SIEMENS

ACM Suite

ACM Console - Getting Started

Getting Started

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ⚠ **DANGER**
>
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ⚠ **WARNING**
>
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ⚠ **CAUTION**
>
> indicates that minor personal injury can result if proper precautions are not taken.

> **NOTICE**
>
> indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

> ⚠ **WARNING**
>
> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens Aktiengesellschaft. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Introduction 1

1.1 About ACM Console

ACM Console is an analytics component of ACM Suite. It allows users remote control and analysis of data from ACM applications, e.g. AdaptiveControl, ToolMonitor, ToolLifetimeMonitor, installed on a machine.

The web application can run either on SINUMERIK Edge or Mcenter platforms.

1.2 About ACM Suite

About ACM Suite

ACM is a suite of productivity products that aim to increase machine efficiency, improve process stability, prevent and/or detect tool breakage etc. ACM products boost shopfloor productivity with significant cost savings and higher revenue.

Visit our website for more information on ACM Suite.

ACM Link (https://new.siemens.com/global/en/products/automation/systems/cnc-sinumerik/digitalization/manufacturing/adaptive-control-and-monitoring.html)

1.3 Purpose of this document

This document provides an overview of key capabilities of ACM Console. The web application has an intuitive user interface and with this overview the user can easily master and use its different features.

1.4 Compliance with the General Data Protection Regulation

Siemens observes standard data protection principles, in particular the data minimization rules (privacy by design).

For this product, this means:

The product does not process or store any personal data, only technical function data (e.g. time stamps). If the user links this data with other data (e.g. shift plans) or if he/she stores person-related data on the same data medium (e.g. hard disk), thus personalizing this data, he/she must ensure compliance with the applicable data protection stipulations.

Fundamental safety instructions

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2.1 General safety instructions

> ⚠ **WARNING**
>
> **Danger to life if the safety instructions and residual risks are not observed**
>
> If the safety instructions and residual risks in the associated hardware documentation are not observed, accidents involving severe injuries or death can occur.
> - Observe the safety instructions given in the hardware documentation.
> - Consider the residual risks for the risk evaluation.

> ⚠ **WARNING**
>
> **Malfunctions of the machine as a result of incorrect or changed parameter settings**
>
> As a result of incorrect or changed parameterization, machines can malfunction, which in turn can lead to injuries or death.
> - Protect the parameterization against unauthorized access.
> - Handle possible malfunctions by taking suitable measures, e.g. emergency stop or emergency off.

2.2 Warranty and liability for application examples

Application examples are not binding and do not claim to be complete regarding configuration, equipment, or any eventuality which may arise. Application examples do not represent customer-specific solutions, but merely serve to provide assistance with typical tasks.

As the user you yourself are responsible for ensuring that the products described are operated correctly. Application examples do not relieve you of your responsibility for safe handling when using, installing, operating and maintaining the equipment.

2.3 Cybersecurity information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial cybersecurity measures that may be implemented, please visit
https://www.siemens.com/cybersecurity-industry.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under
https://new.siemens.com/cert.

Further information is provided on the Internet:

Industrial Security Configuration Manual (https://support.industry.siemens.com/cs/ww/en/view/108862708)

⚠ WARNING
Unsafe operating states resulting from software manipulation
Software manipulations, e.g. viruses, Trojans, or worms, can cause unsafe operating states in your system that may lead to death, serious injury, and property damage.
• Keep the software up to date.
• Incorporate the automation and drive components into a state-of-the-art, integrated industrial cybersecurity concept for the installation or machine.
• Make sure that you include all installed products in the integrated industrial cybersecurity concept.
• Protect files stored on exchangeable storage media from malicious software by with suitable protection measures, e.g. virus scanners.
• Carefully check all cybersecurity-related settings once commissioning has been completed.

Description

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ACM Console consists of the following:

- **Real time dashboard**
  The dashboard mirrors the ACM real time dashboard on the machine.

- **Historical data analysis**
  On this page users can review data recorded by ACM applications on the machine within a selected time range. By default, users can review data up to 30 days in the past.

- **Program management**
  On this page users can view and/or change ACM operation settings for any program that ACM applications has recorded reference data.

