CeweCetrics
Start up manual

Contents

Introduction

What is Cetrics?

Cetrics is a system for collecting, processing and presenting data. Cetrics was designed as a universal and flexible system to meet the needs of different types of user and different areas of activity. Where a user's needs are not met by a standard Cetrics installation, there is scope for adaptation either by the user, by Cewe Instrument or by a third party.

An outline

Data collection

With scheduled collection, readings are fetched from services on terminals and are stored in series. A terminal in Cetrics is some form of hardware, for example a meter, data logger or sensor. A service on a terminal is anything that can deliver readings, such as a logging channel in a data logger or an energy counter in an electricity meter.

Processing

New "calculated" series can be created. Within a calculated series, the values of the constituent series are summated, possibly with factors, to become new series. Series (calculated and stored) can be reviewed and the readings in the stored series can be corrected if necessary. If readings are corrected, a backward traceability function can restore the original readings. One or more series can be displayed on a graph, comparisons can be made and readings can be exported to Microsoft Excel for further processing.

Presentation

Data from Cetrics can be presented in reports. A report may be an invoice form, a graph or a text report. Cetrics comes with a number of standard reports. These can be adapted, and new ones created, by the user, Cewe Instrument or a third party, using Seagate Crystal Reports. Reports can be created for single series or for groups of series with without tariff information. In Cetrics, the term "group" is used. "Group" is a general term for what one user may call "customer", another "tenant" and a third "department". Cetrics has a number of templates for groups (group templates), but you can also create your own templates. You can create a group from a given group template, eg customer, link series and tariffs to the group and print out invoices and bar charts in which the bars show the quantity broken down by tariff.

Definitions

Base unit	A base unit has the factor 1. Derived units are stated relative to the base unit. Example: the base unit for the derived units kWh (factor 1000) and MWh (factor 1000000) is Wh.
Calculated series	A series formed by summating the readings from a number of stored or calculated series.
Data series	A data series is a collection of time-discrete readings. Readings collected by Cetrics from terminal services are stored in stored data series. Stored series can be summated in calculated series.
Group	Since Cetrics is a universal system for different categories of user, a universal term is needed to cover what one user may call "customer", another "tenant" and a third "department". Group templates are created for the various types of group (customer, department, etc.).
Event	An event may be an alarm, a event or a note. Alarms are regarded as more serious than events. Notes are always linked to a reading, whilst alarms and events may refer to a terminal or to the system as a whole.
Stored series	A stored data series is a collection of time-discrete readings stored in the Cetrics database.
Reading	On reading, values (readings) are collected from the services of a terminal and presented without being stored in data series.
Object	The term "object" is used as a general term for terminal, series, service, tariff, etc.
Protocol	In Cetrics, a protocol is a file containing a set of rules governing communication with one or more types of terminal. New protocols can be installed in Cetrics. Some protocols can be set up in more than one way. In your system you can set up several types of terminal which use the same protocol but with different settings.

Collection On collection, values (readings) are fetched from the services of a terminal and stored in data series. With some types of terminal, events are also collected.

Terminal type This refers to some form of hardware, eg a meter, a sensor or a measuring terminal, from which Cetrics can collect or read values.

Host terminal A host terminal receives data from terminals which are programmed to dial up Cetrics automatically. Host terminals can only receive data from terminals of the same type as the host terminal.

Service A service on a terminal is anything that delivers readings (values) to Cetrics, eg a logging channel or a counter.

Typical fields of application

Industry

Cetrics can be used to create statistics which can form the basis of energy efficiency improvements and so cut energy costs. By studying the energy profiles, production hours can be planned to create a more uniform profile and reduce the costs of power subscriptions, for example.

In Cetrics, tariffs can be linked to customers. This makes the system a perfect tool for cost allocation, both internally and externally.

The costs of consumption can be followed up and so linked to the products produced. This can be very valuable in energy-hungry production processes where the costs of consumption are part of the production costs.

Buildings

In many countries, the electricity market is now deregulated, so that everyone is free to choose their energy supplier. This may not be so significant for individuals, but when residents' associations and tenants join forces to negotiate a joint agreement, there is ample scope for cutting the cost of energy. Having a joint contract for a large group minimises the number of standing charges, a major cost item. The energy costs for the building must now be shared between the residents/tenants. Cetrics is a suitable tool for collecting metered data and allocating the costs fairly.

Power suppliers

Data is collected from metering points at a relatively low cost via one of the communication media currently available. Today's deregulated electricity market also demands more frequent readings and correct billing. Customers want to pay for what they have used and no more.

Cetrics offers an open solution in which different makes of meter can be read. The system is tailored for today's needs in terms of the billing, export and presentation of metering data.

Documentation

Your Cetrics documentation includes this "Getting Started" manual and on-line help.

Getting Started manual

This "Getting Started" manual provides an overview of what you can do in Cetrics and helps you start using the program without delay. It contains everything you need to know about how to install Cetrics and set up your first system.

On-line help

On-line help is a reference manual which is displayed on the computer screen. To start the on-line help, click **Contents and Index** in the **Help menu** of the program. You can also press the **F1** key in a dialog or click the **Help** button to see explanatory text about that particular dialog.

Product support

To ensure that you get the best out of our products, Cewe Instrument offers services such as technical support, training and consultation. Visit our website **www.ceweinstrument.se** for more information or contact us via e-mail at **info@ceweinstrument.se.**

Installation

System requirements

The system requirements for Cetrics depend on the configuration installed. A configuration may be everything from a single-user system with a small number of terminals and series, to a system with a large number of users and thousands of terminals and series. These are the minimum requirements for a single-user system with a few terminals and series:

- Intel Pentium II 400 MHz
- 128 MB RAM
- CD-ROM (for installation)
- 1 GB free hard disk space (for a more exact calculation of hard disk space, see below)
- Monitor with a resolution of 800x600 pixels and 256 colours (recommended resolution 1024x768 pixels)

This is how to calculate the required hard disk space in bytes:

Number of series x number of readings stored per day x number of years for which data must be stored in the database without being archived x 365 x 30.

