

DATA MODELING

STATE OF THE UNION 2016



Karen Lopez @datachick



YES, PLEASE DO TWEET/SHARE TODAY'S EVENT

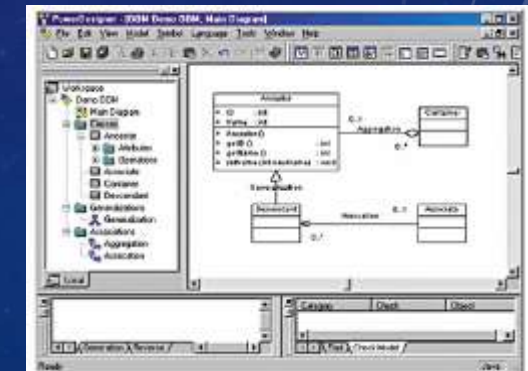
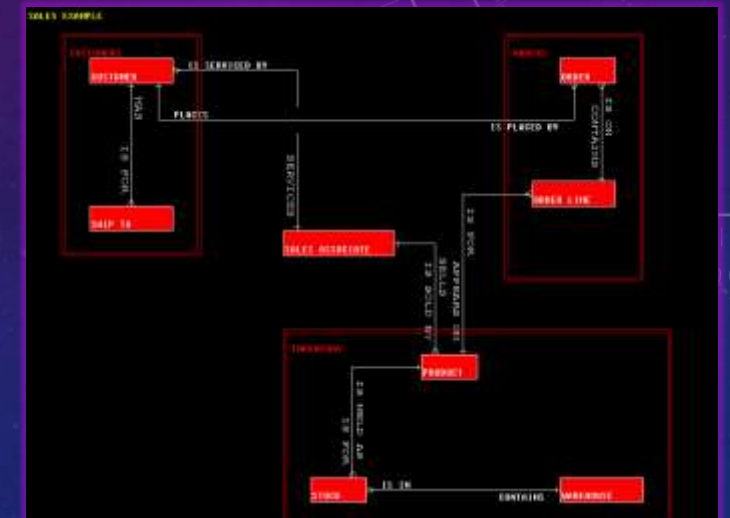
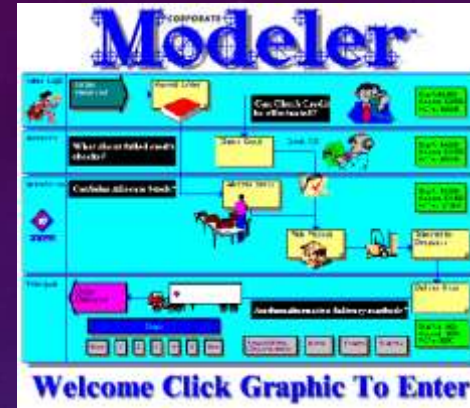
@DATACHICK

POLL: AUDIENCE
WHO ARE YOU?



POLL: DM TEAMS

FULL TIME DATA MODELERS (USING A BROAD DEFINITION OF THIS ROLE): HOW HAS THIS NUMBER CHANGED IN YOUR ORGANIZATION?



DATA MODELING TOOLS

WHERE HAVE WE BEEN, WHERE ARE WE NOW

THANKS TO

David Dichmann, SAP

Matt Creason, SAP

Neil Buchwalter, CA

Danny Sandwell, CA

Joy Ruff, Embarcadero/Idera

Ron Huizenga, Embarcadero/Idera

THANKS TO

Anonymous Data Modelers
working in the trenches 😊

TOOLS



Other DB
Support

Portals &
User
Engagement

Licensing



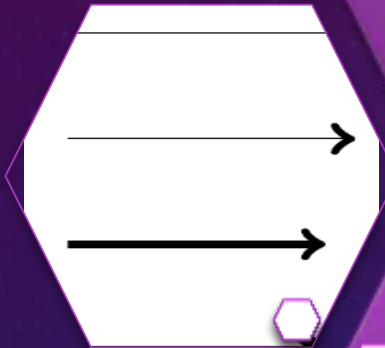
RDBMS
Support



User
Experiences

Notation

Special
Features



WHAT'S NEW ER/STUDIO?

