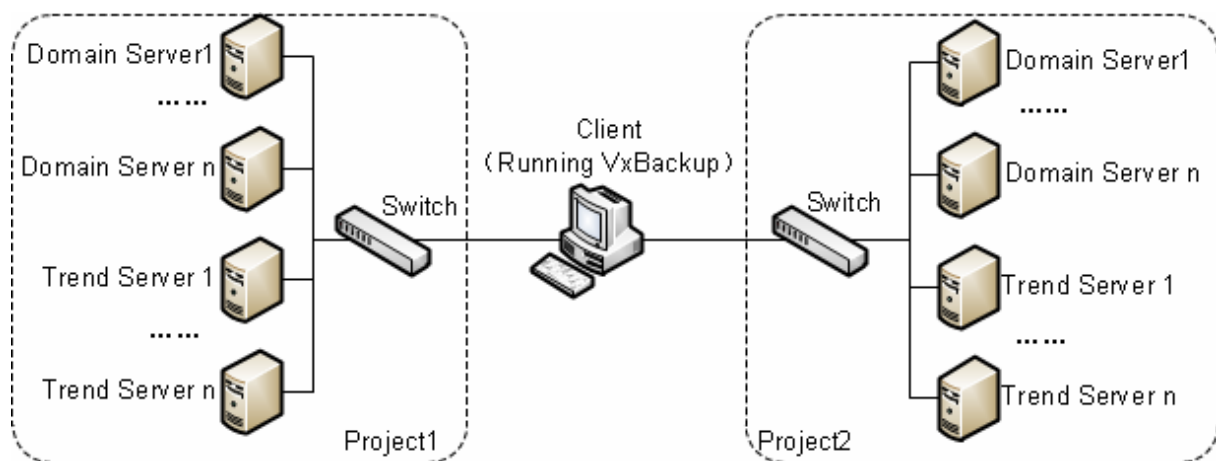
### 1.1 Main Functions

The VxBackup software mainly has the following functions:

- Support manual backup and automatic backup
- Support local backup and remote backup
- Backup content includes historical trend, historical alarm, operation log and project configuration
- Backup data supports offline view

### 1.2 Typical Network

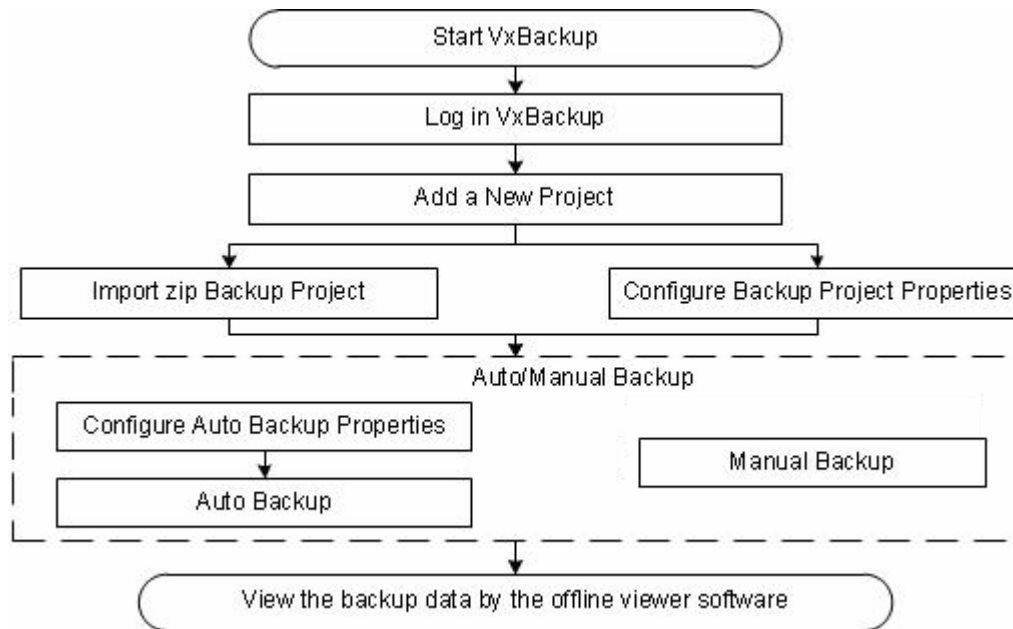
VxBackup can backup and view the history data of multiple project. As shown as figure below, the client running VxBackup can backup and view the history data of Project1 and Project2.



