

**Operating manual**  
**CMIS**  
**Certus Management Information System**

*Thinking of you*

 **Electrolux**



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# Before you start

## End user licence agreement

### Notice to user:

This is a contract between you and Electrolux Laundry Systems.

### Use of software:

- You may install one copy of the software onto a hard disk or other storage device of up to the Permitted number of computers.
- You may install one copy of the Software on a single file server for the purpose of downloading and installing the Software onto a hard disk or other storage device.
- You may make backup copy of the Software, in accordance with the provisions of the European Communities (Legal Protection of Computer Programs) Regulations, 1993, provided your backup copy is not installed or used on any computer.

### Copyright:

The Software and any copies that you make are owned by Electrolux Laundry Systems and its suppliers.

### Transfer:

You may not rent, lease, sublicense or lend the Software.

**System requirements:**

System requirements for CMIS are divided in three parts, PC, Network and Machine.

**PC:**

- Microsoft Windows 95, 98, Me, 2000, NT4 SP5 or XP
- Microsoft Internet Explorer 5.0 or higher
- Microsoft Excel 97 or later \*
- Intel Pentium compatible, 400Mhz or better
- 64Mb Ram or better (128Mb recommended)
- Requirements Free Harddisk space (original database settings CMIS):
  - 10 machines – No less than 250 MB
  - 20 machines - No less than 500 MB
  - 30 machines – No less than 750 MBRecommended Free Harddisk space is 1GB
- SVGA display 800 X 600 resolution (1024 X 768 recommended)
- CD-ROM drive
- 1 Free serial port (9-pole DSUB, DB9M)
- Mouse or compatible pointing device
- CMIS requires Borland Interbase Server 6.01 as a database server. Installation of Borland Interbase Server 6.01 is included in the CMIS Setup.exe file, but could not be installed if an earlier version of Borland Interbase is installed on the same machine. Earlier versions of Borland Interbase must be manually uninstalled/updated before CMIS could be installed. Contact your vendor for programs that uses earlier versions of Borland Interbase to find out if it is possible to upgrade or install CMIS on another computer.

- \* From version 3.2  
Microsoft Excel 97 or later is required for full functionality in statistics/cost calculations. If no Excel version exists when installing CMIS, an Excel viewer will be installed. This Excel viewer will however provide only limited functionality, i.e it will not be able to change costs, etc.



## Network:

- Maximum 30 machines connected to a single network
- Maximum length of wire in a network is 500 meters
- Recommended wire:  
Type: Control, Instrumentation or Computer cable  
Stranded wire, Tinned Copper, 4 x 0.22mm<sup>2</sup> (= 4 x AWG24), Diam 4-5 mm  
Insulation: PVC insulation, 300V, 70°C or better  
Approvals: According to local prescriptions

## Machines:

### Washers

#### Hardware:

CMIS is supported by machines equipped with Clarus Control only.

CMIS is connected to a serial port (X7) on Clarus Control CPU board. It is important to verify that serial port is free to use. In some specific installations this serial port might have been used for larger Liquid supply systems. Verify this with the supplier of liquid supply before an installation is made. Alternative solutions are available.

#### Software:

CMIS protocol is implemented in Clarus Control software as listed below:

**FLE125, FLE175, FLE225, FLE400FC, FLE850MP, FLE335MP,  
EXSM230, EXSM350, W3400H,  
HS 2120, HS 2170, HS 2220, NS 2325, HS 2400**

Version 3.4 and later

**W375N to W3330N,  
W385M to W3330M  
W365H to W3300H  
W3600H, W3850H, W31100H**

**W3280X, W3350X, W3600X**

**EXSM665c, EXSM680c, EXSM6135c**

Version 1.0 and later

**W475M to W4330M  
W475S to W4330S  
W465H to W4300H  
W4400H to W41100H**

All versions

**W3600X, W3850H, W31100H,**

Version 0.1 and later

#### **Barrier washer extractors**

Version 1.8 and later

Version number could normally be verified by reading part no and version number in top line of display of Clarus Control. If CMIS is supported could also be verified by entering Settings 1 on the machine. In Settings 1 a text line "Machine Address CMIS" should be available. If this line exists CMIS is supported.

Machines with earlier versions of software than above listed need to be updated to support CMIS.

## Dryers

### Hardware:

CMIS is supported by machines equipped with Selecta Control only.

CMIS requires a machine interface kit to be assembled in machine.

Following installation kit should be used:

Interface machine, kit No. 3 (Selecta Control version 1)

T3190

T3250

T3290 up to machine No. –2030/26304 and –03290/539

T3300

T3350

T3530 up to machine No. –2050/21748

T3650 up to machine No. –2075/9162

T4250 up to machine No. –23250/6969

T4350 up to machine No. –23250/6969

Interface machine, kit No. 5 (Selecta Control version 2/Compass Control)

T4130

T4190

Interface machine, kit No. 6 (Selecta Control version 2/Compass Control)

T4300

Interface machine, kit No. 7 (Selecta Control version 2/Compass Control)

T3290 from machine No. 2030/26305– and 3290/540–

T3530 from machine No. 2050/21749– and 6050/xxxx

T3650 from machine No. 2075/9163– and 6075/xxxx

T3900

T31200

T4250 from machine No. 23250/6970– and 04250/xxxx–

T4290

T4350 from machine No. 23250/6970– and 04350/xxxx–

T4530

T4650

T4900

T41200

### Software:

#### *Selecta Control version 1*

CMIS is implemented in Selecta Control software version 3.23 or later.

Version number can be read at the label on the Process module or in the service menu parameter number 3.07.

It is possible to upgrade an older version of Selecta Control to a version that supports CMIS by installing 988 9162-37 Upgrade kit Selecta 110.

#### *Selecta Control version 2*

CMIS is implemented in Selecta Control software version 4.10 or later.

Version number can be read in service menu parameter number 3.07.

It is possible to upgrade an older version of Selecta Control by installing an upgrade kit for the actual dryer type. Please refer to spare part list for more information.

## **Ironers**

### *Hardware:*

CMIS is supported by machines equipped with electronic control panel only.

CMIS requires Interface kit machine to be assembled in machine.

### *Software:*

CMIS is implemented in Software version 3.0 and later.  
Version number can be read in display during power up.

It is possible to upgrade an ironer with software version older than version 3.0. Contact ELS for more information.

# **Installing CMIS**

See the installation manual for installing CMIS.

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# Overview

## What is CMIS

CMIS is an easy to use easy to install Management Information System with centralized administration from one PC. CMIS is built up with a PC, a multi-drop network designed to handle up to 30 machines, and finally washing machines, tumble dryers and ironers built with latest technology from Electrolux Laundry Systems.

CMIS gives you all vital statistics from your Electrolux washer extractors, tumble dryers and ironers. You can use the data to identify and remove any wastage, thereby minimizing costs.

Information as:

- Run time
- Idle time
- Machine usage
- Total consumption
- Water consumption
- Detergent consumption
- Energy consumption
- Load (machines with IWS only)
- Washing cycles
- Drying cycles
- Ironing batches
- Ironed pieces

is available.

CMIS provides process validation and proof of compliance, thereby proving you meet customers' demands.

CMIS alerts you to process errors and logs maintenance work, thereby maximizing uptime.

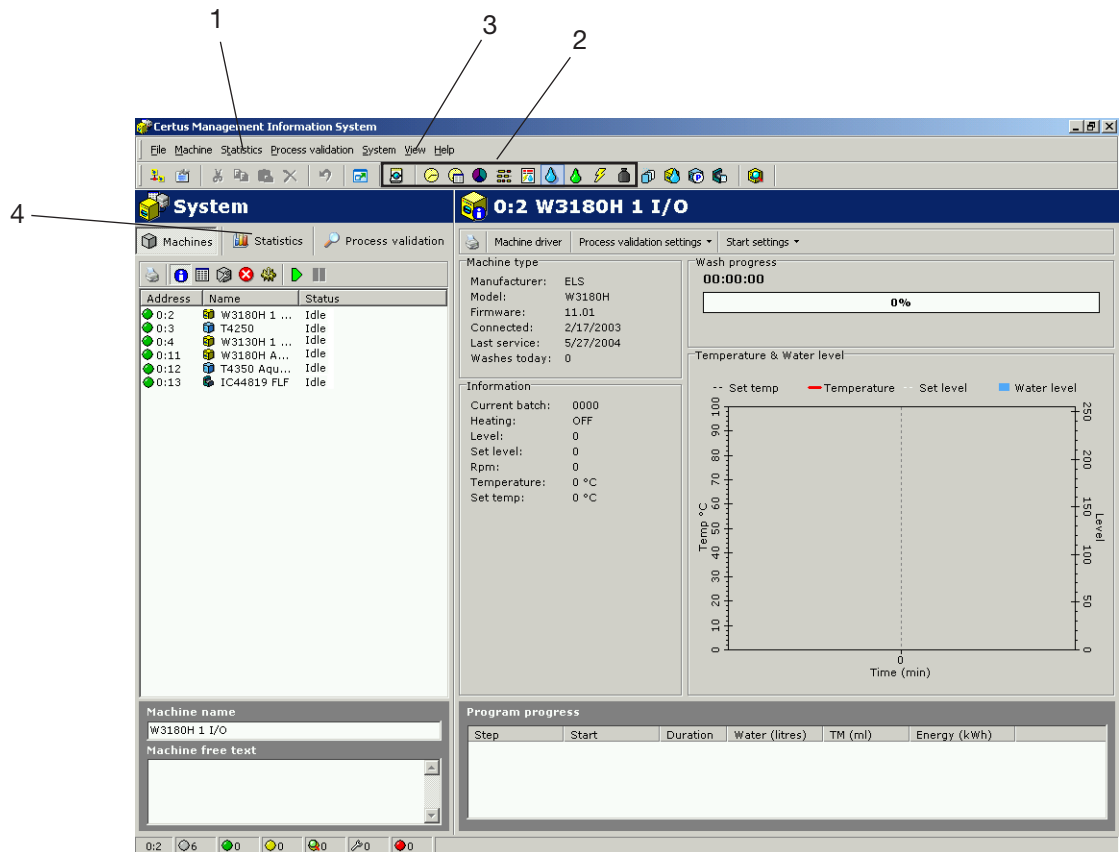
In short, CMIS lets you fine-tune your process for maximum profitability — while at the same time securing quality results and your professional reputation.

## Using the program

When CMIS is started, the machine information menu is displayed. Using this menu, there are a number of different ways of navigating in the program. The same function can be activated in several ways. In this manual we describe one of the methods, but you may find after having worked with the program for a while that another suits you better.

For example, statistics can be activated in one of the following ways:

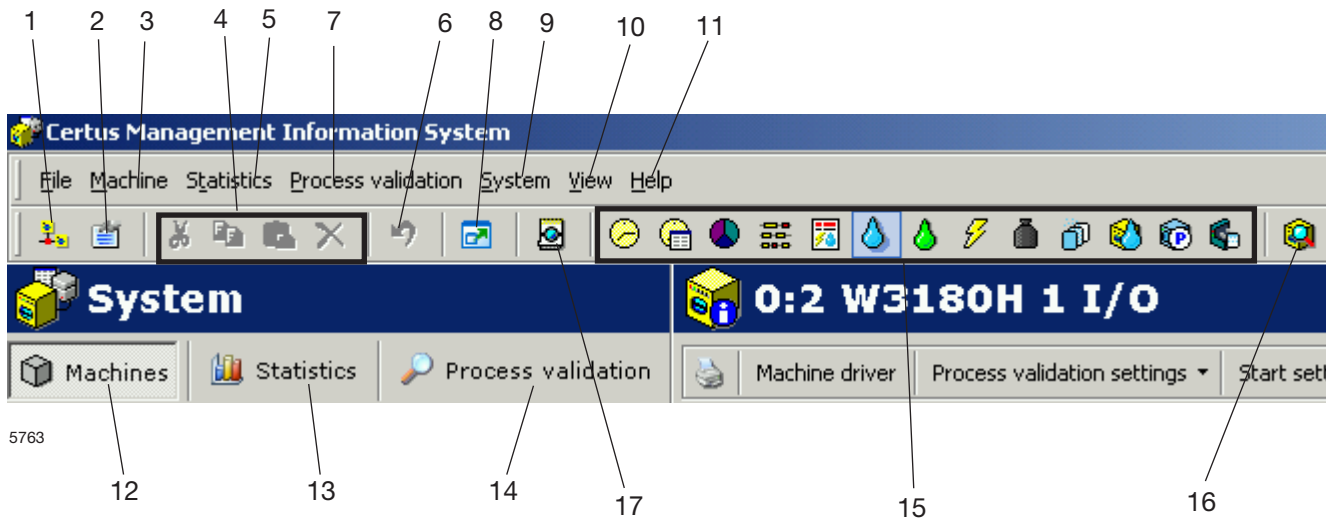
1. Select required statistics in the Statistics pull-down menu.
2. Click directly on the required statistic in the Toolbar.
3. Select Show statistics page in View.
4. Click on the Statistics button.



Using the right mouse button, there are always a number of functions which can be adapted depending on which menu you are in.

The method you choose depends on how you are used to working and what suits you best.

The following menus and functions are always shown in CMIS:



1. Short-cut to Network settings.
2. Short-cut to Main settings.
3. Pull-down menu for Machine.
4. Buttons for Cut, Copy, Paste and Delete.
5. Pull-down menu for Statistics.
6. Undo button.
7. Pull-down menu for Process validation.
8. Button to show CMIS in Full Screen.
9. Pull-down menu for System (settings).
10. Pull-down menu for Machine, Statistics, Process validation as well as the potential to select Fullscreen and to view System messages.
11. Pull-down menu for selecting Help, go to CMIS Homepage or view information about CMIS.
12. Button for Machine.
13. Button for Statistics.
14. Button for Process validation.
15. Buttons for the functions under Statistics.
16. Button for Process validation.
17. Process Viewer.

Further information on each function is described in this manual.

# Software description and settings

## Machine

Machine Information could be accessed by simply pressing the Machines button in the System window.

The position of the buttons and fields for Machine are displayed below.

The screenshot shows the 'System' window of the Certus Management Information System. The interface includes a menu bar (File, Machine, Statistics, Process validation, System, View, Help), a toolbar, and several panels. A 'Machines' button is highlighted in the top-left toolbar. A table lists networked machines with columns for Address, Name, and Status. The 'Machine type' panel shows details for a selected machine (FLE400 3 I/O). The 'Wash progress' panel shows a timer and temperature settings. The 'Temperature & Water level' panel contains a line graph. The 'Program progress' panel shows a table of wash steps. Annotations with arrows point to various elements: 'Printer button' (top-left toolbar), 'Network information window' (Machines table), 'Shows selected machine's name' (Machine name field), 'Machine free text shows additional text for a machine' (Machine free text field), 'Submenus' (Machine menu), 'Activate Machine button' (top-right toolbar), and 'Deactivate Machine button' (top-right toolbar).

Printer button

Network information window. Displays address, name and status for the machines in the network

Shows selected machine's name

Machine free text shows additional text for a machine

Submenus

Activate Machine button

Deactivate Machine button

**Certus Management Information System**

File Machine Statistics Process validation System View Help

**System** 0:4 FLE400 3 I/O

Machines Statistics Process validation

Address	Name	Status
0:2	FLE 400 3 I/O	Prewash [022]
0:3	FLE225 1 I/O	Rinse [022]
0:4	FLE 400 3 I/O	Extract [026]
0:7	FLE850 3 I/O	Service
0:23	T4350	Idle
0:24	T3300	Idle
0:100	IC3 5019 LF	Idle

Machine type

Manufacturer: ELS  
Model: FLE400  
Firmware: 33.01  
Connected: 2000-12-12 12:39:06  
Last service: 2001-05-08 12:52:20  
Washes today: 7

Wash progress

00:44:12

026 - NORMALT 60 C

Temperature & Water level

— Set temp — Temperature

Step	Start	Duration	Water (litres)	TM (ml)
Drain	13:31:16	112 sec	0	0
Rinse	13:33:08	152 sec	111	0
Drain	13:35:37	166 sec	0	0
Rinse	13:38:23	264 sec	120	0
Extract	13:42:43	Progress		

Machine name: FLE400 3 I/O

Machine free text

0:4 0 0 0 3 1 0


0:2 FLE400 3 I/O Started wash program: 022 - VITTVÄTT H.SM.



Certain buttons and fields are accessible in all sub-menus in Machines.

- Printer button
- Submenus

Machine information is separated in 5 different submenu's:



 Machine information

 Machine programs

 Machine services

 Machine alarms

5765  Machine settings

- Activate machine  /Deactivete machine 
- Network information window
- Machine name
- Machine free text.

All menu's provides a number of optional functions/submenus that could be useful monitoring the efficiency of the laundrette or in some cases configure the system.

## Activate/Deactivate machine

Activate or Deactivate is used to activate or deactivate a machine in the network that temporary should/could not collect data. Reason for this could be that machine is disconnected from power because of longer service/failure etc. If a machine is not connected and the communication time-out's for a long period it loads the communication in the network. For best performance it is recommended to disable those machines manually by pressing Disactivate. If CMIS for some reason is closed down and a machine has Timed-out it will automatically be disabled at start and need to be activated manually again to retrieve data.

## Network information window







Network information window is divided in three columns:

- Address
- Name
- Status

### Address

The address shows all machines in Network where the first digit is the Network designation and the Second digit is the Machine number.

In front of the Machine address an Icon shows the status of the machine:

-  Machine inactive (i.e deactivated)
-  Machine idle
-  Machine in process– Normal run
-  Machine in process– Process validated
-  Machine in service menu
-  Machine alarm/Error on machine or in network

## **Name**

'Name' is the field that describes what machine the machine address corresponds to. Machine name is configured from factory but could easily be changed in the field "Machine name" at the bottom of the System window.

## **Status**

Status column shows actual information about selected program, program step, error code etc for all machines in network.

By slowly moving the mouse to a machine, additional information is available as a help text.

## **Machine text**

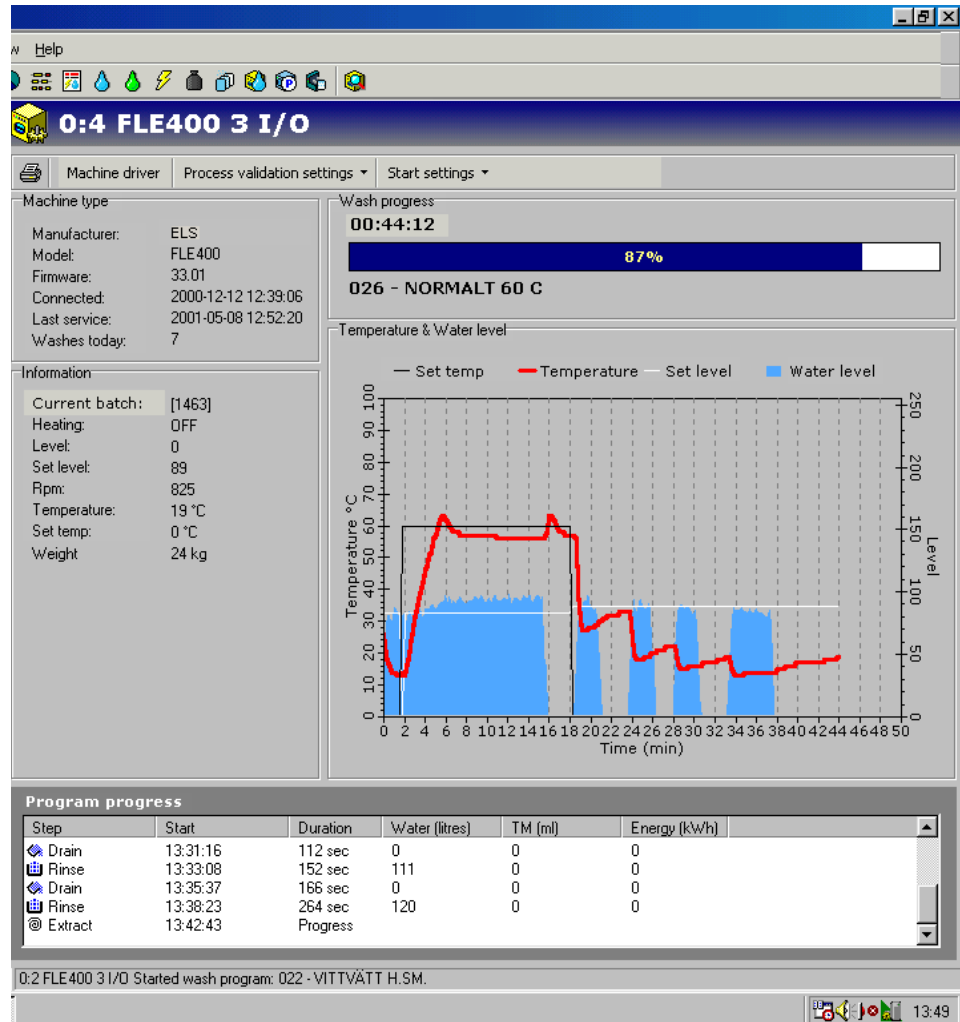
Machine text gives the possibility to change the name of selected machine.

## **Machine free text**

Machine free text is the possibility to add additional text for a specific machine, useful if the customer want to make a detailed description of the machine.

### Machine information window

The Machine information window gives actual information on the status to all active machines in the CMIS network. It is built up with 5 different windows that differs slightly depending on if machine is a washer/dryer or an ironer.



5764

- Machine type
- Information
- Wash progress/Drying progress/Ironing batch
- Temperature & Water level/Temperature & RMC
- Program process/Ironed pieces

## **Washers:**

### Machine type:

Gives additional information of the selected machine in the System window, such as Manufacturer, Model, Firmware version in machine, Date when connected to network, Time for last service and Number of washes today.

### Information:

Gives additional information about an existing process for a specific machine.

#### **Current Batch:**

Batch ID could be configured to be feeded manually on the washing machine (at start of a wash) or created automatically by the washing machine. A Batch ID that is manually feeded is displayed as a four digit number ex 1234 and an automatically created Batch ID is always displayed as a four digit number with extra hatches ex [3224].

For configuration of Batch ID see System setup/Run settings.

#### **Heating:**

Shows whether machine is heating or not.

#### **Level:**

Shows actual level in Scale units.

#### **Set level:**

Shows programmed level for current wash module.

#### **Rpm:**

Shows actual drum speed in Rpm.

#### **Temperature:**

Shows actual temperature.

#### **Set Temp:**

Shows programmed temp for current wash module.

For dryers corresponding information is available.

### Wash progress:

#### Shows:

- Actual run time for selected wash
- Wash progress
- Program number and name

### Temperature & Water level:

Shows current values for Set temp, Actual temperature, Set level and actual level for selected machine/program.

### Program progress:

Shows additional information about existing program– Program step, Start time, Duration, consumption etc.

## Dryers:

### Machine type:

Gives additional information of the selected machine in the System window, such as Manufacturer, Model, Firmware version in machine, Date when connected to network, Time for last service and Number of dryings today.

### Information:

Gives additional information about an existing process for a specific machine.

#### **Current Batch:**

For dryers batch ID is always created automatically by machine.

#### **Heating:**

Shows whether machine is heating or not.

#### **Inlet temp:**

Shows actual inlet temp.

#### **Set inlet temp:**

Shows programmed inlet temp for current drying cycle.

#### **Outlet temp:**

Shows actual outlet temperature.

#### **Set outlet temp:**

Shows programmed outlet temp for current drying cycle.

#### **Current RMC:**

Shows actual RMC value (Residual Moisture Content) for current drying cycle. (Only dryers with RMC system).

#### **Set RMC:**

Shows programmed RMC value for current drying cycle.

