PecStar® iEMS v3.s

Installation Guide

Contents

Contents	2
Safety Information	3
Document Conventions	4
Update History	4
Introduction	5
Summary of Topics in This Guide	5
Supported Operating Systems and SQL Server Editions	6
Recommended Server Specifications	8
Preparing the Server	9
Configuring the Operating System	10
Naming the Server	10
Enable Web Performance	10
Enable Remote Connection	11
Tasks Performed by the Installer	12
Additional Information for Consideration	13
Firewall Configuration	12
Installing SQL Server	13
Running Anti-virus Software on the SQL Server	14
Setting SQL Server Memory Options	14
Installing SQL Server 2008 R2 Standard Edition	16
Updating an Existing SQL Server Installation for Use by PecStar	25
Setting for Remote SQL Server Database	27
Standard Installation	32
Standard Installation Considerations	31
PecStar Authorization Modes	31
Dongle Authorization Mode	31
File Authorization Mode	32
Installing the Standard Server	33
Additional PecStar Software	54
Install a Demo Edition	54
Using a Web Client	54
Post-installation Tasks	55
PecStar Software Security	55

Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

DANGER indicates an imminently hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, **can result in** death or serious injury.

ACAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by CET Electric Technology for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Document Conventions

The command conventions that may be found in this document are defined as follows.

Convention	Description
Poldface	Buttons, menus, parameters, tabs, window, and dialog titles are in boldface .
Boldface	For example, click OK .
>	Multi-level menus are in boldface and separated by the ">" signs. For
	example, choose File > Create > Folder.
Italic	Documents links are in <i>italics</i> . For example, see User Guide for details.
Courier New	Command arguments you may type in the blank. For example, input
	http://host_name/virtual directory in the address.

Update History

Updates between document issues are cumulative. Therefore, the latest document issue contains all updates made in previous issues.

Data	Version	Description
2013-03-18	V1.0	Initial commercial release.

Introduction

This guide is intended for Consumers, Application Engineers, third-party integrators, or other qualified personnel who are responsible for configuring and installing PecStar[®] iEMS Integrated Energy Management System V3.5 software and preparing the servers on which it is installed. Experience using previous versions of PecStar[®] software is preferable.

The guide contains information about installing SQL Server 2008 editions and a PecStar[®] iEMS Integrated Energy Management System V3.5, incorporating best practices and factory-recommended procedures to help reduce the need for ongoing support and to improve the reliability of the installation.

A typical installation consists of a computer or network of computers running PecStar software, and one or more networks of devices (such as basic energy meters, multi-function monitoring/analysis/control devices, and/or intelligent relays).

Note

Services personnel and fully-commissioned PecStar servers are also available — please contact CET Electric Technology for details.

Summary of Topics in This Guide

The topics in this guide provide the following information:

Supported operating systems and SQL Server editions

Summarizes the combinations of 32-bit and 64-bit Windows operating systems and SQL Server editions on which PecStar can be installed. (See the *System Design Guide* for information about hardware requirements.)

• Recommended Server Specifications

Provides the recommended server specifications for a PecStar iEMS V3.5 system based on number of sites, devices, data points and module configurations.

• Preparing the server

Describes the steps required to install a supported Windows operating system and SQL Server edition and the settings required for each. Note that this information is common for PecStar installations of a Database Server (standalone or redundancy), a SCADA Server, an Engineering Client, a Data Server and a Web Server.

Standard installation

Describes the steps required to install Standard Edition PecStar with all modules on a single computer hosting standalone Server. Or install specific modules to be a Database Server, a SCADA Server, a Data Server or a Client Workstation.

• Additional PecStar software

Describes the steps to install and use PecStar extended components, such as the usage of Web Client, the steps to install Demo Edition.

Post-installation tasks

Describes the tasks that you may need to perform after completing the installation of the software.

Supported Operating Systems and SQL Server Editions

The following table summarizes the supported combinations of 32-bit and 64-bit versions of Microsoft Windows operating systems and SQL Server editions.

32-bit Windows Operating Systems	32-bit Microsoft SQL Server Versions	Database Server (Standalone)	Database Server (Redundancy)	Report Service Module ¹
Windows Server 2003 Standard Editions,	SQL Server 2005 Express Edition with Advanced Services	~	x	х
SP2	SQL Server 2005 Standard Edition	~	~	х
	SQL Server 2005 Express Edition with Advanced Services	~	x	x
Windows 7	SQL Server 2005 Standard Editions	\checkmark	~	х
Ultimate/Professional Editions	SQL Server 2008 R2 Standard Editions, SP1	✓	~	\checkmark
	SQL Server 2008 Express Edition with Advanced Services	~	x	х
	SQL Server 2005 Express Edition with Advanced Services	✓	x	x
Windows Server 2008 Standard Editions	SQL Server 2005 Standard Edition	\checkmark	~	x
	SQL Server 2008 Express Edition with Advanced Services	√	x	x
	SQL Server 2008 R2 Standard Editions, SP1	✓	✓	\checkmark

For 32-bit Operation Systems,

For 64-bit Operation Systems,

64-bit Windows Operating Systems	32/64-bit Microsoft SQL Server Versions	Database Server (Standalone)	Database Server (Redundancy)	Report Service Module
Windows 7 Ultimate	SQL Server 2008(32-bit) Express Edition with Advanced Services	~	x	x
Editions	SQL Server 2008 R2 (64-bit) Standard Editions, SP1	~	~	✓
Min James Common 2000	SQL Server 2008(32-bit) Express Edition with Advanced Services	~	x	x
R2 Standard Editions, SP1	SQL Server 2008 R2(64-bit) Standard Editions, SP1	~	✓	✓
	SQL Server 2012(64-bit) Standard Edition	✓	√	x

¹ Report Service Module is a component for PecStar Web Access.

Other PecStar Modules, such as Data Acquisition Module, Client Workstation Module, Data Server and Web Server, are all supported on the operating systems mentioned above.

PecStar can be installed in virtual environments with a supported combination of Windows operating system and SQL Server edition. It is recommended that you copy the content of the PecStar disk to a local drive in your virtual environment and double-click setup.exe to start the installation process.

Web Client computers provide access to the Web Applications component of PecStar. Microsoft Internet Explorer version 7.0, 8.0, or 9.0, and network connectivity to a PecStar Web Server are required. Web Clients can use Windows Server 2003, Windows 7, or Windows Server 2008 operating systems for this purpose.

To access Web Applications from a Web Client, enter an address in the following format in your browser:

http://host_name/virtual directory

where *host_name* is the computer name or IP address of the PecStar Web Server. For example, for computer name **MyComputer** and virtual directory **PecStarWeb**, enter the address in the browser as:

http://MyComputer/PecStarWeb

For the local PecStar Web Server, you can enter the following address as well:

http://localhost/PecStarWeb

Recommended Server Specifications

The following table provides the recommended server specifications for a PecStar iEMS V3.5 system based on number of sites, devices, data points and module configurations.