**Figure 1-1 Typical Network of VxBackup**

### 1.3 The Data Backup Flow of High-performanceHMI System Project

You can realize the data backup in High-performanceHMI system project by VxBackup and view the history data by the offline viewer.



**Figure 1-2 The Data Backup and View of High-performanceHMI System Project Data**

### 1.4 The Preparation Task

Digital signal operated in control strategy is output to DO module by DOEX tag to indicate or control field executor.

The following conditions shall be met before you start VxBackup.

- Install VxBackup.
- Start VxBackupServer. After High-performanceHMI is installed, VxBackupServer is automatically started by default.

## Section 2 Start Software and Backup the Data

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This section mainly introduces the method to baking up data by VxBackup.

### 2.1 Start Software and Login

Before using VxBackup for data backup, you need to start VxBackup and log into it.

#### Non first login

- 1) Select the command **OMC High-performanceHMI Backup Tools > DataBackupTool** from the start menu to bring up the **VF Data Backup Client** software.
- 2) Log into VxBackup after entering the password in **Password**.

#### First login


When the user logs into VxBackup for the first time, the user's initial password needs to be modified.

- 1) Select the menu command **Manage > User Login** to bring up the **Modify Password** dialog box.
- 2) Enter the "admin" in the **Original Password**. Enter the new password in the **New password** bar. The new password shall be no less than 8 characters and contain numbers and letters.

After modifying the password, when you log into VxBackup again, you can perform the property setting of manual backup, automatic backup and so on.

### 2.2 Add New Project and Configure the Project Property

You can designate the project that VxBackup needs to back up by creating a new project. The specific steps are as follows.

- 1) Click  in the toolbar and a new item **New Project** will be added to the project navigation tree called.
- 2) Configure the backup properties of the new project, such as the VxBackup project name of the backup data and the saving path of the backup data.

Click **New Project** and then the figure below will be displayed on the right side.

Project	
Name	New Project
Project Name	
SOnet Address of Configuration Server	
Config Server Backup Network Address	
Path	
Warning Value of Disk Free Space (G)	5
Enable Backup or not	Enable

**Figure 2-1 VxBackup Project Property Settings**

Configure the project by the following table.

Configuration Item	Function Description	Configuration Description
Name	The project name of VxBackup	Input in the textbox
Project Name by High-performanceHMI	It is used to back up the High-performanceHMI project for VxBackup related to the configuration.	Not editable
SOnet address of the configuration server	It is used to designate the IP address of the SOnet of the nodes the High-performanceHMI project belongs to and this High-performanceHMI project is associated with VxBackup project.	Not editable
Config Server Backup Network Address	It is used to designate the IP address of the configuration server corresponding to the backup project.	Click “...” and configure it in the pop-up dialog box.
Path	It is used to designate the saving path of the backup data.	Click “...” and configure it in the pop-up dialog box.
Warning Value of Disk Free Space	It is used to designate the disk stores the backup data and the alarm threshold. When the disk space is less than this threshold, the alarm will be triggered.	Input in the textbox
Enable Backup or Not	It is used to determine whether to enable the backup function of the current project.	Select in the drop-down list

### 3) Load High-performanceHMI project.

- Select **Offline Load** from the right-click menu of **New Project**. In the **Open** dialog box that pops up, select the High-performanceHMI project that has been backed up. The High-performanceHMI project backup file is a .zip file. The .zip file is generated after the project backup is executed in the VFSysBuilder. For details, please refer to 《VFSysBuilder User Manual》
- Select **Online Load** in the right-click menu of **New Project**. The configuration server would be identified as per the IP address of the backup network of the configuration server, and the default project in the configuration server would be loaded.

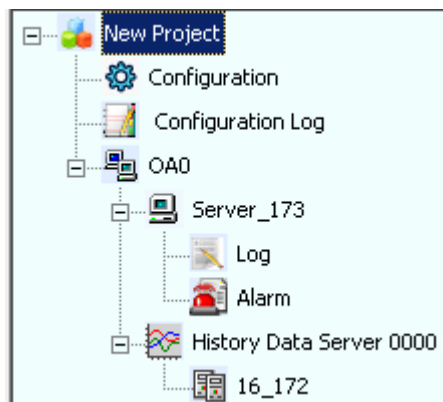
## 2.3 Manual/Auto Backup

After designating the High-performanceHMI project that the VxBackup associates with by configuring the project properties, you can manually or automatically backup High-performanceHMI project.

