

# Smart card cloning is easy! (GSM SIMs)

Charles Brookson

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## The stages

- Scan the SIM to extract IMSI (just read it!) and Ki, the 128 bit key (for COMP128-1 only, so far....)
- Now put the IMSI and Ki into some card software
- And then copy it into a new SIM card
- We now have a cloned SIM

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## First we need to read the SIM

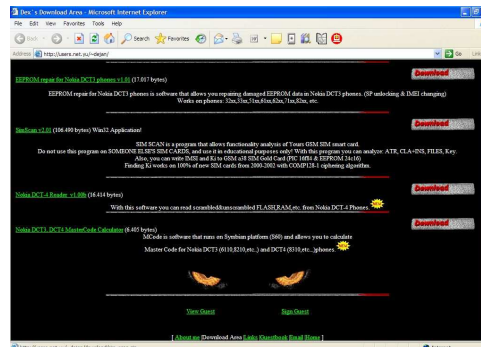
- A small reader, connected to a serial port.  
Home made for \$5



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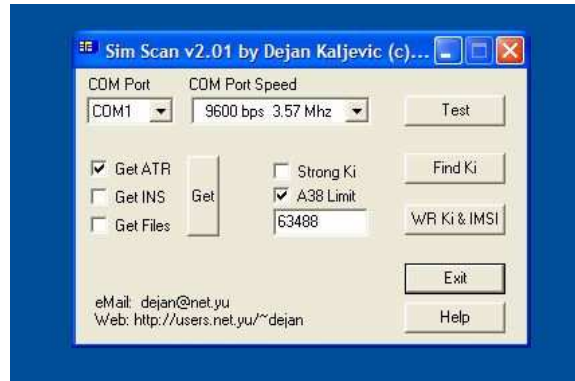
## Then we need to find Ki

- We need Ki and IMSI, we can use Simscan from Dejan's pages that will break COMP128-1



## Here's the software

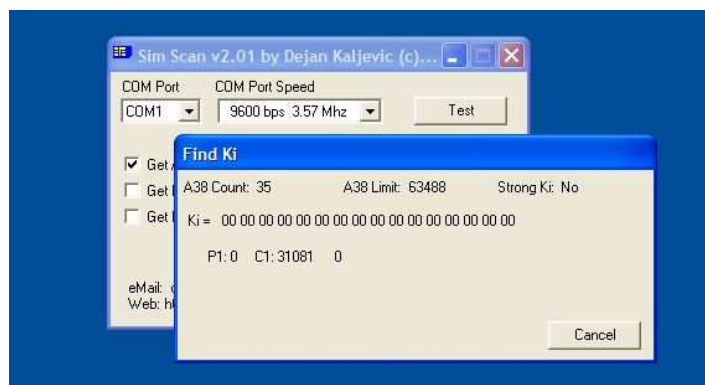
- Simscan ready to go....



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## Now scanning the card

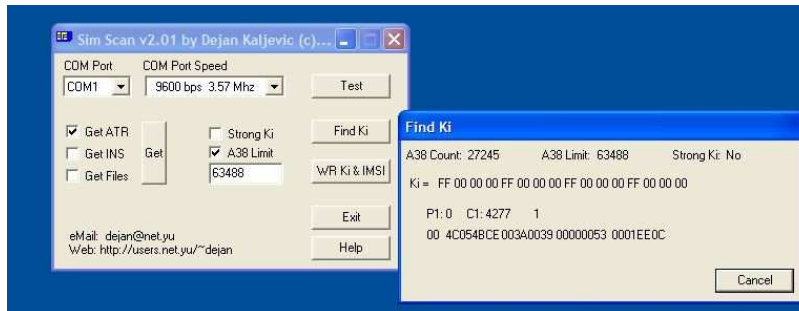
- Searching for the key



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# Getting there

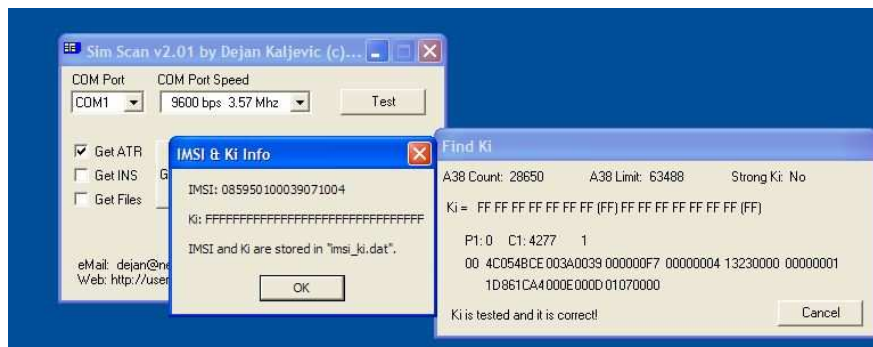
- The result slowly appears (this one looks interesting!)



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# Now we have it!

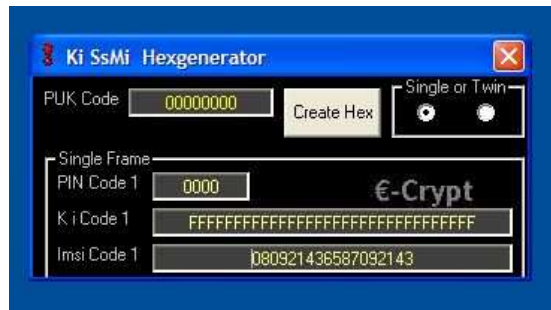
- This was a SIM supplied to delegates at a meeting, Ki is a bit obvious isn't it!



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## Now to create the software

- Using some more software from the Internet called KiSsMi we create the software for the card



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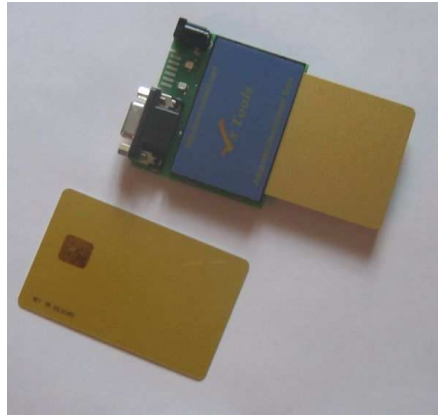
## We now need to program the SIM

- We use a single chip PIC computer which is in a SIM shaped package (GOLD CARD)
- We use a smart card programmer (easily bought on the Internet)
- And then we program up the card....

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## The programmer.....

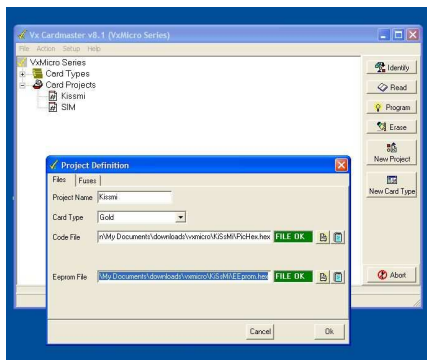
- With the card ready to go



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## The software for the programmer

- Just load in the software we created with KiSsMi using VxTools



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## And we now have a cloned card

- **Note:** *My way is rather long!* Many people sell the equipment cheaply...
- Only works with COMP128-1
- *So now please think about changing to a new algorithm.....*



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