No. of Devices	No. of Sites	No. of datalog and report data sources	Windows Operation System	Database Engine	Specifications (Minimum)
1-100	1-8	<=2000	Windows 7 Professional/Ultimate	SQL Server 2008/2012 Express	CPU:2.0GHZ RAM:2GB HD:100GB Network Card: Dual port Gigabit Ethernet
100-200	9-20	2000-4000	Windows 7 Professional/Ultimate Windows Server 2008 Standard	SQL Server 2008 /2012 Standard	CPU:2.0-3.0GHZ RAM:4- 8GB HD:100-400GB Network Card: Dual port Gigabit Ethernet
200-800	20-80	4000-16000	Windows 7 (64-bit) Professional/Ultimate Windows Server 2008 (64-bit) Standard	SQL Server 2008 (64-bit)/2012 (64-bit) Standard/Enterprise	CPU:2.5-3.0GHZ RAM:4- 8GB HD:100-400GB Network Card: Dual port Gigabit Ethernet
>=800	>=80	>=16000	Windows 7 (64-bit) Professional/Ultimate Windows Server 2008 (64-bit) Standard	SQL Server 2008 (64-bit)/2012 (64-bit) Standard/Enterprise	CPU:2.5-3.0GHZ RAM:4- 16GB HD:100-400GB Network Card: Dual port Gigabit Ethernet

Preparing the Server

The PecStar Installer performs many of the setup and configuration tasks during installation to ensure that the prerequisites for your PecStar network are met.

The topics described in this section are:

- <u>Naming the Server</u> on page 10
- <u>Enable Web Performance</u> on page 10
- <u>Tasks Performed by the Installer</u> on page 11
- Additional Information for Consideration on page 11
- <u>Firewall Configuration</u> on page 12

Complete the following before proceeding with a PecStar installation.

Configuring the Operating System

Ensure that you log on to Windows 7 or Windows Server 2008 as the Administrator of the system and not just as a user with administrator privileges.

Naming the Server

Assign a computer name for the server that conforms to Windows naming conventions. A computer name can be up to 15 alphanumeric characters with no blank spaces. The name must be unique on the network and must not contain the special characters such as:

~!@#\$^&*()+=[]{}\|:;'",<>/?

For compatibility with PecStar software, use only letters and numbers, starting the name with a letter for the first character in the name.

Enable Web Performance

To view graphs on PecStar Web sites via IE7.0, 8.0 or 9.0, you need to **Download PecStar Web Client, and Add the address into Trusted Sites**. Note that the same settings need to be enabled on any computer that is used to view PecStar Web sites.





 Download PecStar Web Client. Open or Save the WebClient.zip and click setup.exe to start the Installation.

File Edit View Favorites Tools Help PecStar Integ	CX @ PecSud3 Web × 0 ℃ 0 rated Energy Management System
A Hello:ROOT Modify Exit a	🥝 View Graph *
🕢 View Graph 🔟 💼 🔒 😖	a a 0, 🖬
Bulding intelligence Highway System Industry intelligence PTTRce Substation Integrated Automation "G Main window "2 PecDraw1 "2 PecDraw2 "E PecDraw3	The WebClient's Map Control Object has not been installed. Click here to download
Do you want to open or sa	ve WebClient.zip (7.97 M8) from localhost? Open Save Cancel × 2013-02-21 21:02 % 100%

Note

It is necessary to install Web Client for viewing graphics. Otherwise, the images would not display and will show a blank.

Enable Remote Connection

The settings are used for Redundant and Hot Standby PecStar System.

1. Open Start on Windows. Right click Computer and select Properties. Click Remote Setting, Remote, Allow connections from computers running any version of Remote Desktop(less secure) and then select OK.

Control Panel > S	System Properties	x
Control Panel Home	Computer Name Hardware Advanced System Protection Remote	
 Device Manager Remote settings 	Remote Assistance Image: Construction of the second state of th	
 System protection Advanced system settings 	What happens when I enable Remote Assistance?	
	Remote Desktop Click an option, and then specify who can connect, if needed. O Don't allow connections to this computer Allow connections from computers running any version of Remote Desktop (less secure) Allow connections only from computers running Remote Desktop with Network Level Authentication (more secure) Help me choose OK Cancel Apply	

2. Open Start on Windows. Input remote on Search programs and files box. Select Remote Desktop Connection. Input the IP address of wanted remote desktop and select Connect.

nemote D	esktop Connection	
	Remote Desktop Connection	
<u>C</u> omputer:	192.168.1.67	-
User name:	TESTPC2\user1	
You will be a	sked for credentials when you connect	
Options		Connect Help

3. Select the user account you want to log in and input your credentials. Then select **OK**. (The remote accounts for a Redundant and Hot Stand-by PecStar System should be administrators and password is necessary.)

Windows Security	
Enter your These credenti	credentials als will be used to connect to 192.168.1.67.
	user1 Password
	Use another account
📄 Reme	mber my credentials
	OK Cancel

Tasks Performed by the Installer

The PecStar Installer performs the following tasks prior to the installation of the software:

- Checks for the appropriate version of Windows installer, .NET Framework, Visual C++ 2010 Running Time Library and Flash Player. Initiates the installation if required.
- Validates the Dongle or Authorization File.
- Checks that adequate disk space is available for the files that are written to the hard disk.
- Validates that a supported Windows operating system version and service pack level are installed.
- Verifies that a supported SQL Server edition and service pack level are installed.
- Verifies the connection to the SQL Server.
- Verifies that the SQL Server Authentication is chosen and the administrator (sa) account

• permissions is defined.

• Installs IIS (Internet Information Services) before you use Web component. Install IIS 6 Management Compatibility for IIS 7 and above. See *PecStar Web Guide* for details.

Additional Information for Consideration

- Only Windows Server operating system can be set as the Time Server. Others like Windows 7 or Windows XP are unable to sync the computer clock of Clients.
- Configure Remote Desktop Connection if you require remote connection to the PecStar Server.
- Use Windows Update service to install the latest security patches and hotfixes from Microsoft.

Firewall Configuration

Use the Microsoft knowledgebase to learn about Well Known Ports and Registered Ports required for certain networks.

PecStar TCP/UDP port assignments

The following tables contain the TCP and UDP port assignments that PecStar and associated applications or services use to communicate with devices, PecStar Clients and other PecStar servers.

Port	Purpose
TCP: 11634	Used for System Configuration
UDP: 1434	Used for System Comparation
TCP: 3210,3113,3111	Used for Data Acquisition on SCADA Server
TCP: 11634	Used for Data Processing on Data Server
UDP: 1434	Used for Data Processing on Data Server
TCP: 3210,3111,	Used for Graph Design and Graph View on Client Workstation
3113 ,11634	osed for draph Design and draph view on cheft workstation
UDP: 123	W32Time Service uses this port to adjust time on Time Server
TCD: 11624	Used for Database Maintenance, Device Installation.
	Report, Trend, Event and Waveform Query Design on Client
ODP. 1454	Workstation
TCP: 3210,3111,3113	Used for sending Mails of Events and Reports
TCP: 502	Used for Modbus TCP communications
TCP: 11634	Used for Database Server of SOL Server
UDP: 1434	Used for Database server of SQL server
TCP: 11634	Used for Web Server
UDP: 1434	

Other required ports

Port	Purpose
TCP: 1433	Microsoft SQL Server uses this port. ¹
TCP: 1434	Microsoft SQL Monitor uses this port to identify named
	database instances.
TCP: 139	Microsoft Windows uses this port to share folders and printers
UDP: 137, 138	in network.
¹ SQL Server uses this port if	you use the default instance when you install PecStar. If you use
a named instance when you	install PecStar, it is recommended that you configure the named
instance to use port 1433.	