Business Data Objects.

- A way to group entities and table for reuse. Expand or contract. For example, All the ORDER entities/tables together.

Merging Teamserver and repository databases

- No more syncing.

Agile change
management features.

WHAT'S NEW POWERDESIGNER?

Business glossary

Enterprise wide
data model

Collaboration more
important

Conceptual,
enterprise wide,
single version of the
truth, governance

WHAT'S NEW ERWIN?

data governance specific features and capabilities

- *metadata – wherever that metadata is created and/or is*
- *operationalize governance rules and processes*
- *create transparency, enable control and ensure consistency of data assets*

VENDOR COMMENTS

Big vendors don't want to be in specialized Data Modeling Tool business any longer

Tying data models to architecture, into the business, data decisions, KPIs, connections at that level is the focus

Vendors do a good job around their own RDMBs

On Open Source tools: You get what you pay for. While true open source can be a good approach to leverage common or proven technical components, the value is in how those components are integrated and orchestrated for the end user.

VENDOR COMMENTS – OPEN SOURCE TOOLS

You get what you pay for. While true open source can be a good approach to leverage common or proven technical components, the value is in how those components are integrated and orchestrated for the end user

Current FOSS has much more restricted set of capabilities. Considerable resources and R&D is required to do full round trip data modeling and business user functionality.

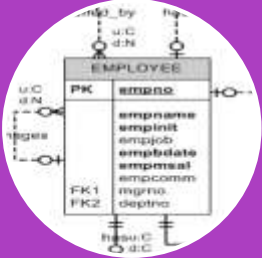
VENDOR COMMENTS – NOSQL DATA MODELING

Industry leaning towards UML-models and tools to support non-relational databases

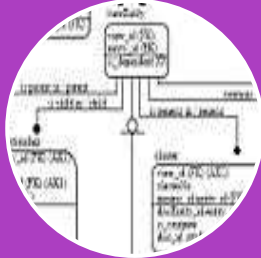
We believe that the prevalent use cases for NoSQL/“Big Data” data modeling are documentation, analysis and integration.

The lack of “schema on write” has allowed NoSQL practitioners to avoid the time-tested rigor of data modeling. As NoSQL modeling use cases mature (as in the early days of RDBMS) new notations and/or use of modified ER notations will be developed that better serve this market.

NOTATION



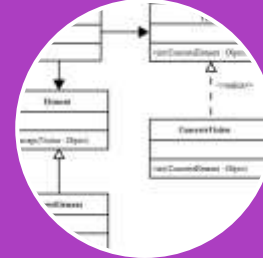
IE/Crowsfeet



IDEF1X



Barker



UML Class
Diagram



Pretty, pretty
clouds



DATABASE SUPPORT

Traditional DBMSs

- SQL Server
- Oracle
- DB2
- Sybase
- MS Access & FoxPro
- Informix

Other Datastores

- MySQL
- Windows Azure SQL DB
- Hadoop/Hive
- MongoDB
- Vertica*
- XML
- Netezza
- Greenplum
- Teradata

LICENSING

Machine/MAC

Named Users

Floating/Concurrent/Shared

Cloud Subscriptions/DMaaS



POLL: DEVICES

HOW MANY DEVICES DO YOU HAVE (BOTH
WORK AND PERSONAL) THAT YOU'D WANT TO
VIEW OR USE DATA MODELING TOOLS ON?

PORTALS & USER ENGAGEMENT

Publish or Perish



- ☐ More than just printing
- ☐ Clickable
- ☐ Self Service Model Use

User Engagement



- ☐ User Commenting
- ☐ User Modeling
- ☐ Voting
- ☐ Sharing

Modeler Support



- ☐ Alerting and Monitoring
- ☐ Interactions
- ☐ Timeshifting
- ☐ Fewer Meetings, More Modeling



POLL: MODELING PORTALS
DO YOU HAVE A DATA MODELING PORTAL?