The calculation only allows for the storage of readings in series. Other parts of Cetrics also occupy hard disk space, but in relation to the storage of readings, this is often negligible.

Operating system requirements

Cetrics will run under Windows NT 4.0 with Service Pack 4 or later, and Windows 2000.

Installing Cetrics

On the install CD there are two install options:

Full install and installation of a host for connections.

Installation procedure:

1. Click the Windows Start button and choose **Run**.
2. In the dialog that appears, choose **Browse**. For a full installation, run **Setup.exe** directly on the installations CD.

   To install the connection host, first open the **Connection Host** folder, then run **Setup.exe**.
3. Click **Open**.
4. Click **OK** in the **Run** dialog.
5. The install program starts. Follow the instructions on the screen to complete the installation.

Registering your program

We recommend that you register your program. To do this, fill in the registration card supplied and send it to Cewe Instrument.

An overview of the Cetrics user interface
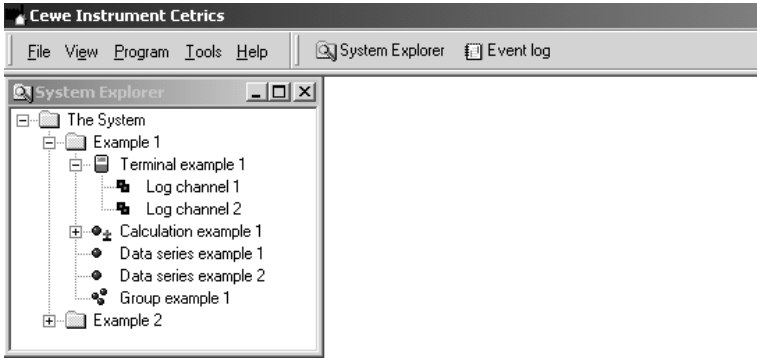
Toolbar – This contains menus and icons for shortcuts to various functions.

System Explorer – Here you can organise your system. The System Explorer is also your starting point when you want to perform various functions for the objects you have created. Select an object, eg a terminal, and right-click on it. The menu that appears shows what you can do on that particular object. You can open more than one window in the System Explorer.

Shortcut commands

The mouse button on the right can be used at many places in Cetrics to perform various functions quickly. Select an object and right-click on it. Possible functions for that object are listed in the pop-up menu that appears. The functions can also be reached via the toolbar menus, but it is quicker and more efficient to right-click.

To obtain help with a given function you can press **F1** or click the **Help** button in the dialog you need help with.

To open the System Explorer quickly, press **F9**.

To open the Event Log quickly, press **F8**.

To update the current window, eg the System Explorer, press **F5**.

Drag and drop

There are many places in Cetrics where you can use the "drag and drop" method to move or add objects in a window. To do this, select an object, press and hold down the left mouse button, "drag" the object to the place where you want to move/copy it to and release the mouse button. For example, in the System Explorer, you can move a terminal to another folder by using the drag and drop method.

Your first system

Adding a terminal

A terminal in Cetrics is a hardware device from which readings can be read or collected. Examples of terminals are meters, data loggers and sensors.

When you add a terminal, you must choose a terminal type for it. Cetrics has a number of pre-installed terminal types, but you can add your own. If you want to add a terminal of a type that is not pre-installed, you must add the terminal type first. Instructions for doing this are given under *Adding a terminal type*.

Procedure:

1. Open the **System Explorer** by clicking the System Explorer icon on the toolbar or by pressing **F9**.
2. Click **File**, **New, Terminal** and click on the required terminal type (or right-click on the required folder, choose **New**, **Terminal** and click on the required terminal type).

The **Terminal** tab:
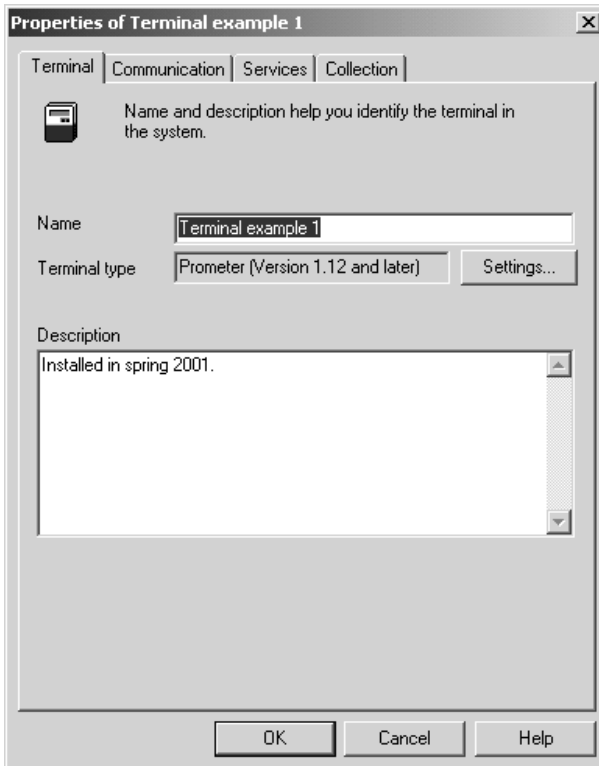
3. Give the terminal a name so that you can identify it in the system.
4. The **Terminal Type** field shows which terminal type you have chosen for the terminal. You cannot change the terminal type later.
5. In the **Description** field you can enter information such as date of purchase, date of last service, location, etc.