Installing SQL Server

If you install the Standard Edition of PecStar, or the databases on a separate database server, you must perform the Database Server installation first. The database server installation must be performed locally (remote installation is not supported).

The following information describes the settings that are required to install SQL Server 2008 R2 Standard Edition.

The topics described in this section are:

- <u>Running anti-virus software on your SQL Server on page 14</u>
- <u>Setting SQL Server memory options</u> on page 14
- Installing SQL Server 2008 R2 Standard Edition on page 16
- <u>Updating an existing SQL Server installation for use by PecStar on page 25</u>

If you install the Demo Edition of PecStar, you don't need to install SQL Server for PecStar will install a SQL Server Express 2008 automatically on the computer. See the *Demo Edition of PecStar* iEMS V3.5 for details.

Running Anti-virus Software on the SQL Server

It is recommended that you assess the software security requirements of your organization, and specifically the potential risks to your SQL Server installation. If you determine that you need to run anti-virus software on your SQL Server as a result of your assessment, follow the recommendations described in Microsoft Support article (ID: 309422) at http://support.microsoft.com/kb/309422.

Setting SQL Server Memory Options

Generally, there is no need to modify the SQL Server memory after installation if your computer has adequate disk space for PecStar's historical data storage.

Two situations for setting SQL server memory options after you install the SQL Server 2008:

- For installations where the SQL Server is the only process running on the host server, set the SQL Server maximum memory at the system physical memory less at least 2GB for the Windows operating system.
- For installations where the SQL Server is sharing the host server with other server processes, including SACADA Server, Client Workstation, and other services, set the SQL Server maximum memory to no more than half the physical memory on the server.

In addition to setting the maximum energy option, consult with your site administrator to determine whether or not to enable the **Lock pages in memory** permission setting in Windows for the SQL service account on all SQL Server 2008 instances.

To set the maximum memory setting for your SQL Server:

- 1. Start SQL Server Management Studio and log in to your SQL Server instance.
- 2. Right-click the SQL Server name and click **Properties** in the menu to open the **Server Properties** dialog.
- 3. Select Memory in the left pane and adjust the value in the Maximum server memory field.

Server Properties - YAN-PC	\PECSTAR3DEMO
Select a page P General	🖾 Script 🔻 🎼 Help
Memory Processors Security Connections Database Settings	Server memory options
Permissions	Minimum server memory (n MB):
	Maximum server memory (in MB): 2147483647
	a fear and a second

- 4. Click **OK** to apply the changes and close the dialog.
- 5. Close SQL Server Management Studio.
- 6. Reboot your server.

To enable the lock pages in memory option:

- 1. Click **Start > Run** and type gpedit.msc in the **Run** dialog to open the **Local Group Policy Editor**.
- 2. In the left pane, navigate to Computer Configuration > Windows Settings > Security Settings > Local Policies.
- 3. Expand Local Policies and select User Rights Assignment.

The policies are listed in the right pane.

- 4. Locate Lock pages in memory in the list and double click the policy name to open the Lock pages in memory Properties dialog.
- 5. Click Add User or Group on the Local Security Setting tab.
- 6. Add an account with the privileges to run sqlserver.exe and click **OK** to close the dialog.
- 7. Click **OK** to close the **Local Group Policy Editor**.
- 8. Reboot your server.

Installing SQL Server 2008 R2 Standard Edition

Before starting the Microsoft SQL Server installation, ensure that you are logged in as the Administrator and not just as a user with administrator privileges.

- 1. Make sure that no other programs are running. Save your work and close any open applications.
- 2. Insert the SQL Server 2008 Installation DVD in your DVD drive. If the **SQL Server Installation Center** does open automatically, double-click setup.exe in the root directory on the DVD.
- 3. Click OK to install Microsoft .NET Framework if you are prompted to do so.
- Select Installation in the left pane of the SQL Server Installation Center then select New SQL Server or add features to an existing installation in the right pane.

SQL Server Installation Center	
Planning	New installation or add features to an existing installation.
Installation	Launch a wizard to install SQL Server 2008 R2 in a non-clustered environment or to add features to an existing SQL Server 2008 R2 instance.
Maintenance	
Tools	New SQL Server failover cluster installation
Resources	Launch a wizard to install a single-hode SQL Server 2006 K2 failover cluster.
Advanced	Add node to a SQL Server failover cluster
	U Launch a wizard to add a node to an existing SQL Server 2008 R2 failover cluster.
Options	Upgrade from SOL Server 2000, SOL Server 2005 or SOL Server 2008
	Launch a wizard to upgrade SQL Server 2000, SQL Server 2005 or SQL Server 2008 to SQL Server 2008 R2.
	Search for product updates
	Search Microsoft Update for SQL Server 2008 R2 product updates.
Microsoft"	
SQL Server 2008 R2	

A message indicates that the process is starting, and then the **Setup Support Rules** page opens.

blems that might occur when you install SQL Server Setup support files. Failures must be nue.	
Operation completed. Passed: 7. Failed 0. Warning 0. Skipped 0.	
Hide details << View detailed report	Re-run
	blems that might occur when you install SQL Server Setup support files. Failures must be nue. Operation completed. Passed: 7. Failed 0. Warning 0. Skipped 0. Hide details << <u>View detailed report</u>

5. Click **OK** to proceed to the **Components Required** page.

Setup Support Files		
Click Install to Install Setup	support files. To install or update sQ	L Server 2008 K2, these files are required.
Setup Support Files	The following components	are required for SQL Server Setup:
	Feature Name	Status
	Setup Support Files	

6. Select Install to identify Setup Support Rules.



If all rules have been passed, click Next to proceed to the Product Key page.

7. Select Enter the product key, type the product key in the field and click Next.

🐮 SQL Server 2008 R2 Setup	
Product Key Specify the edition of SQL Server 2	008 R2 to install.
Setup Support Rules Product Key License Terms Setup Role Festure Selection Installation Rules Disk Space Requirements Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Validate this instance of SQL Server 2008 R2 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server, such as Evaluation or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. To upgrade from one edition to another, run the Edition Upgrade Wizard. Specify a free edition: Evaluation • ® Enter the product key: 000000-000000-000000-000000

8. Select I accept the license terms on the License Terms page and click Next.



9. Select SQL Server Feature Installation and click Next.



10. Select All features on the Feature Selection page, then click Next.

1 SQL Server 2008 R2 Setup		
Feature Selection Select the Data Center features to in	nstall.	
Setup Support Rules	Features:	Description:
Product Key License Terms Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Instance Features Database Engine Services Style Database Engine Services Style Server Replication Full-Text Search Analysis Services Reporting Services Shared Features Usuaness Intelligence Development Studio Client Tools DateCompatibility Client Tools Solk Sold Server Books Online Management Tools - Complete Sold Client Connectivity SDK Select All Unselect All Shared feature directore CCProgram Filest Micro	Server features are instance-aware and have their own registry hives. They support multiple instances on a computer.
	< Back	Next > Cancel Help

11. The **Setup Support Rules** page opens after the installation of the files showing their validation results. Click **Show details** to view a list of the rules that were validated.