### Drying progress:

Shows:

- Actual run time for selected wash/drying
- Wash/Drying progress
- Program number and name

### Temperature & RMC:

Shows current values for:

- Inlet/set inlet temperature
- Outlet/set outlet temperature
- RMC if dryer is equipped with RMC meter and program is an RMC program.

### Program progress:

Shows additional information about existing program– Program step, Start time, Duration, consumption etc.



## **Ironers:**

### Machine type:

Gives additional information of the selected machine in the System window, such as Manufacturer, Model, Firmware version in machine, Date when connected to network, Time for last service and Pieces today.

### Information:

Gives additional information about an existing process for a specific machine.

#### **Current Batch:**

For ironers batch ID is always created automatically by machine.

#### **Run mode:**

Shows current run mode, auto or manual.

#### **Start time:**

Shows start time current batch.

#### **Energy:**

Shows energy consumption for current batch.

#### **Heating:**

Shows whether machine is heating or not.

#### **Piece counter:**

Piece counter for current batch.

#### **Set temp:**

Shows programmed temp for current batch.

#### **Left temp:**

Shows actual temp on left side of cylinder.

#### **Middle temp:**

Shows actual temp on middle of cylinder.

#### **Right temp:**

Shows actual temp on right side of cylinder.

#### **Cylinder speed:**

Shows actual cylinder speed for current batch.

#### **RMC out:**

Shows actual RMC out (Residual Moisture Control) for current batch.

### Ironing batch:

Shows:

- Actual run time for selected ironing batch
- Status (heating/running/ready/cooling down)
- Number of pieces processed in current batch

### Temperature & RMC:

Shows current values for:

- Set temp
- Left/middle/right temp
- RMC out

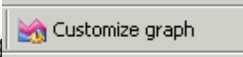
### Ironed pieces:

Shows additional information about processed pieces:

- Piece number
- Time when start processing
- Ironing time for sheet
- Average RMC value for current sheet \*
- Calculated length for sheet calibrated in ironer

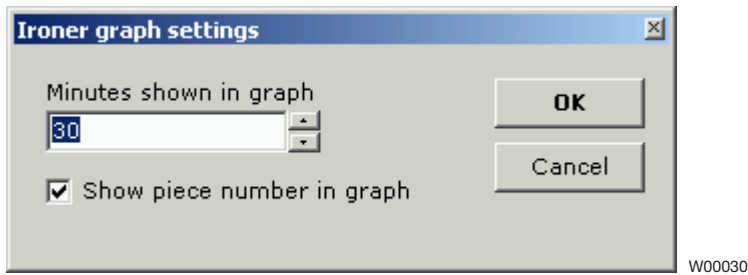
\* Note: When Health care settings for ironers is activated, accepted RMC level will be shown in Graph. Sheets with RMC exceeding this level will be coloured red = Not accepted.

## Customize graph:

For ironers it is possible to customize the graph by clicking  W00029

In customize graph it is possible to:

- Set up how many minutes that should be displayed in graph (default 30 minutes).
- Decide whether piece number should be displayed in graph or not.



It is also possible to zoom in or out in an ironing graph:

### *Zoom in:*

- Select window with left mouse button from upper left to lower right corner. Could be done repeatedly times.

### *Zoom out:*

- Select window with left mouse button from lower right to upper left corner.

## Machine programs (only washers/dryers)

In Machine programs, information is displayed about which programs are available in each machine in the network.

In Machine programs it is possible to:

- Retrieve or update the program library for a machine. This can be necessary if e.g. new programs have been added to a machine.
- See Program information. Program information about the selected program is displayed here.

Fetch program library

#	Name	Times runned	Machine active	Last time taken	Last run
021	HOTELL 85 C	579	0%	00:49	2001-05-08 12:37:17
022	VITTVÄTT H.SM.	932	1%	01:13	2001-05-08 13:48:49
023	OVERALLER 85 C	124	0%	00:57	2001-04-25 11:01:44
024	OVERALLER P/B	130	0%	01:06	2001-05-02 12:17:00
025	OVERALLER 60 C	65535	49%	00:00	-
026	NORMALT 60 C	440	0%	01:04	2001-05-08 10:35:36
027	NORMALT 40 C	79	0%	00:52	2001-05-07 13:00:52
028	NORMALT 30 C	65535	49%	00:00	-
991	NORMAL 95°C	2	0%	00:01	2001-05-03 15:15:29
992	NORMAL 60°C	1	0%	00:07	2000-11-14 17:44:36
993	NORMAL 40°C	0	0%	00:00	-
994	INTENSIV 95°C	0	0%	00:00	-
995	INTENSIV 60°C	0	0%	00:00	-
996	STRYKFRITT 60°C	0	0%	00:00	-
997	STRYKFRITT 40°C	0	0%	00:00	-
998	MILD 30°C	0	0%	00:00	-
999	CENTRIFUGERING	57	0%	00:11	2001-04-26 12:11:22

Field displaying the machines programs

Program information

Program information

5772

## Fetch program library

Fetch program library is a function for updating the program library in CMIS for a specific machine. This could be necessary if the machine was not in the Idle position when it was configured or if the machine has been supplemented with additional programs.

### **To retrieve or update the program library for a machine:**

1. Place the machine from which the program library is to be retrieved in the main menu.
2. Click on Machines
3. Click on Machine programs
4. Choose the desired machine
5. Click on Fetch program library.

## Field displaying the selected machine programs

Displayed here are the programs in the selected machine.

## Program information

Program information is a field containing more detailed information about a selected program.

### Machine service

Under Machine service, all the alarms that have been issued for the machine in the network are gathered. Service alarms are grouped for each machine and are displayed when a machine is selected. Under Machine service, you can see whether the service has been carried out, as well as when and by whom.

To define your own service alarms, see Machine settings/Customized service.

In Machine service it is possible to:

- Acknowledge service alarms and print service reports.
- Remove old service alarms (= purge).
- Check service in the service alarm field.
- Quickly inspect information about service alarms in the Service Performed field.

The screenshot shows the 'Certus Management Information System' window. The title bar includes 'File Machine Statistics Process validation System View Help'. The main menu bar contains 'System'. Below it, there are tabs for 'Machines', 'Statistics', and 'Process validation'. The left sidebar shows a list of machines with columns for 'Address', 'Name', and 'Status'. The main area displays the details for machine '0:2 W3180H 1 I/O'. A table shows service records with columns: Status, Service, Service needed, Run hours, Service performed, and Service sign. Below the table is a 'Service performed' text field. At the bottom, there are status indicators and a '5773' label.

Status	Service	Service needed	Run hours	Service performed	Service sign
✓ Done	Yearly Service	5/27/2004 10:38...	2466	5/27/2004 10:41...	MM
✗ Not done	Weekly maintenance	3/25/2004 7:49:...	2303	-	-

Field for more detailed text about service alarms

Field for service alarms

## Purge

Purge clears the database in accordance with the settings in System setup/Database settings. Service alarms older than the settings in Passive database are completely deleted.

### To remove old service alarms:

1. Click on Machine
2. Click on Machine services
3. Select desired machine
4. Click on Purge

## Service machine

Service machine is used to acknowledge a service alarm and print a service report for the alarm. In addition, it is possible to enter text about the service carried out.

### To acknowledge service alarms and print service reports:

1. Click on Machine
2. Click on Machine services
3. Click on the relevant machine
4. Check the service notification shown and carry out any necessary service work on the machine.
5. Click on Service machine and acknowledge service alarms with your name or signature. Click on Printer if you require a service report to be printed.

## Field for service alarms

**Status** – If the service has been carried out or not (Not done/Done).

**Service** – Name of the service alarm.

**Service needed** – Time for service alarm.

**Run hours** – The machine's operating time in hours.

**Service performed** – Time when the service was acknowledged.

**Service sign** – Signature of person carrying out service.

## Service performed

In the Service performed field it is possible to quickly inspect the selected service alarm.

## Machine error

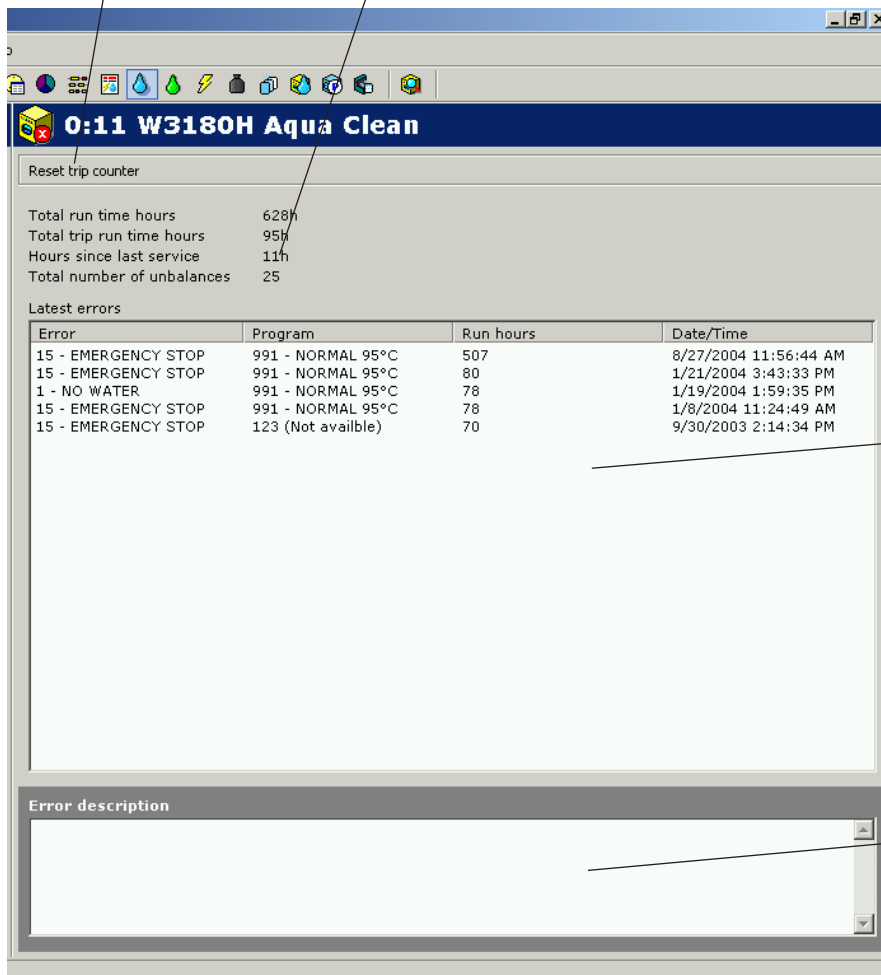
Displayed in Machine error are the five most recent error codes for each machine in the network. Error codes are grouped for each machine and displayed when the relevant machine is selected.

In Machine error it is possible to:

- Reset the trip counter to operating time (Reset trip counter).
- View operating times and number of unbalances (only washers).
- View the five most recent error codes faults for each machine.
- Read a more detailed description of the error, including information on recommended remedial action.

Reset trip counter for operating time

Operating time and unbalance counter



Field for the five most recent error messages for each machine in the network

Error description with recommended action



## Reset trip counter for operating time

This is a function for resetting the trip counter for operating time. This can be done e.g. when a service is being carried out.

### **To reset the trip counter:**

1. Click on Machine
2. Click on Machine error
3. Select desired machine
4. Click on Reset trip counter

## Operating time and unbalance counter

**Total run time hours** – Shows total operating time for the selected machine in the network.

**Total trip run time hours** – Shows the trip counter for operating time.

**Hours since last service** – Shows time since last service. Reset automatically when a service is carried out, see Machine/ Machine service. Can also be reset manually on washer extractor's.

**Total number of unbalances** – Displays the number of unbalances (only washers).

## Latest errors

Displays the machine's five most recent error messages.

### **To check the error messages for a machine:**

1. Click on Machine
2. Click on Machine error
3. Select desired machine
4. Select an error message in the Latest errors box. In the Error description box, a brief description of the error now appears with a recommended remedial action.

## Error description

When an error message is selected, a brief description of the error and a recommended remedial action are displayed here.

### Machine settings

Under Machine settings it is possible, via five sub-menus, to adjust the machines' settings.

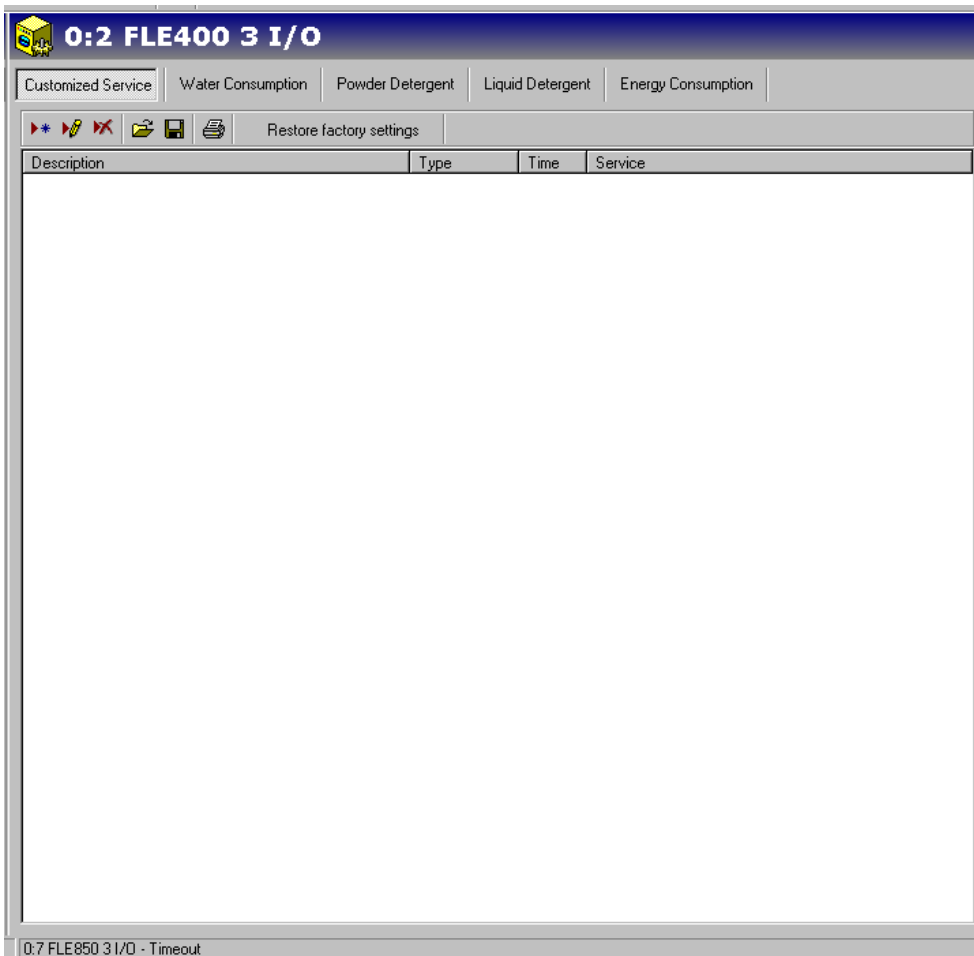
- Customized service – Define individual service alarms for machines in the network.
- Water consumption – Calibrating water flow (l/min) for each water valve/machine. Used for calculating statistics (only washers).
- Powder detergent – Calibrating water flow for flushing down powder detergent. Used for calculating statistics (only washers).
- Liquid detergent – Calibrating flow for dispensing liquid detergent. Used for calculating statistics (only washers).
- Energy consumption – Calibrating heating output (kW). Used for calculating statistics.

CMIS is supplied with pre-set values from the factory which are common for each machine type. These can be calibrated locally depending on water flow and the accuracy requirements in the statistics.

## Customized service







Via the Customized service menu it is possible to define individual service alarms for one or more machines in the network. Using the buttons it is easy to change service alarms for a machine.

Note that a defined service alarm only applies to the machine for which it is created. If you want to use the same service alarm for several machines, it is best to use the Save and Retrieve functions via the button menu.



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Under this menu you can:


-  Create a new service alarm
-  Modify an existing service alarm
-  Delete a service alarm
-  Retrieve a service alarm from the hard drive
-  Save a service alarm onto a hard drive
-  Print a service alarm

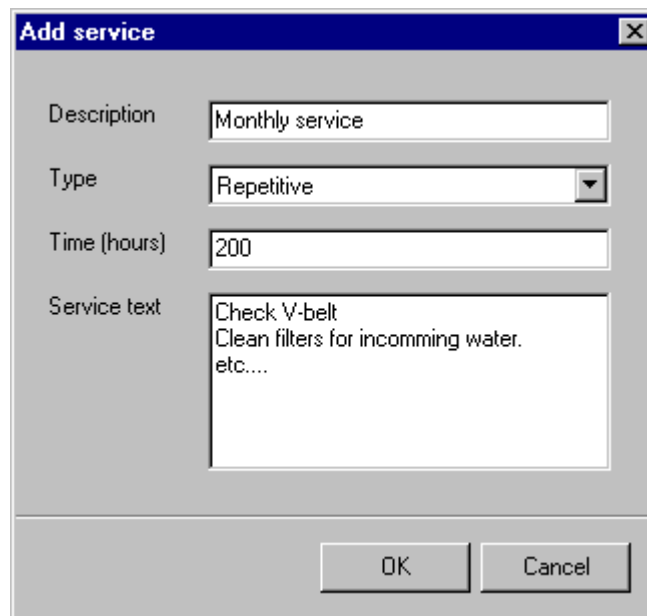
**Restore factory settings** Restore factory settings – Resets factory settings.

5777

### *Add a service alarm*

To add a new service alarm:

1. Click on Machine
2. Click on Machine settings
3. Click on Customized service
4. Select desired machine
5. Click on Add a service 
6. Fill in or select the following:



The screenshot shows a dialog box titled "Add service". It has a close button in the top right corner. The dialog contains the following fields and values:

- Description: Monthly service
- Type: Repetitive (dropdown menu)
- Time (hours): 200
- Service text: Check V-belt  
Clean filters for incoming water.  
etc....


At the bottom of the dialog are two buttons: "OK" and "Cancel".

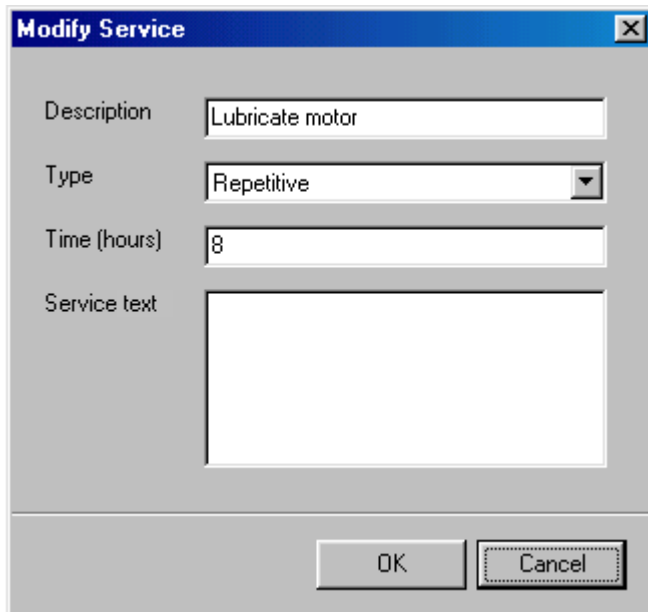
5776

- Description gives the name of the service alarm, e.g. Monthly service.
  - Type shows if the service alarm is to be issued once (Once) or repeated (Repetitive).
  - Time (hours) indicates after how many operating hours the service alarm should appear. In the case of repeated service alarms, Time is the interval at which the alarm should be repeated.
  - Service text gives a more detailed description of what the service should include and which elements should be implemented.
7. Save with OK.

To modify an existing service alarm:

To modify an existing service alarm:

1. Click on Machine
2. Click on Machine settings
3. Click on Customized service
4. Select desired machine
5. First select the service to be changed and then click on 
6. Fill in or select the following:




5778

- Description gives the name of the alarm, e.g. Monthly service.
  - Type shows if the service alarm is to be issued once (Once) or repeated (Repetitive).
  - Time (hours) indicates after how many operating hours the service alarm should be displayed. In the case of repeated service alarms, Time is the interval at which the alarm should be repeated.
  - Service text gives a more detailed description of what the service should include and which element should be implemented.
7. Save with OK.


### *Delete service alarm*

To delete old service alarms:

1. Click on Machine
2. Click on Machine settings
3. Click on Customized service
4. Select desired machine
5. Click on the service alarm to be deleted
6. Click on Delete service  or press the DEL key.


### *Save service alarm on a hard drive*

To save service alarms onto a hard drive:

1. Click on Machine
2. Click on Machine settings
3. Click on Customized service
4. Select desired machine
5. Click on Save service file . All service alarms for the selected machine will now be saved in a file.
6. Select a suitable place on a hard drive and name the file in File name. Click OK.

### *Retrieve service alarm saved on a hard drive*

To save service alarms onto a hard drive:

1. Click on Machine
2. Click on Machine settings
3. Click on Customized service
4. Select desired machine
5. Click on Open service file 
6. Select desired service alarm on hard drive and click on OK. The service alarms in chosen file will be added in the chosen machine.

## Water consumption

As the machines' water consumption is generally set at the factory, it may be necessary, via Water consumption, to calibrate the values according to the prevailing water pressure in order to achieve the best possible statistics and cost calculations. The values that can be adjusted are to be found under the Water consumption menu (only used in washers).

The screenshot shows a software interface for adjusting water consumption settings. The title bar reads "0:2 FLE400 3 I/O". Below the title bar, there are four tabs: "Customized Service", "Water Consumption", "Powder Detergent", "Liquid Detergent", and "Energy Consumption". The "Water Consumption" tab is selected. The main area contains the following settings:

Setting	Value	Unit
Cold Water Flow	267	Litre/min
Hot Water Flow	267	Litre/min
Hard Water Flow	267	Litre/min
Water Tank1 Flow	0	Litre/min
Water Tank2 Flow	0	Litre/min
Water Tank3 Flow	0	Litre/min
Powder Flush Cold	0	Litre/min
Powder Flush Hot	0	Litre/min

At the bottom right, there is a button labeled "Restore factory settings". The status bar at the bottom left shows "0:7 FLE850 3 I/O - Timeout".

5779

### To calibrate the values for Water consumption:

1. Click on Machine
2. Click on Machine settings
3. Click on Water consumption
4. Select desired machine
5. Adjust the value for each inlet valve.

### Restore factory settings

Function for restoring the factory settings.

## Powder detergent

As the machines' consumption is generally set at the factory, it may be necessary, via Powder detergent, to calibrate the values according to the prevailing water pressure in order to achieve the best possible statistics and cost calculations. The values that can be adjusted are to be found under the Powder detergent menu (only used in washers).

The screenshot shows a software interface for a machine, titled "0:2 FLE400 3 I/O". The interface has a navigation bar with tabs: "Customized Service", "Water Consumption", "Powder Detergent" (selected), "Liquid Detergent", and "Energy Consumption". Below the tabs, there are seven rows of settings for "Powder Detergent 1" through "Powder Detergent 7". Each row has a text input field and a unit label "Litres/min". The values in the input fields are: 27, 27, 27, 27, 0, 0, and 0. At the bottom right of the main content area, there is a button labeled "Restore factory settings". The status bar at the bottom of the window displays "0:7 FLE850 3 I/O - Timeout".

Powder Detergent	Value	Unit
Powder Detergent 1	27	Litre/min
Powder Detergent 2	27	Litre/min
Powder Detergent 3	27	Litre/min
Powder Detergent 4	27	Litre/min
Powder Detergent 5	0	Litre/min
Powder Detergent 6	0	Litre/min
Powder Detergent 7	0	Litre/min

5780

### To check or change the values for Powder detergent:

1. Click on Machine
2. Click on Machine settings
3. Click on Powder detergent
4. Select desired machine
5. Adjust the value for each inlet valve.