### 2.3.1 Automatic Backup

Before performing automatic backup, you need to designate the automatic backup period, execution time, and other attributes. The specific steps are as follows.

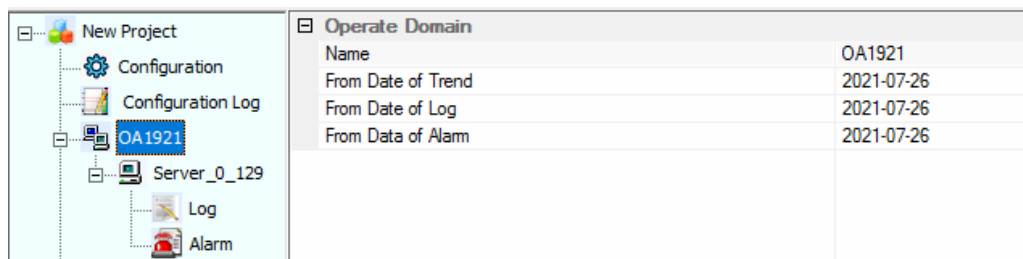
- 1) Select the project in the configuration tree and its sub-nodes are shown in the figure below.



**Figure 2-2 VxBackup Project Configuration Tree**

- 2) Configure trend, log and the start time of the alarm

Select one operational station node such as “OA3133” as shown in the figure above and the right area will be shown as the figure below. In “trend start date”, “log start date” and “alarm start date”, you can configure the trend in the domain, log and the backup start time of log and alarm data.



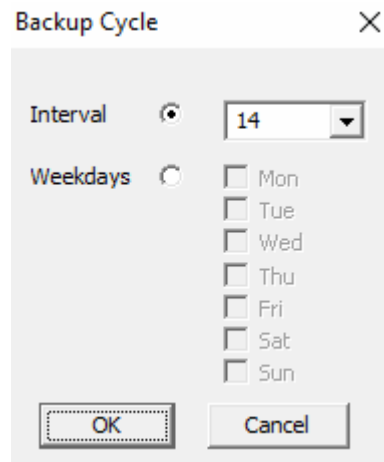
**Figure 2-3 Configure the start time of trend, log and alarm**

- 3) Configure the backup cycle and execution time of the automatic backup.

In the configuration tree, configuration, configuration log, log and alarms of domain server, history data server can be selected, and you can set the backup properties of the High-performanceHMI configuration, High-performanceHMI configuration log, log and alarm in the High-performanceHMI specified domain server, and the backup properties of history data server including the backup cycle and the execution time.

- Backup cycle, supports day backup or week backup.

Click ... to bring up the **Backup Cycle** dialog box as shown below.




**Figure 2-4 Backup Period Configuration Dialog Box**

Select **Interval Days** and select the backup interval in the drop-down list.

Select **Backup by Weeks** and select the specific time to perform the backup in the list.

- Execution time is used to specify the start time of automatic backup.

Click ... and configure the specific time in the **Execution Time** dialog box that pops up.

- 4) Click  on the toolbar to enable the VxBackup backup function. VxBackup will back up the data according to the settings of the automatic backup.



**Tip:**

Backup is executed as per the strategy as VxBackup is running, and before it ends, the tasks being backed up and those in the task list should be backed up. The backup task beyond the running cycle wouldn't be backed up.



### 2.3.2 Manual Backup

In addition to supporting automatic backup, VxBackup also supports random manual backup operations.

- **Backup by project**  
In the navigation tree, select the project to be backed up and select “Backup Now” from the right-click menu.
- **Backup by content**  
In the navigation tree, select the content to be backed up, such as **Configuration Log**, **Alarm**, etc., and select **Backup Now** in the right-click menu.

### 2.3.3 View the Backup

After the automatic backup or manual backup is started, the backup process will be displayed in the right area as shown in the figure below.