3.1   Real time dashboard

Description

The real time dashboard mirrors the dashboard on the machine. Therefore, an operator next to the machine and a remote user with ACM Console open in his web browser can see the same ACM information in real time.
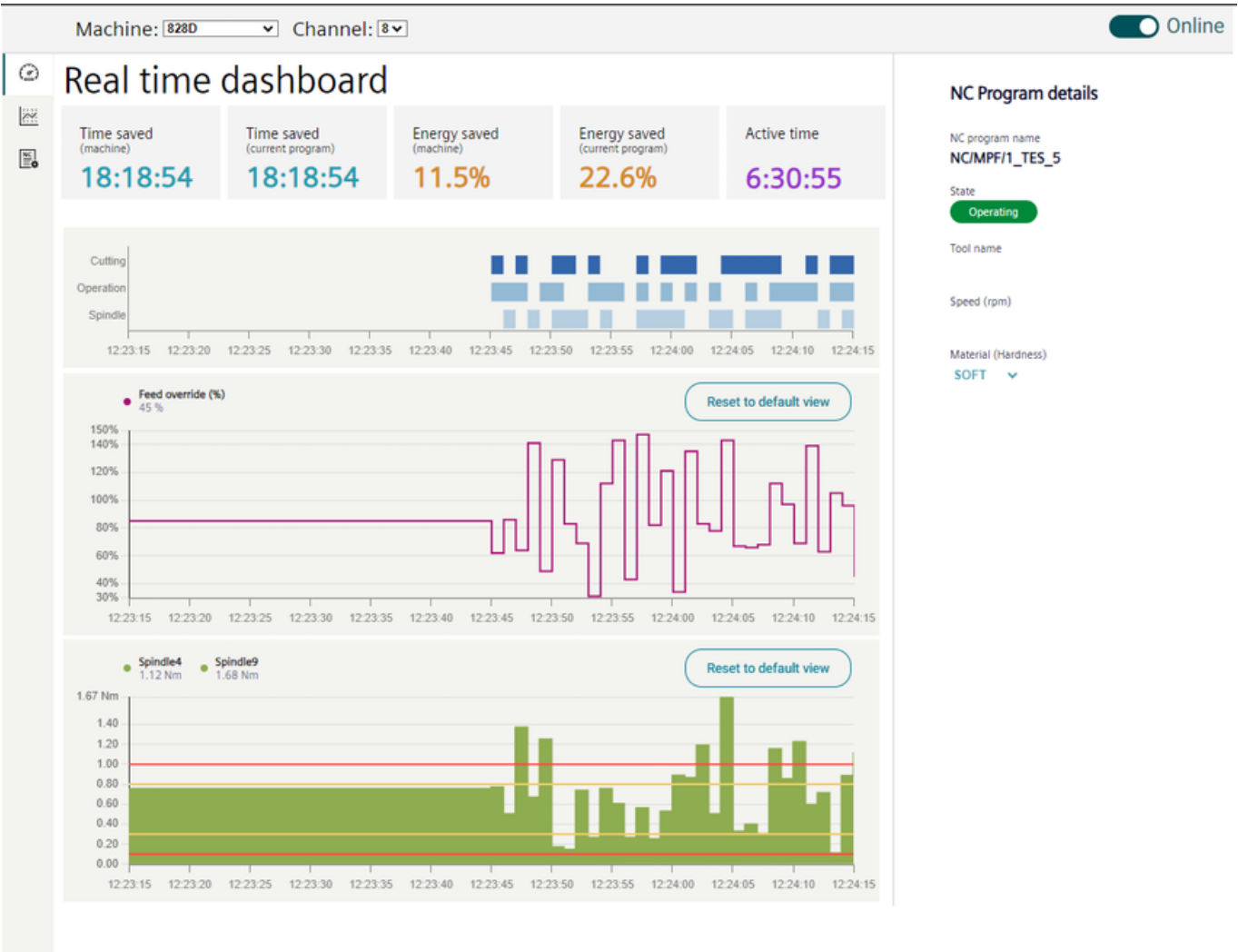

