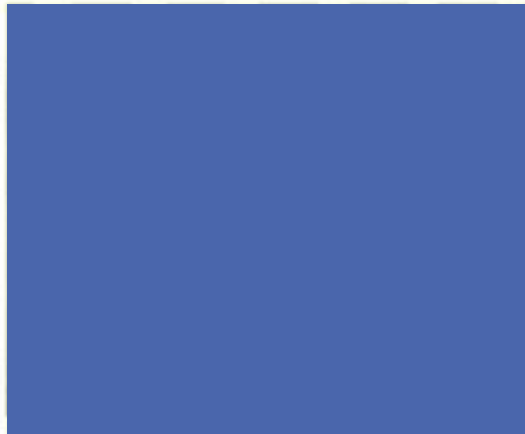
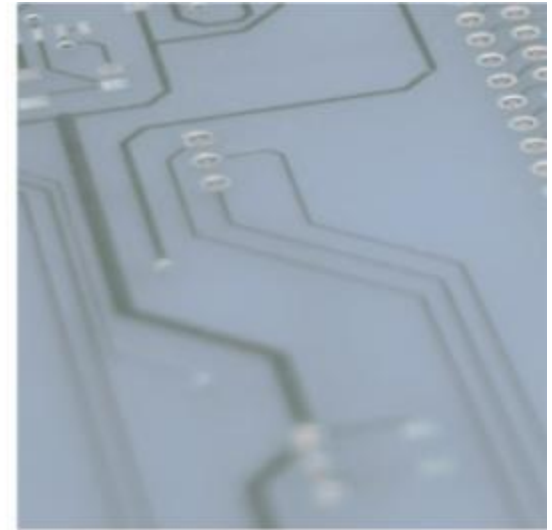
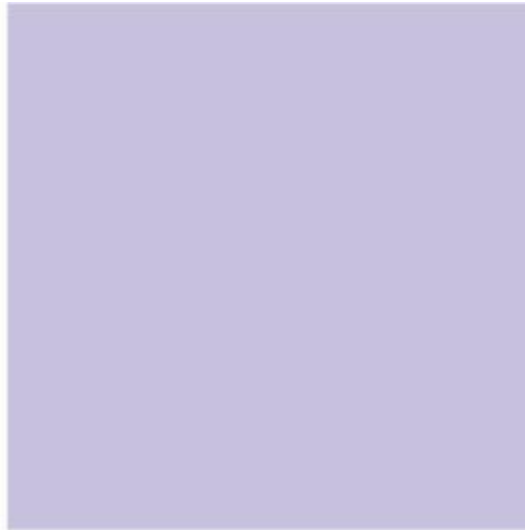
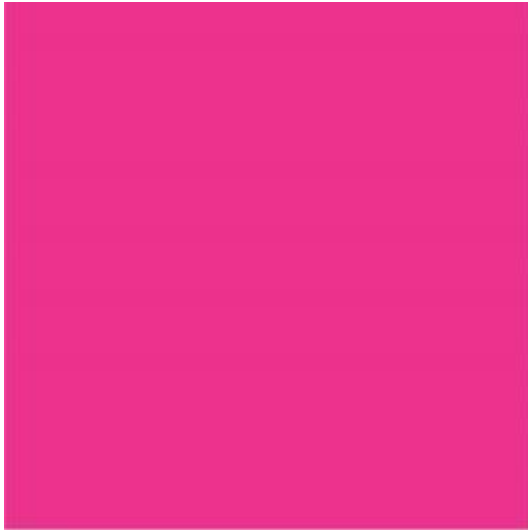