Project	Domain Name	Datetype	Name	Current St...	Last Execute Result	Last Execute End Time	Next Execute Begin Ti...
New Project		Configuration	Configuration	Idle	Success	2023-03-13 18:27	2023-03-13 23:00
New Project		Configuration Log	Configuration Log	Idle	Success	2023-03-13 18:26	2023-03-13 23:00
New Project	OA9484	Log	Server_0_129	Idle	Success	2023-03-13 18:26	2023-03-13 23:00
New Project	OA9484	Alarm	Server_0_129	Idle	Success	2023-03-13 18:26	2023-03-13 23:00
New Project	OA9484	Trend	11_207	Idle	Success	2023-03-13 18:26	2023-03-13 23:00

**Figure 2-5 Backup Case of VxBackup**

In the backup condition of VxBackup, the following information is mainly included.

Project	Function Description
Project	It displays the VxBackup project name corresponding to the backup task.
Domain Name	It displays the operation domain name of High-performanceHMI corresponding to the backup task.
Data Type	It displays the High-performanceHMI data types corresponding to the backup task, including log, alarms, configuration and configuration operation log.
Name	It displays the last two digits of the server IP address or node name of the object being backed up.
Current Status	It displays the status of the current backup task.
Status of last time backup	It displays the status of the last time backup task.
The ending time of last time backup	It displays the execution time of last time backup task.
The ending time of next time backup	It displays the execution time of next time backup time under the circumstance of automatic backup.

## 2.4 Disk Left Space

- **Reminder**

When the size of the hard disk of the VxBackup backup data is smaller than the configured “hard disk free space”, the message “Hard disk space will be full” will be displayed in the system tray, and the status bar will turn yellow. After the prompt message appears, the backup data should be processed in time to ensure that the backup data can be backed up.

- Insufficient space

When the hard disk backup space is less than 1G, the backup task will stop.

## Section 3 View the Backup Data

After VxBackup performs backup, the backup data can be viewed through offline viewing software.



### Tip:

Only the configuration is well backed up, can the configuration log, trend and alarm be viewed by the offline tool.

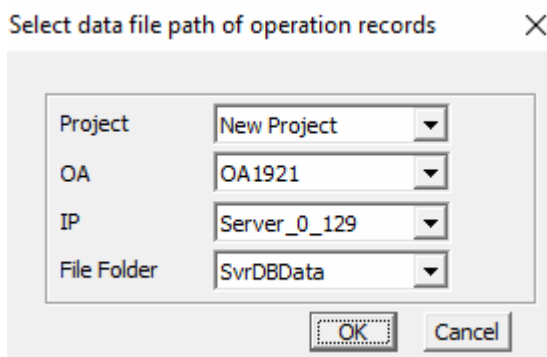
### 3.1 View the Operation Log

You can view the operation logs of VF backups by the log offline viewing tool. At the same time, the operation log offline viewing tool also supports filtering logs by time, nodes and so on.

#### 3.1.1 Designate the Operation Log to View

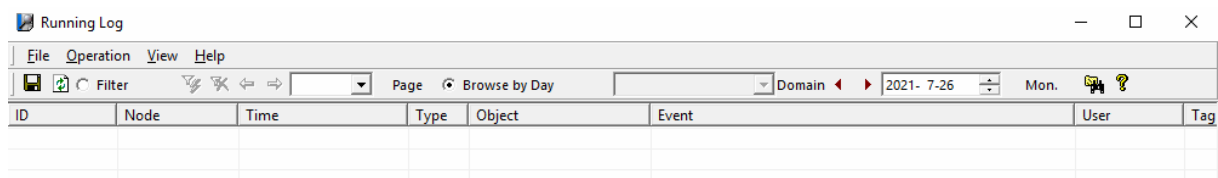
You can view the operation logs of VF backups by operating the log offline viewing tool.

- 1) Select **OMC High-performanceHMI Backup Tools > Operation Log Browser** from the start menu to bring up the dialog box shown below.



**Figure 3-1 Select the backup path of the operation log**

- 2) Select the path of the operation log backup in the **Backup Project Path** and click **OK** to enter the operation log viewing interface, as shown in the following figure.