### Restore factory settings

Function for restoring the factory settings.



## Liquid detergent

As the machines' consumption is generally set at the factory, it may be necessary, via Liquid detergent, to calibrate the values according to the prevailing consumption. Check with your detergent supplier which values apply to the relevant machine/dispensing compartment and for each machine. Consumption data calculated from these values are used for statistics and cost calculations. The values that can be adjusted are to be found under the Liquid detergent menu (only used in washers).

Label	Value	Unit
Liquid Detergent 1	0	ml/min
Liquid Detergent 2	0	ml/min
Liquid Detergent 3	0	ml/min
Liquid Detergent 4	0	ml/min
Liquid Detergent 5	0	ml/min
Liquid Detergent 6	0	ml/min
Liquid Detergent 7	0	ml/min
Liquid Detergent 8	0	ml/min
Liquid Detergent 9	0	ml/min
Liquid Detergent 10	0	ml/min
Liquid Detergent 11	0	ml/min
Liquid Detergent 12	0	ml/min
Liquid Detergent 13	0	ml/min
Liquid Detergent 14	0	ml/min
Liquid Detergent 15	0	ml/min
Liquid Detergent 16	0	ml/min

5781

### To check or change the values for Liquid detergent:

1. Click on Machine
2. Click on Machine settings
3. Click on Liquid detergent
4. Select desired machine
5. State current values for each dispensing valve.

### Restore factory settings

Function for restoring the factory settings.

## Energy consumption

As the machines' energy consumption is generally set at the factory, it may be necessary, via Energy consumption, to calibrate the values according to the prevailing consumption. Under the Energy consumption menu, it is possible to make changes if the machine has a different Heating output than the pre-set value. The specified value is what applies to electrically heated machines. Washing machine supplied with gas or steam heating usually have a heating output set at 0 kW. (Note: Dryers have specific heating constants depending on heating alternative). Consumption data calculated from these values are used for statistics and cost calculations.



5782

### To check or change the values for Energy consumption:

1. Click on Machine
2. Click on Machine settings
3. Click on Energy consumption
4. Select desired machine
5. State current value for Heating effect.














### Restore factory settings

Function for restoring the factory settings.

## Statistics





Statistics could be accessed by simply pressing the Statistics button in the System window.

Statistics are separated in 12 different submenu's built up as a tree structure:

-   Run hours
-  Idle time
-  Machine usage
-  Total consumption
-  Water
-  Chemicals
-  Energy
-  Weight
-  Ironed pieces
-  Washing cycles
-  Drying cycles
-  Ironed batches

Each menu tree could be expanded by simply clicking the + or – in front of the menu name or using the menu on right mousebutton.

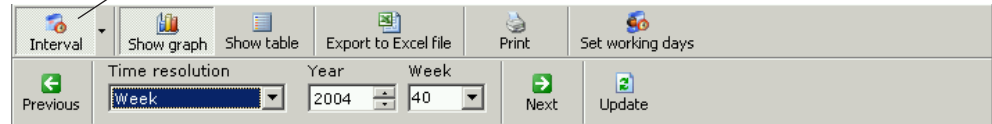
Statistics in each menu/submenu could be shown either in a graph or in a table. Data could be exported to an Excel-file or printed.

-  Show graph
-  Show table
-  Export to Excel-file
-  Print

## Interval

Statistics could be viewed totally (from installation date) or in an specific interval.

If interval button is inactivated, total statistics will be shown. By activating the interval button, a selection menu will appear.



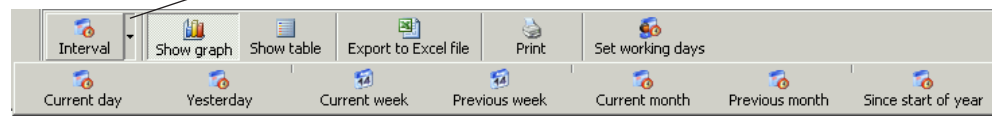
5785

In this menu, statistics could be shown for:

- a month
- a week
- a day or
- a Customized interval

It is also possible to view Next and Previous interval by pressing corresponding button.

A predefined interval menu is also available by clicking on the right hand side of the interval button.



5784

Note that data is available only for the time defined under System/Database settings.

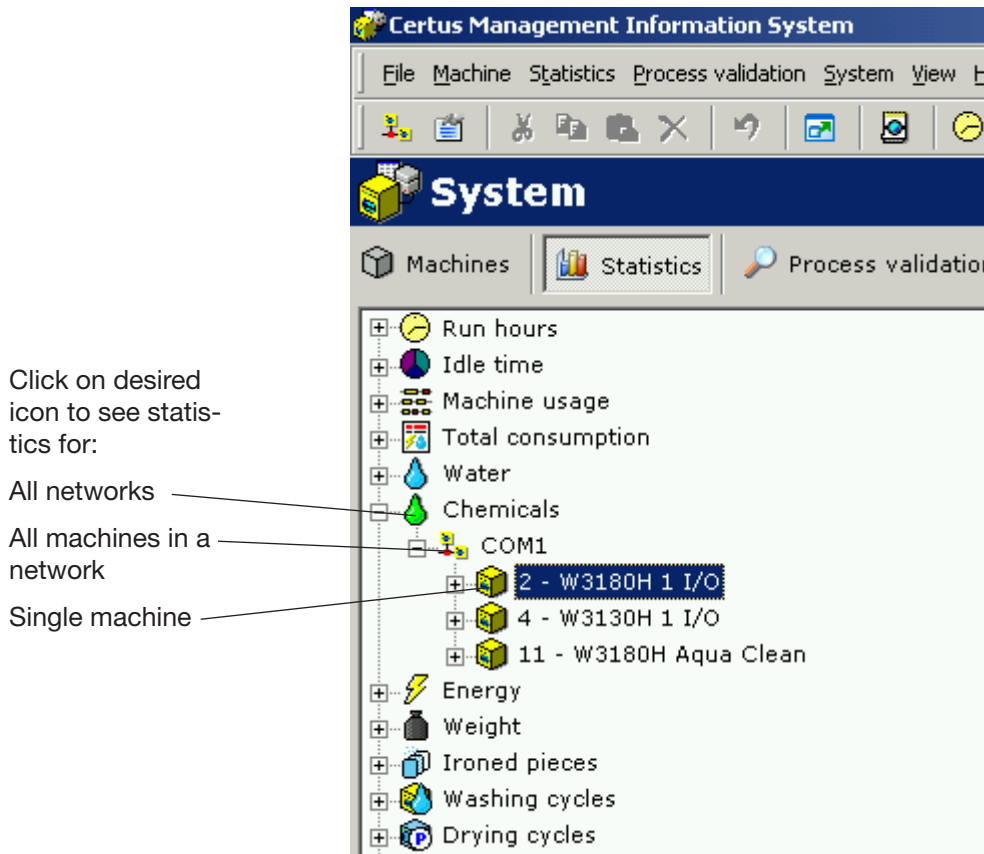
## Customize statistics



In some cases it might be useful to hide mainmenu's that are not interesting for the customer. It is possible to configure what menu's should be enabled or not in the Customize application menu. This could be accessed from the System menu/ Customize application. For more information, see System setup/Customize application.

### Statistics for one machine/all machines in a network

To check statistics for all machines/one machine:

1. Click on Statistics.
2. Select the required type of statistic by clicking on the relevant icon.



3. Select whether the statistics are to be displayed for all machines or one machine. By simply clicking the + or – by the menu name, or by using the menu that appears when you right-click with the mouse, each menu tree can be expanded. Click on a network name to view statistics for an entire network or on a machine name for statistics for one machine.
4. Select whether the statistics are to be displayed for a particular interval.
5. Select how the statistics should be displayed. There are two options:
  - Show graph 
  - Show table 

View information about each sub-group in statistics under the following headings.

## Run hours:

Run hours is the time measured when a machine is in process.

Run hours could be displayed Totally for entire network, for all programs or for a specific machine.

Run hours for ironers is displayed as Auto/Manual mode only, since programs don't exist.

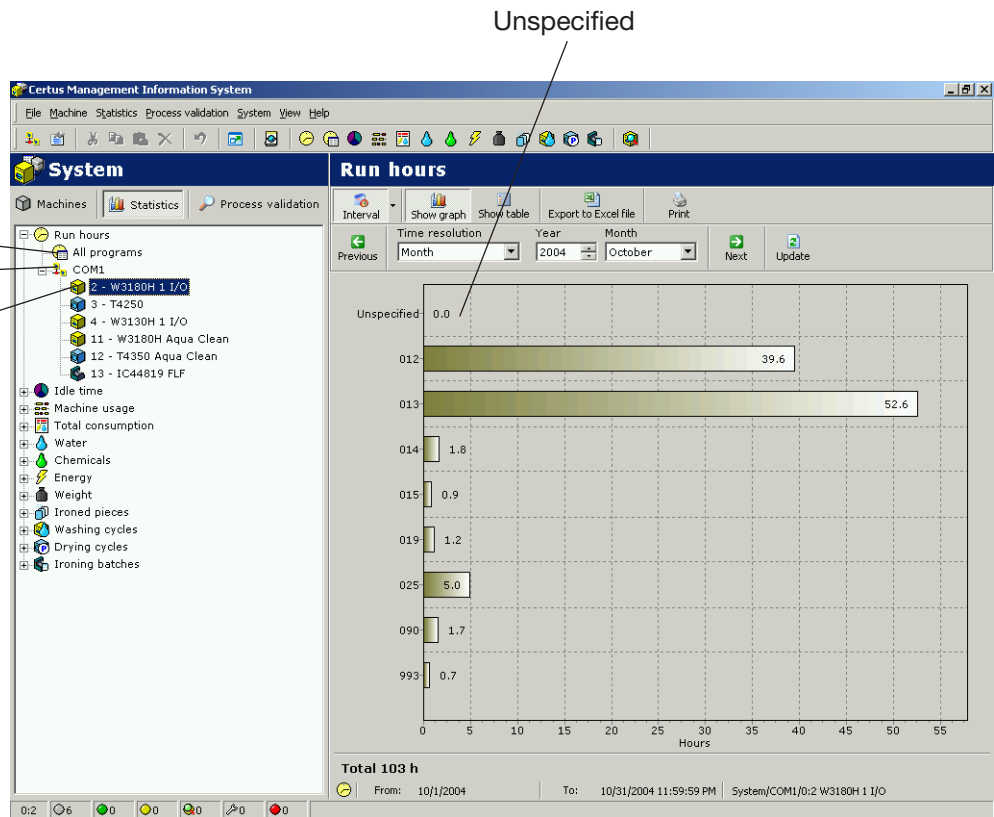
Note: When the system is configured together with machines that already has been running, CMIS retrieves existing Run hour data from the machine. However CMIS has no possibility to relate this data to a specific program which means those Run hours will be labeled 'Unspecified'.

Click on desired icon to see statistics for:

All programs

All machines in a network

Single machine



## Idle time:

Idle time could be displayed for all machines in network or for a single machine.

Idle time is measured as the time when the machine idle position i.e. not running and available for wash/drying. Idle time is related to Run hours and Other (Service etc) on the same graph to give correct relations.

For ironers: Other time is when ironer is not running i.e. Heating up, Ready, Cooling down error or Service mode.

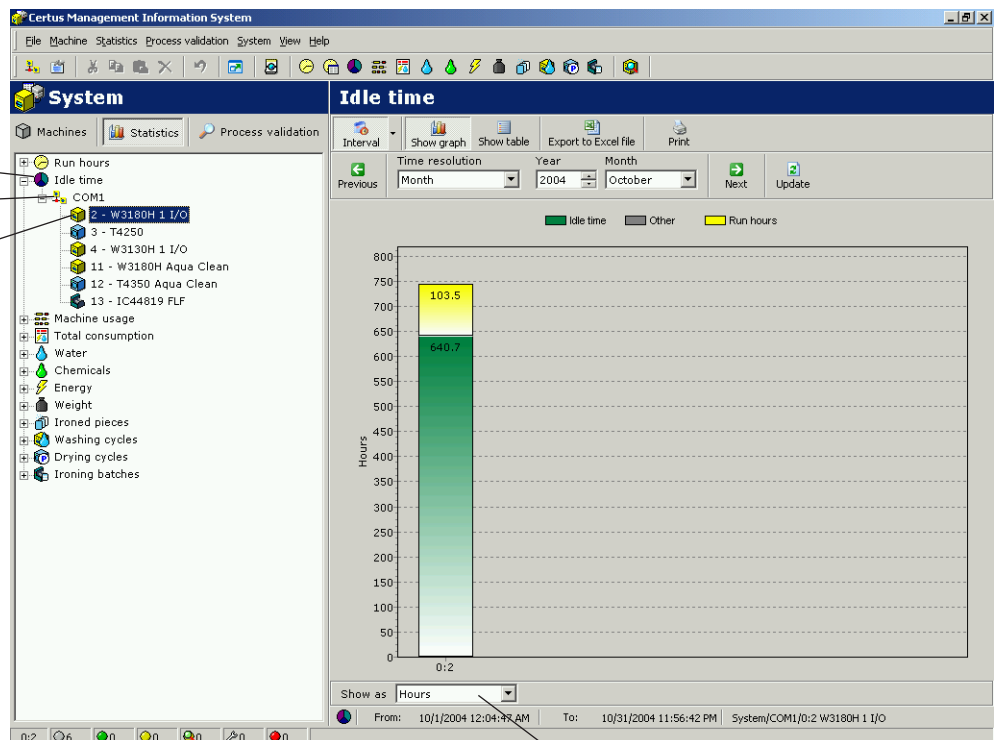
Statistics could be displayed in hours or as a percentage value. Idle time is hidden as default. See system setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

All networks

All machines in a network

Single machine



Display statistics in hours or percentage

## Machine usage:

Machine usage visualizes how efficient all machines in a network actually are used. The information is useful when attempting to organize the operations in a efficient way. The information also allows an easy compare or documentation of production key data on daily, weekly or monthly basis.

In a specific interval it is possible to review data such as:

- Available working hours
- Available machine hours
- Actual machine duty hours
- Machine overtime
- Machine utilization rate (%)

In graph it is also possible to review:

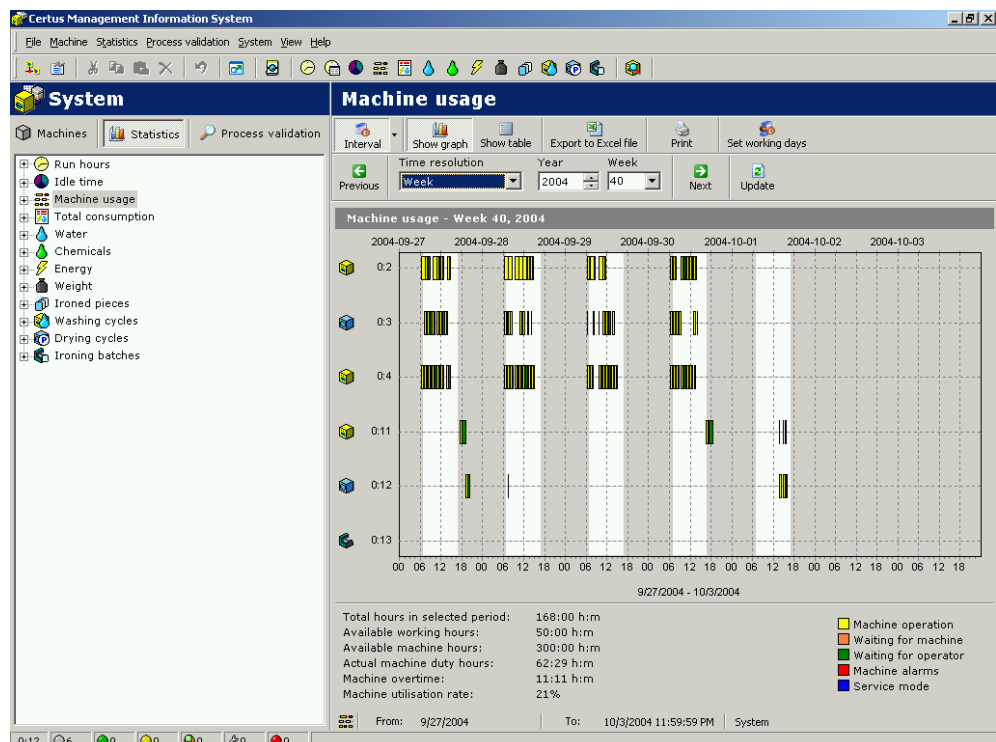
- Working time versus Non working time
- Machine operation time versus time waiting for operator or the machine
- Wasted time caused by Error alarms, service etc.

In each process some information like program number, error code number etc. are shown. Whether this information is in short form or full form depends how much the graph is zoomed up.

Zooming up is done by selecting a window (with left mouse button) from upper left corner to lower right corner, in graph. Zooming down is done opposite way or by pressing update button.

More detailed information about a process is also available by clicking on a process in the graph (only Windows 2000/XP).

Machine usage could be displayed for all machines in a network or for a single machine.





## Total consumption:

Total consumption makes it possible to easily summarize and re-view the consumption data for all machines in a network, for a single machine or for one or several programs (programs only on washers and dryers) in a specific interval.

Total consumption makes it possible for an easy consumption follow up on daily, weekly or monthly basis, but also as a follow up after fine tuning the process.

Total consumption is splitted in two menus, one Consumption report menu for normal users and one menu for advanced users.

Both menus also offer the facility to easily calculate the cost for selected data.

## Consumption report:

Consumption report menu shows a summarize of consumption data for the machines in selected interval. At the top of the menu it is possible to decide what processes should be shown. By deactivating the icon for washers/dryers/ironers, all data for these machines could easily be excluded.

Calculate cost is done in two steps:

- Select Default template to be used (contains all formulas and local prices for cost calculation)
- Press Calculate cost-button

Please note that all constant values for consumption parameters need to be set correctly before calculation total consumption.

A constant value set to "0" will result in zero for actual consumption parameter (please refer to operating manual "Software description and settings/Machine/Machine settings" – for more information in setting constant values).

Shown processes

Selected period: Week 40 - 2004		
	Current period	Previous period
<b>Washers</b>		
Number of washers:	3	3
Number of washing cycles:	61	45
Run hours:	57 Hours 14 Minutes	45 Hours 7 Minutes
Idle time:	101 Hours 13 Minutes	111 Hours 58 Minutes
Overtime:	0 Hours 8 Minutes	0 Hours 7 Minutes
Energy consumption:	121.0 kWh	90.1 kWh
Water consumption:	16.0 m <sup>3</sup>	12.5 m <sup>3</sup>
Liquid detergent consumption:	0 litres	0 litres
Weight (only with IWS):	37.5 Kg	7.5 Kg
<b>Dryers</b>		
Number of dryers:	2	2
Number of drying cycles:	34	30
Run hours:	20 Hours 37 Minutes	22 Hours 11 Minutes
Idle time:	82 Hours 15 Minutes	80 Hours 58 Minutes
Overtime:	0 Hours 2 Minutes	0 Hours 3 Minutes
Energy consumption:	107.7 kWh	107.6 kWh
<b>Ironers</b>		
Number of ironers:	1	1
Number of ironing batches:	0	0
Run hours:	0 Hours 0 Minutes	0 Hours 0 Minutes
Idle time:	50 Hours 0 Minutes	50 Hours 0 Minutes
Overtime:	0 Hours 0 Minutes	0 Hours 0 Minutes
Energy consumption:	0 kWh	0 kWh
Water consumption:	0 kWh	0 kWh

Consumption

Template for Cost calculation

Calculate cost

W00033

**Advanced:**

Advanced menu is intended for more advanced users who need more flexibility for cost calculations. Advanced menu does not have any preview of consumption data, but is designed to make it possible for the user to select those processes he wants for the cost calculation.

This selection is fully flexible and could be done for all available processes down to a single specific process.

Similar to Consumption report it is possible to decide what processes should be shown by activating/deactivating the icon for washers/dryers/ironers. Same possibility also exists in tree view, where all checked processes will be included in the cost calculations.

Calculate cost is done in two steps:

- Select Default template to be used  
(contains all formulas and local prices for cost calculation)
- Press Calculate cost-button

Please note that all constant values for consumption parameters need to be set correctly before calculation total consumption.

A constant value set to "0" will result in zero for actual consumption parameter (please refer to operating manual "Software description and settings/Machine/Machine settings" – for more information in

The screenshot shows the 'Certus Management Information System' interface. On the left, a tree view under 'System' shows 'Machines', 'Statistics', and 'Process validation'. The 'Total consumption' window is active, showing 'Shown processes' and a 'Consumption report' section. The 'Advanced' menu is open, displaying a table of processes to be used for cost calculation:

Machine	OK	PV	Program/Mode	Started
Washing cycles	<input checked="" type="checkbox"/>			
0:2 W3180H 1...	<input checked="" type="checkbox"/>			23
0:4 W3130H 1...	<input checked="" type="checkbox"/>			29
0:11 W3180H ...	<input checked="" type="checkbox"/>			9
Drying cycles	<input checked="" type="checkbox"/>			
0:3 T4250	<input checked="" type="checkbox"/>			30
0:12 T4350 Aq...	<input checked="" type="checkbox"/>			4
Ironing batches	<input checked="" type="checkbox"/>			
0:13 IC44819 ...	<input checked="" type="checkbox"/>			0

At the bottom, the 'Cost calculation template' is set to 'Default ELS Template' and the 'Calculate cost' button is visible. The status bar shows 'From: 9/20/2004 6:25:13 AM To: 10/11/2004 4:13:01 PM System'.

W00034

**Cost calculation:**

CMIS exports all existing consumption data, in selected time/date interval, to a Excel cost calculation template. The template provided with CMIS installation contains all necessary formulas but no local prices for utilities (since they differ depending on local situation).

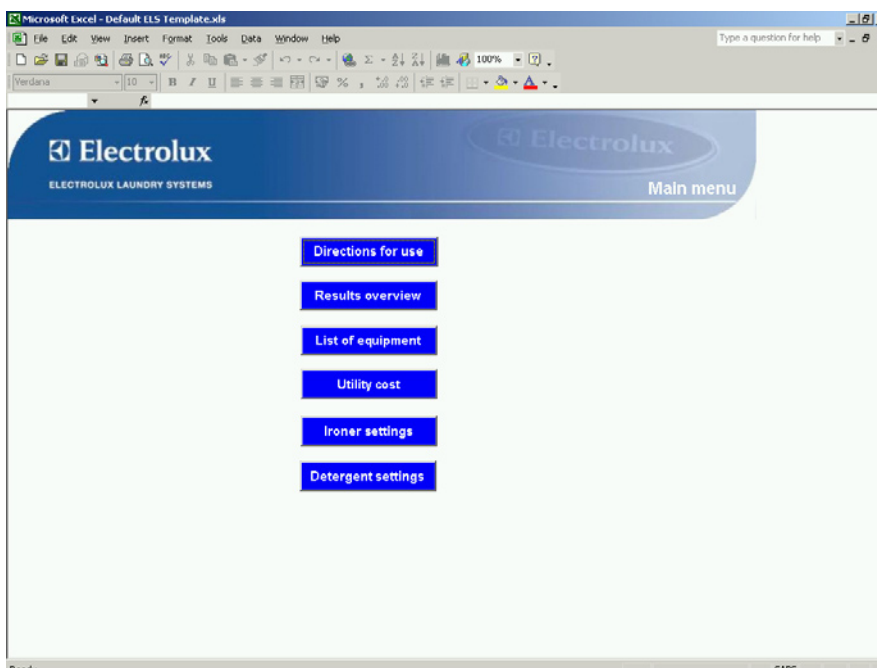
In order to be able to use the calculation tool, it is mandatory to edit the default Excel template (requires Microsoft Excel 97 or later) and implement the local prices before first use. The inserted prices will then be used as default for all cost calculations made with this template.

