imcDevices 2.6

imc Operating Software

Technical Data

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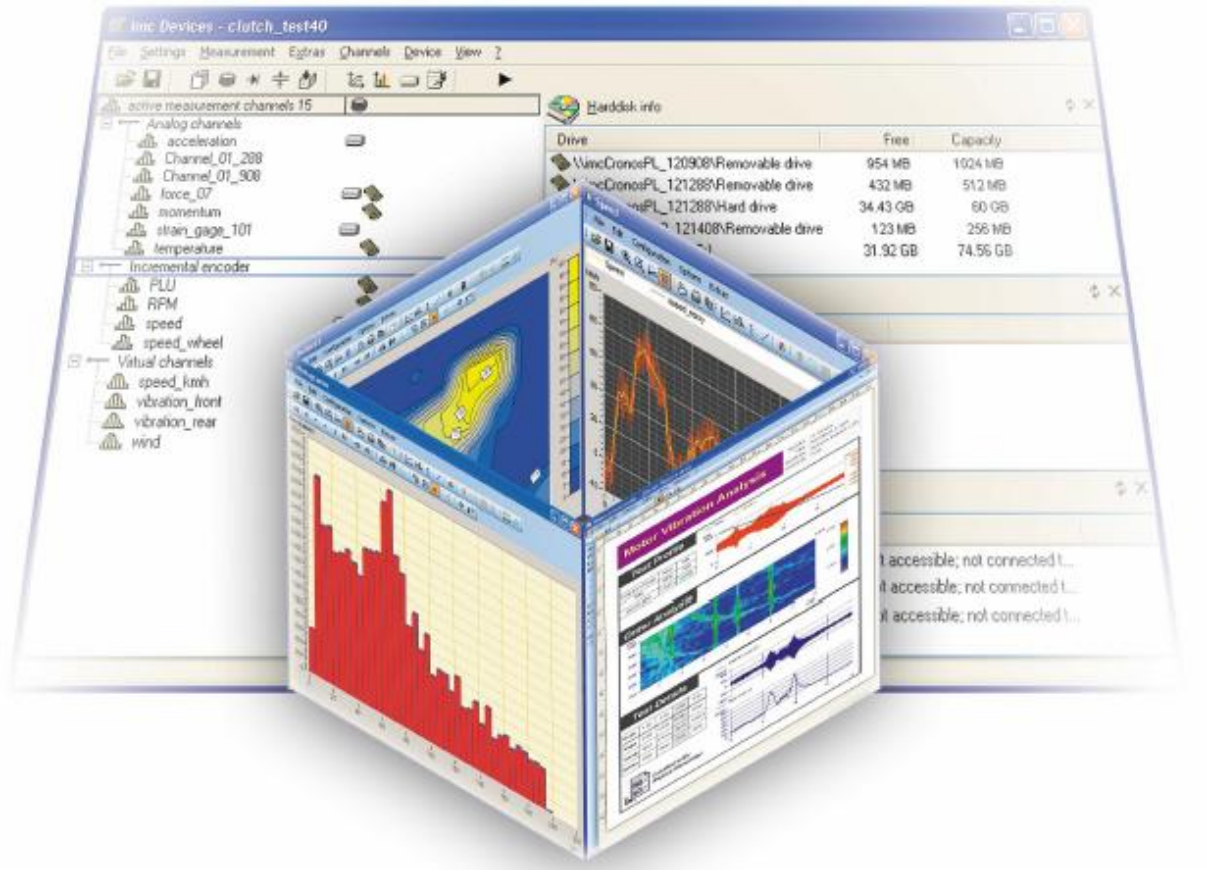

imcDevices 2.6 is the operating software for all Ethernet-capable imc measurement devices. By means of an integrated user interface, the complete measurement parameters can be set and saved for each channel separately. The settings can be saved to the device and/or to a PC. Besides the basic functions, a variety of intelligent, application-specific measurement modes are available. In support of these, imcDevices provides autostart capability and intelligent triggering and control functions. Further, the software provides the ability to conduct real-time analysis and response procedures without requiring any programming.
A wide variety of graphical display options, plus the Report Generator for documenting measurement and analysis results, round out the operating software's functional scope.
Use of the software is additionally simplified by means of application-specific dialogs expressed in measurement engineering terminology, thus making measurement tasks quicker to accomplish.

Special advantages and features:

- unified operating software for **all** imc Ethernet-capable measurement devices;
- imcDevices automatically recognizes the measurement systems' capabilities and offers corresponding configurations (low requirements for training – high reliability for running measurements.
- Setup of an experiment without a specified measurement system;
- Configuration of autostart for independent measurement operation (Diskstart/Autostart)
- Support of sensor recognition using TEDS in accordance with IEEE 1451.4[1].

[1] Sensor recognition with TEDS is hardware-dependent.

For more information, contact:
Berlin: +49 - 30 - 46 70 90 - 0

Basic functions:

Language selection:
The operative language version in Windows is automatically selected. If imcDevices, does not support the language set in Windows, the program appears in English.