Upon successful completion, click Next.

- 12. Select Default instance or enter a name in the Named instance and click Next.
- 13. Do not use an underscore character (_) in the instance name.

SQL Server 2008 R2 Setup			
Instance Configuration	on ce ID for the instance of SQL Serve	. Instance ID becomes part of the installation path.	
Setup Support Rules Product Key License Terms	 Default instance Named instance: 	SQLServer2008	
Setup Role Feature Selection Installation Rules Instance Configuration	Instance ID: Instance root directory:	SQLServer2008 C\/Program Files\/Microsoft SQL Server\	
Disk Space Requirements			

14. Click Next on the Disk Space Requirements page.

Disk Space Requiren	nents
Review the disk space sumn	nary for the SQL Server features you selected.
Setup Support Rules Product Key License Terms Setup Role Feature Selection Installation Rules Instance Configuration	Disk Usage Summary: Disk Usage Summary: Drive C: 5485 MB required, 14723 MB available System Drive (C:\): 2686 MB required Shared Install Directory (C:\Program Files\Microsoft SQL Server\): 1356 MB required Instance Directory (C:\Program Files\Microsoft SQL Server\): 1443 MB required

The disk space required for the installation is summarized in the **Disk Usage Summary** area on this page.

15. Select **Use the same account for all SQL services**, and click **Use the built-in System account** to open the dialog.

📸 SQL Server 2008 R2 Setup					23
Server Configuration Specify the service accounts and c	ollation configuration.				
Setup Support Rules Product Key License Terms	Service Accounts Collation	e a separate account for eac	:h SQL Server s	ervice.	
Setup Role	Service	Account Name	Password	Startup Type	2
Feature Selection	SQL Server Agent	NT AUTHORITY\SYSTEM		Automatic	-
Installation Rules	SQL Server Database Engine	NT AUTHORITY\SYSTEM		Automatic	-
Instance Configuration	SQL Server Analysis Services	NT AUTHORITY\SYSTEM		Automatic	-
Disk Space Requirements	SQL Server Reporting Services	NT AUTHORITY\SYSTEM NT AUTHORITY\SYSTEM NT AUTHORITY\LOCA		Automatic Automatic	-
Server Configuration	SQL Server Integration Services 1				-
Database Engine Configuration	SQL Full-text Filter Daemon Laun			Manual	
Analysis Services Configuration	SQL Server Browser	NT AUTHORITY\Netwo		Automatic	-
Reporting Services Configuration Error Reporting Installation Configuration Rules	Use the same account for all SQL Server services				
Ready to Install	Jse the same account for all SQL Server 2	008 R2 services			
Installation Progress Complete Specify a user name and password for all SQL Server service accounts. Account Name: NT AUTHORITY/NETWORK SERVICE Browned					wse
			(ОК Са	ncel

Select your local system account in the **Account Name** list, for example NT AUTHORITY\SYSTEM. A password is not required. Click **OK** to apply your selection.

Note

For both the Main and Stand-by Database Servers, the data sync function is available only if you select the **Automatic Startup Type** of SQL Server Agent.

a squ server 2006 K2 Setup			
Database Engine Configu Specify Database Engine authentic	uration	inistrators and data directories.	
Setup Support Rules Product Key License Terms Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Account Provisioning Specify the authenti Authentication Mod Windows authent Mixed Mode (SQ Specify the password: Confirm password: Specify SQL Server a yon: PC\Administration Add Current User	Data Directories FILESTREAM iccation mode and administrators for the Database Er de	SQL Server administrators have unrestricted access to the Database Engine.

16. Click **Next** to proceed to the **Database Engine Configuration** page.

Select **Mixed Mode** and type a password for the SQL Server system administrator (sa) account in the **Enter password** and **Confirm password** fields. Click **Add Current User** to add the SQL Server Administrator, then click **Next**.

Note

Use a strong password for the System Administrator account.

A strong password consists of at least 6 characters that are a combination of uppercase and lowercase letters, numbers, and symbols such as @, #, \$, %, etc.

17. On the Account Provisioning tab of the Analysis Service Configuration page, select Add Current User.

📸 SQL Server 2008 R2 Setup		
Analysis Services Configu	iration	
Specify Analysis Services administra	ators and data directories.	
Setup Support Rules Product Key	Account Provisioning Data Directories	
License Terms	Specify which users have administrative permissions for Analysis Service	s.
Setup Role	yan-PC\Administartor(Administartor)	Analysis Services
Feature Selection		administrators have unrestricted access to
Installation Rules		Analysis Services.
Instance Configuration		
Disk Space Requirements		
Server Configuration		
Database Engine Configuration		
Analysis Services Configuration		
Reporting Services Configuration		
Error Reporting		
Installation Configuration Rules		
Ready to Install		
Installation Progress		
Complete		
	Add Current User Add Remove	
	< Back Next >	Cancel Help

 Use the directory fields on the Data Directories tab to specify a different drive for your Temp DB directory and Temp DB log directory, then click Next to proceed to the Reporting Services Configuration page.

1 SQL Server 2008 R2 Setup				
Analysis Services Configu Specify Analysis Services administra	tors and data directorie	s		
Setup Support Rules	Account Provisionin	g Data Directories		
Product Key	Securit- Man data disectories for SOL Secure Analysis Secure			
License Terms	specify the data di	rectories for SQL Server Analysis Services.		
Setup Role	Data directory:	C:\Program Files\Microsoft SQL Server\MSAS10_50.SQLSERVER2008\OL4		
Feature Selection	Log file directory	C\Program Eiler\Microsoft SQL Server\MSAS10_50_SQLSERVER2008\QL/		
Installation Rules	Log the directory.			
Instance Configuration	Temp directory:	C:\Program Files\Microsoft SQL Server\MSAS10_50.SQLSERVER2008\OL4		
Disk Space Requirements	Backup directop:	C\Program Files\Microsoft SQL Server\MSAS10_50.SQLSERVER2008\QL4		
Server Configuration	backap directory.			
abard abard and a set	and the second s	and a set of the set of the second set of the se		

The specification of different drives is for performance reasons.

If all of the files are located on the same drive, data that is being inserted, updated, or deleted can potentially result in slower write operations than if the Temp DB directories are located on a separate drive. The specification of different drives is dependent on your hardware configuration and may not be possible in all cases.

19. Select **Install the native mode default configuration** on the **Reporting Services Configuration** page and then click **Next**.

🐮 SQL Server 2008 R2 Setup					
Reporting Services Conf	iguration				
Specify the Reporting Services cor	nfiguration mode.				
Setup Support Rules Product Key	Install the native mode default configuration.				
Setup Role	Setup will install the report server and configure it in Native mode to use the default values. The report server is usable as soon as Setup is finished.				
Feature Selection Installation Rules	Install the SharePoint integrated mode default configuration.				
Instance Configuration Disk Space Requirements Server Configuration	Setup will create the report server database in SharePoint integrated mode and configure the report server to use the default values. However, integrated operations will not be supported until a minimal installation of a SharePoint product or technology is deployed on the report server computer and the Reporting Services Add-in for SharePoint Technologies is installed and default and the computer of the service service and the service of the servic				
Database Engine Configuration Analysis Services Configuration	configured on the instance of the SharePoint product or technology you are using.				
Reporting services Configuration Error Reporting Installation Configuration Rules Ready to Install Installon Progress	Setup will install, but will not configure, the report server software. After installation is finished, you can use the Reporting Services Configuration tool to set options that are required to run the report server.				
Complete	< Back Next > Cancel Help				

20. Click Next on the Error Reporting page.

There is no requirement for selecting the options on this page.