# CanEasy

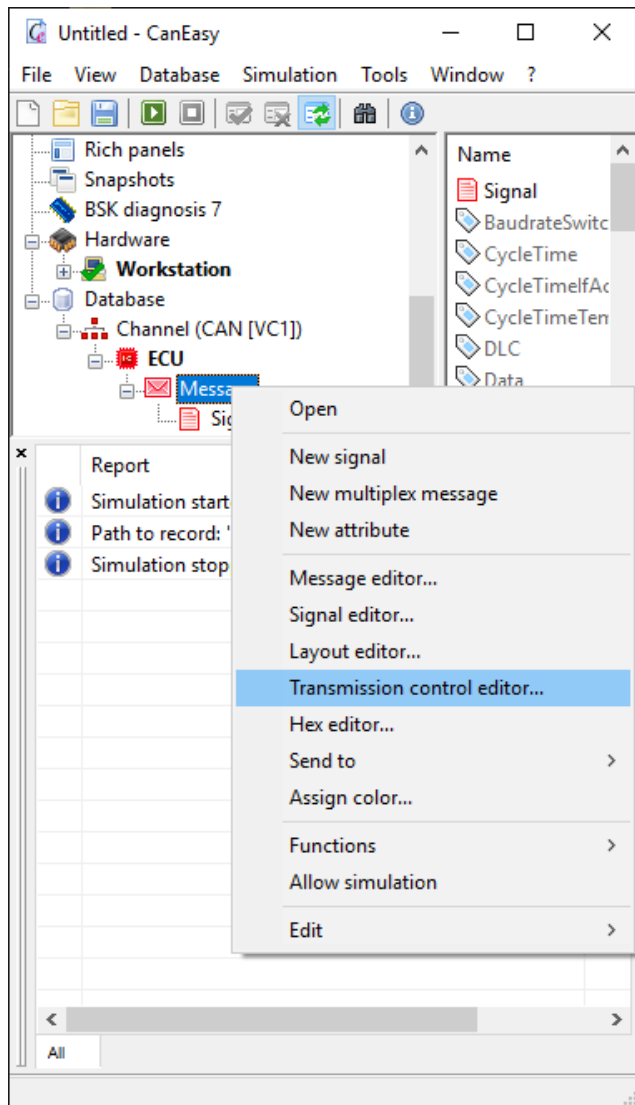
## Transmission Control



- Sends all simulated messages depending on the transmission mode and cycle time
- Can be deactivated and allows changing the cycle time at runtime
- Supports complex send modes which change the send behavior depending on signal values
- Works with high resolution timer for exact timings

# Transmission Control

## – Basics –



- To change the transmission mode of a message you can use the "Transmission control editor"

# Transmission control

## – Editor –

Use these settings to configure, when a message shall be sent automatically by the message generator.  
These settings only concern the automatic message generation. Clicking the appropriate "Send" button in a panel every message can be sent independently.

☒ Send, when message data was set

☒ Send always  
☐ Only if data has changed  
☐ Only on changing signal value (see "Signal evaluation")

☒ Send message cyclically

☒ Send always (with T1)  
☐ Send cyclically only, when at least one signal is active (with T2)  
☐ Send cyclically with T2 if active, else with T1

Cycle time T1:       Cycle time T2:       Time specification in [ms]

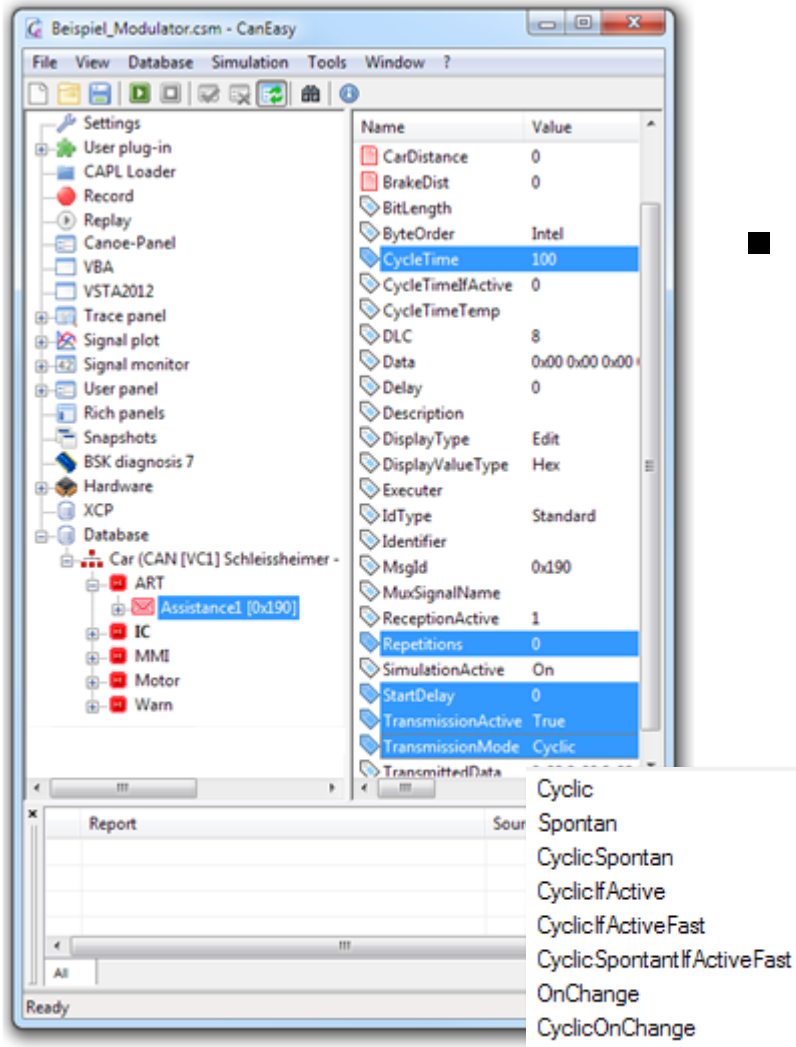
Start delay:       Repetitions:       Minimum interval:

OK Cancel

- Even if message data has not been changed
- Send with different cycle times
- Separation time between two messages
- Time to wait before message is sent first time