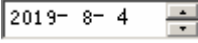


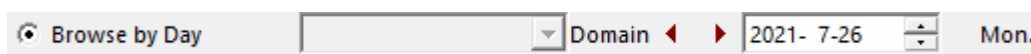
**Figure 3-2 The offline view case of the operation log**

### 3.1.2 Filter Operation Log

#### Fast Filter operation log as per time

All the backed up operation logs are listed in the operation log and the operation log can be filtered through the **Browse by Day** toolbar.



- 1) Select **Browse by Day** in the toolbar and the subsequent date control will become optional.
- 2) Click  or select the specified date in the check box  in the date control shown below.

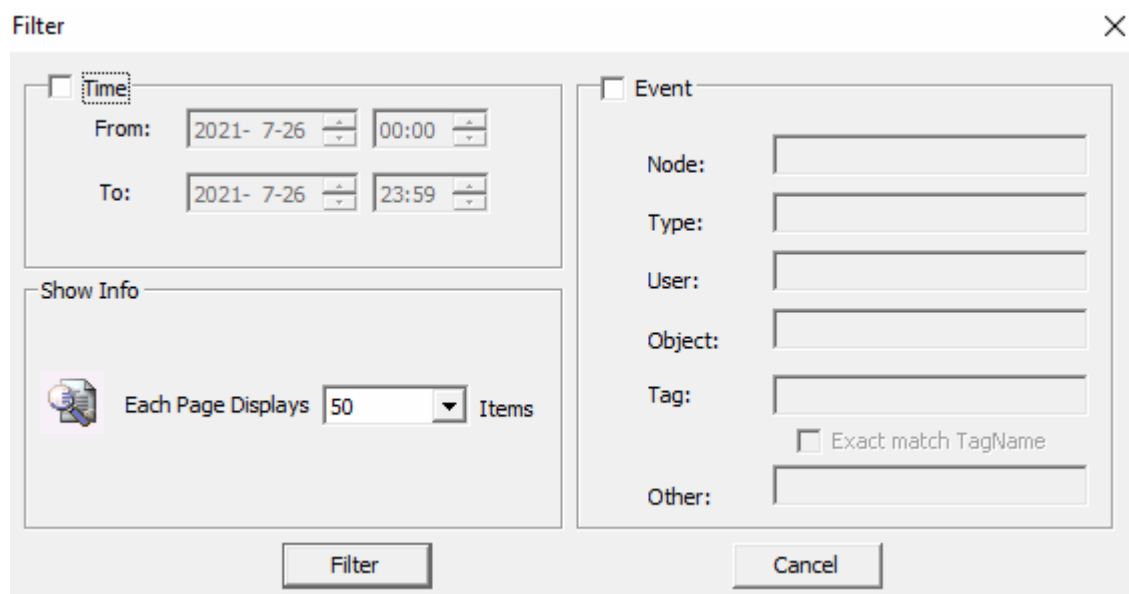


*Figure 3-3 The time filtering control of the operation log*

#### Filter operation log as per conditions

All the backed up operation logs are listed in the operation log and the detailed filter conditions can be specified by **Filter** in the toolbar.

- 1) Select **Filter** in the toolbar, and the subsequent filter button will take effect and be displayed as .
- 2) Click  to bring up the **Filter** dialog box as shown in the figure below.



*Figure 3-4 The offline view case of the operation log*

- 3) Configure detailed filter conditions according to the table below.

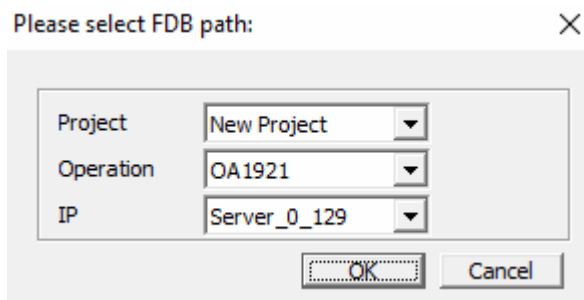
Configuration Item		Function Description	Configuration Description
Time		It is used to designate the start and end time of viewing the operational log	Tick the check box and configure the start and end time.
Show Info		It is used to designate the items displayed in each page of the operation log.	Configure in the drop-down list.
Event	Event	It is used to designate whether to filter the operation log as per conditions.	Tick in the check box. After being ticked, the filtering condition can be configured.
	Node	It is used to designate the nodes the operation log belongs to.	Input in the textbox.
	Type	It is used to designate the type the operation log belongs to.	Input "user", "system" in the textbox.
	User	It is used to display the operation log associated with the user.	Input in the textbox.
	Object	It is used to display the object the operation log includes.	Input in the textbox. Generally, it is the start management. User login, configuration release and reload.
	Tag	It is used to display the tags the operation log includes.	Input in the textbox. After ticking "Matching the tag name accurately", only the log with the same tag name can be displayed.
	Other	It is used to set the other conditions for filtering the operation log.	Input in the textbox.