CMIS also provides the possibility to have several templates with adapted prices. Please make sure the templates are located in the correct directory (normally C:\Program Files\CMIS\Templates). Please also make sure to select correct template before calculating. It is also possible to edit prices during cost calculations with immediate effect on the calculated costs but these changes will not be saved to the template but only to existing cost calculation.

Please also note that all constant values for consumption parameters must be set correctly in CMIS before a cost calculation. A constant value set to "0" will result in zero cost for actual consumption parameter (please refer to operating manual "Software description and settings/Machine/Machine settings" – for more information in setting constant values). Incorrectly set parameters might result in a warning in Cost calculation sheet.

Explanations on available menus:

- |                    |   |
|--------------------|---|
| Results overview   | - Presents results from the cost calculations   |
| List of equipment  | - Presents list of machines in the actual cost calculation<br>- It is imperative to select alternative heating cost for equipment |
| Utility cost       | - Price settings for cost calculation   |
| Ironer settings    | - Configuration parameters for ironers  |
| Detergent settings | - Configuration parameters for detergent  |



## Water:

Statistics for Water consumption could be displayed for all machines in network, for a single machine or for a specific program for a specific machine (only washing machines).

Water consumption in CMIS is measured as the time each water valve inlet is opened. Water consumption in time is then calculated by using a factory made constant table.

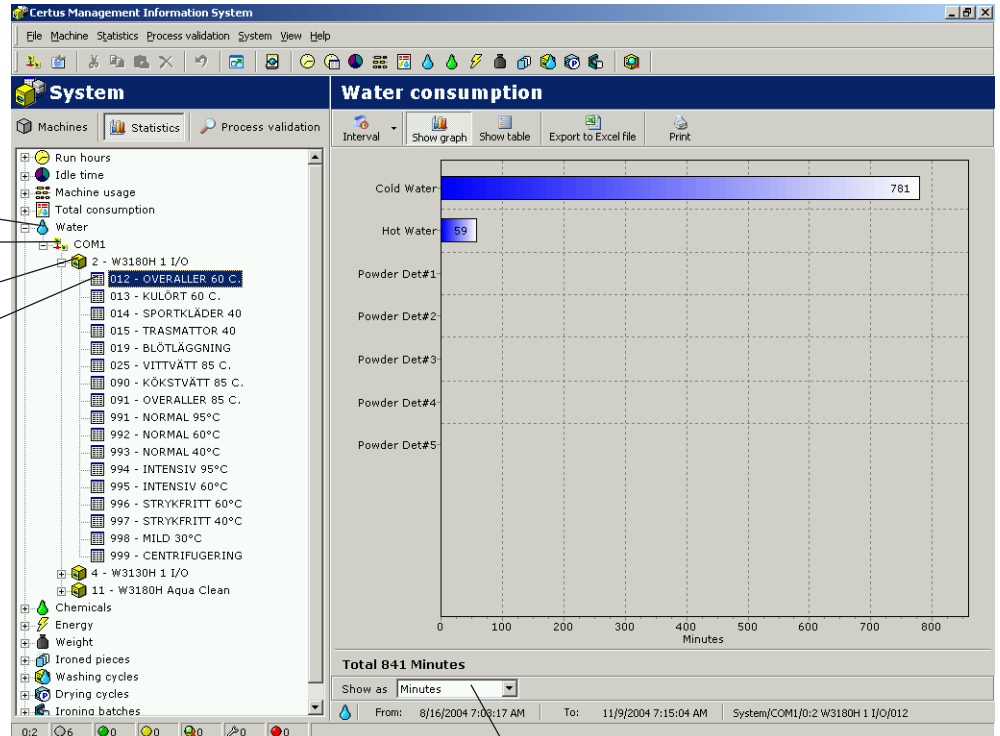
The constants in the constant table are valid for a normal installation with normal water pressure (approx. 300 kPa). If a higher precision is required it is necessary to calibrate the water flow and adjust the constant table. For more information about this see Machine settings/Water consumption

Statistics for Water consumption could be displayed in minutes or Litres.

Water consumption is hidden as default. See System setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

- All networks
- All machines in a network
- Single machine
- Specific program



5790

Display statistics in minutes or litres

## Chemicals:

Statistics for Chemical consumption could be displayed for all machines in network, for a single machine or for a specific program for a specific machine (only washing machines).

Chemical consumption in CMIS is measured as the time each chemical valve inlet is opened and the Chemical Consumption in milliliter is then calculated by using a constant table.

Please note that all factory values for the Chemical Constant table normally is set to Zero since those values are local and depend on each installation.

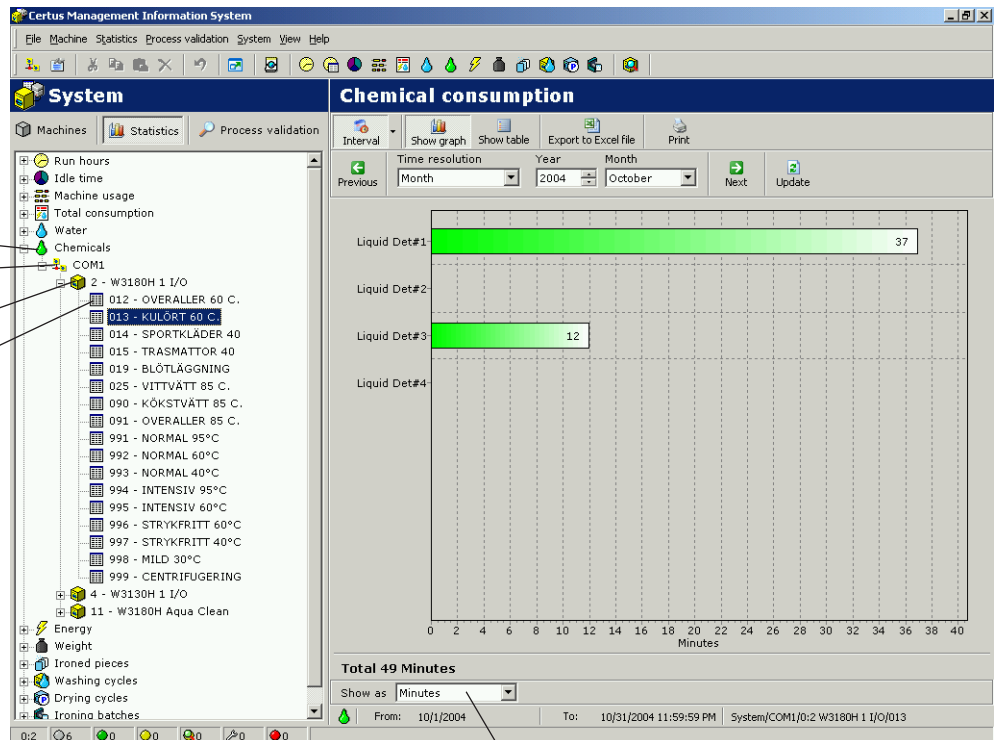
To have Chemical consumption in milliliter it is necessary to fit valid values to the Liquid detergent constant table. For more information about this see Machine settings/Liquid detergent.

Statistics for Chemical consumption could be displayed in minutes or Millilitre.

Chemicals is hidden as default. See System setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

- All networks
- All machines in a network
- Single machine
- Specific program



Display statistics in minutes or millilitres

## Energy:

Statistics for Energy consumption could be displayed for all machines in network or for a single machine.

Energy consumption in CMIS is measured as the time each heating relay is activated and the energy consumption in kWh is then calculated by using a constant table.

Please note that all factory values in the constant table are set for electrical heated machines. Installation with machines heated with steam or gas is recommended to set all constant values to zero and then make a manual calculation using the heating time available.

A machine that is only available with a heating system for steam or gas is normally supplied with a factory made constant table set to zero.

For more information about this see Machine settings/Energy consumption.

Statistics for Energy consumption could be displayed in minutes or in kWh.

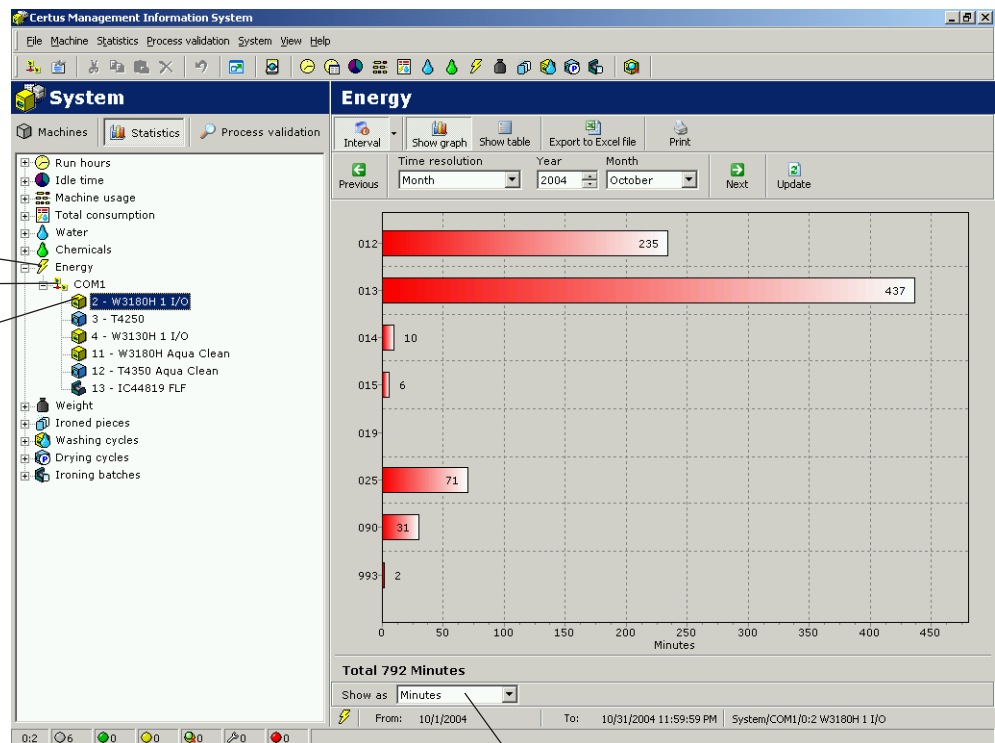
Energy consumption is hidden as default. See System setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

All networks

All machines in a network

Single machine



Display statistics in minutes or kWh

## Weight:

Statistics for weight is only available for washing machines equipped with IWS (Internal Weight System). Statistics is based on the true measures from the IWS system at the time the machine is started.

Statistics for weight could be displayed for the entire network or per program for a single machine.

Note that it is important to Tare the machine before start to have the correct weight.

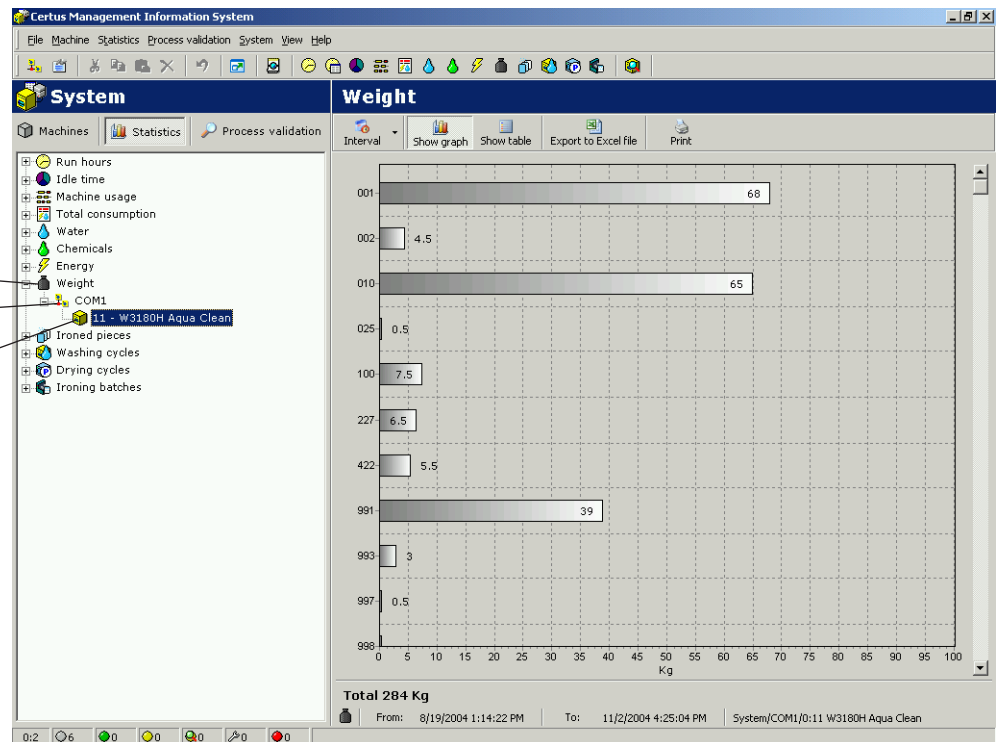
Weight is hidden as default. See System setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

All networks

All machines in a network

Single machine



## Ironed pieces:

Statistics for ironed pieces could be displayed totally for entire network, for all machines in network or for a single machine.

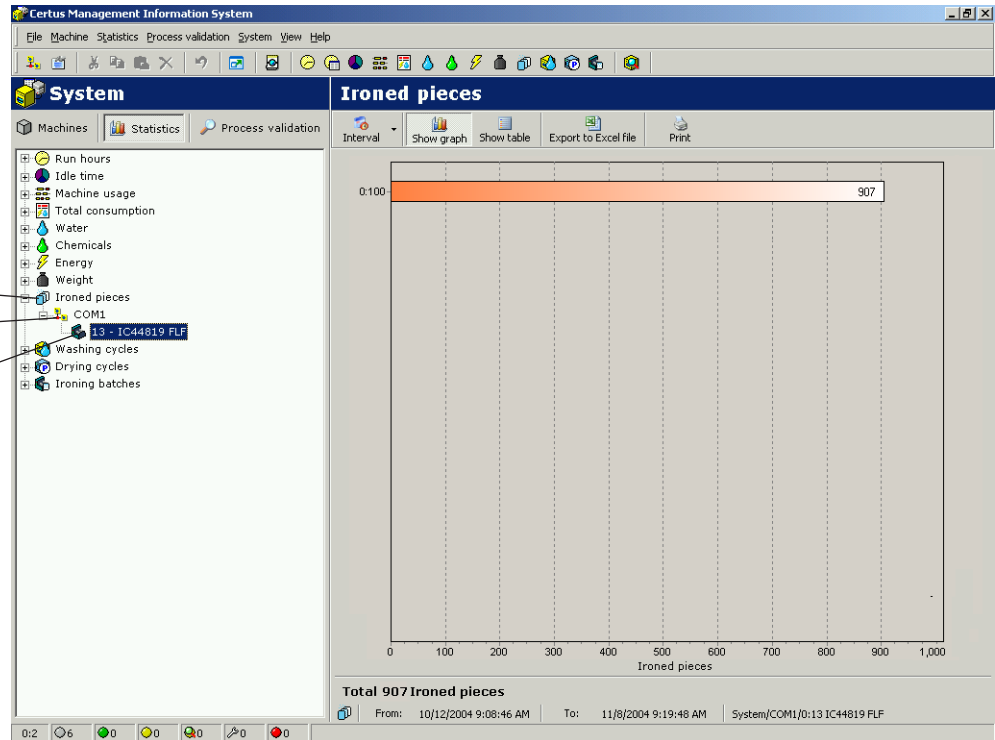
Ironed pieces is hidden as default. See System setup/customize application on how to make this menu visible.

Click on desired icon to see statistics for:

All networks

All machines in a network

Single machine





## Washing cycles:

Washing cycles provide additional information about runned washing cycles .

Statistics could be displayed for the total network or for a single machine.

Displays the cycles with the pre-selected (🔍 or 🚫 in column two)

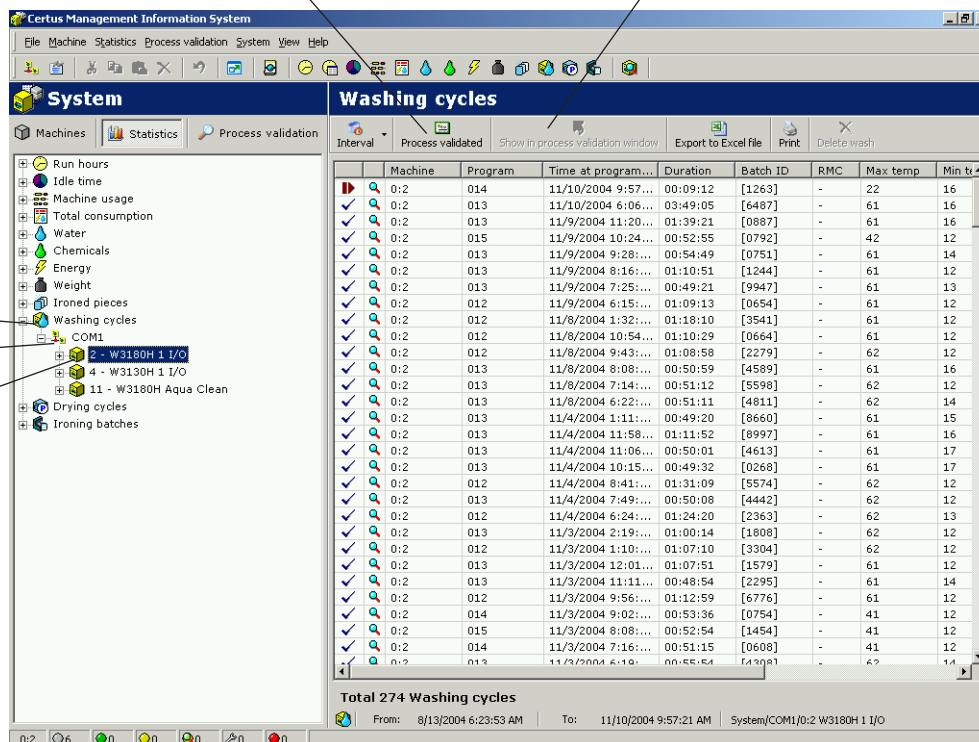
Shortcut to show a cycle in process validation window

Click on desired icon to see statistics for:

All networks

All machines in a network

Single machine



5794

Information in first column gives quick information if cycle is:

- ✓ Completed OK
- ✗ Not completed
- ⏸ Paused
- ▶ Rapid advanced

Second column gives information if a cycle is Process validated OK or Process validated Not accepted:

- 🔍 Process validated OK
- 🚫 Process validated Not accepted

No ICON in the second column means that Process validation is not activated in the Run settings.

Following eight Columns gives basic data as machine No, program No, time at program start, Batch ID, RMC (Residual Moisture Content), max temp, min temp etc. Last column gives a more detailed description of the wash progress, error description etc.

Data in each column could be sorted ascending by clicking each column headline i.e. sorted by machine, program, time at program start, Batch ID etc.

A filtering function to filter out those cycles that is process validated is also available in the menu. Press the button "Process validated" in the upper part of the menu.

A wash is Completed OK if:

- No errors has occurred during the wash
- Wash is not Rapid advanced
- Wash has not been paused for longer than 10 minutes (Long pause).

When a specific wash in the Washes window is selected right mouse click gives two possibilities:

- If wash is Process validated OK it gives a shortcut to the same wash in the process validation window. (Same shortcut is available by activating the button in the washes menu).
- For all other washes it is possible to delete selected wash. (Same possibility is available by pressing DEL).

A wash that is process validated OK could not be erased in the Washes window but need to be erased in the Process validation window. For more information see Process validation.

## Drying cycles:

Drying cycle provide additional information about runned drying cycles .

Statistics could be displayed for the total network or for a single machine.

Click on desired icon to see statistics for:

- All networks
- All machines in a network
- Single machine

Displays the cycles with the pre-selected (magnifying glass or X in column two)

Shortcut to show a cycle in process validation window

Machine	Program	Time at program...	Duration	Batch ID	Max in te...	Min in temp
0:12	P01	11/27/2004 4:25:...	01:27:17	[0001]	126	20
0:12	P01	10/14/2004 11:2...	00:08:43	[0001]	121	21
0:12	P01	10/11/2004 3:48...	00:34:37	[0006]	124	28
0:12	P01	10/11/2004 3:30...	00:14:11	[0005]	119	27
0:12	P01	10/11/2004 2:51...	00:23:58	[0004]	128	97
0:12	P01	10/11/2004 2:44...	00:04:36	[0003]	121	32
0:12	P01	10/11/2004 2:22...	00:18:13	[0002]	137	22
0:12	P01	10/11/2004 10:1...	00:49:07	[0001]	137	19
0:12	P01	10/5/2004 10:24...	01:08:25	[0004]	132	25
0:12	P03	10/5/2004 9:45...	00:38:21	[0003]	147	27
0:12	P00	10/5/2004 7:56...	01:40:05	[0002]	142	22
0:12	P01	10/4/2004 2:24...	00:54:04	[0001]	137	31
0:12	P01	10/4/2004 1:45...	00:30:16	[0001]	131	28
0:12	P02	10/4/2004 1:01...	00:34:39	[0012]	149	22
0:12	P02	10/4/2004 11:30...	00:33:01	[0011]	156	27
0:12	P03	10/4/2004 10:41...	00:39:57	[0010]	156	24
0:12	P02	10/4/2004 9:46...	00:45:43	[0009]	163	26
0:12	P01	10/4/2004 8:55...	00:40:42	[0008]	157	29
0:12	P01	10/4/2004 8:52...	00:02:27	[0007]	69	52
0:12	P01	10/4/2004 8:47...	00:01:24	[0006]	40	36
0:12	P02	10/4/2004 8:46...	00:01:32	[0005]	-	-
0:12	P01	10/4/2004 8:45...	00:00:28	[0004]	33	33
0:12	P01	10/4/2004 8:44...	00:01:03	[0003]	-	-
0:12	P01	10/4/2004 8:09...	00:32:55	[0002]	146	18
0:12	P01	10/1/2004 3:38...	00:34:25	[0001]	131	30
0:12	P01	10/1/2004 2:57...	00:32:32	[0004]	147	26
0:12	P01	10/1/2004 1:54...	00:39:45	[0003]	133	19
0:12	P01	9/27/2004 7:20...	01:22:41	[0002]	116	21

Total 36 Drying cycles

From: 8/19/2004 11:07:17 AM To: 11/2/2004 4:25:18 PM System/COM1/0:12 T4350 Aqua Clean

Information in first column gives quick information if cycle is:

- ✓ Completed OK
- ✗ Not completed
- ☑ Completed, but door was opened.

Second column gives information if a cycle is Process validated OK or Process validated Not accepted:

- 🔍 Process validated OK
- ✗ Process validated Not accepted

No ICON in the second column means that Process validation is not activated in the Run settings.

Following eleven Columns gives basic data as machine No, program No, time at program start, Batch ID, Max. in temp, Min in temp, Max out temp, Min out temp, Start RMC, End RMC (RMC = Residual Moisture Content). Last column gives a more detailed description of the drying progress, error description etc.

Data in each column could be sorted ascending by clicking each column headline i.e. sorted by machine, program, time at program start, Batch ID etc.

A filtering function to filter out those cycles that is process validated is also available in the menu. Press the button "Process validated" in the upper part of the menu.

A drying cycle is Completed OK if:

- No errors has occurred during the cycle

When a specific drying cycle is selected right mouse click gives two possibilities:

- If drying cycle is Process validated OK it gives a shortcut to the same cycle in the process validation window. (Same shortcut is available by activating the button in the menu).
- For all other drying cycles it is possible to delete selected cycle. (Same possibility is available by pressing DEL).