Figure 3-1   Example: real time dashboard in ACM Web Console

3.2 Historical data analysis

Description

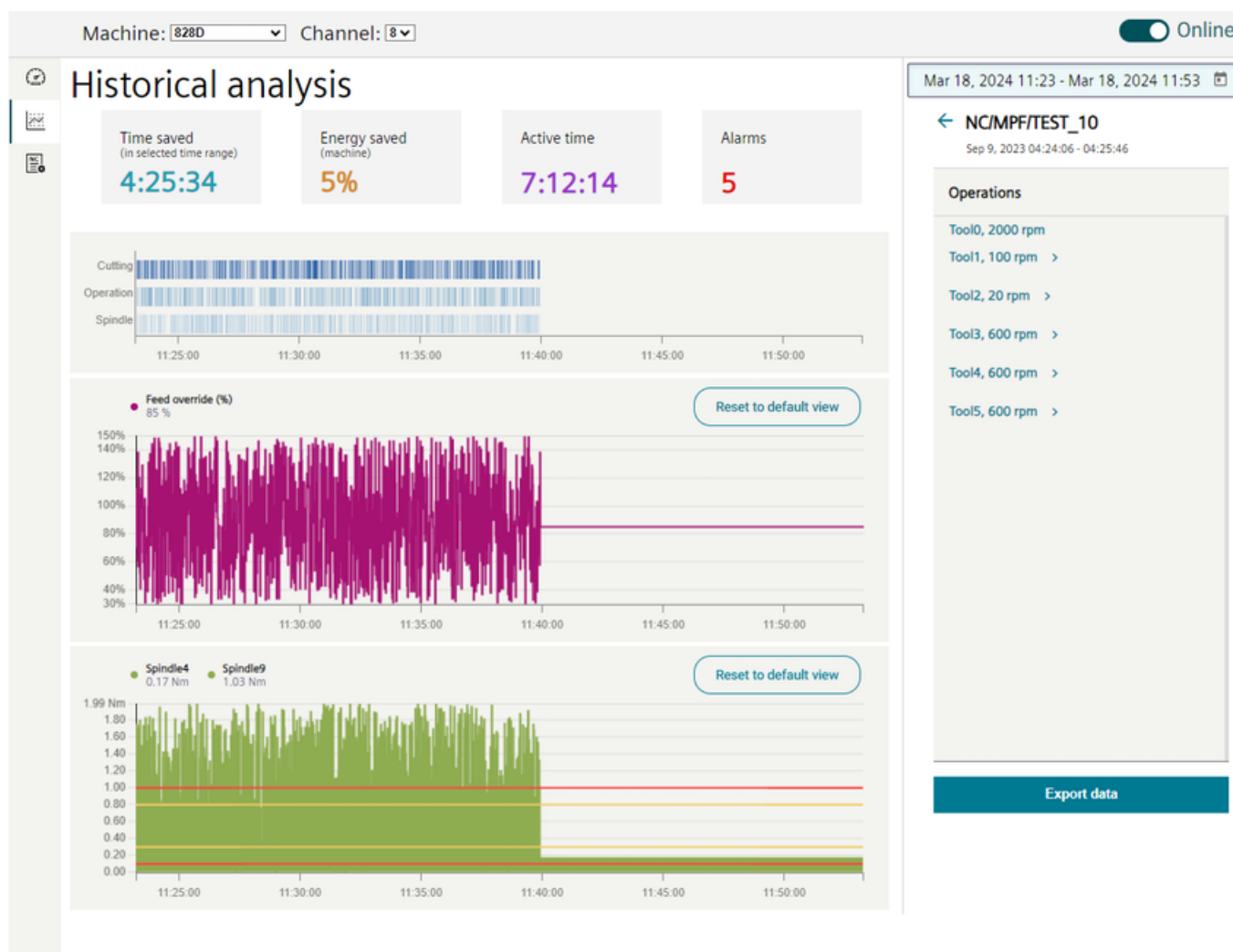On this page users can select any user-defined time range to review ACM data.

Figure 3-2   Example: historical data analysis

The following status information is displayed:

- ACM status
- feed override
- load graphs

In addition the page displays all programs and operations that ACM application on the machine has recorded data for in training mode, controlled via "AdaptiveControl", or monitored via "ToolMonitor" and "ToolLifeTimeMonitor".

Note

Dynamic list of programs

The list of programs contains only programs that were run within the selected time range.