The **Communication** tab**:**

6. **Identity** is used by the protocol when communicating with the terminal. What you enter under identity depends on terminal type and protocol. For example, for Cewe Instrument's Prometer the serial number of the terminal is entered as the identity.

7. Whether or not the **Password** field must be filled in depends on the type of terminal. Some types of terminal always require a password, others have no password. For some types of terminal you can choose whether or not to use a password.

8. Now you must specify how communication with the terminal will take place. Start by specifying the connection method by choosing one of the options in the **Connect with** list.

9. Choose a communication port from the list or type the name of another port, eg COM5, directly into the **Port** field.

10. If you chose modem as the method of communication you must enter a telephone number. Enter all the necessary digits, including the digit to access an outside line, if needed. If your modem requires a special initialisation string you can enter Hayes-compatible commands in the **Modem initialisation** field. The text string you enter here is sent to the modem before dialup. If your computer is connected to a network, you can use another computer as a host computer to collect data. When you use a host computer, you use communication ports on another computer on the network instead of using local ports on your computer. For more information about connection via another computer, see the on-line help.

11. Now check that communication is working by clicking **Test**.

The **Services** tab:
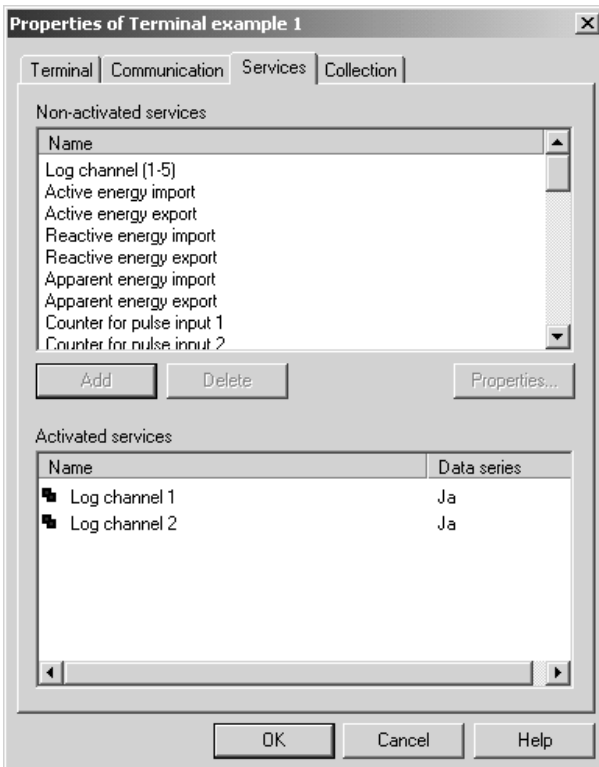
12. The services available for the terminal type are shown here. Select the required services from the **Services not activated** list and click **Add**.

By default, a data series is created in which all readings are placed when collected. If you want to change the default settings for the service (you may want to connect an alarm to the service or change the presentation unit), click **Properties**. For more information about the properties of a service, see the on-line help.

Tip: you can use the drag and drop method to add services to the **Activated services** window.

The **Collection** tab:
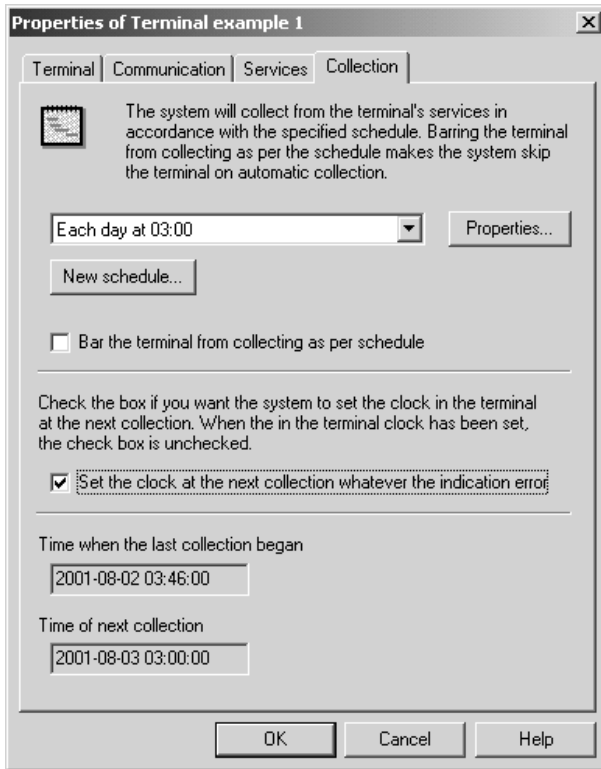
13. Fill in this tab if you want to schedule data collection. You do not need to fill in this tab if you are only going to collect data manually from the terminal. To see how to schedule data collection, see under *Scheduling data collection*.
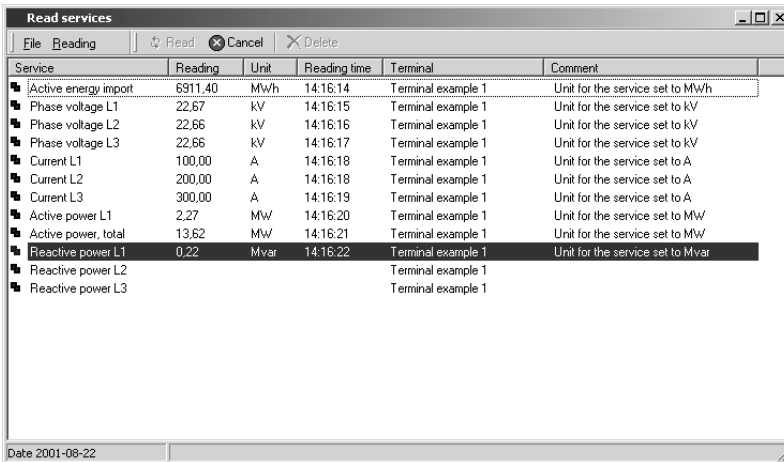
14. Click **OK**.