21. Click **Next** on the **Installation Configuration Rules** page.

The **Installation Rules** page shows the results of the validation that is performed to ensure that your installation can proceed.



22. Click Install on the Ready to Install page.

The Ready to Install page shows the SQL Server features that are about to be installed.

📸 SQL Server 2008 R2 Setup			x
Ready to Install Verify the SQL Server 2008 R2 fee	tures to be installed.		
Setup Support Rules Product Key License Terms Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Ready to install SQL Server 2008 R2: Summary - Edition: Data Center - Action: Install General Configuration General Configuration - Database Engine Services - SQL Server Replication - Full-Text Search - Analysis Services - Reporting Services - Business Intelligence Development Studio - Client Tools Connectivity - Integration Services - Client Tools Backwards Compatibility - Client Tools Backwards Compatibility - Client Tools SDK - SQL Server Books Online - Management Tools - Complete * Configuration file path:		* III
	C\Program Files\Microsoft SQL Server\100\Setup Bootstrap\Log\20120827_101638\Confi < Back Install Cancel	gurationFile.ir Help	1 i

The Installer displays messages as the installation progresses. Any problems that occur during the installation are shown in the **Installation Progress** window.

23. The Installation Progress page provides an indication of the progress.

🐮 SQL Server 2008 R2 Setup	
Installation Progress	
Cotor Connect Palas	
Product Key	
License Terms	Install_VS_Shell_Cpu32_Action : InstallFiles. Copying new files
Setup Role	
Feature Selection	
Installation Rules	
Instance Configuration	
Disk Space Requirements	
Server Configuration	and the second sec

24. Click **Close** on the **Complete** page to return to the **SQL Server Installation Center**. And you may restart the computer to apply the changes.

🃸 SQL Server 2008 R2 Setup	
Complete Your SQL Server 2008 R2 installati	on completed successfully.
Setup Support Rules Product Key License Terms Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration	Summary log file has been saved to the following location: CAProgram Files/Microsoft SQL Server/100/Setup Bootstrap/Log/20120827 101638/Summary yanyan -PC 20120827 101638.txt Information about the Setup operation or possible next steps: Vour SQL Server 2008 R2 installation completed successfully.
Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Supplemental Information: The following notes apply to this release of SQL Server only. Microsoft Update For information about how to use Microsoft Update to identify updates for SQL Server 2008 R2, see the Microsoft Update Web site at http://go.microsoft.com/fwlink/7Linkid=108409. Samples
	Close Help

The **Complete** page of the installation process contains a link to the Summary log, information about the Setup operations or possible next steps, and supplemental information related to your installation.

Next step

You can now install PecStar Standard Edition consisting of Database Server, SCADA Server, Client Workstation, Data Server, System Configuration and Database Maintenance modules.

Updating an Existing SQL Server Installation for Use by PecStar

If you want to configure a specific SQL Server instance for use by PecStar, you need to rerun the SQL Server installer.

Before starting the Microsoft SQL Server installation, ensure that you:

- Are logged in as the Administrator and not just as a user with administrator privileges.
- Have the SQL Server 2008 R2 installation media.

The steps to add and configure a new server instance are the same as those for <u>Installing SQL</u> <u>Server 2008 R2 Standard Edition</u>. The exceptions are the steps related to the following SQL Server 2008 Setup pages:

- Installation Type page.
- Feature Selection page.
- Instance Configuration page.
- Database Engine Configuration page.

These pages are described in the following steps.

- 1. Follow the same directions for the following SQL Server 2008 Setup pages as those for installing SQL Server 2008 R2 Standard edition.
 - Setup Support Rules page.
 - Setup Support Files page.
- 2. Select New installation or add shared features on the Installation Types page and click Next.

📸 SQL Server 2008 R2 Setup	
Installation Type Specify whether you want to	perform a new installation or add features to an existing instance of SQL Server.
Setup Support Rules Installation Type Product Key	New installation or add shared features Select this option if you want to install a new instance of SQL Server or want to install shared components such as SQL Server Management Studio or Integration Services.
License Terms Setup Role	Add features to an existing instance of SQL Server 2008 R2 SQLSERVER2008
Feature Selection Installation Rules Disk Space Requirements	Select this option if you want to add features to an existing instance of SQL Server. For example, you want to add the Analysis Services features to the instance that contains the Database Engine. Features within an instance must be the same edition.
Error Reporting	and the second

- 3. Follow the same directions for the following SQL Server 2008 Setup pages as those for installing SQL Server 2008 R2 Standard:
 - **Product Key** page.
 - License Terms page.
 - Setup Role page.

4. Select all features on the Features Selection page and click Next:



- Follow the same directions for the Installation Configuration pages as that for installing SQL Server 2008 R2 Standard.
- Select Named instance and enter a name on the Instance Configuration page and click Next.

📸 SQL Server 2008 R2 Setup						
Instance Configuration	Instance Configuration					
Specify the name and instance ID	for the instance of SQL Server	. Instance ID becomes part of the installation path.				
Cature Course at Buller						
Setup Support Rules	Oefault instance					
Installation Type	Named instance:	PecStar				
Product Key						
License Terms						
Setup Role	Instance ID:	PecStar				
Feature Selection						
Installation Rules	Instance root directory:	C:\Program Files\Microsoft SQL Server\				
Instance Infiguration	and the second second					

Any existing instance names appear in the **Installed Instances** area on the page. And do not use an underscore character (_) in the instance name.

- Follow the same directions for the rest of SQL Server 2008 Setup pages as those for installing SQL Server 2008 R2 Standard:
- 8. Close the SQL Server Installation Center.

Next step

You can now install PecStar Standard Edition consisting of Database Server, SCADA Server, Client Workstation, Data Server, System Configuration and Database Maintenance modules.

Setting for Remote SQL Server Database

If you want to build a Redundant and Hot Standby PecStar System, you need to enable some settings in SQL Server 2008 R2.

1. Open **Start** on the Windows. Select **all programs, Microsoft SQL Server 2008 R2, SQL Server Management Studio** in sequence. Input the server name, login ID, password and select **Connect**.

Connect to Server				
SQL Server 2008 R2				
Server type:	Database Engine 💌			
Server name:	TESTPC1 -			
Authentication:	SQL Server Authentication			
Login:	sa 🗸 🗸			
Password:				
Remember password				
Connect Cancel Help Options >>				

2. Right click on SQL Server in **Object Explorer** and select **Properties**. Select **Connections** and click **Allow remote connections to this server**. Then select **OK**.