KPI value calculation

The KPI values are calculated for the selected time range. If the program, e.g. "AdaptiveControl", on which KPI calculation is based was disabled during the selected time range, the corresponding KPI, e.g. "Time saved", shows the value "0".
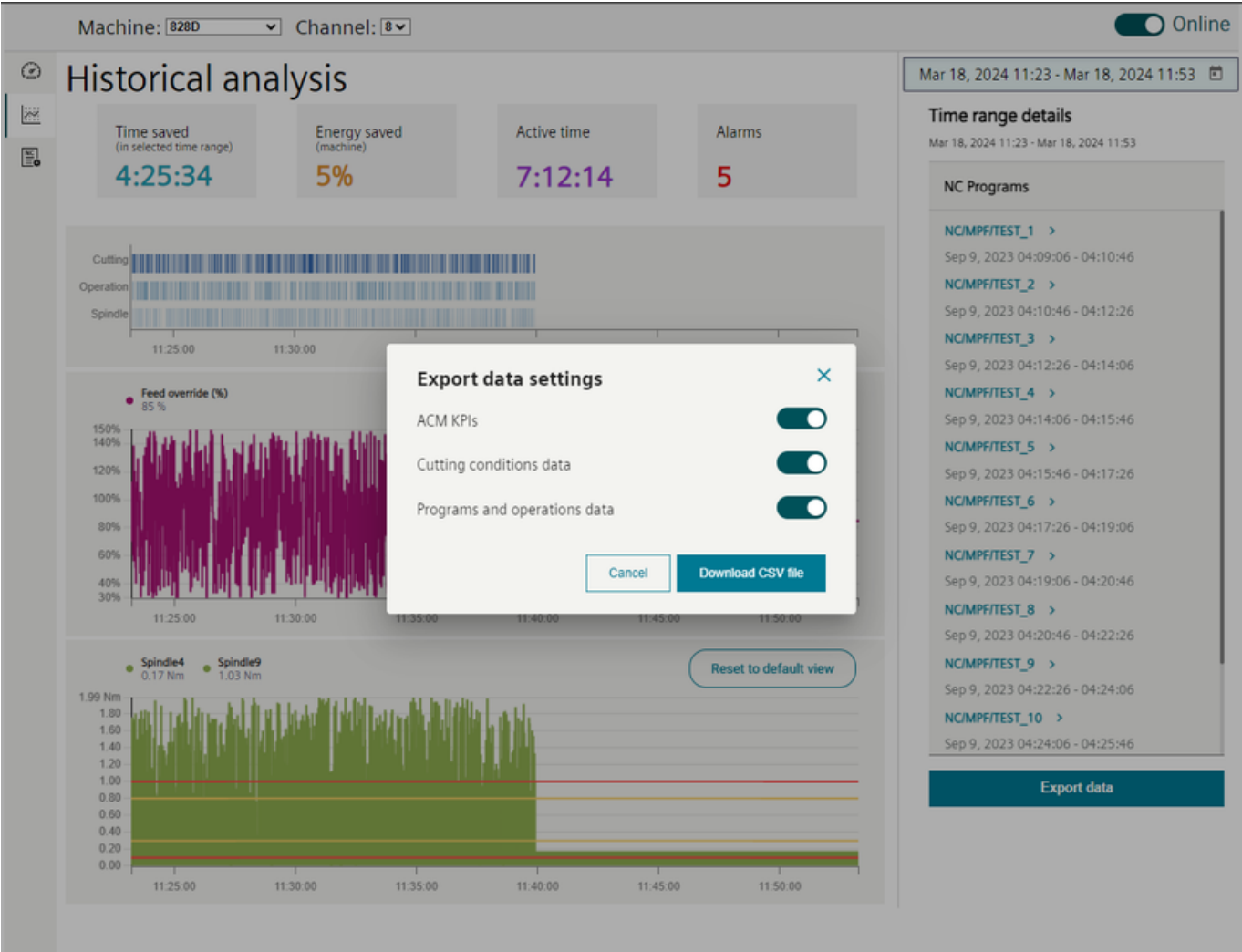

Figure 3-3   Example: KPI value calculation

Data export

For offline processing or upload into 3rd party applications users can export data to a CSV file. Exported data corresponds to the selected time range.