Reading

On reading, you receive values for the services you chose to read. These values (readings) are displayed on the screen but are not stored in the database. You can choose to read all the services of a terminal or a single service, as well as services from other terminals.

When you choose to read services, a Read services window opens. On reading, all the services in the window are read in turn.

Procedure:

1. Select the terminal or service you want to read, right-click and click **Read**.

2. The Read Services window opens. If you selected a terminal, all services on that terminal appear in the window.

Tip: You can add services to this window by dragging and dropping terminals or services from the System Explorer.

3. Click **Reading** on the menu bar, then **Read**, or click the **Read** icon. All the services in the window will be read.

4. Cetrics reads the service(s) and displays value, unit, time of reading and comment for each service.

5. Close the Read Services window. (Note that readings are not stored in the database.)

Note: You cannot read from a terminal from which data is currently being collected.
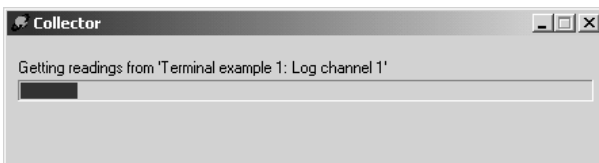
Collecting

On collection, the services of a terminals are read and, unlike when reading, the data obtained is stored in the database.

Another difference compared with reading is that events stored in the terminal are transferred to Cetrics on collection and stored in the Event log in the Terminal sublog.
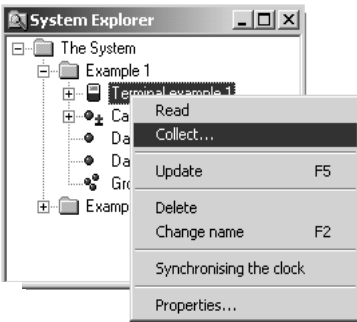
Procedure:

1. In the **System Explorer**, select the terminal that you want to collect data from. Right-click and choose **Collect**.
2. The collector starts. Readings for the services and any events are fetched from the terminal. Collected values for a service are saved in a series by default. If there is no series linked to the service, the system creates a series and stores the readings in it. If something goes wrong during the collection process, information about this is saved in the event log. The event log is covered in *Viewing events and notes.*

Synchronising the clock

On collection, the clock in the terminal is synchronised within the limits set up in **Tools | Options** under the **Collection** tab. If you right-click on a terminal and choose **Synchronise clock**, the clock will be synchronised regardless of indication error. In other words, the system disregards the limits set up in **Tools | Options**.

Tip: If you want to synchronise the clocks of a large number of terminals you can select the **Set clock at next collection regardless of indication error** box under the **Collection** tab in the properties of the terminal. The clock in the relevant terminal will then be synchronised at the next collection.

Reviewing collected values

When you have done a collection and values have been saved in data series you can review your values in the **View as graph** and **Review series** functions. In **View as graph**, several series can be displayed at the same time and the values for the series can be exported to Microsoft Excel. In **Review series**, "raw data" for a series is displayed. Values in a stored series are displayed with the times when they were collected. Values in a calculated series are displayed in accordance with the time intervals specified in properties for the series. Values in a stored series can be corrected and new values added to the series.

The time stamp of a value refers to the end of a period. For example, a mean value generated between 13:00 and 14:00 is time-stamped 14:00.

View as graph

Procedure:

1. Select a data series in the **System Explorer**, right-click and click **View as graph.**
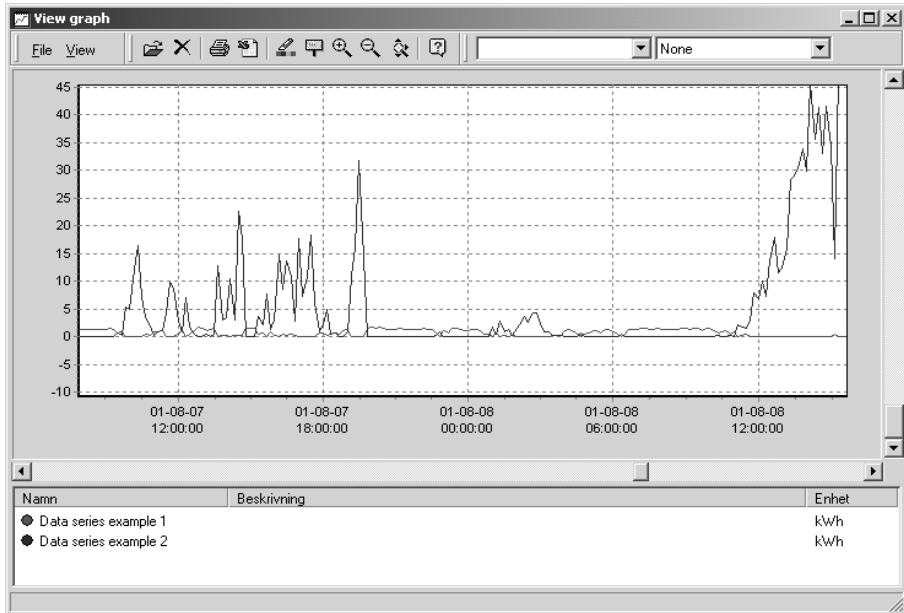
2. You can choose to review your values over different periods and in different groupings. You can find these two functions in the **View** menu and on the toolbar. If no grouping is chosen, the values are displayed with the time when they were saved to the database. If grouping is chosen, the values are summated on the basis of the chosen grouping. If you choose to group the values on a "per hour" basis, all values between, for example, 00.01 and 01.00 will be summated and presented with the time stamp 01.00. *Calculated series can only be displayed with grouping.*

3. You can view more than one series on the same graph. You can use the drag and drop method to fetch other series from the System Explorer and drag them to the View graph window.