SPECIAL FEATURES (KAREN'S WISH LIST)

TIME FOR YOU

What special features would you like to see in your data modeling tools?

What features do you have that you love to use?



SPECIAL FEATURES

Better Integration w/Other products



- ☐ More User Engagement
- ☐ More love for data models
- ☐ More Modelers
- ☐ True data asset support

Touch optimized



- ☐ Gestures
- ☐ Finger-ready 😊
- ☐ Inking features

More non-Modeler interaction



- ☐ Commenting
- ☐ Updating with workflow
- ☐ Enhanced visualizations
- ☐ KPIs, Dashboards, Reporting

SPECIAL FEATURES

Greater support for non-relational
datastores and databases



☐ Round trip, not just import

☐ New notations?

☐ What Else, Panelists?

Enhancements to existing
notations



☐ Arcs (Or)

☐ Subtyping

☐ What Else, Panelists?

More platforms



☐ Linux

☐ Mac

☐ Mobile Devices

METHODS AND APPROACHES

OLD, NEW, BORROWED, BLUE

DATA MODELING METHODS AND APPROACHES

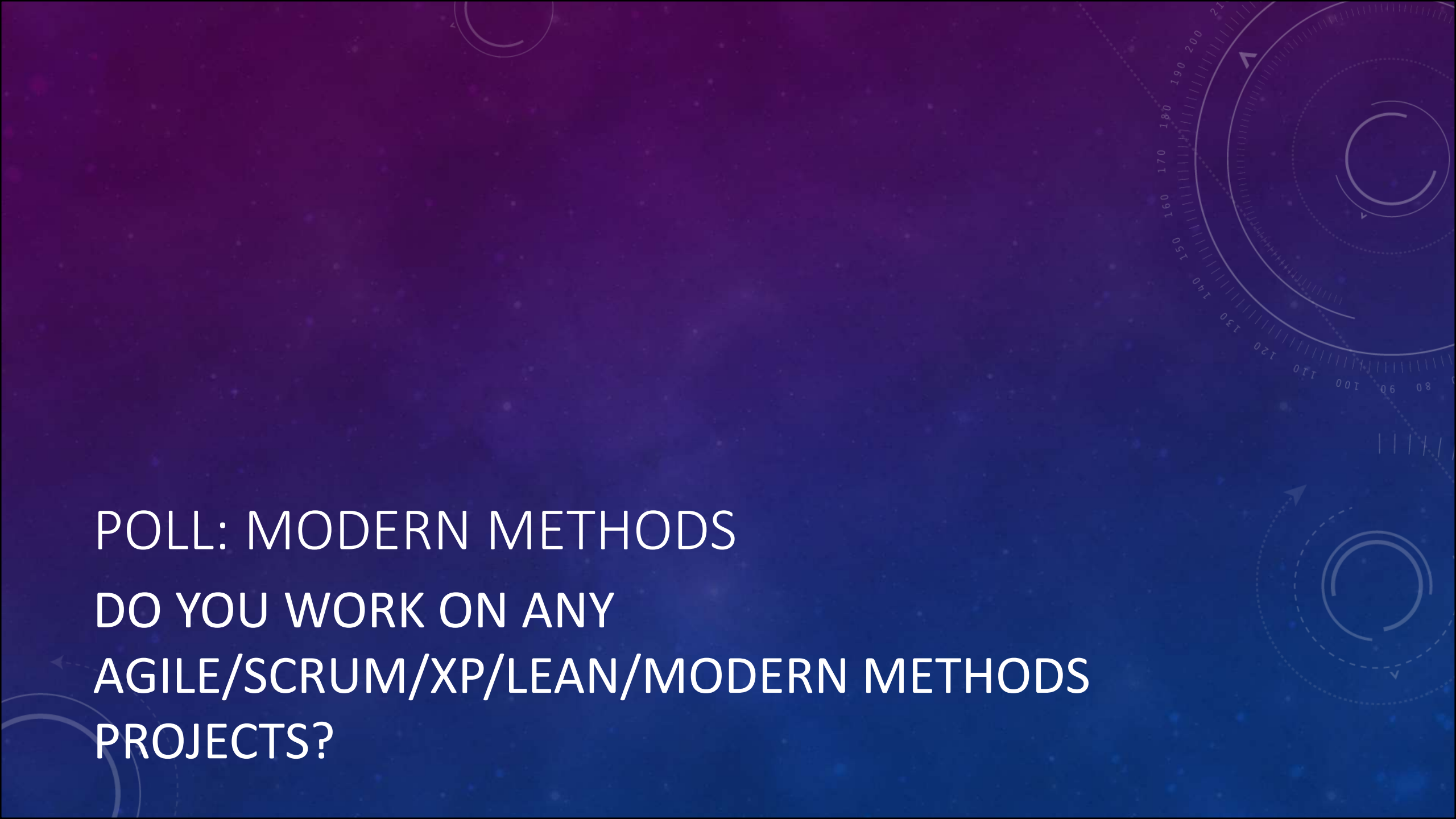
Traditional Waterfall/Strict Waterfall

Agile/SCRUM/XP

Data Gov/Stewardship/Business

Analytics/NoSQL

Fragile/WaterBoard/SCUM/NoModel



POLL: MODERN METHODS
DO YOU WORK ON ANY
AGILE/SCRUM/XP/LEAN/MODERN METHODS
PROJECTS?

DATA MODELING RESOURCES

MORE THAN JUST TOOLS....

DATA MODELING RESOURCES

Staffing

Machines

Devices

Gadgets

THE INDUSTRY



Acquisitions...and non-Acquisitions

Community Editions

Open Source

Non-Windows Data Modeling Tools

Web/Browser-based

TIME FOR YOU

Did the acquisition news
affect your data modeling
programs in 2015?

How?



THE DATA MODELING COMMUNITY



User Groups
Forums and sites and online communities
Twitter and social media
“Experienced”
Conferences & Events

INDUSTRY & COMMUNITY: KAREN'S WISH LIST

More Sharing

- Blogging (So needed)
- Be in the discussions
- Engage with bloggers and others
- Tips & tricks

More Contributions