Server Properties - TESTPC1		
Select a page General Processors Connections Database Settings Advanced Permissions	Script Help Connections Maximum number of concurrent connections (0 = unlimited): Use query governor to prevent long-running queries use query governor to prevent long-running query governor to prevent long-ru	
Connection	Remote server connections	
Server: TESTPC1 Connection: sa <u>View connection properties</u>	Ølow remote connections to this server Remote guery timeout (in seconds, 0 = no timeout): 600 - Reguire distributed transactions for server-to-server communication	
Progress	Configured values Definition of the second	
	ОК	Cancel

 Right click on the SQL Server in Object Explorer and select Facets. Change facets to Server Configuration and find RemoteAccessEnable in Facet properties. Change the value to True. Then select OK.

🕕 Ready						
Select a page	Script - Thelp					
P General						
	En la factoria					
	Facet:					
	Description: Exposes properties of the S	Server regarding the configuration settings of the server.				
	Facet properties:					
	87 (XT) ==					
	*: (2.•)					
	QueryGovernorCostLimit	0				
	QueryWart	4				
	Recoveryinterval	0				
	RemoteAccessEnabled	true 🔊				
	KemoteDacbnabled	False				
	KemoteLogin Limeout	20				
	KemoteProc TransEnabled	False				
	RemoteQuery I meout	600				
	NephcationMax Lexiside	63330				
	ReplicationXPstnabled	Pase				
	ScanForstartupProcedures	True				
	Server inggerkecursionenabled	True				
	Setworkingsetsde	False				
	SnowiavanceaUptions	Taut				
	SmoundUmoxiPstnabled	Frie				
	Topoformbleightlands	False				
	Transformivoisevvords	Pase				
	liveConnections	2049				
Connection	UsedestancesTabled	Property also The faster of a block is not available				
TESTRC1 (w)	lisedoctance Timeout	Property value OserinstanceSchabled is not available				
En repurer (m)	therefore and the second secon	A A A A A A A A A A A A A A A A A A A				
View connection properties	RemoteAccessEnabled					
rooress	Gets the Boolean property value that specifie	es whether the remote access configuration option is enabled.				
and have						
nearby		Export Current State as Policy				
		Expert Content adde as Policy				

 Open "Start" on the Windows. Select all programs, Microsoft SQL Server 2008 R2, Configuration Tools, SQL Server Configuration Manager in sequence. Select SQL protocols for MSSQLSERVER in SQL Server Network Configuration, right click TCP/IP, select Enable and the warning box appears. Select OK.



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5. Right click on **TCP/IP** and select **Properties.** Change **TCP port** to **1433**. Then select **OK**.

TCP/	/IP Properties	? -	x	
Pr	rotocol IP Addresses			
	IP1		*	
	Active	Yes		
	Enabled	No	=	
	IP Address	fe80::884c:13f9:9259:4135%14		
	TCP Dynamic Ports			
	TCP Port	1433		
	IP10			
	Active	Yes		
	Enabled	No		
	IP Address	127.0.0.1		
	TCP Dynamic Ports			
	TCP Port	1433		
	IP11			
	Active	Yes		
	Enabled	No		
	IP Address	fe80::5efe:192.168.79.1%11	T	
T	CP Port			
T	CP port			
OK Cancel Apply Help				

6. Select Client Protocols in SQL Native Client 10.0 Configuration and SQL Native Client 10.0 Configuration, make sure both of the TCP/IP are Enabled.

Sql Server Configuration Manager						
File Action View Help						
 Image: A state of the state of	Name	Order 1 2 3	Enabled Enabled Enabled Disabled			
< Þ						



 After all this, restart SQL Server 2008 R2 and repeat step1 to 6 on other computers in Redundant and Hot Standby PecStar System. (Please make sure SQL Server 2008 R2 is in your allow list of firewall.)

Standard Installation

A Standard Edition consists of all PecStar modules including configuration files and services that are required for the system to function, and a connection to a SQL Server instance for the PecStar databases.

Make sure your computer meets the operating system and SQL Server requirements summarized in <u>Supported operating systems and SQL Server editions</u>. Perform the software installation directly on the server. Remote installation is not recommended.

The topics described in this section are:

- <u>Standard Installation Considerations on page 28</u>
- <u>PecStar Authorization Modes</u> on page 28
- Installing the Standard Server on page 30

Review the System Design Guide for information about planning for and setting up your system.

Standard Installation Considerations

Before proceeding with the Standalone Server installation, ensure that you completed the tasks described in the following topics:

- <u>Configuring your operating system</u>
- Installing SQL Server, or if applicable, <u>Updating an existing SQL Server installation for use by</u> <u>PecStar</u>.
- Verifies that the Authorization File or the Dongle is available, and the Dongle is inserted in the USB port of the computer.

PecStar Authorization Modes

PecStar iEMS V3.5 has two authorization modes: **File Authorization Mode** and **Dongle Authorization Mode**, which enable installation and performance of PecStar modules such as Database Server, SCADA Server, Data Server and Client Workstation.

PecStar will detect the Dongle or the authorization file during installation and performance.

Dongle Authorization Mode

A dongle is useful for those who use different computers on a regular basis. The PecStar will be authorized by checking the correspondence between the Dongle and the entered information.

Steps are as follows for the Dongle Authorization Mode:

- 1. Insert the Dongle in one of the USB ports of the computer.
- 2. Run PecStar Installation, select the Dongle Authorization Mode.
- 3. PecStar will detect and install the Dongle Driver automatically.
- 4. Input the Serial No. and Password of the Dongle.
- 5. After the authorization, you can now install PecStar modules.
- 6. Ensure the Dongle is connected to the USB port when running programs of Database Server, SCADA Server or Data Server.

Install the Dongle Driver

Generally, the Dongle Driver will be auto-installed during the PecStar Installation if you choose the Dongle Authorization Mode. Otherwise, if the driver isn't run automatically, you need to install the driver manually in PecStar Install Package.

Find Serial No. and Password

Each Dongle has a Serial No. and a corresponded Password. You can find the Serial Number and Password in the CET Electric Technology DVD.

Limits of Dongle usage

Each dongle can be authorized at most four times on different computers. And only the last computer can run PecStar. For each computer, a Dongle can be used to install PecStar as many times as you like.

Lost, Stolen or Faulty Dongles

When facing problems as follows, contact the CET Electric Technology Engineers for help:

- Dongle is missing.
- Serial No. or Password is missing.
- Dongle is out of use for four times.
- Dongle is destroyed and not available.
- Dongle driver cannot be correctly installed or dongle cannot be detected.

File Authorization Mode

An authorization file is useful for those who use the same computer to run PecStar or do not allow any USB device to be inserted in computers. The PecStar will be authorized with the Serial No. and the corresponded authorization file (swlic.dat) provide by CET Electric Technology.

Steps are as follows for the File Authorization Mode:

- 1. Run PecStar Installation, select the File Authorization Mode.
- 2. Copy the computer Characteristic Information, send it to the CET Electric Technology (srds@cet-electric.com). The engineer will send you the Serial No. and the authorization file (swlic.dat).
- 3. During the PecStar Installation, input the Serial No. and identify the authorization file path.
- 4. After the authorization, you can now install PecStar modules.

The authorization file is only available for the original computer and cannot be use on others. For one computer, PecStar can be installed as many times as you like.