Channel settings:
- All of a measurement system's inputs and outputs (analog I/O, digital I/O, Field-bus channels, virtual channels) can be adjusted from a single user interface.
- Channel-by-channel configuration (e.g. name, sampling interval, measurement duration, characteristic curve correction, filters, etc.)

Data processing:
- Data saving can be set for each channel separately
- Saving of specific data in a different file format
- Saving location on the device and/or on a PC and or in circular buffer memory
- Each trigger event can be saved to a separate measurement file
- A channel can be parameterized for internal processing only (and is not saved)
- CAN Log data possible in the file format: Vector(CANAlyser)

File Manager:
- Enhances the Windows Explorer®
- Enables copying and deleting of files and folders from the device's built-in µ-Disk to a PC

Test run comments:
- Entering a comment on the test run can be arranged with a user-friendly structure by means of a "Format template".
- Various entry controls (e.g. text boxes, pop-down lists) are available. If desired, the controls can come with default values.
- The format template is created by the user and is thus adaptable to particular needs.

Trigger-Machine:
- Easy, triggered measurement
- Triggered starting or stopping of the measurement
- Up to 48 independent triggers can be set up
- Pretriggers can also be configured
- Various events (thresholds, ranges, slopes, etc.) can be defined
- Logical combinations of multiple events are also possible
- Any desired number of trigger releases can be set
- Digital output can be set in response to event occurrence
- Test runs and multiple triggering

imcMessaging:

- Devices having the associated interface (e.g. imc CRONOS-PL) are able to send text messages in response to particular events.
- Available triggering events include all signal transitions in the virtual bits and network bits.
- A specific target can be set for each of these message texts. The available message types are email, SMS, and faxes, and any combination of these.
- To send a **FAX**, a modem supporting the G3-Fax Version 2 or 2.0 is required. The fax machine must also be compatible with one of these two standards. For most modern machines, this should be not present any problems. For sending an **SMS**, a **modem** is also required, including a dialup mode which is sufficient. **Emails** can be sent either via a **modem** or via a **network interface**, if an appropriate server can be reached via the network. With the help of services available through the Internet, it is also possible to forward emails as SMS or fax messages. For this reason, a modem is not absolutely necessary for sending an SMS message.
- If a GSM modem or a GSM mobile is used, the SIM card does not need to be activated.

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Adjustment and balancing function:

- Scaling and adjustment settings are carried out on a channel-by-channel basis and displayed for the current experiment.

Sensor Recognition:

- Export of sensor information from TEDS
- Linkage of sensors with channels
- Saving of imported sensor information
- Adoption of sensor information in the sensor database

Sensor Database (optional):

- For the purpose of editing sensor information, the turnkey, system-independent sensor database
- imc Sensors can be integrated into imcDevices. For more information on the sensor database, see the imc Sensors data sheet.

Application-oriented functions (optional):

- Device display (internal display with hand-held terminal)
- Display Configuration / Display Editor
- Timer start
- Autostart /Diskstart
- Synchronized measurement with multiple devices.
- Real-time clock (DCF 77 or GPS radio-controlled clock for synchronization to absolute time)
- Exchange of Display Variables via the network
- Online FAMOS / Personal Analyzer:
  For real-time calculations, the integrated program Online FAMOS is available. This program makes it possible to carry out real-time calculations, digital filtering, control commands, closed-loop control, FFT, order tracking analysis, class counting and much more.
- Synthesizer
- Process vector
- Synchronous Task

Graphical display capabilities:

Report:

- Report Generator, as with FAMOS 6.0

Curve windows:

- Zoom/Rezoom
- Color settings
- Axis settings
- Drag and Drop
- Navigator (for navigating in the curve window)
- Communicator (communication between curve windows and tables in FAMOS)
- Display types: Standard, Y-axes stacked, last value as number, color map, waterfall, table, 3D, bars, print layout

Interfaces:

- COM-Interface
- Ethernet (LAN)
- Modem, external modem for PPP remote control (analog, ISDN, GSM)
- WLAN
- Field-busses (CAN + protocols, ARINC, LIN, FlexRay, AFDX, XCP on Ethernet, J1587)
- Configuration possible via LabVIEW
- CANSAS configuration via imcDevices, Vector database import (optional)
- Configuration via FTP

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Operating system requirements:

The operating software imcDevices has been designed for and tested with the following operating systems:

- Windows 98SE + IE 6.0
- Windows 2000, Windows XP, Windows Vista
- Intel Pentium with 100 MHz or equivalent processor
- Min. 64 MB main memory
- Min. 50 MB hard disk space

Number of devices and supported device families:

Up to 99 devices can be controlled by one PC.

- busDAQ
- C-Series
- imc CRONOS-PL/SL
- SPARTAN
- µ-MUSYCS

Included accessories:

- Extensive documentation and functions reference on CD in PDF and CHM (HTML) formats in German and English
- Device software: Diadem and LabVIEW drivers
- Tools: imc Format Converter, imcDIAdem, xConfig, Repair

References:

- If you have any questions, please contact the imc Hotline.

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