# Transmission Control

## – Change attributes–

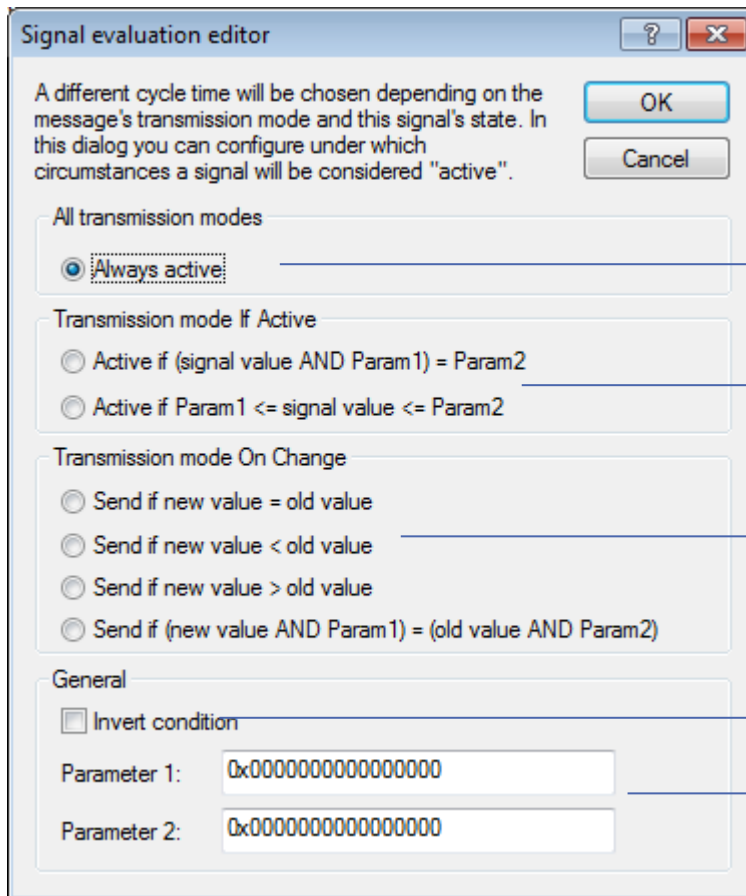


- Using the CanEasy list view you have another possibility to change the transmission mode of a message

➔ TransmissionMode

# Transmission control

## – Signal evaluation editor–



Signal evaluation editor

A different cycle time will be chosen depending on the message's transmission mode and this signal's state. In this dialog you can configure under which circumstances a signal will be considered "active".

OK Cancel

All transmission modes

☒ Always active

Transmission mode If Active

☐ Active if (signal value AND Param1) = Param2

☐ Active if Param1 <= signal value <= Param2

Transmission mode On Change

☐ Send if new value = old value

☐ Send if new value < old value

☐ Send if new value > old value

☐ Send if (new value AND Param1) = (old value AND Param2)

General

☐ Invert condition

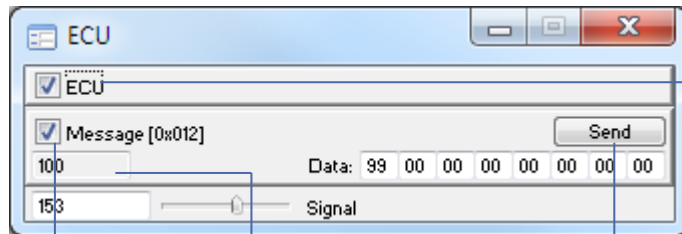
Parameter 1: 0x0000000000000000

Parameter 2: 0x0000000000000000

- Message is active if at least one signal is active
- Signal is always active
- Signal is active compared with parameters
- Signal is active compared with old value
- Invert active state
- Parameters to be compared with signal value

# Transmission control

## - Panel -



- Change "TransmissionActive" for all message of this ECU
- Send message independent to transmission mode
- Message cycle time
- "TransmissionActive" (only for cyclic messages visible)

# Transmission control – Demo

## Spontan and Cyclic

- Create minimal configuration  
[Channel connected to Schleissheimer Virtual CAN] and start simulation
- Create new trace window
- Create new control unit, message and signal
  - > Property TransmissionMode of message is set "Spontan"
- Change signal value in list view
  - > The message containing the signal was sent
- Change TransmissionMode to "CyclicAndSpontan"  
and set CycleTime to 100
  - > CanEasy starts sending this message cyclicly
- Open context menu and unselect "Send active"
  - > CanEasy stops sending this message
  - > You see warning overlay icon as feedback
  - > Also changing the message data has no effect in this case
- Open panel and press send button
  - > Message will be send independent to the TransmissionMode property

# Transmission control – Demo

## Changing the Cycle Time

- For timeout tests you can change the cycle time of a message inside of the panel
- Open context menu and select "Use alternative cycle time"
  - > Edit field is writable and slider to change cycle time appears
- Change focus to slider and use key right to modify it
  - > Cycle time of message is adjusted at runtime
- Deactivate "Use alternative cycle time"
  - > Cycle time is reset to the default value

Thank you for your attention!

---