Tip: If you want to quickly see more of a graph than you can see in the window you can right-click on the graph and, keeping the mouse button pressed, use the mouse to move the graph to the right, left up or down. You can also zoom in on a region by pressing the left mouse button.

Review series

Procedure:

1. Select a data series in the **System Explorer**, right-click and click **Review series.**

2. Choose period and click **OK**.

• You can add values to the series. Select the value and click **Insert**. An inserted value is marked "Manually inserted".

• You can change values in the series. Select the value and click **Insert**. An changed value is marked "Manually changed". Earlier versions of the value are saved and can be viewed with the **View | Versions** function.

3. Notes can be viewed in the **View | Notes** function. To see notes for more than one series at a time, open the Event log and choose Notes. The event log is covered in *Viewing events and notes.*
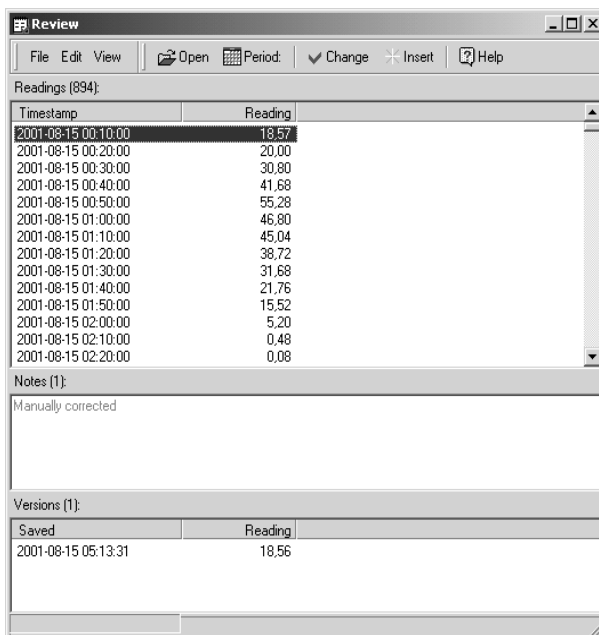

Note that values in calculated series cannot be corrected and new values cannot be added. So in a calculated series you can only review values.

Tip: When values are added, the time is counted up by the interval stated in the **Interval** field in the properties of the series. If you specify an interval in the properties of the series, entry will be far quicker.

Viewing events and notes

Events and notes are stored in a continuously updated list which is displayed in the Event log. The Event log has three sub-logs, System, Terminal and Note. System refers to events that occurred in the system, eg errors on data collection or incorrect login attempts by a user. Terminal relates to events collected from terminals. Events have been found stored in the terminal and transferred to Cetrics on data collection (not supported by all terminal types). Notes relates to events that are linked to a particular value. They may be either notes collected together with values from a terminal and notes stored for a value by the system, eg on manual correction in the **Review series** function. By creating filters, events from a particular source and with a particular id can be hidden.

You can sort events in two ways: on the basis of the event's time-stamp, ie when the event occurred, and on the basis of the time when the event was collected. If you want to make sure that new events that have been collected always go to the top of the list, you must choose to arrange the events by time of collection (the event may have happened earlier, but has only recently been collected by Cetrics). The **Arrange events by** function is in the **View** menu.
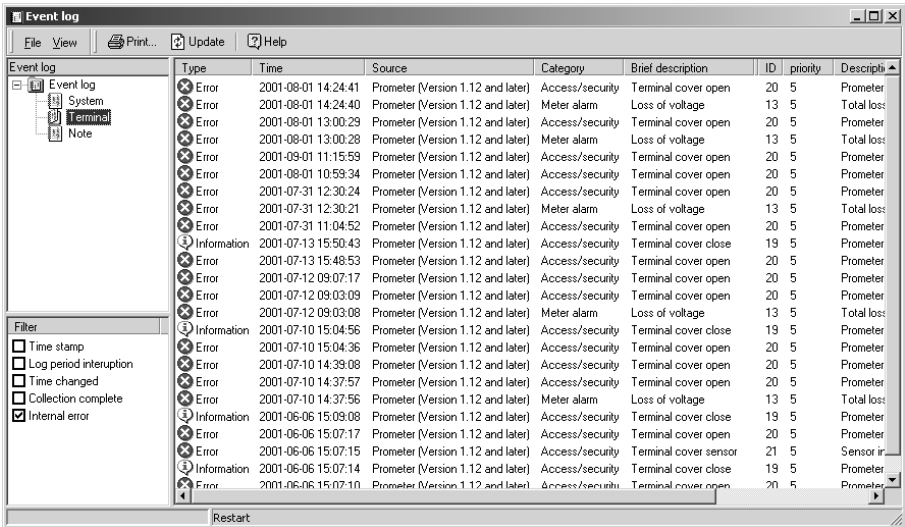

For further information about the event log, see the on-line help.

Automating data collection

In Cetrics you can automate collection from a terminal. This is done with the "scheduler". By linking a schedule to the terminal you want to collect the data from, you tell the system when you want data to be collected. Cetrics comes with a number of schedules, but you can create your own. The section *Creating a schedule* explains how to do this.

Procedure:

1. **Right-click** on the terminal to which you want to link a schedule and click **Properties**.

