Current status of VDMTools

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Topics

- **Current CSK VDMTools**
  - English URL opened
- **The Japanese largest VDM project**
  - Felica Networks
- **VDM expansion strategy**
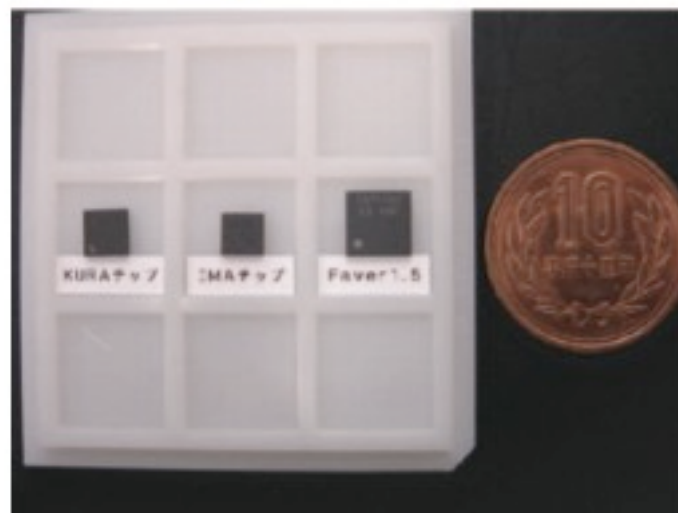 - VDM partner
- **VDM team status**

Current CSK VDMTools

- OS
  - Mac OS X, Linux, Windows 2000 / XP
- Current Version
  - VDM-SL 4.1, VDM++ 7.1
  - Lite(http://www.vdmtools.jp/en/), Academic, Full version
- Improvements from IFAD VDMTools
  - improved the interpreter speed by 100 times or more
  - fixed over 166+1 bugs

The Japanese largest VDM project

Felica Networks

Mobile Felica Chip

Mobile Felica Chip

VDM++ API specifications for IC card in mobile phone

- named お財布携帯 "Oh sigh foo k tie"

- I came to Toronto by touching this mobile phone

- IC money cards and their charge machine

- tickets for trains and flights

- touch and go

- points card of shops

JR ticket examinatio machine

Results

- Method
  - Japanese documents + UML + VDM
- Specification
  - over 100,000 lines (677 pages) of VDM++
    - modified 182 times
  - coverage 100% by over10,000,000 test cases
- Program
  - 110,000 lines C++ firmware
- Project
  - 56 members. They didn't know FM!
  - on schedule in 3 years project

VDM expansion strategy

- ❧ Just idea, but authorized ...
  - ❧ CSK needs VDM partners in the west
- ❧ The reason
  - ❧ CSK don't have will to invade abroad :-)
  - ❧ Japanese users require
    - ❧ there are many users in U.S.A.
    - ❧ and in Europe too
    - ❧ but they don't have interest on other world :-<

Last week in Yasukuni Shrine

For the VDM world expansion

Gold Partner can do VDM business with free of charge.
VDMTools have to be free of charge.

Partner can ...

Activities Partner	Do Business	Distribute Binaries	Modify Tools	Develop Relating Programs	Publish articles
Silver	Yes	Yes	No	Yes	Yes
Gold	Yes	Yes	Yes *2	Yes	Yes
Academic	No	Yes *1	Yes *2	Yes	Yes

※1 It is acceptable only for a research or an educational purpose.
※2 It is acceptable under the non disclosure agreement.

VDM team status

- We are $7 + 3 \times 0.5 = 8.5$ / month
    - 2 executive general managers
    - 0.5 manager
    - 1 leader
    - 1 strange genius programmer
    - 3.5 engineers
    - 0.5 the best consultant in Japan
- status
    - 4.5 kidnapped by "Where's specifications Project" :-)
    - VDMer = 3.5 :-<
    - VDM became famous in Japanese software industry
        - But, many of Japanese don't decide before defeat :-)