Lost, Stolen or Faulty Authorization Files

When facing problems as follows, contact the CET Electric Technology Engineers for help:

- Authorization file is missing.
- Serial No. is missing.
- PecStar cannot be correctly authorized with Serial Number and authorization file.

Installing the Standard Server

Start the installation process by inserting the PecStar DVD into the DVD drive. If it does not open automatically, use Windows Explorer to navigate to the DVD drive and double-click setup.exe.

1. Select the Setup Language from the list and click Next.

PecStar V3.5 - InstallShield Wiza	rd	- 0 🔀
Choose Setup Language Select the language for the ins	tallation from the choices below.	
	Chinese (Simplified) English (United States)	
InstallShield	< <u>B</u> ack Next >	Cancel

2. The Welcome page appears, click Next.





4. For **File License Mode**, PecStar will offer you the **Computer Characteristic Information** as follows. Send this to CET Electric Technology (srds@cet-electric.com) to get the corresponded Authorization File (swlic.dat) and Serial Number.

Click Next to proceed to the Checking running environment page.



3. Select the authorization mode and click Next.

5. For **Dongle Authorization Mode**, PecStar will install the Dongle driver. Select the **Setup** Language and click Next.

GrandDog Run Time System Setup - InstallShield Wizard	- • •
Choose Setup Language Select the language for the installation from the choices below.	24
Chinese (Simplified) English	
InstallShield	Cancel

6. Wait until the installation finishes, click **Finish** to proceed to the **Verifying Environment** page.

GrandDog Run Time System Se	etup
	GrandDog Run Time Setup Setup has finished.
	< Back Finish Cancel

- 7. The Installation program will check and upgrade the following environments. Click **Next** to upgrade the environments.
 - Windows Installer 4.5
 - .Net Framework 4.0
 - Visual C++ 2010 Run-Time Library
 - Flash Player 11



The program will automatically install the missing ones.

It may take about 20 minutes to install all the environments.



Ensure that you accept all these license agreements of the necessary environments.

• Microsoft Visual C++ 2010



• Adobe Flash Player 11



• Microsoft .Net Framework 4

 PecStar V3.5 - InstallShield Wizard
 X

 Check Running Environment
 Installation program will check the following environments

 Windows Installer 4.5
 Installed

 .NET Framework 4.0
 Installed

 Visual C++ 2010 Running Time Library
 Installed

 FlashPlayer 10
 Installed

 Installed

 Mindows Installer 4

 Installed
 Xet (Ket Z)

 Installed

 Visual C++ 2010 Running Time Library
 Installed

 FlashPlayer 10
 Installed

 Installed

 Ket Z
 Cancel

If all components are installed, then it appears as below. Click Next to proceed to the

Note

License Agreement page.

PecStar iEMS will upgrade the environments by default. You may need to restart Windows for several times.

If the environments fail to install, you need to install the components from the PecStar iEMS Install Package.

8. Read the License Agreement page. Select I accept the terms of the license agreement, and click Next to proceed to the Setup Type page.

Note: Due to Due to business development, since April 10th, 2017, Ceiec Electric Technology Inc. has been renamed to CET Electric Technology Inc., however, the products (including hardware and software) that were developed or manufactured before this date may still involve old name or logo.



- PecStar V3.5 InstallShield Wizard

 Setup Type

 Select the setup type to install.

 Please select a setup type:

 Complete

 Image: Complete
 </
- 9. Select Complete or Custom, then click Next.

Complete

Suitable for computers which host all modules of PecStar including Database Server, SCADA Server, Client Workstation, Data Server, etc.

Custom

Suitable for computers which host specific modules of PecStar iEMS such as: Data Acquisition Module, Client Workstation Module, Database, Data Server Module, System Configuration Module and System Maintenance Module.

10. For Custom Setup Type, Select one or several modules and click **Next**. Each of the modules listed can be installed independently on a computer. For Complete Setup Type, skip this step.



- PecStar V3.5 InstallShield Wizard

 Choose Destination Location

 Select folder where setup will install files.

 Install PecStar V3.5 to:

 D:\CET

 Change...
- 12. Enter the **Config Info.** and click **Next** to proceed to **Software Verified Info.** page.

For File Authorization, input the **Serial Number** and **Authorization File Path** (swlic.dat) received from CET Electric Technology (srds@cet-electric.com). Please see the picture below as an example, assume Serial Number is F12-1001-0001 and License File found on desktop.

PecStar V3.5 - InstallShield Wiza	ard 🛛 💌
Config Info. Software License Certification	
	Please enter your Name, Company, Installation Serial Number and the path for the License File. User Name(U): pecstar Company(C): Ceiec Serial Number(S): F12:1001:0001 License File Path(P) C:\Users\yan\Desktop\swlc.dat Browse(B)
InstallShield	<back next=""> Cancel</back>

11. Choose the installation location of PecStar or accept the default location (D:\CET). Click **Next**.

 PecStar V3.5 - InstallShield Wizard

 Config Info

 Custom Info

 Please input your name, company, installation serial number and password.

 User Name(U):

 pecstar

 Company(C):

 Ceiec

 Serial Number(S):

 D12-1001-0003

 Installation Password(P)

 05336385

13. Verify the information page. For License Mode, the window appears as follows. Click **Next** to proceed to the **Config Main/Stand-by Data Server Info.** page.

 PecStar V3.5 - InstallShield Wizard

 Software Verified Info.

 The software information is as following:

 Authorization Mode:

 File Authorization

 Software Edition:

 Standard Edition

 Installation Serial Number:

 D12-1001-0001

 Remained Times:

 Remained 169 times.

For Authorization, input the **Serial Number** and **Password** of the dongle. Please see the picture below as an example.

For Dongle Mode, the window appears as follow. Click **Next** to proceed to the **Config Main/Stand-by Data Server Info.** page.



14. Input the **Main and Standby Data Server's Computer Name.** A Redundant and Hot Standby PecStar System is required to input both computer names.

PecStar V3.5 - InstallShield Wizard Config Info. Config Main/Stand-by Data Serve	r Info.,	
	Please enter the Computer Name where the Data Server will run. Main Data Server's Computer Name: TESTPC1 Stand-by Data Server's Computer Name: TESTPC2	
InstallShield	< Back Next > Ca	ancel



15. Select the Database type, SQL Server or Oracle, and then click Next.

- 16. Select database Installation type, click **Next** to the **Database Server Login** page.
 - Create new database instance PecStar will install an SQL Server 2008 Express instance as the PecStar database.
 - Use the existing database instance (default)

Select the existent instance to be PecStar database. It can be the database instance on a local or remote server.





17. For Create new database instance, input an instance name and click Next.

18. Define a strong password for the new created database then click **Next** to proceed to configure stand-by database.

ecStar V3.5 - InstallShield Wizar Database Server Login Database server requires login	d credentials to continue.	
	Please enter the user name and password for logging into the Database ((local)\CETDEMO). SQL Server 2008 Database needs a stronger password. The length of the password must exceed 8 characters and must contain a combination of numbers, small letters and capital letters such as sA_12345. Login ID(L): Sa Password(P):	
Install Shield	< Back Next > Cano	el



19. Select Configure Stand-by Database and click Next.

20. Select database server you want to install as stand-by database, type in the input the instance name or IP address and click **Next**.