3.3 Programs management

Description

On this page users can change the state and ACM operation settings for any program for which ACM application on the machine has recorded reference data.

Note

Changing operation settings

Changing operation settings is only possible if the machine is connected and ACM is running. If the machine is powered down, attempts to change setting will result in an error.

Once a program has been selected, the lifetime KPIs of the selected program are displayed on the top of the page.
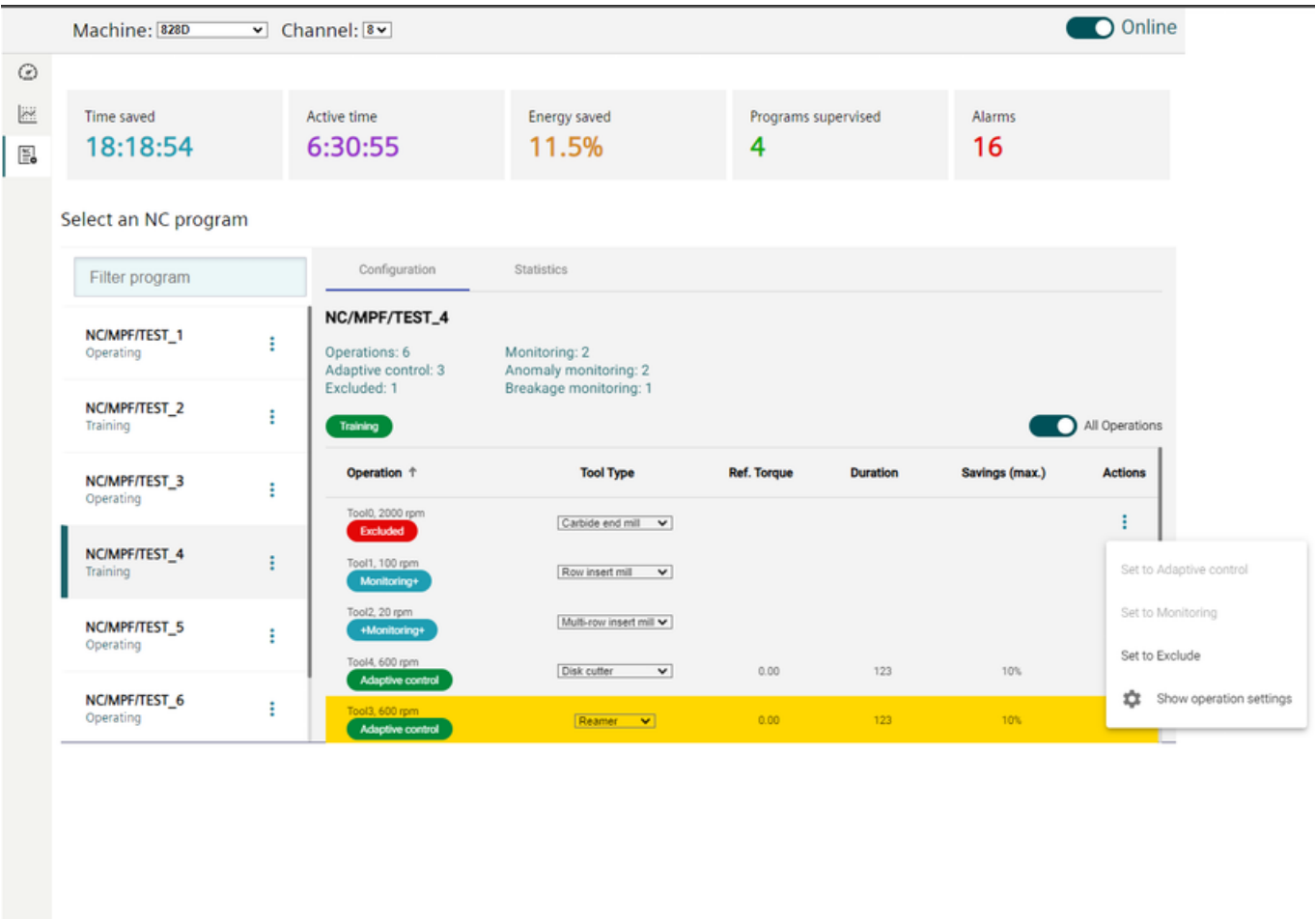
Figure 3-4   Example: lifetime KPIs for selected program

