

# Java - CanMonitor



Bc. Petr Kubašta  
[kubaspet@fel.cvut.cz](mailto:kubaspet@fel.cvut.cz)

# Zadání

- Převody datových reprezentací (Model)
- Propagace do View



# Řešení

- Přidání statické třídy
  - (transformace **Model <-> View**)
  - cca. 500 řádků
- Problém - unsined Int (64 b.)
  - java.math.BigInteger
- GUI
  - intelliJ idea – gui designer



canmonitor - [~/pokusMonitorOnly/canmonitor/canmonitor] - CANopen monitor - Beta 0.9 can/monitor/CANopenDevicePanel.java - IntelliJ IDEA 11.0.2 A 11.0.2 Jkular

File Tools

CAN node 1

1000 - device  
1001 - error r  
1003 - pre-de  
1004 - number  
1005 - COB-ID  
1006 - commu  
1007 - synchr  
1008 - manuf  
1009 - manuf  
100a - manuf  
100b - Node l  
100c - guard 1  
100d - life tim  
100e - COB-ID  
100f - number  
1010 - store p  
1011 - restore  
1014 - COB-ID  
1200 - Server  
1201 - Server  
1400 - RPDO  
1401 - RPDO  
1402 - RPDO  
1403 - RPDO  
1404 - RPDO  
1600 - RPDO  
1601 - RPDO  
1602 - RPDO  
1603 - RPDO  
1604 - RPDO  
1800 - TPDO  
1801 - TPDO  
1802 - TPDO  
1803 - TPDO  
1804 - TPDO  
1a00 - TPDO  
1a01 - TPDO

11110100 00000001

Name Value Description

Name	Value	Description
parameterName	guard time	
subNumber	0	
objectType	7	VAR
dataType	1	UNSIGNED16 (2)
accessType	1	READ/WRITE
pdoMapping	false	
lowLimit		
highLimit		
defaultValue	0x00f4	

Upload Download BIN\_RAW Node 1

OD Log

disconnected

The screenshot shows a software interface for monitoring and managing CANopen nodes. On the left is a tree view of node objects, including device, error, pre-defined, number, COB-ID, communication, synchronization, manufacturer, and various PDO types. The main window displays a table of parameters for node 1, specifically for object 1003. The table has columns for Name, Value, and Description. A specific row is highlighted with a red box and a red arrow pointing to the 'Upload' button. Another red arrow points to the 'BIN\_RAW' dropdown menu. The top bar shows the title 'canmonitor - [~/pokusMonitorOnly/canmonitor/canmonitor] - CANopen monitor - Beta 0.9 can/monitor/CANopenDevicePanel.java - IntelliJ IDEA 11.0.2 A 11.0.2 Jkular' and standard file and tools menus.

# V praxi

```
Exception in thread "AWT-EventQueue-0" java.lang.NullPointerException
  at
ocera.rtc烷.monitor.CANopenDevicePanel.initGui(CANopenDevicePanel.java:179)
  at
ocera.rtc烷.monitor.CANopenDevicePanel.<init>(CANopenDevicePanel.java:124)
  at ocera.rtc烷.monitor.CanMonitor.openEDS(CanMonitor.java:346)
  at ocera.rtc烷.monitor.CanMonitor.access$000(CanMonitor.java:56)
  at ocera.rtc烷.monitor.CanMonitor$1.actionPerformed(CanMonitor.java:272)
  at org.jx.xmlgui.XMLAction.actionPerformed(XMLAction.java:20)
  at javax.swing.AbstractButton.fireActionPerformed(AbstractButton.java:2018)
  at
javax.swing.AbstractButton$Handler.actionPerformed(AbstractButton.java:2341)
  at
javax.swing.DefaultButtonModel.fireActionPerformed(DefaultButtonModel.java:402
)
  at javax.swing.DefaultButtonModel.setPressed(DefaultButtonModel.java:855)
```



# Zhodnocení

- Datová transformace (model) + test
  - 500 řádků
  - Povedlo
- Idea Gui designer
  - Záhadně závislé na nastavení IDE
  - 20 řádků
- Implementace nepřijata



# Spolupráce

- Kladná
  - Přístup do repozitáře
  - Komunikace bez latencí
- Zlepšil bych dokumentaci