2. Click the **Collection** tab.
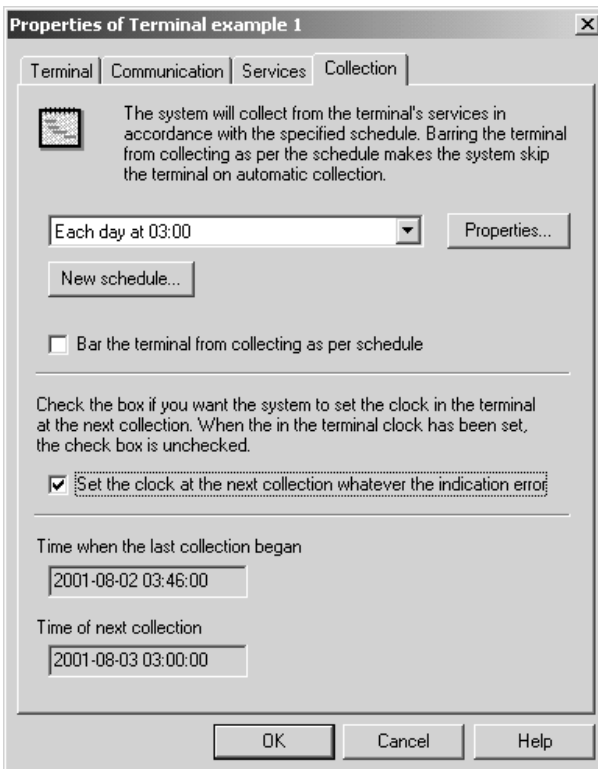
3. In the list, select the schedule you want to link to the terminal or create a new one (see *Creating a schedule*).

4. Click **OK**.

5. To activate automatic collection you need to start the Scheduler. Choose **Start scheduler** in the **Programs** menu.

Dial-in terminals

Terminals which initiate collection by contacting Cetrics are known as dial-in terminals. A terminal host is required for automated collection from dial-in terminals. The terminal host answers calls from all dial-in terminals of the same type and stores the data from the terminals in the system. Dial-in terminal that do not exist in the system are created by the terminal host.

The procedure for adding a terminal host is more or less the same as for adding a terminal (see *Adding a terminal*), with certain exceptions. The terminal type for the host specifies the types of terminal for which it is intended. It can only host terminals of the same type. **Identity** and **Password** on the **Communication** tab do not refer to a specific terminal (the host acts for several terminals). **Telephone number** is not used. Ignore the **Services** tab. A terminal host has no services. Do not specify a schedule on the **Collection** tab. A terminal host is always active when the scheduler is running. On the other hand, you can prevent collection by checking the **Disable terminal host** box. The Scheduler must be running for the terminal host to receive from dial-in terminals.
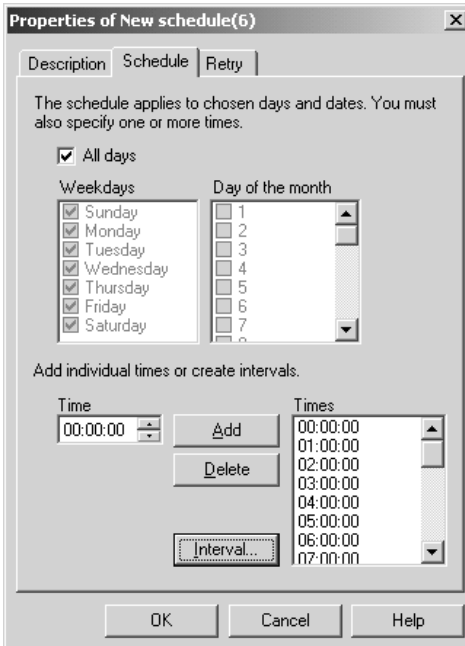
Creating a schedule

A schedule lays down one or more times when data will be collected automatically.

Procedure:

1. In the **File** menu, choose **New** and click **Schedule**.

The **Description** tab:

2. Give the schedule a name and add a comment if you wish.

The **Schedule** tab:

3. If you want the schedule apply every day, check the **Every day** box. If not, check the boxes for the required days of the week and month when you want the schedule to operate. By selecting combinations of days of the week and days of the month, you can, for instance, specify collection every Monday and on the first of every month.

4. Now specify the time of collection. You can choose either a specific time or an interval. To choose a specific time, set the time in the **Time** field and click **Add**. To choose an interval, click **Interval**.

The Retries **tab:**

5. Here you can choose whether you want the system to tray again if the first collection attempt fails. If it would be inconvenient for retries to take place during a given period, you can prevent retries during that particular period.

6. Click **OK**.

Using groups and tariffs

Adding a group

The term "group" is a general term which has been chosen because different users define a "group" in different ways. One user may use the term "customer" whilst another may use "tenant". Yet another user may use the word "department". To add a group you need to use a group template. Cetrics comes with a number of group templates which you can modify to suit your needs. If you don't need all the group templates that come with the program you can delete unwanted ones. You can also create new group templates. The section *Creating a group template* explains how to do this. When you have created a group you can add data series and link tariffs to the group, so that you can create reports for the group.

Procedure:

1. In the **File** menu, choose **New** and **Group** and click on the template you want to use (alternatively you can right-click on the required folder, choose **New**, **Group** and click on the template you want to use).

The **General** tab:

2. Give the group a unique name and a description if you wish.

3. Fill in the fields under **Specific information**. Which fields are available depends on the group template.

The **Series** tab:

4. You can link a series to a group. To link a series, click **Add a series**. When you have added a series, you can link a tariff to the series. Select a series in the list and click **Choose tariff**. A tariff must have been created, otherwise this does not work. The section *Creating a tariff* explains how to do this.

5. Click **OK**.

Creating a group template

You can adapt the group templates supplied with Cetrics, so that they meet your needs, or create completely new templates.

Procedure:

1. In the **Tools** menu, choose **Group templates**.
2. In the **Edit** menu, choose **New group template**. (If you want to modify one of the supplied templates, select that template and click **Properties**.)

The **General** tab:

3. Give the group template a suitable name, eg Customer or Tenant (these templates already exist in the default installation). If you wish, you can enter a description in the **Description** field.