A cycle that is process validated OK could not be erased in the drying cycle window but need to be erased in the Process validation window. For more information see Process validation.

## Ironing batches:

Ironing batches provides additional information about runned ironing batches.

Statistics could be displayed for the total network or for a single machine.

Following seven columns gives basic data as Machine No, Run mode, Start time, Duration, Batch Id, Pieces and Energy.

Last column gives a more detailed description of the Ironing batch, error description etc.

Data in each column could be sorted ascending by clicking each column headline i.e. sorted by Machine, Run mode, Start time etc.

Click on desired icon to see statistics for:

- All networks
- All machines in a network
- Single machine

Machine	Run mode	Start time	Duration	Batch ID	Pieces
0:13 IC44819 FLF	Auto	14.10.2004 11:19:59	00:00	[8100]	0
0:13 IC44819 FLF	Auto	14.10.2004 11:19:52	00:00	[6900]	0
0:13 IC44819 FLF	Auto	13.10.2004 14:26:09	00:00	[1804]	0
0:13 IC44819 FLF	Auto	13.10.2004 10:57:53	00:07	[2842]	3
0:13 IC44819 FLF	Auto	13.10.2004 10:56:18	00:00	[2520]	0
0:13 IC44819 FLF	Auto	13.10.2004 10:31:01	00:06	[0531]	11
0:13 IC44819 FLF	Auto	13.10.2004 08:59:31	00:02	[0945]	0
0:13 IC44819 FLF	Auto	12.10.2004 09:08:46	00:00	[0904]	0
0:13 IC44819 FLF	Auto	14.10.2004 11:19:59	00:00	[2688]	0
0:13 IC44819 FLF	Auto	14.10.2004 11:19:52	00:47	[1350]	3
0:13 IC44819 FLF	Auto	13.10.2004 14:26:09	00:11	[7830]	1
0:13 IC44819 FLF	Auto	13.10.2004 10:57:53	00:00	[7482]	1
0:13 IC44819 FLF	Auto	13.10.2004 10:56:18	00:00	[7134]	0
0:13 IC44819 FLF	Auto	13.10.2004 10:31:01	00:00	[6786]	1
0:13 IC44819 FLF	Auto	13.10.2004 08:59:31	00:00	[6438]	0
0:13 IC44819 FLF	Auto	12.10.2004 09:08:46	00:00	[6090]	0
0:13 IC44819 FLF	Auto	14.10.2004 11:19:59	00:00	[5742]	1
0:13 IC44819 FLF	Auto	14.10.2004 11:19:52	00:00	[4930]	0
0:13 IC44819 FLF	Auto	13.10.2004 14:26:09	06:56	[0546]	4
0:13 IC44819 FLF	Auto	14.10.2004 11:19:59	00:00	[0489]	0
0:13 IC44819 FLF	Manual	14.10.2004 11:19:52	00:13	[1250]	1
0:13 IC44819 FLF	Auto/Manual	13.10.2004 14:26:09	01:23	[0216]	0
0:13 IC44819 FLF	Auto	13.10.2004 10:57:53	00:03	[1920]	10
0:13 IC44819 FLF	Auto	13.10.2004 10:56:18	15:44	[3649]	11
0:13 IC44819 FLF	Auto	13.10.2004 10:31:01	00:01	[8931]	3
0:13 IC44819 FLF	Auto	13.10.2004 08:59:31	00:00	[0000]	0
0:13 IC44819 FLF	Auto	12.10.2004 09:08:46	00:01	[6438]	3
0:13 IC44819 FLF	Auto	13.10.2004 10:31:01	00:01	[8931]	3
0:13 IC44819 FLF	Auto	13.10.2004 08:59:31	00:00	[0000]	0
0:13 IC44819 FLF	Auto	13.10.2004 08:59:31	00:00	[0000]	0

Total 313 Ironing batches  
From: 10/12/2004 9:08:46 AM To: 11/10/2004 1:13:37 PM System/COM1/0:13 IC44819 FLF

Information in first column gives quick information if cycle is:

- ✓ Completed OK
- ✗ Not completed and/or blocking error

Second column gives information if a cycle is Process validated OK or Process validated Not accepted:

- 🔍 Process validated OK
- ✗ Process validated Not accepted

No ICON in the second column means that Process validation is not activated in the Run settings.

A filtering function to sort out those batches that is process validated is also available in the menu. Press button "Process validated" in the upper part of the menu.

An ironing batch is completed OK if:

- No blocking error has occurred during ironing batch (i.e. errors codes higher than 127).

When a specific ironing batch is selected right mouse gives two possibilities:

- If ironing batch is process validated OK it gives a shortcut to the same ironing batch in process validation window (same shortcut is available by activating the button in ironing batch menu).
- For all other ironing batches it is possible to delete selected ironing batch. (Same possibility is available by pressing DEL).

An ironing batch that is process validated OK can not be erased in the ironing batches window but need to be erased in process validation window. For more information see process validation.

## Process validation

Process validation is a way to automatically verify that a cycle has ended without any errors and has fulfilled the cycle as intended (programmed).

Select cycles to be displayed:  
 All time – all cycles  
 Interval – Select a time interval  
 Search - Updates window

Possibility to print receipt

Possibility to export to Excel-sheet

Temperature chart for the process

Machine information

Search for a special Batch ID

Select the machines for which cycles are to be displayed

Select the programs for which cycles are to be displayed

Select desired cycle to view process information

The screenshot shows the 'Process validate - [4292]' window. On the left, there is a search panel with 'Batch ID' and dropdowns for 'All machines' and 'All programs'. Below it is a table of process cycles. The selected cycle [4292] is highlighted. The main area contains a temperature chart showing 'Temperature °C' vs 'Time (min)'. On the right, there is a 'Process information' panel with details for Machine, Wash, Temperature, and Weight.

ID	Start time	MacID	Prog
[5864]	10/7/2004 1:08:42...	0:4	014
[7030]	10/11/2004 6:13:5...	0:2	012
[6523]	10/11/2004 6:15:0...	0:4	013
[8598]	10/11/2004 7:03:3...	0:4	013
[1440]	10/11/2004 7:23:1...	0:2	012
[1140]	10/11/2004 7:53:1...	0:4	014
[6888]	10/11/2004 8:32:4...	0:11	992
[6730]	10/11/2004 9:29:4...	0:2	012
[8030]	10/11/2004 9:30:3...	0:4	013
[4292]	10/11/2004 10:56:...	0:2	025
[9028]	10/11/2004 11:55:...	0:4	013
[0965]	10/11/2004 12:03:...	0:2	012
[8190]	10/11/2004 1:23:4...	0:2	013
[9819]	10/11/2004 1:27:2...	0:4	013
[6747]	10/11/2004 1:37:1...	0:11	999
[0271]	10/11/2004 1:45:4...	0:11	999
[3863]	10/11/2004 2:15:2...	0:11	999
[2855]	10/11/2004 2:20:0...	0:4	013
[1554]	10/11/2004 2:44:5...	0:11	999

Min	Temperature	Set temp	Step
0	21	0	Prewash
1	17	0	Prewash
2	16	0	Prewash
3	16	0	Prewash
4	16	0	Prewash
5	16	0	Prewash

**Process information**  
 This wash was completed following health care settings: RABC  
 1. Temperature stayed above 65 °C for at least 20 minutes.

**Machine information**  
 Machine: COM1  
 Network: 0:2 W3180H 1 I/O  
 Program: 025 - VITTVÄTT 85 C

**Wash information**  
 Wash: [4292]  
 WashID: 3268  
 Time: 11-Oct 04 10:56

**Temperature information**  
 Maximum: 86 °C  
 Minimum: 16 °C  
 Set max: 85 °C  
 Time in set max: 16 min

**Weight information**  
 Start: -  
 End: -  
 RMC: -

Temperature data in table form

RMC value (Residual Moisture Content). Only washing machines with IWS (Internal Weight System).

Process verification data for selected cycle

Process validation could be set up in several different ways/levels. for All set up possibilities for Process validation are described in System setup.

- It could be set up for manually input on Batch ID on machine or automatically generated by washing machine (only washers).
- Monitoring wash (no errors/no rapid advance/no long pause).
- Monitoring drying cycle (no errors).
- Monitoring ironing batches (no blocking errors).
- Health care settings washer, i.e verifying minimum temperature and minimum time for a wash cycle.
- Health care settings dryer, i.e RMC or minimum temperature and minimum time for a drying cycle.
- Health care settings ironer, i.e. RMC out value.
- Automatically print receipt when process done.
- Print receipt on process validation success.
- Print receipt on process validation error.
- For a washing machine with IWS (Internal Weighting System) RMC value.
- For a dryer with RMC, actual RMC values.

Possibilities to manually print process validation receipt but also to export process validation data to Excel sheet. Note that an export to an excel sheet will use two worksheets in the same document. One for process information, and one for cycle progress.



## Search for a process-verified cycle

Using the process verification buttons, it is possible to select which process-validated cycles are to be displayed. Cycles can be selected as follows:

- Cycles carried out during a particular time interval.
- Cycles carried out on a particular machine.
- Cycles carried out with a special program No.
- Cycles with a specific Batch ID.

It is also possible to combine these variants, e.g. cycles on a particular machine during a particular time interval.

The screenshot shows the 'Certus Management Information System' interface. The main window has a menu bar with 'File', 'Machine', 'Statistics', 'Process validation', 'System', 'View', and 'Help'. Below the menu bar is a toolbar with various icons. The main area is divided into two panes: 'System' and 'Process'. The 'System' pane contains buttons for 'Machines', 'Statistics', and 'Process validation'. Below these are buttons for 'Print receipts', 'All time', 'Interval', and 'Search'. The 'Process' pane contains a 'Print receipt' button and a graph showing 'ture °C' on the y-axis (ranging from 60 to 100) and a vertical dashed line at approximately 85. The 'All time' and 'Interval' buttons are highlighted with a black box. Below the buttons are two dropdown menus: 'All machines' and 'All programs'. A 'Batch ID' field with an asterisk is also visible. Four callout lines point to the 'Search' button, the 'All time' and 'Interval' buttons, the 'All machines' dropdown, and the 'All programs' dropdown.

Search – Update search with specified search criteria

Select during which time interval cycles are to be displayed:  
All time – all cycles  
Interval – Select a time interval

Select the machine from which cycles are to be displayed

Select the program from which cycles are to be displayed

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### To select which process-validated cycles are to be displayed:

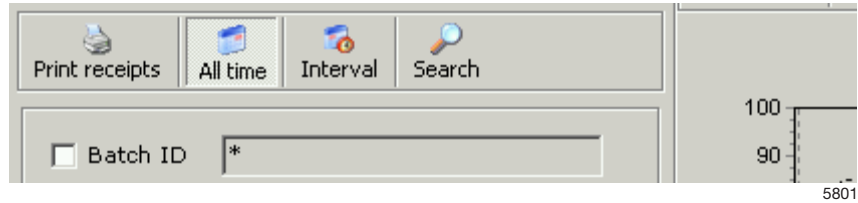
1. Click on Process validation.
2. Search for cycles within a desired time interval using All time or Interval.

The close-up shows the search interface with four buttons: 'Print receipts', 'All time', 'Interval', and 'Search'. Below the buttons are two rows of input fields. The first row is labeled 'First' and has two fields: a date field containing '2005-02-17' and a time field containing '10:13:58'. The second row is labeled 'Last' and has two fields: a date field containing '2005-02-18' and a time field containing '10:13:58'. All fields have dropdown arrows on the right side.

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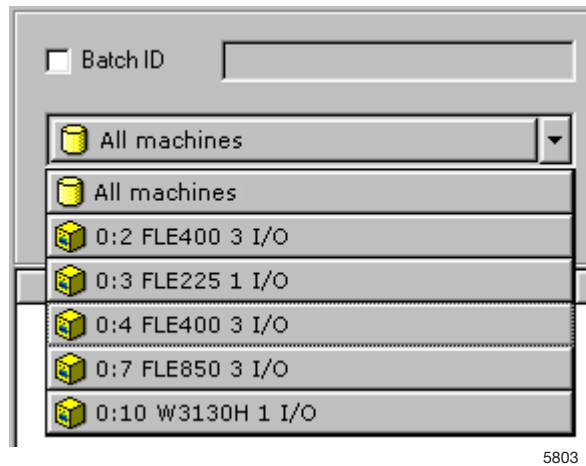
## Software description and settings

3. Search for cycles with a specific Batch ID. Select Batch ID. When searching with Batch ID, standard search concepts such as the wildcards "\*" and "?" may be used.

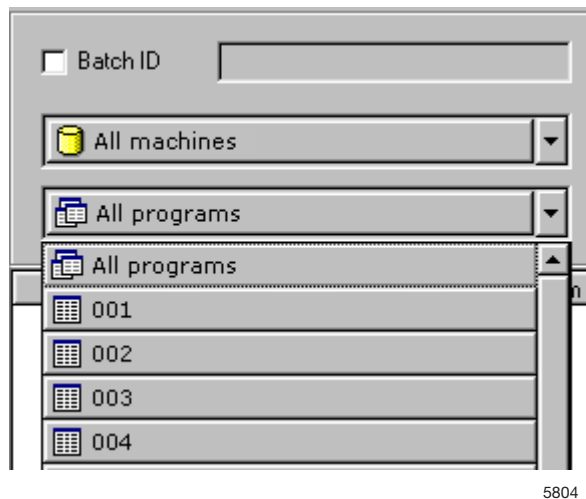


Square brackets indicate that Batch ID has been created by the machine. Without square brackets, the value has been entered. Square brackets do not need to be indicated when searching.

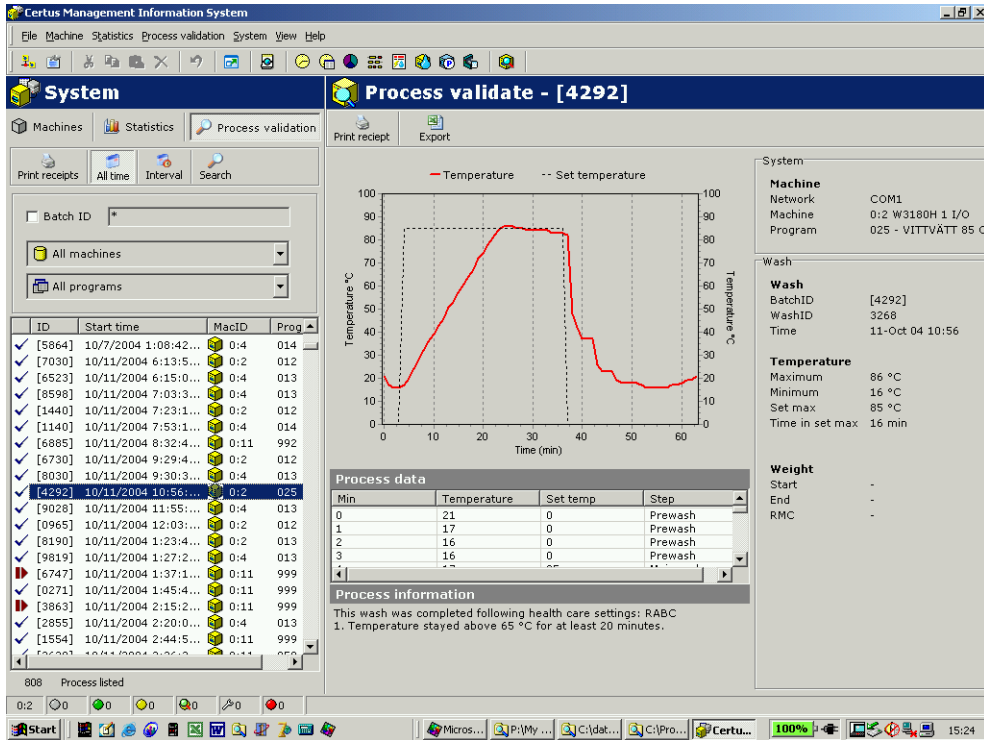
4. Search for cycles on a specific machine.



5. Search for cycles on a specific program.




- Click on desired cycle to show process verification data for one cycle.




### Export data to an Excel file

To export data from process validation to an Excel file:

1. Click on Process validation.
2. Select cycle according to “Search for a process-verified cycle”.
3. Click on export to Excel file . 
4. Select where the file is to be saved. Note that an export to an excel sheet will use two worksheets in the same document. One for data and one for progress.

### Print receipt

To print from process verification data:

1. Click on Process validation.
2. Select cycle according to “Search for a process-verified cycle”.
3. Click on print receipt . 

## System setup

Under system setup is a description of all settings which can be made for CMIS. The description is divided into:

- Networks – Settings for network and machines.
- Main settings – Settings for receipt, temperature and sound.
- Database settings – Settings for database.
- Health care settings – Parameter settings for min. temp and min. time. RMC etc.
- Language settings.
- Customize application – Menu settings for statistics.

## Networks settings

Network settings can be adjusted at three levels:

- General network settings – applies to all the networks in the system.
- Network settings – Applies to the selected network.
- Machine settings – applies to the selected machine.

Buttons for setting network and machines

Click on the following symbol to make an adjustment to:

System

Network

Machine

Machine settings

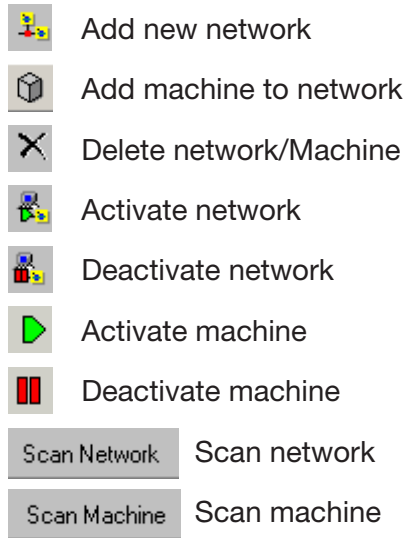
Address 2

Name

W3180H 1 I/O


Description

In Network settings there are a number of shortcut keys (icons):

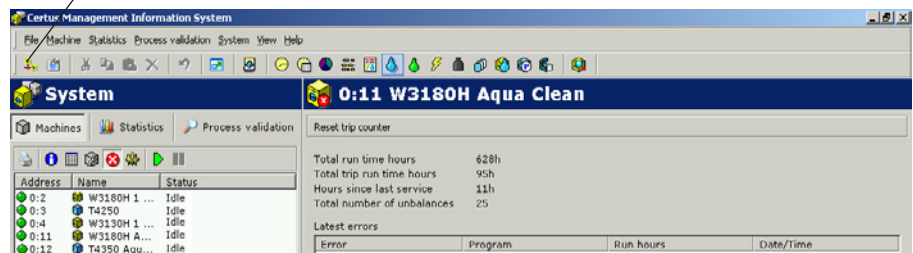




## Add new network

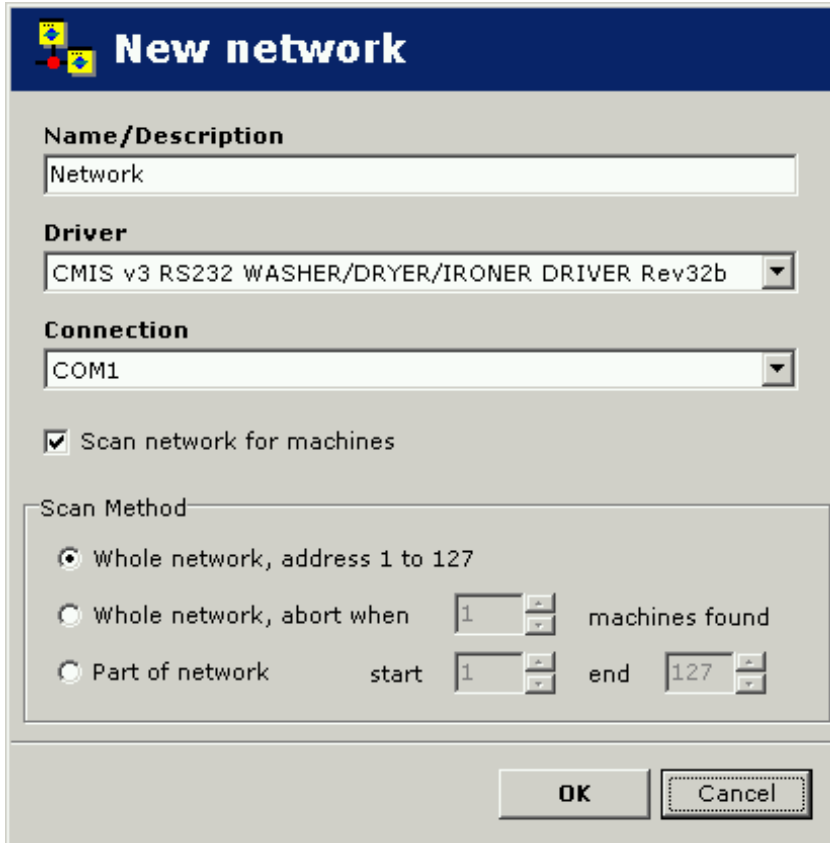
Add Network is used to add a new network. To add a new network:

1. Configure all machines to be included in the network with a unique machine address (for information, see installation instructions). The machines must have the power switched on and be in the main menu.
2. Click on Network settings .

### Network settings



3. Click on System .  System
4. Click on Add network .



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This menu provides several options:

**Name/Description** – Gives the possibility to give the network a suitable name. The suggested name “Network” is valid and could be used if no other name could be found.

**Driver** – Gives the possibility to select between different communication drivers for CMIS. CMIS V3 RS232 WASHER/DRYER/IRONER driver is standard and should be selected.

**Connection** – Select which serial port this network should use on your PC. Default is Com 1, but other serial ports could be used.



**Scan network for machines** – Check this box to automatic scan a network when OK button is pressed. If box is not checked the network will be created but no machines will be added.

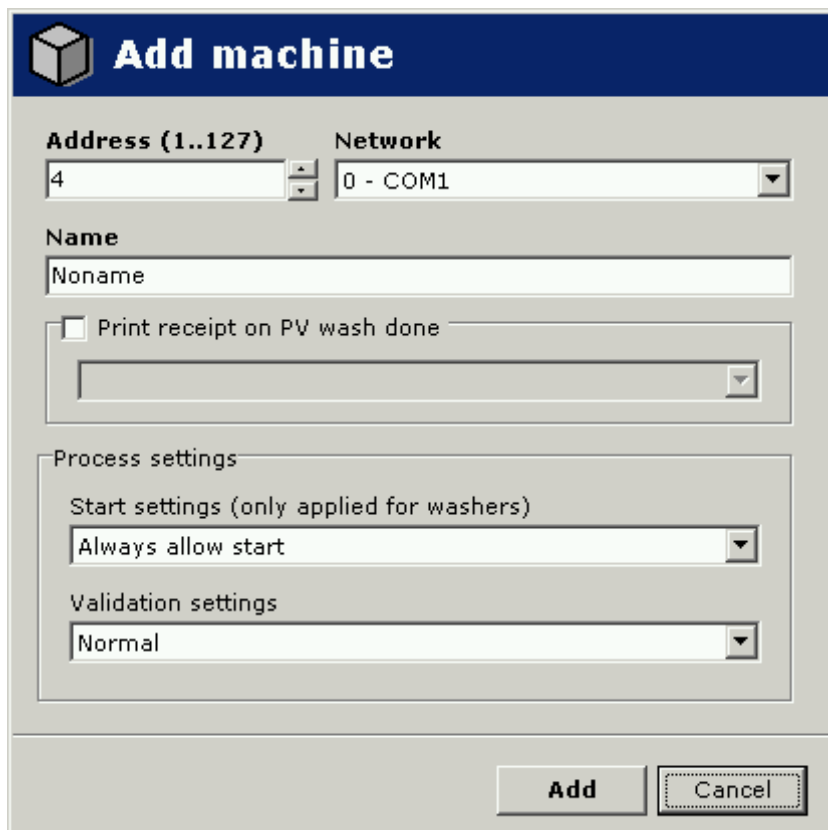
**Scan method** – Select whether you want to scan the whole network (valid numbers 1-127), whole network or part of network until a desired number of machines are found.

