# Mastering VistA's Data

## The VA's Trillion Triple Challenge

## FileMan Query Language

*a* URI for every type and record
http://vista.caregraf.org/2-40

COUNT, SELECT, DESCRIBE

Concept-Aware

Hierarchal,
Graphical

**Any VistA***

FMQL

= Private and Secure    *VistA, RPMS, (CHCS)

*Patient*    To and From:
CCD, HDR, GUI ...

Institution    Per Hospital:
Wards, Drugs, ...

Know-how    Mainly Shared:
VUID/Drug-Drug/
Lexicon/Templates ...

System    Builds, Passwords,
Logs, Interfaces ...

—— Schema ——

### Schema Numbers

| | |
|---|---|
| Files | FOIA: **2446**/3170<br>WorldVistA: 2394 |
| Fields | **8631** References<br>37337 Literals<br>9534 Enums<br>**3530** YES/NOs |
| Concepts<br>OV - FOIA | NDF: **17989/22754**<br>Lexicon: 65956 - 480053 |
| Reuse | 59 types have "zip"<br>33 "date-entered"<br>206 "icd diagnosis" |
| Patient<br>References | 44 variations: "patient name",<br>"patient file pointer", "patient",<br>"name", "link to file 2" ... |

### "Lulu" Numbers

| | |
|---|---|
| Patients | 1646<br>mix of test and de-identified |
| Statements | **6,146,669 triples** |
| PIKS types | 496/321/32/0 |
| CPT/ICD | 25/ 13 types reference |
| Enums | 1362 types, 2563 values, 394<br>YES'<br>'Order Action': 27425<br>**'Experienced<br>Depressions': 14** |

How will the VA choose to manage
thirty years of health-care
statements?

# Whole VistA Prescription or Careful VLER/NwHIN Selection?

**Name Maps:** (14/29) daysSupply/days supply, doses/medication routes, expires/expiration date, fillsAllowed/of refills, lastFilled/last dispensed date, orderID/placer order, ordered/login date, orderingProvider/provider, pharmacist/ finishing person, prescription/rx_, quantity/qty, routing/mail window, start/issue date, stop/expiration date

**Hard Coded:** (2/29) type, vaType     **No sample data**: wbc results, drug allergy indication, head and or neck cancer ...

| | VPR | VistA (VSS) | Comment/"Lulu" | VPR Example |
|---|---|---|---|---|
| 1 | currentProvider | provider \| fill/provider | ALWAYS | code='155' name='PEPPER,TRISH' |
| 5 | [facility] | **clinic (52/5)** | \|.\| \| \| \|........\| \| \|............ <br> Traversal <br> Why not **division**? | code='055A0' name='MEANINGFUL EAST CAMPUS' |
| 6 | fills/fill | refill (52.1), partial (52.2) | If refilled <br> 2 files to one markup | fillDate="3080426" fillRouting="W" releaseDate="3080426" fillQuantity="180" fillDaysSupply="90" |
| 7 | **fillCost** | | COMPUTED | value='2.466' |
| 9 | **fillsRemaining** | | COMPUTED | value='2' |
| 10 | form | pharmacy orderable item (52/39.2) | ALWAYS <br> Traversal | value='TAB' |
| 11 | id | IEN+ | ALWAYS | value='48R;O' |
| 13 | location | clinic (52/5) | \|.\| \| \| \|........\| \| \|............ | code='24' name='3 SOUTH - TELEMETRY' |
| 14 | name | pharmacy orderable item (52/39.2) TRAV | ALWAYS | value='METOPROLOL TARTRATE TAB' |
| 20 | products/product | **drug (52/6)** | ALWAYS <br> Traversal <br> Too much, just like VistA | <product code="3618" name="METOPROLOL TARTRATE 50MG TAB" role="D"> <br> <class code="BETA BLOCKERS/RELATED"/> <br> <vaGeneric code="700" name="METOPROLOL" vuid="4019836"/> <br> <vaProduct code="4055" name="METOPROLOL TARTRATE 50MG TAB" **vuid="4004608"**/> |
| 23 | sig | sig (52/10) \| sig1 (52/10.1) | ALWAYS | TAKE ONE TABLET BY MOUTH TWICE A DAY |
| 25 | status | **status (52/100)** | ALWAYS | value='historical' |
| 28 | vaStatus | **status (52/100)** | ALWAYS | value='Expired' |

"Successful mitigation is dangerous ... deploying methods once used to resolve smaller, simpler problems to solve larger, more complex issues"
The Watchman's Rattle

"I wouldn't give a fig for the simplicity on this side of complexity; But I would give my life for the simplicity on the other side of complexity."
Oliver Wendell Holmes, Jr

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