The **Fields** tab:

4. This is where you specify the fields that the template will include. When you create a new field, you must give it a name, preferably a name which describes what that field will contain. Examples are Address or Occupancy Date. If you wish, you can enter a description of the field.
5. The specify whether the field will contain text, integers, decimal numbers or a date. You cannot change data type later. It can only be specified when the field is added.
6. You can enter a default value, eg a text or a number, which appears automatically in the field when the template is used.
7. If the field must always be filled in, check the **Mandatory** box.
8. Click **OK**.

Creating a tariff

A tariff is made up of one or more rates. Rates can have a price. A tariff can be linked to a data series, which in turn belongs to a group. Reports for the group (eg invoicing information) can then be created.

If you want to change an existing tariff we recommend creating a new edition of the tariff. Earlier editions remain in the database (provided that you have not deleted them) and data can be used, for example, to re-create invoicing information based on an earlier price. The on-line help explains how to create a new edition of a tariff.

Procedure:

1. In the **File** menu, choose **New** and click **Tariff**.
2. Give the tariff a unique name and a description if you wish. Specify the date (inclusive) from which the tariff will apply.

3. Add rates by clicking **Add.**

The **General** tab:

4. Give the rate a name.

5. Enter a category for the rate. An example of a category is "variable charge". Using categories makes it easier to create rates which do not contain "gaps" (see item 9). Categories are also used in some reports to present different rates by group.

6. Enter the price and unit for the rate.

7. Enter the type of charge for the rate. You can choose **Fixed charge** or **Variable charge** or **Own parameters**. If you choose **Own parameters** you can combine period and quantity, eg per year and per kW. Fill in the **Code** and **Value** fields if you want to use a term of your own and to set a limit on when the term is to apply. Example: you want to make a charge for consumption above a certain level. In the **Code** field, specify which term you want to use for the charge. In the **Value** field, specify the limit above which the extra charge will be applied. If you choose **Own parameters** you must make an adapted report in order to be able to present prices in accordance with the tariff. The code and the value you have specified must be stated when you create the adapted report. For more information about adapted reports, see the section headed *Adapted reports*.

The **Time conditions** tab:
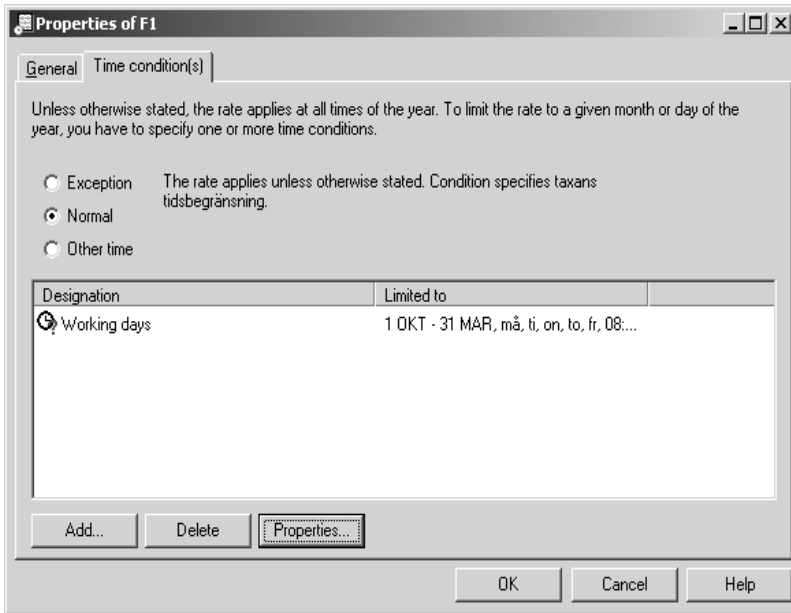
8. Specify whether the rate applies exceptionally, at normal times or at other times. The program considers first conditions from exceptions, then conditions for normal. Any time outside these conditions (in the same category) is interpreted by the system as "other times".

9. Add any time conditions by clicking **Add.** If you chose "exception" you must specify times when exceptions must apply. If you chose normal you have two options: you can either add limits for when the rate will apply, or add no such limits. If you do not choose any limits, the rate will apply all the time. To prevent gaps occurring, you must make sure that a rate is defined for all times, either by limits which embrace all times, or by using "other times".

10. When you add time conditions you can choose between **time of the year**, **day(s) of the week** or **time of day**. You can also use a combination of these. For a rate to apply, all your choices must be met.

11. When you have finished defining the rate, click **OK**. To add more rates, click **Add** again.

12. When you added the rates you want, click **OK**.

Creating reports

Reports can be created for a series or a group. There are a number of types of report intended for series and a number of other reports for groups.

To create a report, select a series or a group in the System Explorer, right-click and choose Create report. Reports that can be created for the chosen series or group are presented as possible choices. Data for a series may be classified (see properties for the series, under the Advanced tab). If data has been classified, the selection of reports is also limited by the classification. By choosing **Reports** from the **File** menu, you can create reports for more than one series or group at the same time.

Adapting reports

If you need to adapt existing reports or create new ones you can do so with a program called Seagate Crystal Reports. You can also request a quotation from Cewe Instrument for consultancy assistance with creating adapted reports.

Maintaining the system

Backing up the database

The database should be backed up regularly. If the database fails, you can load the latest backup copy to restore your system. You can choose where to save the backup copy. When you make a backup, Cetrics creates two subfolders, FullBackup1 and FullBackup2, in the folder you specified as the path. Cetrics saves the backup copy alternately in FullBackup1 and FullBackup2. This ensures that there is always a backup copy if the database fails before a backup in progress is complete. Cetrics keeps track of which copy is the most recent one. During backup copying, the system checks that there are no errors in the database. If an error is found, an error message appears.