5. Click on OK after all settings have been adjusted. CMIS automatically retrieves all necessary information from the machines.

### Add machine to network

Add machine is used to add a machine to an existing network. This function is suitable to use if another machine has been added to a network. To add a new machine to a network:

1. Configure the machine to be included in the network with a unique machine address (for information, see installation instructions).  
The machine must have the power switched on and be in the main menu.
2. Click on Network settings 
3. Select the network to which you want to add a machine.
4. Click on Add machine 



**Add machine**

**Address (1..127)** **Network**

4 0 - COM1

**Name**

Noname

Print receipt on PV wash done

Process settings

Start settings (only applied for washers)

Always allow start

Validation settings

Normal

**Add** **Cancel**



This menu provides several options:

**Address (1..127)** Enter the address of the new machine here. Note! If an existing address is entered or no machine responds to the address given, the following error message will appear.



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In this case, check the machine configuration under point 1.

**Name** The name is automatically retrieved from the machine. If there is an available driver for the machine, a pre-selected name is given. The name can be changed at a later date if you want. If "Noname" appears, no driver has been found. Contact the supplier for assistance.

**Network** The network to which the machine is to be added.

### **Print receipt on PV wash done**

Print receipt on PV wash done      It is possible to decide whether a receipt should be automatically printed or not. For more information, see System setup/Networks/Print settings.

### **Process settings**

#### **Start Settings (only applied for washers)**

This setting sets the machine's starting conditions.

- Start always allowed - Default at installation. Batch-ID is generated automatically by machine.
- Start not allowed - Machine is out of operation and can't be started.
- Demand Batch-ID before start - An extra menu will turn-up in machine when start button is pressed. This menu will make it possible to put a 4-digit number to the wash, for traceability.

#### **Validation Settings**



Settings for whether the machine's cycles are to be process validated or not.

- Normal wash - Machine runs normally without logging process validation data.
- Processvalidate all cycles - CMIS records necessary data being able to process validate all cycles in machine. More record means larger databases which means this only should be activated if it is interesting and useful for the installation.

## Delete network/Machine

Delete is used for deleting a network or a machine.




To delete a machine/network:

1. Click on Network settings .
2. Select the network or machine to be deleted.
3. Click on Delete  and confirm in the Delete network or Delete machine box that you want to delete.

## Activate/Deactivate network

With Activate network and Deactivate network you can activate or deactivate a network. If a network is deactivated, CMIS ceases to retrieve information from the network. Consequently, no statistics will be saved.

To activate or deactivate a network.




1. Click on Network settings .
2. Select the network to be activated or deactivated.
3. Click on Activate network  or Deactivate network .

A deactivated network and its machines will be crossed out in the system configuration and the machines will be greyed in Machine information.

### Activate/Deactivate machine

With Activate machine and Deactivate machine you can activate or deactivate a machine in a network. If a machine is deactivated, CMIS ceases to retrieve information from it. Consequently, no statistics will be saved. It is appropriate to deactivate a machine if e.g. it is to undergo an extended service, as it will not then affect the network.

To activate or deactivate a machine.



1. Click on Network settings .
2. Click on the network containing the relevant machine.
3. Select the machine to be activated or deactivated.
4. Click on Activate machine  or Deactivate machine .

### Scan network

This is a function for updating information from the machines in a network. This function is used if:

- Several machines have been replaced or more machines have been added.
- Changes have been made to several machines (e.g. equipped with an additional I/O card). It is also possible to use Scan machine.
- Statistics from several machines appear to be incorrect.
- Error message 'MIS communication error' is displayed after changes have been made to the machines.

To update information from the machines in a network:

1. Configure all machines to be included in the network with a unique machine address. The machines must have the power switched on and be in the main menu.
2. Click on Network settings .
3. Click on relevant network.
4. Click on Scan network . CMIS automatically retrieves all necessary information from the machines.



## Scan machine

This is a function for updating information from a machine.

This function is used if:

- Changes have been made to the machine (e.g. equipped with an additional I/O card).
- The statistics from the machine appear to be incorrect.
- The error message 'MIS communication error' is displayed repeatedly on the machine.
- A machine has been replaced and the new machine has been given the same machine address as the old one.

To update the information from a machine:

1. Ensure that the machine has the power switched on and is in the main menu.
2. Click in CMIS on Network settings 
3. Click on the relevant machine
4. Click on Scan machine . CMIS automatically retrieves all necessary information from the machine.

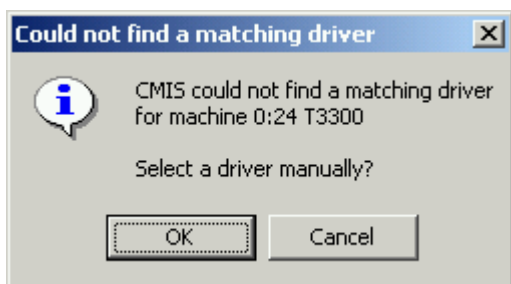
### Select machine driver manually

In case that CMIS can't match driver automatically for a machine, you will have to select driver manually. Select the driver you know is closest to the machine you are installing or contact supplier for help.

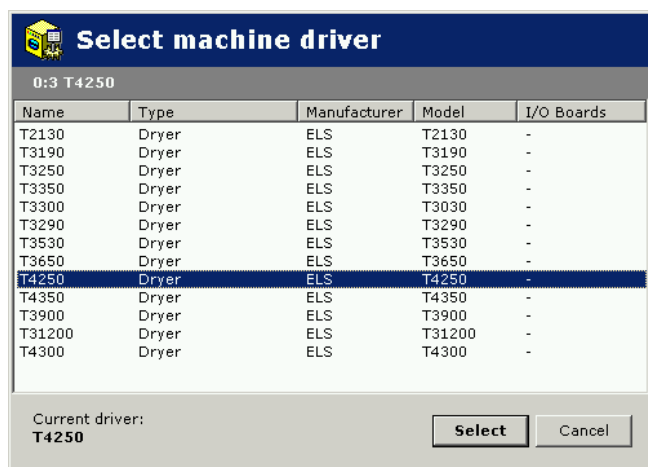
**NOTE:**

Model for dryers is normally programmed in parameter 4.10. If this is set to "0", CMIS will alert for this. Please see Installation manual how to set up correct model No. in Selecta Control.

Model for ironers is normally programmed in service option, "No Address CMIS". Please see Installation manual how to set up correct model No. in electronic control panel for ironer.



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**NOTE:**

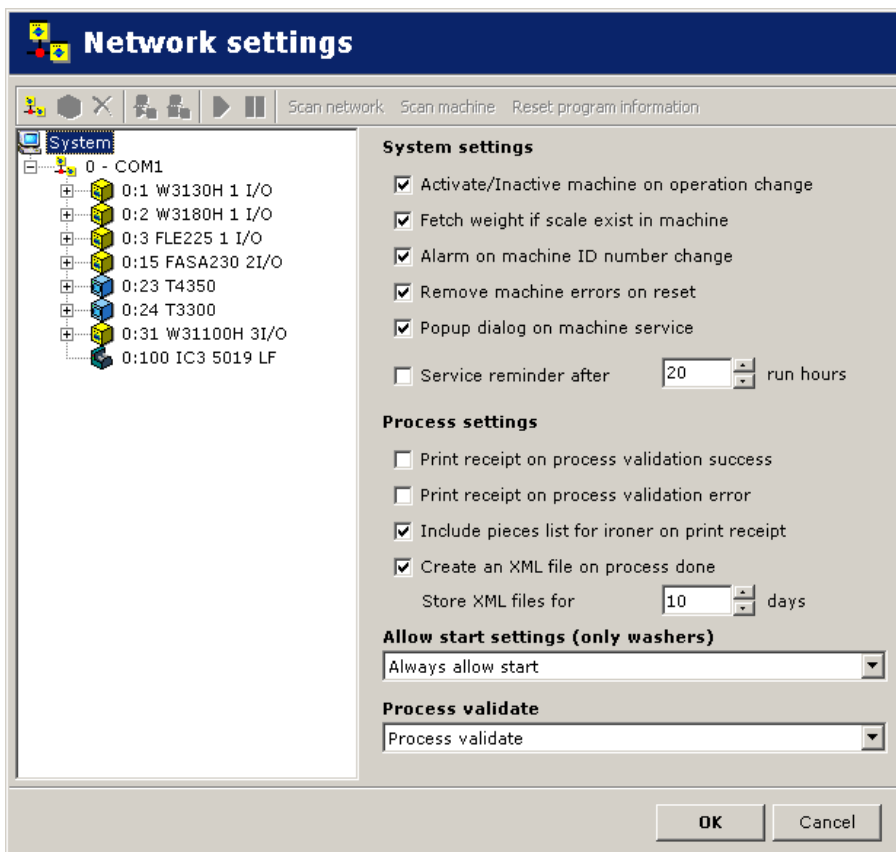
Selecting an incorrect driver will cause CMIS to work improperly.

## General system settings

Settings made under General system settings apply as default values for all networks and machines in the system. Note that start settings and settings for process verification can also be adjusted on machines or at program level. These settings then apply in preference to settings under General system settings. For further information, see under Global run settings.

To adjust general settings for the network and machines:

1. Click on Network settings .
2. Click on System  System
3. Make the required changes under:
  - System settings
  - Print settings
  - Global run settings.



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### System settings

Activate/Inactivate machine on operation change	If box is checked and a machine is deactivated in CMIS same machine will be set out of operation and start will be prevented. When machine is activated in CMIS again machine will be able to start. This box is unchecked as default.
Fetch weight if scale exists on machine	Normally CMIS updates data from the IWS system (Internal Weight System) if this system exists on the machine. This box could be unchecked if update of weight is not needed. This box is checked as default (only washers).
Alarm on machine ID number change	Gives an alarm if CMIS detects a new ID-number on the CPU board in a machine. This function is used to automatically detect whether a machine is replaced and to have the possibility to reset statistics and start all over. If only the CPU board is replaced it is possible to keep the statistics. This box is checked as default.
Remove machine errors on reset	An error code could normally be removed on the machine and if this box is checked it will be removed in CMIS as well. If it is requested to keep the alarm on CMIS even if it is removed on machine this box should be unchecked. This box is checked as default.
Pop-up dialog on machine service	A service alarm will pop up as a service menu in CMIS. If this function is not wanted and should be disabled - this box should be unchecked. This box is checked as default.
Service reminder XXX Run hours	If this box is checked a service reminder will pop up after the given number of hours if a service is not done. This box is unchecked as default.



### Process settings

Print receipt on process validation success/Print receipt on process validation error.

It is possible to decide whether a receipt should be printed on Process validation success or Process validation error by checking the correct box. Default is Print receipt on validation success.

This function requires Process validation to be defined and a printer to be selected. Those options are defined for each machine in Machine settings, see System setup/Networks/Machine settings.

### Create an XML file on process done

It is possible to decide whether each process should be stored to an external file (XML-file) or not. It is also possible to decide how many days an XML-file should be stored.

The function is used when a cycle should be analysed after the cycle has ended.

The XML-files could be viewed in the included Process viewer or with the stand alone Process viewer.

### Global run settings

Global run settings is the settings valid for the whole system. Note that machine specific settings also could be made on a lower level – the machine level or in some cases even in the program level. Those settings will override the Global run settings.

Three options are available under **Allow start settings (only washers)**:

Always deny start	Puts the machine out of operation
Demand Batch ID before start	Adds an extra menu at the washing machine that requires the operator to feed a 4-digit number – a Batch ID number. This number is used to keep trace of a specific wash in CMIS.
Always allow start	Select this option to always allow start. Default configuration.


Two options are available under **Process Validate**:

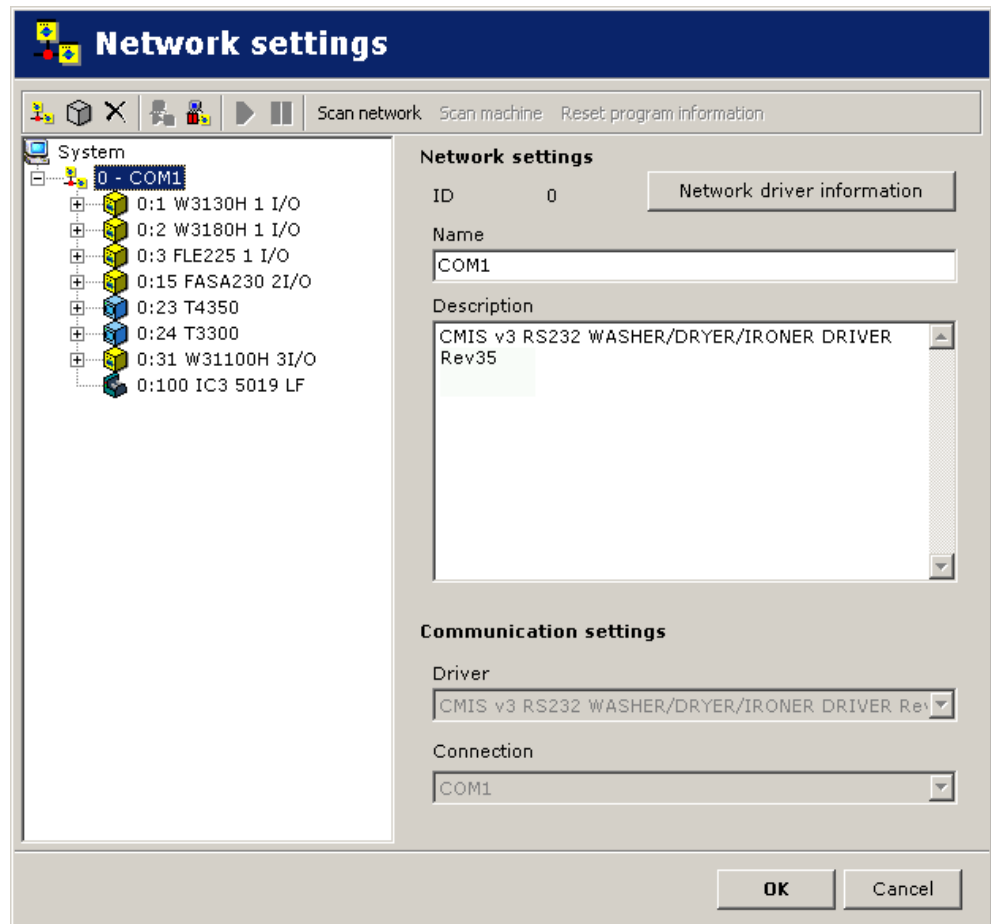
Normal run	Use this menu if there is no need to process validate. This is the default configuration. No process validation data will be saved.
Process validate	Use this menu if you want to process validate. Process validate will record extra data to make it possible to print a validation receipt.

## Network settings

Network settings apply to the relevant network. Here you can e.g. change the network's name or take the opportunity to describe the network in the Description box.

To change the network setting:

1. Click on Network settings 
2. Select the required network.



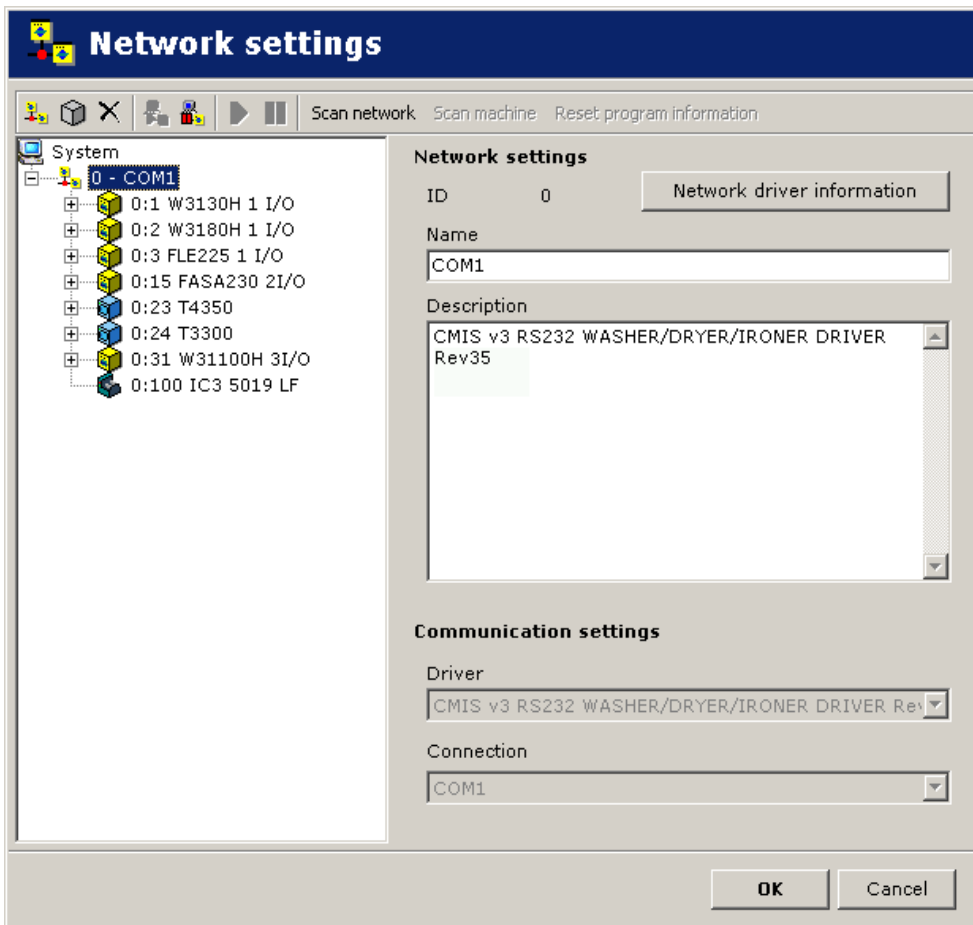
5822

3. Adjust settings for the activated network as described below:

ID	The network's ID number. Several networks may be present, and each network has a unique ID number. Cannot be changed after a network has been configured.
Name	Network's name.
Description	Description Description is a free text field describing the network. This text is only used here. Useful for specific information if several networks are used simultaneously.

### Communication

The values in Communication are automatically assigned on installation and should not normally be changed.



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- |            |   |
|------------|---|
| Driver     | The communication driver that CMIS use. CMIS V2 RS232 WASHER/DRYER driver is standard and should be selected. |
| Connection | The serial port which this network use on your PC. Default is Com 1, but other serial ports could be used.    |


### Network driver information

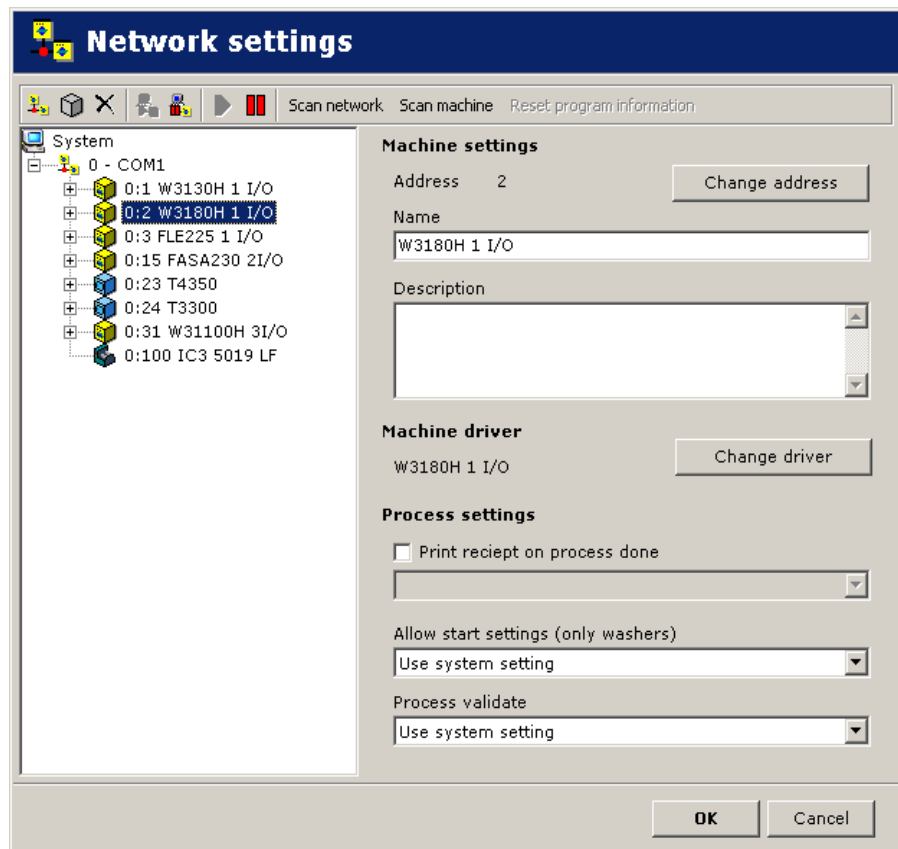
Contains actual information for current driver. For service purpose mainly.

### Machine settings

Settings made under machine settings apply to the relevant machine and are consequently also the default values for all the programs on the machine. Note that start settings as well as settings for process validation on a specific machine have higher priority than settings adjusted in Global run settings.

To change the network setting for machine:

1. Click on Network settings .
2. Select desired network.
3. Select desired machine.



4. Adjust settings for the selected machine as described below:

### **Machine**

Address	The machine's network address. Can be a number between 1- 127. Note! If the machine's ID number is changed here it must also be changed in the appropriate machine.
Name	Text box in which the name of the machine can be changed. The name is assigned automatically on installation but can be changed if required. The name chosen here will be displayed in the various CMIS menus.
Description	Description free text box for entering an explanatory description of the machine. This text will be displayed in the various CMIS menus in the Machine free text box.

### **Machine driver**


Machine driver is the communication driver that the activated machine use. The pre-selected driver for each model is standard and should be selected. Changing driver should only be made when advised from supplier. Incorrect configuration will affect on statistics.

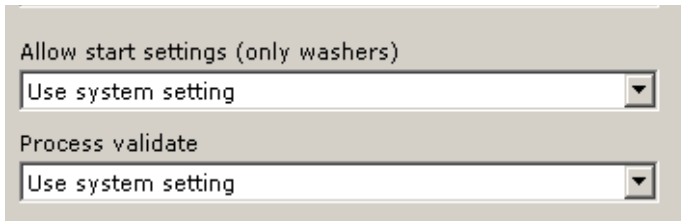
### **Process settings**

Under this menu you can decide if you want to print a process validation receipt at the end of the cycle as well as select which printer to use. When you check off the dialogue "Print receipt on process done", the printer menu is activated. Then select the required printer (Windows standard, assumes that there is a printer installed). Note that several other settings affect the function:

- Under General system settings you should state if you want a receipt after a normal completed process verification or incorrect process verification. See System setup/General system settings.
- Under Global settings or Machine settings, Process validate settings must be set to process-validate. See System setup/General system settings or System setup/Machine settings.

## Allow start settings (only washers)


1. Click on Network settings .
2. Select desired machine.
3. Adjust settings for the chosen machine in the Start pull-down menu:

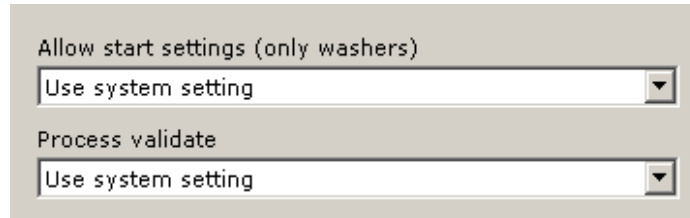


5807

Use System settings	Use this setting if the machine is to use the system's general setting adjusted in Global run settings.
Always deny start	Puts the machine out of operation
Demand Batch ID before start	Adds an extra menu at the washing machine that requires the operator to feed a 4-digit number – a Batch ID number. This number is used to keep trace of a specific wash in CMIS.
Always allow start	Select this option to always allow start. Default configuration.

