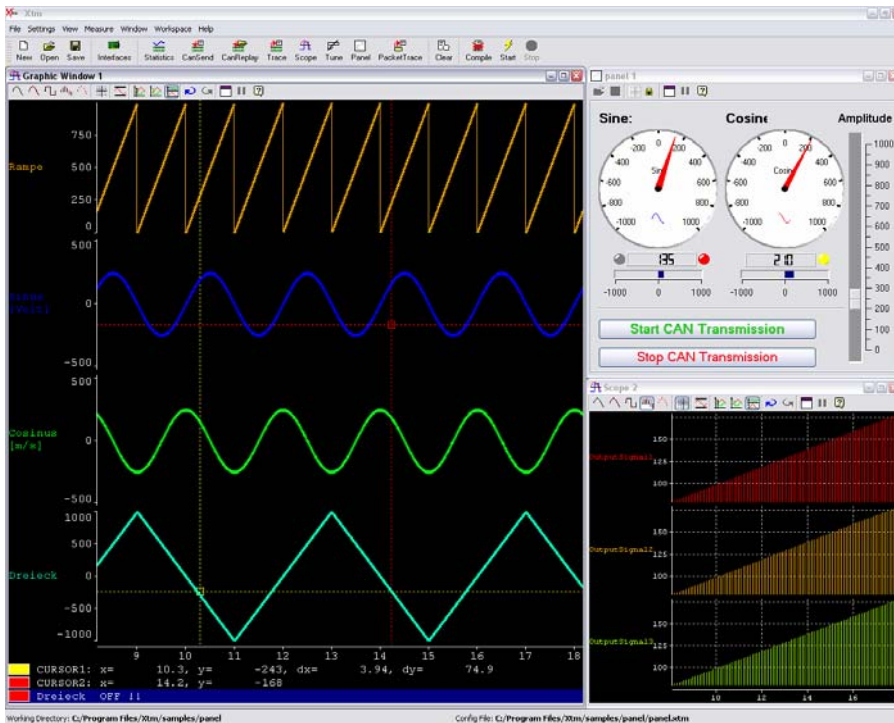


# X<sup>TM</sup>

## Software for CAN-bus Data Acquisition, with Oscillographic & Meter Displays.



### Key Features:

- Support CAN, LIN & Ethernet Interfaces
- Oscillographic display
- Tachometer display
- Bar-graph display
- Digital, LCD display
- Cursors, Zooms
- $\Delta x$  &  $\Delta y$  measurements
- Auto scaling
- Scaling while recording
- Data Acquisition on PC
- Hi Level Triggering
- Script-Programming
- Import of DBC and LDF
- Save & Recall of complete Setups

**Xtm**, a powerful and easy to use software for CAN Bus data monitoring and recording. Data generation and diagnostics are optional for CAN bus development and trouble shooting.

**Xtm** is a new and easy to use Measurement and Analyzer software for CAN bus and other embedded networks used in Automotive systems.

The Software offers the possibility to watch the CAN bus traffic of one or more CAN buses in one or more **Oscillographic Windows**. The recording of the CAN signals can be controlled by easy-to-use **Trigger** functions. CAN signals & messages can be decoded in **realtime** via imported description files in **DBC** or **LDF** format. The contents of the decoded CAN data stream can be displayed in physical values in several visualization objects and recorded **online and continuously** on various PC storage devices.

It's also possible to send self-defined CAN signals and pre-recorded data stream to the CAN bus using the **CAN Send** or **CAN Replay**.

**Xtm** offers powerful and easy-to-use **Graphic Windows** displays for :

- Y/T real time Scrolling Diagrams
- Bar graph, Tacho, Numeric display etc.
- Autos and manual scaling with mouse while recording
- Two cursors measurements with delta X & Y
- Time review with mouse wheel
- X & Y scales adjustment with mouse wheel
- Floating windows & multiple Screens displays
- Multiple PC operations

**Xtm** can acquire an unlimited number of channels in Real Time on your PC :

- Hi level and flexibility Triggers
- Data storage in Binary format
- Data conversion in Caesar, Diadem, RPC & ASCII formats.

**Xtm** has a modular design : On the low level part there are interfaces to the hardware and interfaces which implement the special communication protocols like e.g. CCP or XCP. These interfaces are created and setup during the configuration phase but are not visible during normal operation. Visible are the data and signals which are generated by that interfaces.

**H**ardware interfaces are running independently of the graphical user interface. Each hardware interface has it's own high-priority thread assigned so **Xtm** can take huge advantage of modern multi-core computers. All time critical functions like script-programs, log-to-file, timers, trigger functions, etc. are performed by the high-priority threads. This guarantees the best possible performance. Time resolution of the builtin timers is 1ms.

**W**hen building your own applications, **Xtm** allows you to focus on your real task. **Xtm** provides you a complete event orientated programming environment. With a high quality timer implementation, builtin transport protocols you don't have to bother with writing program code for the basic functions.

## System requirements

**R**ecomended to run **Xtm** is a PC with the operating system Windows NT, Windows 2000 or Windows XP. Depending on the concrete task which has to be done with **Xtm**, one or more of the following hardware interfaces is required:

- CAN hardware from Firma Kvaser AB (**LAPcan, USBcan, PCican, DRVlin**, etc.)
- Serial port
- Ethernet Interface

**A**ll CAN hardware from Kvaser AB, Sweden is supported by **Xtm**. Depending on the installed drivers, **Xtm** also supports the Vector CAN hardware **CANcardX** and **CANcardXL**.

**C**onsequently, **Xtm** is not only a versatile Measurement and Analyzer Software but it's also a sophisticated development environment for distributed embedded network applications. Usage ranges from analyzing network traffic to visualization of the inner states of network nodes.

**O**n demand we can help you to realize custom specific projects based on **Xtm**. This ranges from custom specific setups to complete individual applications. Please ask us!

## Xtm Features

- **Realtime environment** based on high priority Windows-Threads
- **Hardware** interfaces for **CAN, LIN, K-Line, Ethernet** und **Serial Port**
- **Communication-** (**XCP, CCP**) and **transportprotocols** (**ISO15765, VWTP**)
- Several types of **Visualization-Windows**
- **Script-Interpreter** for bus simulation of network nodes
- **Filter-, Generator-** and **Replay-**functions
- **CAN** Statistic like message count, bus load , bus errors
- Comprising **trigger conditions** (on CAN message, signals levels, timer)
- **Modular Design:** New hardware-interfaces and display windows can easily be added in order to provide customized application based on **Xtm**
- Description files in **DBC** and **LDF** format