Procedure:

1. In the **Tools** menu, choose **System maintenance**.
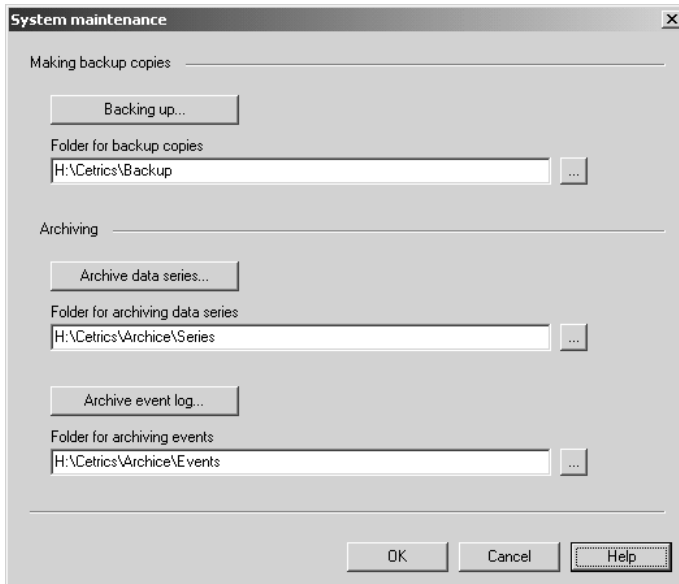
2. The **Folder for backup copies** field shows the path of the folder where the backup copy will be saved (the folder where the latest backup copy was saved or, if no backups have been made, the default folder). If you want the backup copy to be save somewhere else, click the button beside the **Folder for backup copies** field (or type the path of an

existing or new folder into the field). Choose a folder where the backup copy will be saved and click **OK**. The new path appears in the **Folder for backup copies** field.

3. Click **Backup**.

4. Click **OK** to confirm that you want to back up the database (if you entered a path to a folder that does not exist, you must also confirm that you want to create the new folder).

5. The system confirms that the backup copy has been made and shows the folder where the backup copy has been created. Click **OK**.

6. Close the System maintenance dialog.

Restoring the database from a backup copy

If the Cetrics database fails, you can restore the database by loading a backup copy. This is done with a separate application known as **recover.exe**.

Procedure:

1. Go to the folder where Cetrics is installed (eg C:\Programs\Cetrics).
2. Start **recover.exe** by double-clicking the file name.
3. You will be prompted to close all Cetrics applications. Close any open applications and click **OK**.
4. The **Folder for backup copies** field shows the path to the folder where the backup copy is saved. If the computer suffered a total crash or if you have re-installed the system, you will have to enter the path yourself. Click the button to the right of the **Folder for backup copies** field (or type the path of the folder directly into the grey field). Choose the folder where the backup copy was saved and click **OK**. The new path appears in the **Folder for backup copies** field.

6. Click **Restore database**.

7. The system asks if you want to copy the present database (the one that failed) before loading the backup copy (make sure you have enough disk space for the backup copy. If you click **Yes** you must choose a folder to save the copy in.

8. Click **OK** to confirm that you want to load the specified backup copy.

9. The system confirms that the backup copy has been loaded and that you can restart the system.

10. Click **Close** to close the Restore database window.

Archiving data series and events

You can save data up to a specified date. If you wish, you can delete data from the Cetrics database. Data series and events can be archived.

The size of the database does not change when data is deleted. A certain amount of space is reserved in the database as data is added to it. If data is deleted, the database does not get smaller. Since space is reserved in the database, it does not get bigger when data is added to it. There is no need to "clean up" the database unless you are short of hard disk space or if you simply want to remove old data from your system.

The on-line help explains how to archive data series and events.

Administering users

You can limit access to your system by creating users and defining roles. In Cetrics there are two categories (roles), User and Administrator. With the role of User, you can read information on the system, eg print out reports, and read or collect data from terminals. The role of Administrator entitles you to write to the system, in other words, to create new objects, and to change and delete objects: terminals, series, groups, users, etc.

Procedure:

1. In the **Tools** menu, choose **Administer users**.
2. Existing users are displayed. Choose a user and click **Properties**, or click **New user**.
3. Type or change **Login** and choose **Role** and click **Password**.
4. Type in **Old password**, **New password** and confirm the new password.
5. Click **OK** and then **OK** again.
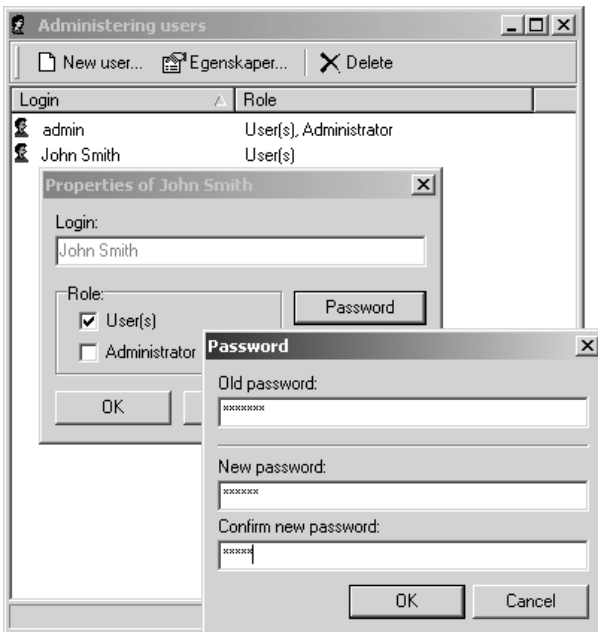
On a newly installed Cetrics system the only user is admin (no password). When admin is the only user on the system, no login dialog appears when Cetrics is started.

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