## Process validation settings

1. Click on Network settings 
2. Select desired machine.
3. Adjust settings for the chosen machine in the Process validate pull-down menu:



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Use System settings

Use this setting if the machine is to use the system's general setting adjusted in Global run settings.

Normal run

Use this menu if there is no need to process validate a cycle. This is the default value.

Process validate


Use this menu if you want to process validate a cycle. Process validate will mark process data and also record extra data to make it possible to print a validation receipt.

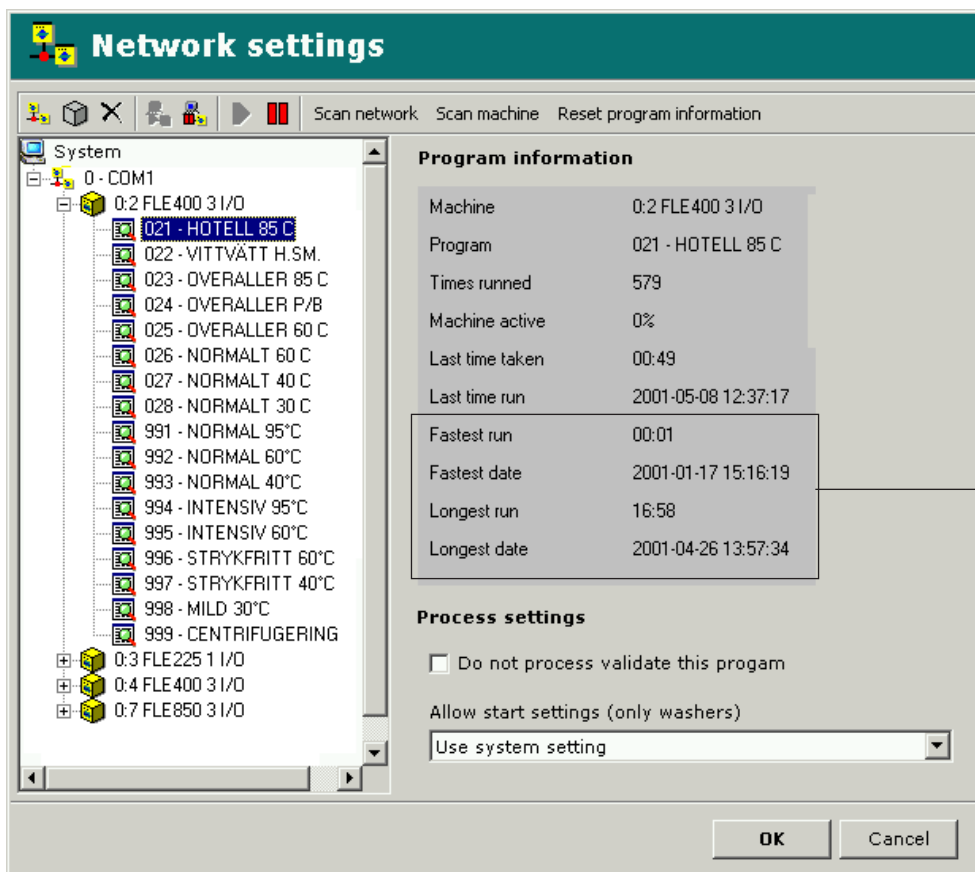


## Program settings (washers and dryers only)

Under program settings, apart from reading detailed information about a program, you can also set process settings. It is also possible to deactivate process verification for the selected program. The settings for a program always have higher priority than settings in Network settings/Machine settings.

To change the run settings for a program:

1. Click on Network settings 
2. Select desired network.
3. Select desired machine.
4. Select desired program.
5. Adjust settings for the chosen machine as described below:



These are reset by Reset program information

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## Program

In the Program box, information and statistics for the selected program are displayed. Values for Fastest run, Fastest date, Longest run and Longest date are reset with the Reset program information button.

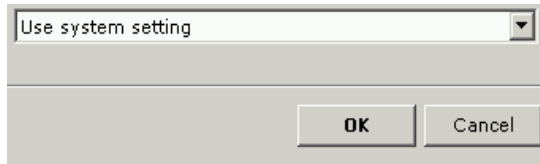
### Process settings-, Deactivate process verification for a specific program

It is possible to deactivate process validation for the selected program. Check off the Do not process validate this program box if the program is not to be process validated. This box is empty by default, i.e. process verification active.

### Process settings - Allow start settings (only washers)

1. Click on Network settings 
2. Select desired machine.
3. Select desired program
4. Adjust settings for the chosen machine in the Start pull-down menu:

Use System settings



5823

Always deny start

Demand Batch ID before start

Always allow start

Use this setting if the machine is to use the system's general setting adjusted in Global run settings.

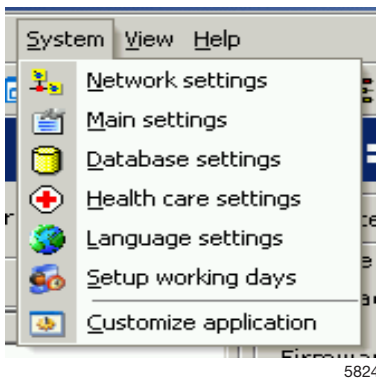
Puts the machine out of operation.

Adds an extra menu at the washing machine that requires the operator to feed a 4-digit number – a Batch ID number. This number is used to keep trace of a specific wash in CMIS.

Select this option to always allow start. Default configuration.

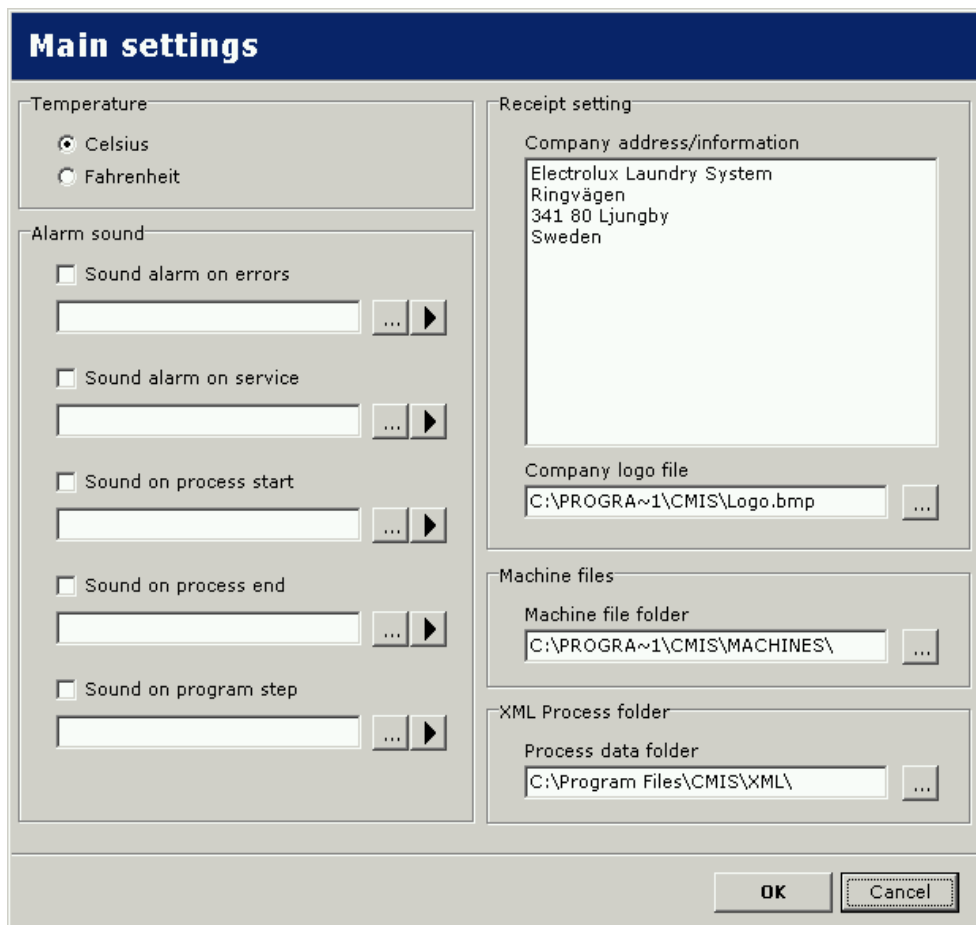
## Main settings

The Main settings menu can be found in the System pull-down menu.



Under Main settings it is possible to adjust a number of settings for

- Temperature
- Alarm
- Receipt settings
- Machine files
- XML Process folder



### Temperature

Under Temperature you can select if the temperature is to be displayed in Celsius or Fahrenheit. Celsius is pre-set.



To select the temperature unit:

1. Under Temperature, select Celsius or Fahrenheit.
2. Click OK when the settings are complete.

### Alarm

Under Alarm it is possible to activate and select the required sound for each type of alarm.

To select sound files for alarms:

1. Check off the required alarms and select the appropriate sound file (\*.wav) with the  button. Test the sound with the  button. Sound files do not come with the program but are available as standard in the Windows folder.
2. Click OK when the settings are complete.

### Receipt settings

Under Receipt settings you are able to enter additional information for the process verification receipt. You can also add your own logo to the receipt.

1. Under Receipt settings, enter the additional information which is to appear on the receipt.
2. Select the logo to be printed on the receipt. The logo must be in BMP file format and measure approx. 20 x 60 mm.
3. Click OK when the settings are complete.

### Machine files

Displayed under Machine file folders is the path to the folder in which the machine files are to be found.

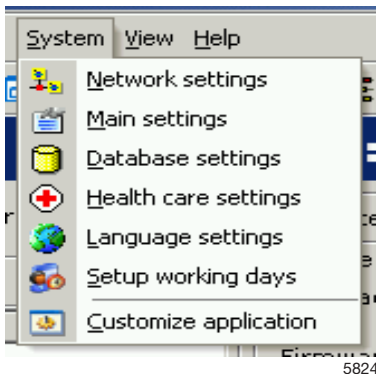
Note that the settings for machine files may only be changed on the recommendation of the manufacturer. Incorrect configuration can result in incorrect operation in CMIS.

### XML Process folder

Displayed under XML Process folder is the path to the folder in which XML process files are to be found. Whether process data should be saved to XML-files or not is configured in Network Settings/General system settings, see Create XML-files on process done.

## Database settings

The Database settings menu can be found in the System pull-down menu.



Under Database settings you can adjust settings for how long data is to be saved in the program's database. Database statistics are displayed on the right in Database settings.

Note! Changes to the settings can result in information being lost, in the database becoming very large or in the program crashing. Do not make any changes to settings before consulting the supplier.

 A screenshot of the 'Database settings' dialog box. The title bar reads 'Database settings'. On the left, there are configuration options: 'Database' with a text field containing 'C:\PROGRAM~1\CMIS\Data\Cmis.gdb' and a browse button; 'Active data history' with a spin box set to '30' and the unit 'days'; and 'Passive data history' with a spin box set to '90' and the unit 'days'. Below these is 'Database version: v3.21'. On the right, there is a table with three columns: 'Table', 'Records', and 'Size (byte)'.
 

Table	Records	Size (byte)
DRYINGS	189	96012
DRYMEASURE	127	16256
ERRORS	269	62408
HOURLDATA	41406	6956208
IRONINGS	55	26840
IRONMEASURE	56	6048
IRONSHEETS	84	12768
MACHINES	6	1848
MEASURE	358	274944
PVDRYMEASURE	7607	1551828
PVIRONMEASURE	1342	273768
PVMEASURE	15416	1911584
SERVICES	2	3512

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Database – Path to CMIS database.

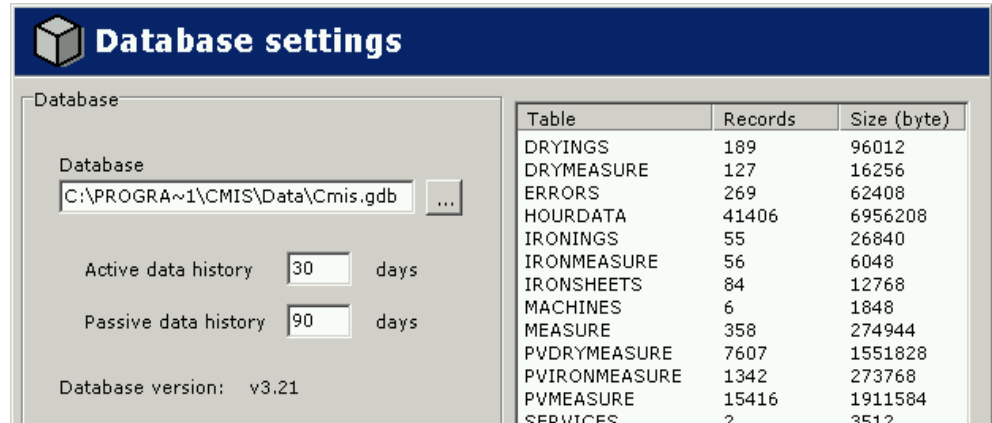
Active data history – The number of days the database is full without either packing or optimising data. Pre-set value is 30 days.

Passive data history – In the interval between Active data history and Passive data history, the database is packed but data retained. Reading data takes a little longer as the contents need to be unpacked. Data older than Passive data history is compressed and optimised. After this period, individual transactions disappear and only statistics such as total water consumption remain. Service alarms older than this date can be manually cleared using Purge, see Machine/Machine service/Purge.

### Database

To select the database:

1. Click on the button on the right of the database's path and search for the new database. It is also possible to enter the path to the required database directly.



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2. Click OK when the settings are complete.

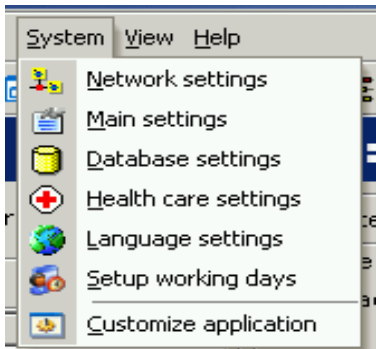
### Active data history/Passive data history

To select Active data history/Passive data history:

1. Set the required values for Active data history/Passive data history.
2. Click OK when the settings are complete.

## Health care settings

The Health care settings menu can be found in the System pull-down menu.



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Health care settings are settings for the way process validation should manage:

- temperature and time in a wash process
- RMC or temperature and time in a drying process
- RMC in an ironing batch

### Note!

When Health care settings are active, the settings apply globally for all programs that are process verified in all networks.

## Washers:

Under Health care settings for washers you have a number of choices:

**Min temperature** – The lowest temperature the machine must achieve and remain above for the time specified in Time in min. temp.

**Time in min temp** – The time in minutes that the machine must achieve the temperature specified in Min temperature.

**Name** – Name is the text that will appear together with the wash temperature.

Min temperature, Time in min temperature and Name

Adjust the settings as described below:

1. Select washers.
2. Choose if Health care validation are to be used by activating Use Health care validation on all washes.
3. Set the required values in Min temperature, Time in min temp and Name.

**Health care settings**

Washers Dryers Ironers

Health care settings for washers

Use Health care validation on all washes

Min temperature  
65  
Min temperature is the temperature a machine must reach and stay above for a specified time.

Time in min temp  
20  
Time in min temp indicates for how long in minutes a wash must have a min temperature.

Name  
RABC  
Name is the text that will appear together with the wash information.

OK Cancel

5827

4. Click OK when the settings are complete.



## Dryers:

Health care settings are settings for the way process validation should manage RMC (if exist) or temperature and time (if RMC does not exist).

### Note!

When Health care settings are active, the settings apply globally for all programs that are process verified in all networks.

Under Health care settings you have a number of choices:

**Max RMC at end** – The maximum RMC value that is allowed (when program has ended, to accept process (only used on dryers with RMC).

**Min temperature** – The lowest temperature the machine must achieve and remain above for the time specified in Time in min. temp.

**Time in min temp** – The time in minutes that the machine must achieve the temperature specified in Min temperature.

**Name** – Name is the text that will appear together with the temperature. Min temperature and time in min temp is only used on dryers without RMC.

Max RMC at end, Min temperature, Time in min temperature and Name

Adjust the settings as described below:

1. Select dryers.
2. Choose if Health care validation are to be used by activating Use Health care validation on all washes.
3. Set the required values for max RMC at end or Min temperature, Time in min temp. Also set an appropriate name.

**Health care settings**

Washers Dryers Ironers

Health care settings for dryers

Use Health care validation on all dryings

Max RMC at end  
0

If machine has a RMC indicator, this is the value that will be followed by the health care control. Otherwise the health care control will check the temperatures below

or

Min temperature  
50

Min temperature is the outlet air temperature a machine must reach and stay above for a specified time.

Time in min temp  
1

Time in min temp indicates for how long in minutes a drying must have a min outlet air temperature.

Name  
RABC

Name is the text that will appear together with the drying information.

OK Cancel

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4. Click OK when the settings are complete.

## Ironers:

Health care settings for ironers verifies the output RMC value.

**Max RMC** – The maximum RMC value that is allowed during the batch.

**Name** – Name is the text that will appear together with the process data.

The screenshot shows a software interface titled "Health care settings" with a red cross icon. It features three tabs: "Washers", "Dryers", and "Ironers", with "Ironers" selected. The main area is titled "Health care settings for ironers" and contains the following elements:

- A checked checkbox labeled "Use Health care validation on all ironers".
- A "Max RMC" section with a numeric input field containing "130" and a spin button. To its right, the text reads: "The RMC out value must not exceed this value to be accepted".
- A "Name" section with a text input field containing "RMC <8%" and a label: "Name is the text that will appear together with the ironing information."

At the bottom right, there are "OK" and "Cancel" buttons.

W00031

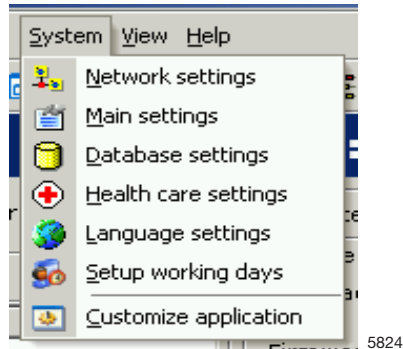
## Max RMC and Name:

Adjust the setting as described below:

1. Select Ironers
2. Choose if Health care validation are to be used by activating Use Health care validation on all ironers.
3. Set the required values for Max RMC. Also set an appropriate name.

## Language settings

The menu, Language settings can be found in the scroll down menu, System.

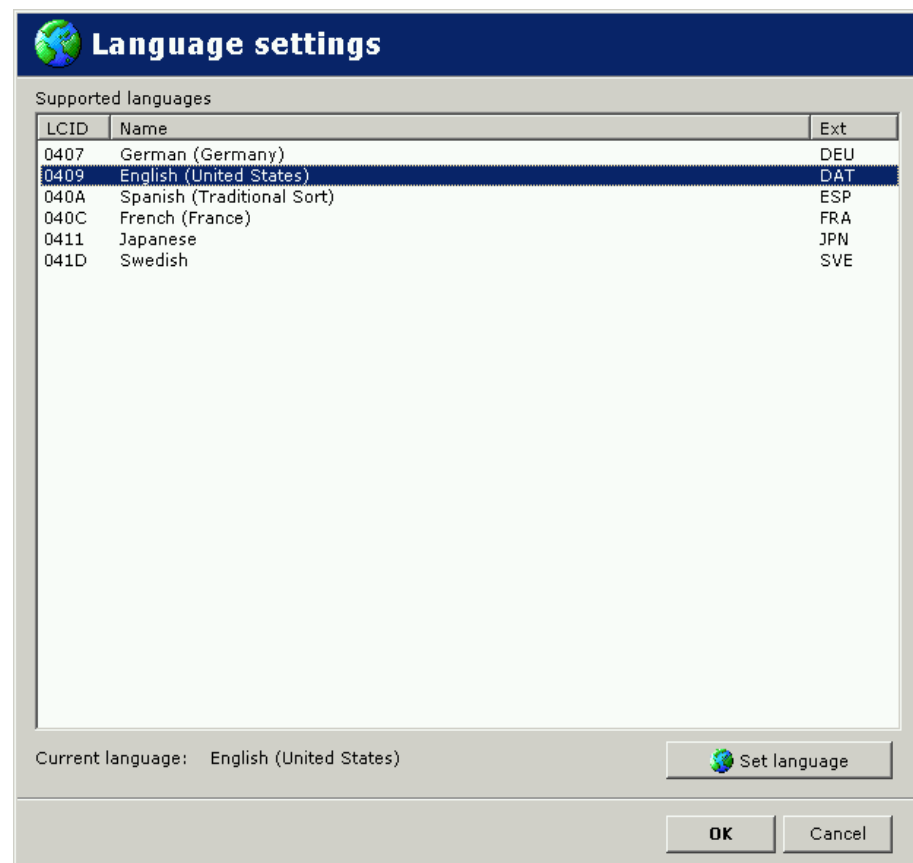


In Language settings you select the language to be displayed in CMIS.

### Select language

To select language:

1. Highlight the desired language.



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2. Click on Set language and then on OK.
3. Restart CMIS.

Note that Language settings changes the language in all texts in the program apart from model designations, error code texts, etc. In order for language changes also to affect these, Scan network or Scan machine has to be run again.

**Setup working days:**

Working days are used to calculate working overtime in Machine utilization and in Total consumption menu. It is also used for calculating idle time.

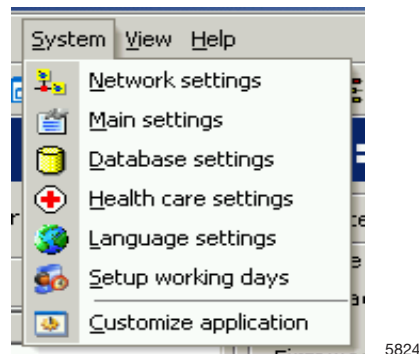
A working day is activated by the checkbox in front of each day. Working day interval is given as hour:minutes in From - To.

	From	To
<input checked="" type="checkbox"/> Monday	07:00	17:00
<input checked="" type="checkbox"/> Tuesday	07:00	17:00
<input checked="" type="checkbox"/> Wednesday	07:00	17:00
<input checked="" type="checkbox"/> Thursday	07:00	17:00
<input checked="" type="checkbox"/> Friday	07:00	17:00
<input type="checkbox"/> Saturday	07:00	17:00
<input type="checkbox"/> Sunday	07:00	17:00

W00036

### Customize application

The Customize application menu can be found in the System pull-down menu.

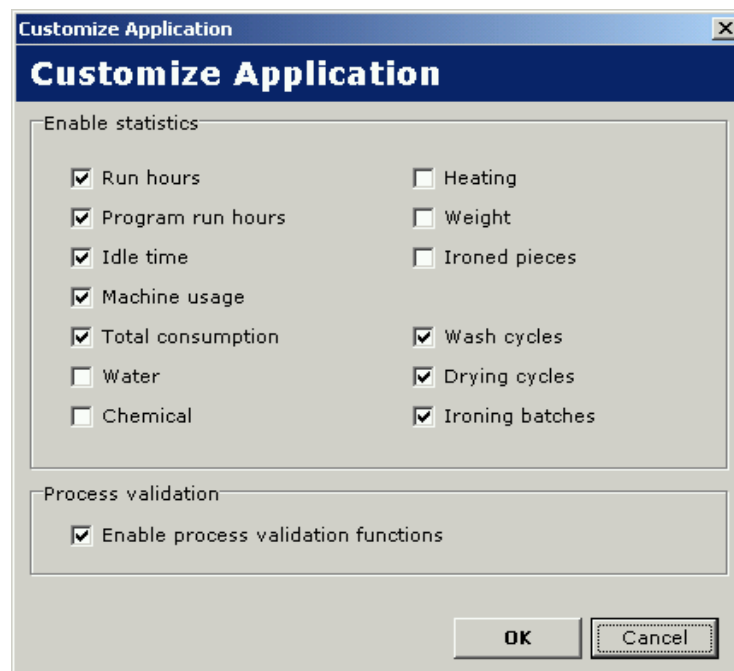


5824

It is possible to adjust the menus for statistics and process verification so that only the desired functions are displayed.