- 4) Click "Filter", the operation log will be displayed according to the filter condition in the log list.

## 3.2 View History Alarms

Through the history alarm offline viewing tool, you can view the backed up history alarms by VxBackup.

- 1) Select **OMC High-performanceHMI Backup Tools > History Alarm Browser** from the start menu to bring up the dialog box shown below.



**Figure 3-5 Select the backup path of the alarm log**

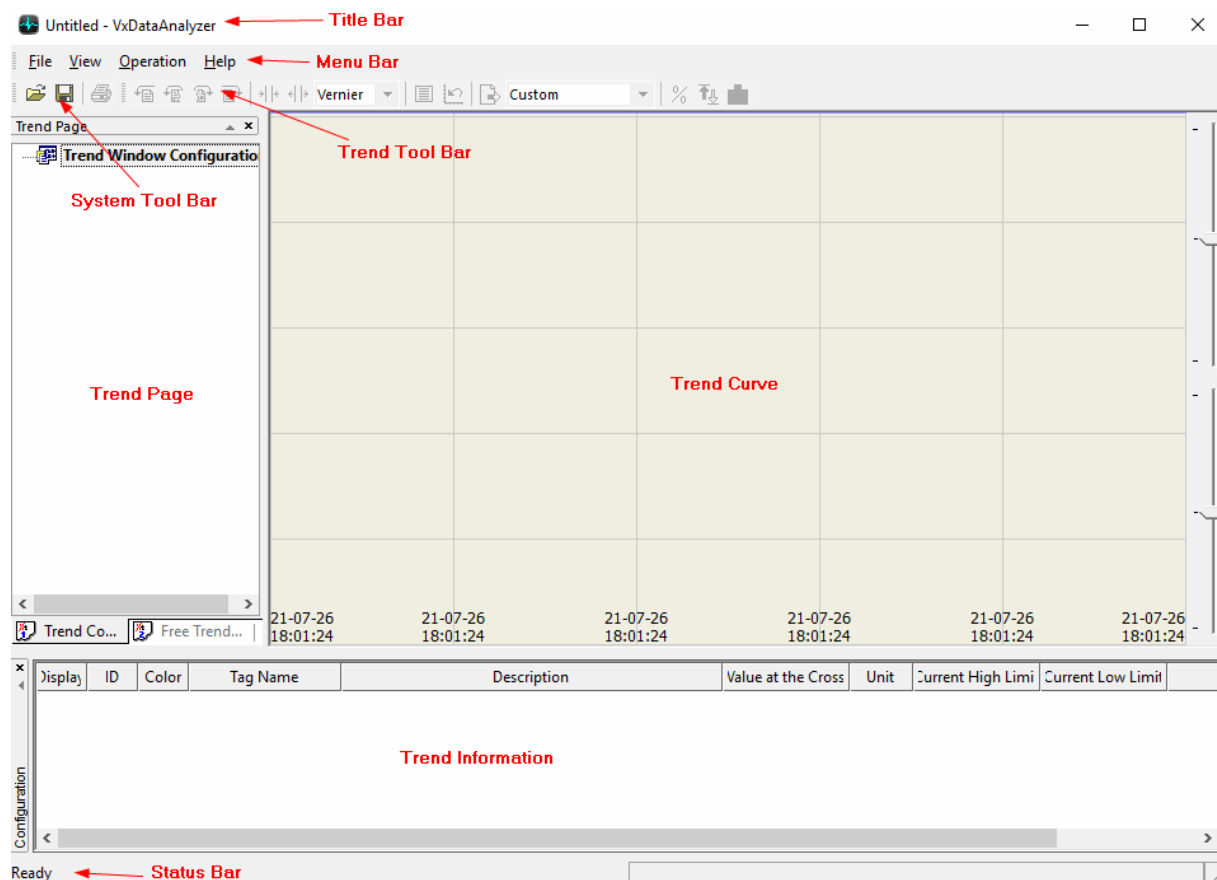
- 2) Select the path of the history alarm backup in the **Backup Project Directory** and click **OK** to enter the history alarm viewing interface.