PecStar V3.5 - InstallShield Wizar Database Server Login	d 📃 🔍
Database server requires login	Please enter the user name and password for logging into the Database (192.168.1.67). Login ID(L):
	sa Password(P):
Install Shield	< Back Next > Cancel

21. Input the user name and password for logging into the database then click Next.

22. Define a project name for the database and click **Next**.

Installation will check if the project name exists. It is recommended that you input a new project name for the first time you install PecStar. If the project name exists, then change or use existent and repeat the steps below.



PecStar V3.5 - InstallShield Wizard	1	×
Main Database Files Path.		
	Please enter the path of the Main's Database File.	
	- Destination Folder	
	E:\CET\DBData\	Browse
InstallShield	< Back	Cancel

23. Select the main database file path (default: D:\CET\DBData), click Next.

24. Select the Stand-by database file path (default: D:\CET\DBData), click **Next** to the **Ready** to Install the Program page.

The location must be created on the remote computer prior to Installation. Otherwise, create Stand-by's Database failed.

PecStar V3.5 - InstallShield Wizard		 X
Stand-by Database Files Path.		
	Please specify the Stand-by Database Server's network data path for the Database file on a remote computer such as D'.VecStar/DBData. The location must already be created on the remote computer prior to Installation. Otherwise, create Stand-by's Database failed.	
	Storage D:\CET\DBData\	
InstallShield	< <u>B</u> ack <u>N</u> ext > Car	ncel

- PecStar V3.5 InstallShield Wizard

 Database Server Login

 Select database server you want to install to.

 Database:

 (oca)
- 25. For **Using the existent database instance**, input or select the **Database Server** in the list, the default Database Server is (local). Then click **Next**.

26. Input the correct Login ID (sa) and the password. Click Next.

PecStar V3.5 - InstallShield Wizar	d	x
Database Server Login Database server requires login	credentials to continue.	
	Please enter the user name and password for logging into the Database ((local)).	
	Login ID(L): Sa	
	Password(P):	
InstallShield	< Back Next > Cancel	

For the existing instance of SQL Server Express Edition, the **Database Synchronization** function is not available. Click **OK** to continue the installation.



- 27. Follow the same steps as those for Create new database instance.
 - Enter Project Name page
 - Main Database File Path page
 - Stand-by Database File Path page

Then click Next to proceed to the Ready to Install the Program page.

28. Click Install to start PecStar installation.



For **Create new database instance**, it may take about 60 minutes to finish all the install process, SQL Server 2008 Express installation included.



29. PecStar will display some features during installation.

Versatile		
Feature Rich	KARA New Ter -	10 ma
Powerful GUI		200
User Friendly		200
Multi-Protocol Support		
scalable		
		000
	Part Meter	

30. Wait a moment until the installation finishes. Then you can choose to **Run PecStar Launch Pad immediately (recommended)** or to **Run PecStar Launch Pad later**, and click **Finish**.



- PecAssistant - -PecStar PecStar iEMS - Integrated Energy Management System PecSCADA PecConfig PecView PecConfig allows users to configure the various components of the monitoring network such as Stations, Sites, IEDs, analog PecView provides the ability to monitor and display real-time operating conditions of the electrical network, and per-PecSCADA communicates with IEDs in real-time, retrieves data logs from IEDs, transfers infor-mations to a central database, provides support for remote control of breakers and relays. form control functions through or digital data points, reporting user diagrams points, ...etc. PecReport PecTrend PecEvent PecTrend provides the ability to display historical data in tabular format or graphically in a trending chart. PecEvent provides the ability to display, sort and filter device PecReport provides the ability to create and generate customized reports based on the and system events, send alarm ser's requirements. messages via e-mail, or SMS,etc. E-mail : srds@ceiec-electric.com
- 31. The PecStar wizard will be created on the desktop of Windows and offers you six short cuts of the most common used programs as follows.

Note: Due to Due to business development, since April 10th, 2017, Ceiec Electric Technology Inc. has been renamed to CET Electric Technology Inc., however, the products (including hardware and software) that were developed or manufactured before this date may still involve old name or logo.

Next step

Now you can get started to use Standard Edition of PecStar, see the **PecStar iEMS V3.5 User Guide** for details. The following tips may offer you information of additional software and recommendation to keep the server healthier and safer.

Additional PecStar Software

Besides the PecStar Standard Installer, some extended installation of PecStar components are as follows.

Install a Demo Edition

PecStar offers an independent package for Demo Edition Installation, which includes the same modules as Standard Edition and provides you with graphic performance and historical data for demonstration. It is suitable for amateurs and beginners to learn and display performance of PecStar iEMS V3.5.

The Demo installation doesn't need authorization, and will create a SQL Server 2008 Express automatically.

For installation and performance of Demo Edition, please see the *PecStar iEMS V3.5 Demo Edition* for details.

Using a Web Client

A Web Client can be used by operators and others to access the Web Applications of PecStar Web Server, and enables you to view Communication status, Diagrams, Reports and Events.

The computer requires Microsoft Internet Explorer version 7.0, 8.0, or 9.0, and network connectivity to a PecStar Web Server. Web Clients can use Windows 7, Windows Server 2003, or Windows Server 2008 operating systems for this purpose.

To access Web Applications from a Web Client, enter an address in the following format in your browser:

http://host_name/virtual directory

where *host_name* is the computer name or IP address of the PecStar Web Server. For example, for computer name **MyComputer** and virtual directory **PecStarWeb**, enter the address in the browser as http://MyComputer/PecStarWeb.

For the local PecStar Web Server, you can enter http://localhost/PecStarWeb as well.

You need to download and install the Web Client Applications for graph viewing. Please see the *PecStar iEMS V3.5 Web Access* for details.

Post-installation Tasks

Perform the following procedures after you install PecStar.

PecStar Software Security

It is recommended that you add the PecStar directory into the Trusted Lists of anti-virus software.

Local firewall may report false when some of the PecStar core process is communicating with devices. We suggest you add these processes in List, take the Windows Firewall for example:

- 1. Enter the Windows Firewall in Control Panel, click Allow a program or feature through Windows.
- 2. Click Change settings to ensure that you can click Allow another program button.

Edit View To	ools Help			
	Allow programs to communicate through Winds	ows Firewall		
	To add, change, or remove allowed programs and ports, click ('hange settings		
	no dad, enange, or remore anowed programs and pore, energy	and nge settings:		
	what are the risks of allowing a program to communicate?	that the second se	nge settings	
	Allowed programs and features:			
	Name	Home/Work (Private)	Public *	
	✓ Network communicate station cclient	V		
	Network communicate station cclient			
	Network communicate station server			
	Network communicate station server	V		
	Network Discovery	V		
	Performance Logs and Alerts			
	Remote Assistance			
	Remote Desktop	V		
	Remote Event Log Management		— —	
		Details	Remove	
		Allow anothe	r program	
		L	· -)	
		OK	Creat	

- 3. Add these programs from PecStar directory, click OK.
 - Sserver.exe
 - DServer.exe
 - Cclient.exe
 - Front.exe

Please contact the local engineers for details of the advanced security settings.

PecStar iEMS[®] V3.5 Installation Guide

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