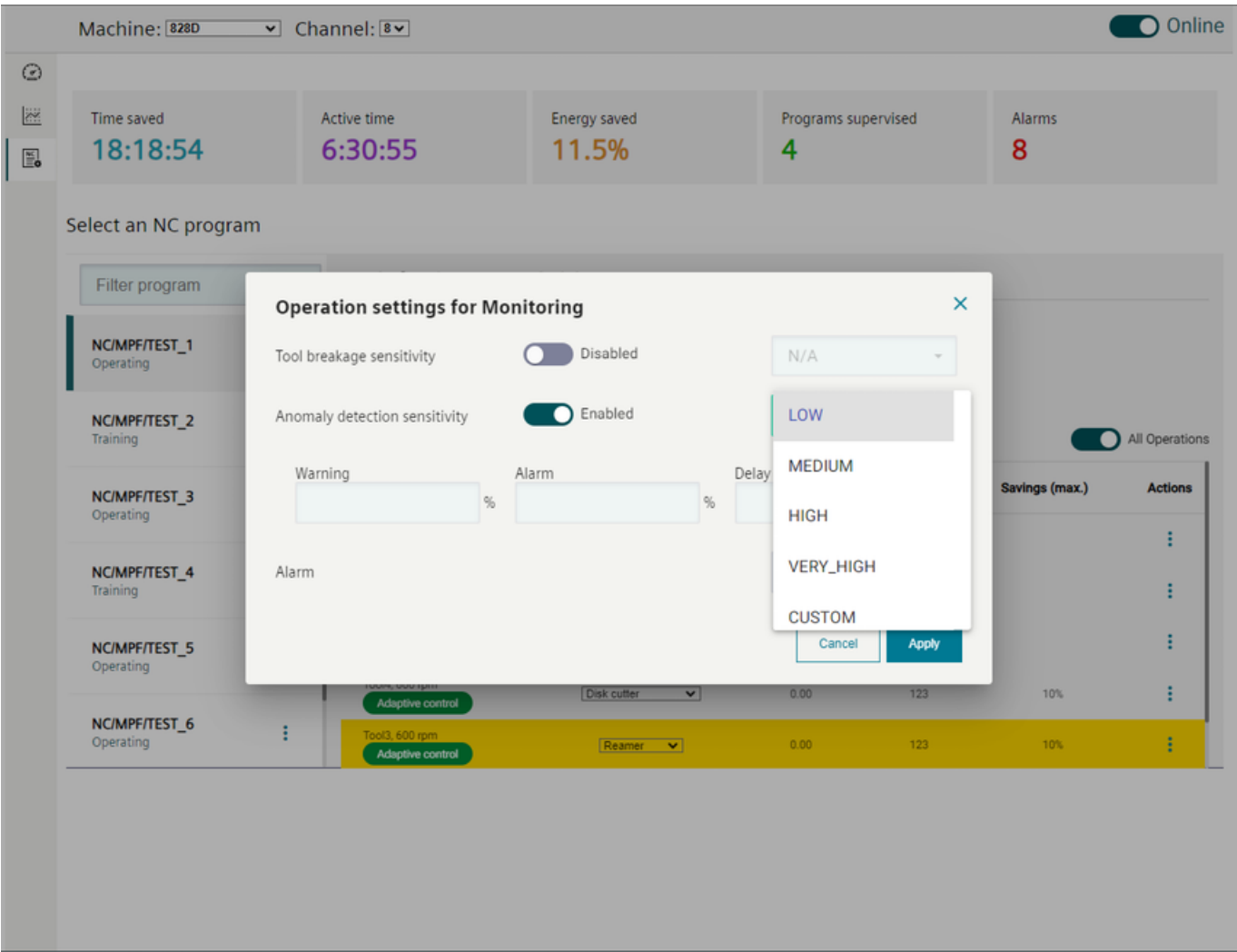Changes in the state or operation settings of any program will take effect when the program is activated the next time.

Figure 3-5   Example: changing operation settings