

Soil

a fresh look on object oriented databases

Soil - the sequel of last year's talk

There's no magic...

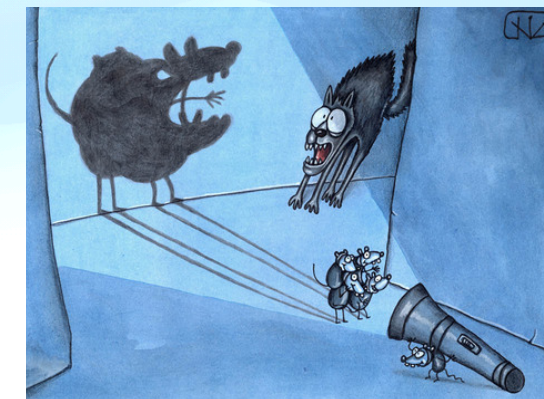
... until you talk about databases

Norbert Hartl ESUG 2022

Soil

What it needs to be an OO database?

- ACID transaction (with MVCC)
- Regional file locking (row-level locking)
- serialization/materialization
- A b-tree implementation for indexing
- 100% smalltalk



Database

The acceptance of failure in developing cheap and fast non-volatile memory

"You don't want to send your data to a program. What you want is to send a little program to your data."

D. Henrichs , ESUG 2016 Prague

"Norbert,
Before you go off and invent a data base , you might take a look at GemStone
and RemoteServiceReplication[1] ..."

D. Henrichs on pharo-dev mailing list Aug. 2022

How people think a database should be



How I think a database should be



What it is right now

- 3 packages
 - Soil-File
 - Soil-Serializer
 - Soil-Core
- 99 classes
- 6064 lines of code

What it can do now

- ACID transactions (almost)
- MVCC (multi version concurrency control)
- Binary search indexes (skip list, BTree)
- Journal based committing

demo time

What it should do later

- standalone serializer
- multi-index collections
- geo-, fulltext-, *younameit*-index
- query planning