In the history alarm offline software, you can manage history alarms, such as filtering history alarms, exporting history alarms, and so on. For details on how to use the history alarm offline viewing software, please refer to the 《History Alarm Offline Viewer User Manual》.

### 3.3 View the Offline Trend

With the trend offline viewing tool VxDataAnalyzer, you can view offline trend of the backup by VxBackup.

- 1) Select **OMC High-performanceHMI Backup Tools > History Trend Browser** from the start menu to bring up the software interface as shown in the figure below.



**Figure 3-6 The initial interface of the trend offline software**

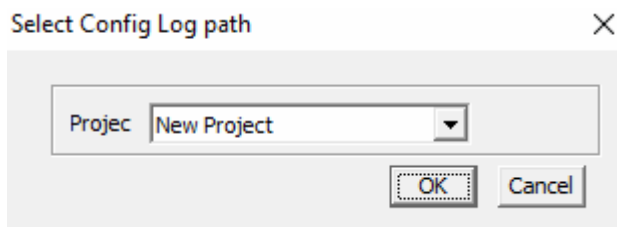
- 2) Click the button in the toolbar and select the configuration for which you want to view the trend in the pop-up **Configuration Selection** dialog box.

For details on how to use the trend offline viewing tool, see the 《VxDataAnalyzer User Manual》.

### 3.4 View the Configuration Log

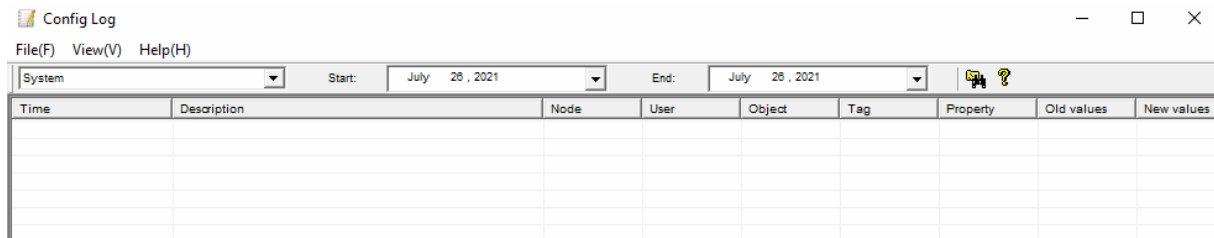
You can view the configuration log backed up by the VxBackup through the offline viewer of the configuration log.

- 1) Select **OMC High-performanceHMI Backup Tools > CfgLog Browser** in the start menu to bring up the dialog box shown below.



**Figure 3-7 The selection dialog box of the configuration log**

- 2) Select the path of the configuration log backup in **Backup Project Path** and click **OK** to enter the configuration log view interface, as shown in the figure below.



**Figure 3-8 The case for viewing configuration log**

#### 3.4.1 Filter Configuration Log

The configuration log viewer supports filtering configuration logs by time and types.

##### Filter configuration log as per time

- 1) Select the time range of the log to be viewed in the **Start Time** and **End Time** in the toolbar.
- 2) Click **Query** and the log will be displayed in the log list as per the filtering conditions.

##### Filter configuration log as type

- 1) Select the type of log to be viewed in the drop-down list of **Type** in the toolbar.
- 2) Click **Query** and the log will be displayed in the log list as per the filtering conditions.

### 3.4.2 Export Configuration Log

The configuration log viewer supports exporting configuration logs as a csv file.

- 1) Select **File > Export** from the menu.
- 2) In the **Save As** dialog box that pops up, select the export path of the log and configure the file names.
- 3) Click **Save** to export the configuration logs.



## Section 4 Revision

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*Table 4-1 Retrofit list of the version*

Document Version	Applicable Product Version	Remarks
V1.0 (20230301)	OMC High-performanceHMI V4.70.00.00	First release
V1.1 (20230830)	OMC High-performanceHMI V5.10.00.00-M	Updated screenshots.