### Enable statistics/Process validation

To adjust the menus:



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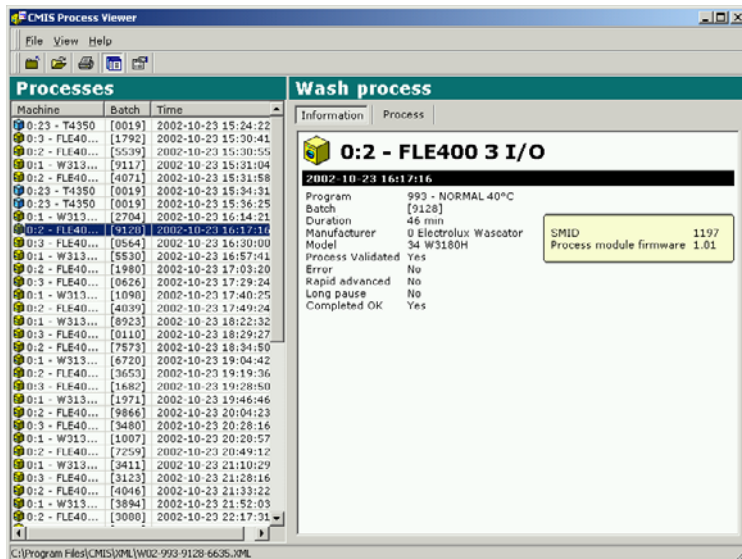
1. Select the functions under Enable statistics/Process validation that are to be displayed in the menus.
2. Click OK when the settings are complete.

All menus are selected by default.

## Process viewer

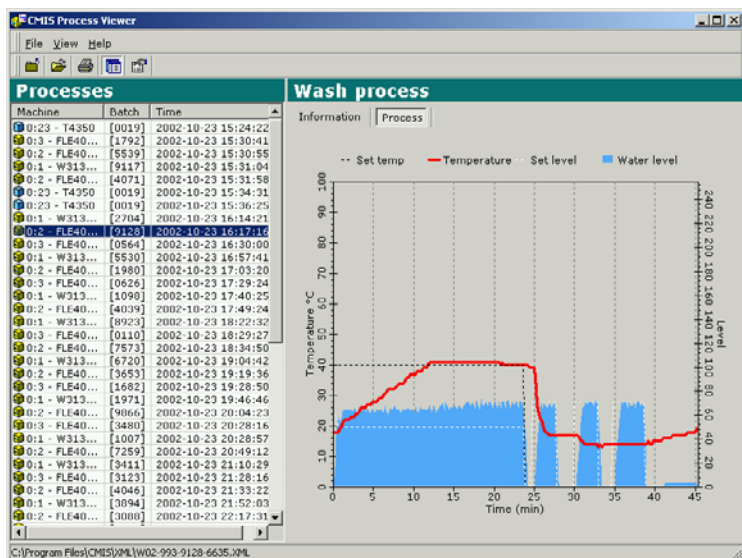
Process viewer makes it possible to view a single process after it has ended and during the number of days that is configured in CMIS.

It is possible to view both information about the selected process



5662

and the process itself.



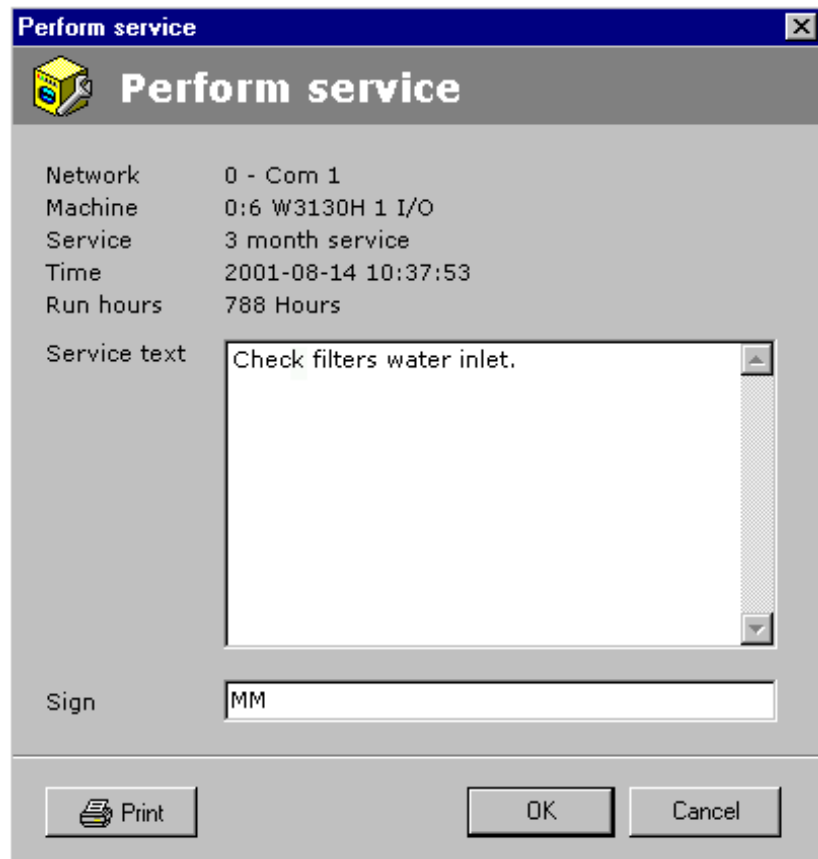
5663

All process cycles are stored as separate XML-files which makes it possible to view/print or mail separate cycles in case that support is needed.

XML-files could be opened with the built in Process viewer or in the stand alone Process viewer that is installed together with CMIS. Saving XML-files is deactivated as standard and must be activated manually, see System settings/General system settings/Create XML-files on process done.

## Pop-up menus for service alarms

Service alarms are displayed in the pop-up boxes and acknowledged in CMIS. The alarm is logged in Machine Service. See also Machine/ Machine Service. In the pop-up box, information about the service alarm is displayed, such as the network, machine, type of service, time and operating time. In the Service text box, an explanatory text about the alarm is displayed. A service alarm must be designated before being acknowledged with OK. It is also possible to print a service alarm report.

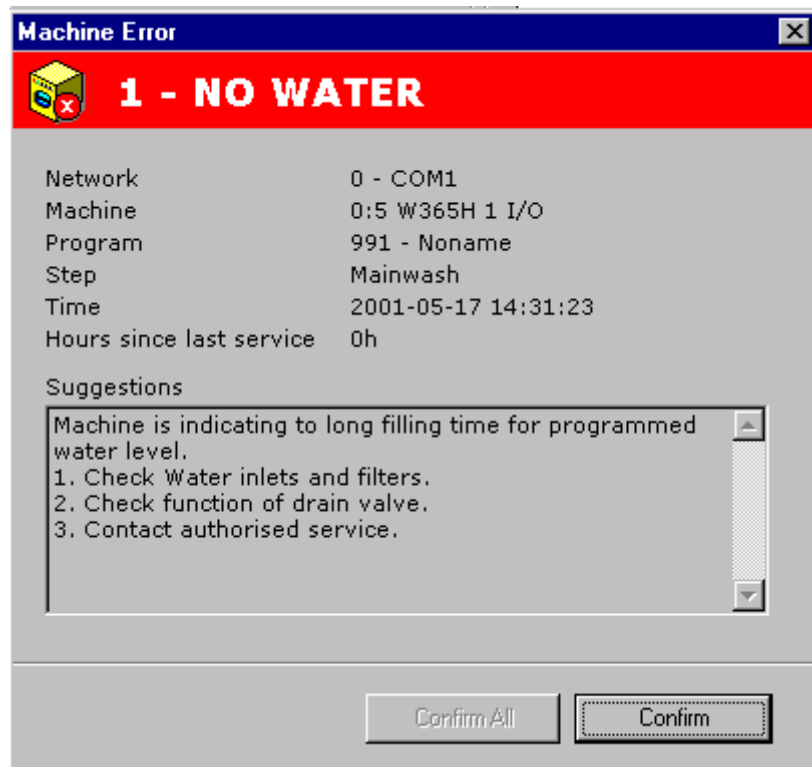




## Pop-up menus for error codes

Error codes are displayed in pop-up boxes and acknowledged in CMIS or on the machine. If an error code is acknowledged on the machine, it is also automatically acknowledged in CMIS and logged in Error codes. See also Machine/Machine Error. In the pop-up box, information about the fault is displayed, such as the network, machine, program and program step involved, as well as the time and number of hours since the last service. The Suggestions box displays a suggestion as to how the fault should be rectified.

Errors are acknowledged using the Confirm All and Confirm buttons.



# Trouble shooting

## Communication

**CMIS is unable to contact a machine in the network. The machine information window displays time-out.**

1. Check that the voltage on the machine is switched on.
2. Check that the green LED on the Machine Interface PC is lit. Green LED indicates the Power supply to the Interface. Communication does not work if this doesn't light up.
3. Check communication to and from the machine. Both Yellow and RED indicates transmission in the network. This means that both LED's are light off when there is no communication, but flashing when communication is running.

- Yellow LED indicates transmission to the CMIS Interface.
- Red LED indicates transmission from the CMIS Interface.

If a CMIS Interface Machine has a flashing Yellow LED, but the Red LED is off there could be some different causes:

- Correct Machine Address is not set, or set to '0' = Inactive.
- CMIS is not configured correctly.

If CMIS communicates with another machine (red and yellow LED on CMIS Interface PC is flashing) but yellow LED on Machine Interface is off.

- Check electrical connections from network to CMIS Interface Machine.

## Process verification

### Program cycle is not process verified

Check the settings for process verification. Settings for which programs are to be process verified are carried out in the menus:

- General system settings
- Network settings
- Machine settings
- Program settings

These settings can be found in Software description and settings/ System Setup/Networks.

Of the settings in these menus, program settings have the highest priority and General system setting the lowest.

### The program cycle is process verified although this was not requested.

Check the settings for process verification. Settings for which was-  
hes are to be process verified are carried out in the menus:

- General system settings
- Network settings
- Machine settings
- Program settings

These settings can be found in Software description and settings/ System setup/Networks.

Of the settings in these menus, program settings have the highest priority and General system setting the lowest.

**The program cycle is process verified but the receipt says nothing about Health care settings.**

Health care settings must be activated manually; for setting Health care settings, see Software description and settings/System setup/Health care settings.

**Only one wash/drying program to be process verified**

Begin by activating the process verification settings for the required machine; for setting, see Software description and settings/System setup/Networks/Machine settings.

Then deactivate the programs that are not to be process verified at wash program level; see Software description and settings/System setup/Networks/Wash program settings.

## Statistics

### **No statistics are shown for liquid detergent**

This function assumes that the wash programs on the machine have the detergent valves programmed. This is not the case for the factory programs, which have to be programmed manually.

When the valves are programmed, you should always be able to see statistics in minutes. If this is working but not the statistics in millilitres of detergent, this is probably because the constant data values are always set at zero on installation. For further information, see [Software description and settings/Machine/Machine settings/Liquid detergent](#).

### **No statistics are shown for Energy consumption**

Assuming that the machine has heating and that the heating is programmed in the programs, you should always be able to see statistics in minutes. If this is working but you still cannot see statistics in kWh, this is probably because the constant data values for heating are set at zero on installation. For further information, see [Software description and settings/Machine/Machine settings/Energy consumption](#).

### **One or more machines appear grey in the machine information window. No statistics for these machines are shown.**

The machines have probably been deactivated.

Select the machines and press [Activate machine](#) to activate them.

### **No statistics for weight measurement are shown despite weight measurement being present in the machine**

Most washing machines have some form of weight measurement, but this function requires the presence of IWS (Internal Weight System).

If IWS is present, but the function still does not work, check under System setup/Networks/General system settings, that the “Fetch weight if scale exists on machine” box has been checked off.

### **The text “ID number” appears in the washer extractor’s display each time it is started**

CMIS is configured to retrieve ID numbers at start-up.

These settings are adjusted in the menus:

- General system settings
- Machine settings
- Program settings

These settings can be found under Software description and settings/System setup/Networks.

Change Start settings to “Always allow start” if you wish to deactivate the function.

Of the settings in these menus, Wash program settings have the highest priority and General system setting the lowest.

### **There are no XML-files displayed when opening Process viewer**

Saving XML-files must be activated manually, see System settings/General system settings/Create XML-file on process done.

### **Length of an ironed piece is not correct**

Calibrating the length of a sheet is done in service menu for the ironer by adjusting/calibrating the “Length value”. Please refer to Ironer Service manual how to enter service program and adjust parameter “Length value”.

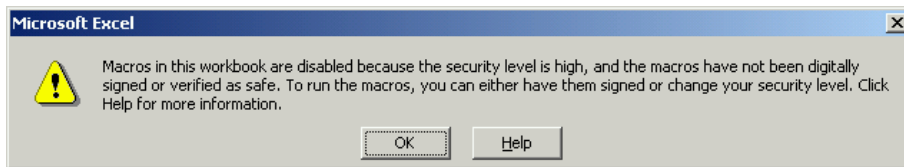
## When calculating costs, i get a message that the workbook contains macros

Cost calculating templates contains several macros that has to be run. It is therefore required to activate Macros in Excel.

See Tools/Macro/Security how to activate Macros. Select Medium or Low security level. Low level is preferred for CMIS.

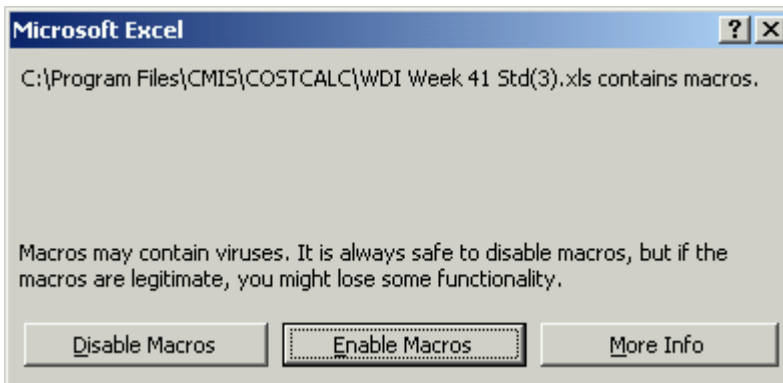
If you get following message, macros will be disabled and cost calculation will not work properly.

Change security level in Excel. Exit and retry.



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If you get following message your security level is probably set to medium level. Be sure to select **Enable Macros** before continuing, otherwise cost calculation will not work properly.



W00038

## Miscellaneous

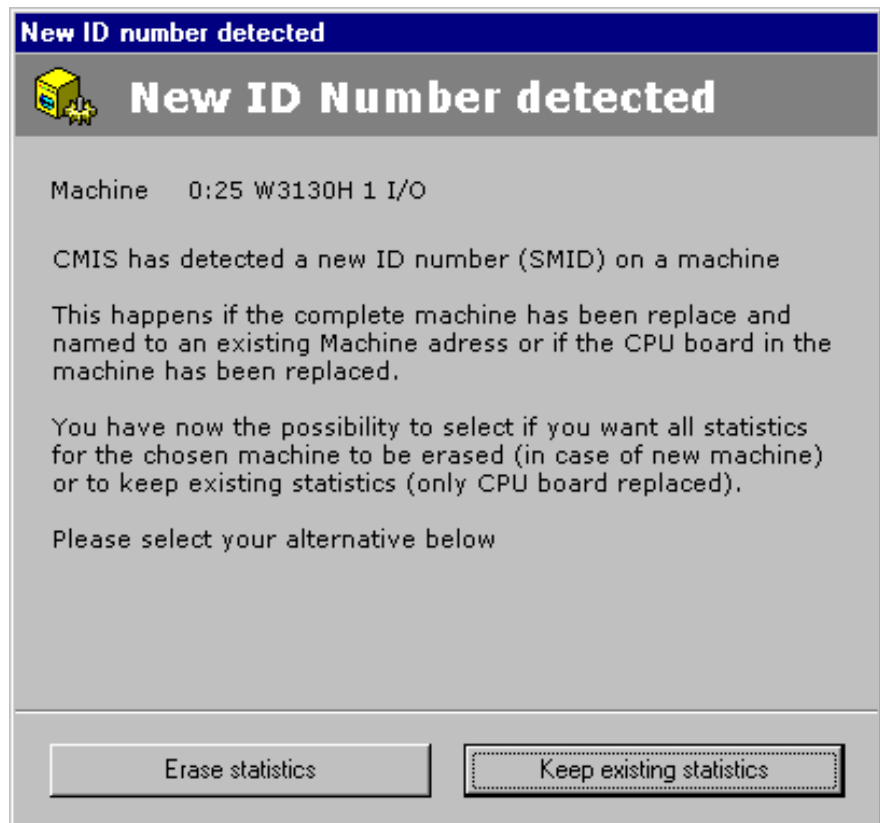
### New ID number detected

This can happen if:

- The machine has been replaced and the new one has been given the same machine address as the old one.
- If the CPU card in the machine has been replaced.

Select Erase statistics if all statistics are to be deleted. This is used if a machine has been replaced. Then run Scan machine to update all information about the machine, see System setup/Networks/Scan machine.

Select Keep existing statistics if the statistics for the machine are to be saved. This is used if the CPU card in the machine has been replaced.









#### Skrotning av maskin

När maskinen inte längre skall användas måste den lämnas till en återvinningsstation för destruktion. Många detaljer i maskinen går att återanvända, men den innehåller även annat material som måste tas om hand på ett korrekt sätt. Lämna därför aldrig maskinen eller delar av maskinen i hushållsavfallet, eftersom det kan leda till hälsorisker eller skador på miljön.

#### Scrapping of machine

When the machine is no longer to be used, it must be submitted to a recycling facility for destruction. The majority of the components in the machine can be reused, but it also contains other material that must be taken care of in the correct way. Therefore, never mix the machine or its parts with domestic waste as this may lead to health hazards or damage to the environment.

#### Entsorgung des Geräts

Wenn das Gerät nicht länger im Gebrauch ist, muss dieses einer Recyclingstation zur Entsorgung zugeführt werden. Viele Komponenten des Geräts sind recyclingfähig, enthalten aber auch Materialien, die vorschriftsmäßig entsorgt werden müssen. Entsorgen Sie daher das Gerät oder Geräteteile niemals im Hausmüll, da dies Gefahren für die Gesundheit oder Umweltschäden nach sich ziehen kann.

#### Mise au rebut de machine

Lorsque la machine n'est plus utilisée, elle doit être déposée à une installation de recyclage pour y être détruite. La majorité des composants de la machine peuvent être réutilisés mais celle-ci contient également d'autres matériaux qui doivent être traités correctement. C'est pourquoi vous ne devez jamais mélanger la machine ou ses pièces avec les ordures ménagères, risque de pollution pour l'environnement ou la santé.

#### Desguace de la máquina

Cuando la máquina no tenga que utilizarse más, ha de entregarse a una instalación de destrucción para su reciclado. La mayor parte de sus componentes pueden volver a utilizarse, pero consta también de otros materiales que han de ser tratados de la manera correcta. Por esa razón nunca mezclar la máquina ni sus partes con la basura doméstica pues esto podría constituir un peligro para la salud o dañar el medio ambiente.

#### Bortskaffelse af maskinen

Når maskinen ikke længere er i brug, skal den afleveres til destruktion på en genbrugsstation. Mange dele i maskinen kan genanvendes, men den indeholder også andre materialer, der skal håndteres korrekt. Smid derfor ikke maskinen eller dele af den ud sammen med husholdningens almindelige affald, da det kan være forbundet med sundhedsrisiko eller give miljøskader.

#### Koneen hävittäminen

Kun koneita ei enää käytetä, se pitää luovuttaa kierrätyskeskukseen tuhottavaksi. Suurinta osaa koneen osista voidaan käyttää uudelleen, mutta se sisältää myös materiaaleja, jotka pitää käsitellä asianmukaisesti. Älä sen vuoksi koskaan laita koneita tai sen osia kotitalousjätteen sekaan, sillä se saattaa aiheuttaa terveysriskejä tai vahinkoa ympäristölle.

#### Skrotning av maskin

Når maskinen ikke lenger skal brukes, må den leveres til en gjenvinningsstasjon for destruksjon. Det går an å gjenbruke mange deler av maskinen, men den inneholder også annet materiale som man må ta hånd om på riktig måte. Legg derfor aldri maskinen eller deler av maskinen i husholdningsavfallet, siden det kan føre til helse- eller miljøskader.

#### Afdanken van de machine

Als de machine niet langer gebruikt gaat worden, moet deze ter vernietiging worden aangeboden bij een recyclinginrichting. De meeste componenten van de machine kunnen worden hergebruikt, maar hij bevat ook ander materiaal dat op een juiste wijze moet worden behandeld. Daarom de machine of zijn onderdelen nooit bij het huisvuil zetten, want dat kan leiden tot gezondheidsrisico's of schade aan het milieu.

#### Rottamazione della macchina

Quando la macchina non può più essere utilizzata, deve essere affidata a un centro di riciclaggio che ne effettui la rottamazione. La maggior parte dei componenti della macchina sono riciclabili, ma ce ne sono anche alcuni che devono essere smaltiti in modo appropriato. Perciò, non mischiare mai la macchina o parti di essa con i normali rifiuti domestici, poiché ciò potrebbe comportare rischi per la salute o per l'ambiente.

#### Złomowanie maszyny

Wycofaną z użytkowania maszynę należy przekazać do zakładu utylizacji w celu złomowania. Większość podzespołów maszyny nadaje się do powtórnego wykorzystania, lecz zawiera ona także inne materiały, z którymi należy postępować w odpowiedni sposób. Z tego powodu niedozwolone jest łączenie maszyny lub jej części z odpadami domowymi, gdyż może to prowadzić do zagrożenia zdrowia lub szkody dla środowiska.

#### Vyřazení přístroje

Přístroj, který již nebude používán, by měl být odevzdán k likvidaci do ekodvora. Většina součástí přístroje může být opětovně použita, některé ale vyžadují likvidaci přesně daným způsobem. A proto nikdy nemíchejte dohromady přístroje nebo jejich části s domácím odpadem, mohlo by to vést ke zdravotním rizikům nebo k poškození životního prostředí.

#### Οριστική απόσυρση μηχανήματος

Όταν το μηχάνημα δεν προορίζεται για περαιτέρω χρήση, θα πρέπει να οδηγείται σε εγκατάσταση ανακύκλωσης για καταστροφή. Το μεγαλύτερο ποσοστό των εξαρτημάτων του μηχανήματος μπορεί να χρησιμοποιηθεί ξανά, αλλά το μηχάνημα περιλαμβάνει και άλλα υλικά η διαλογή των οποίων θα πρέπει να πραγματοποιείται με τον κατάλληλο τρόπο. Κατά συνέπεια, μην αναμιγνύετε ποτέ το μηχάνημα ή τα εξαρτήματά του με οικιακά απορρίμματα καθώς αυτό μπορεί να αποβεί επικίνδυνο για την υγεία ή επιβλαβές για το περιβάλλον.



*Thinking of you*

 **Electrolux**

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