- No BOK
- Standards Bodies (ISDMs, DM standards)
- User Groups (DAMA, SQLPASS, IDUG, ODUG, etc.)
- Speakers (EDW, other events)
- Panelists (RIGHT HERE!)

TIME FOR YOU

Where do you get help for
data modeling issues?

Have you considered
blogging/sharing your tips?



TIME FOR YOU

What's keeping you from
being part of online data
modeling discussions?

{yes, time...what else?}



TIME FOR YOU

What data modeling resolutions will you be making for 2016?

Do you see more data modeling or less in 2016?



KAREN'S OBSERVATIONS

Vendors are placing greater emphasis on strategic, enterprise data projects in their toolset feature lists

Physical data modeling features still required, but NoSQL and product variations impact how much can be done

Data Modelers are getting old. We aren't recruiting new professionals and we are running short on experienced people as retirement becomes real.

Training is mostly self-serve, with just a handful of organizations offering formal hands-on training

Professional standards are still being developed and driven by vendors. This is not how a profession should lead

HAVING SAID THAT...

2016 – Still the Year of Data

Exciting innovations in the data world mean business is more focused on data projects and technologies.

Tablets, Touch Screens, VR, AR will make a difference in how people want to work with data and metadata

It's still an exciting time to Love Your Data

ENTERPRISE DATA WORLD

THE TRANSFORMATION
TO DATA-DRIVEN
BUSINESS STARTS HERE

SHERATON HOTEL & MARINA • SAN DIEGO, CA • APRIL 17-22, 2016

[HTTP://EDW2016.DATAVERSITY.NET](http://EDW2016.DATAVERSITY.NET)
[HTTP://NOSQL2016.DATAVERSITY.NET/](http://NOSQL2016.DATAVERSITY.NET/)

HALF DAY: 7 DATABASES IN 170 MINUTES

DATA MODELING & NOSQL MODERATOR

SESSION: THE TRICKY PART OF DOING TRICKY THINGS IN YOUR DATA MODEL

...AND LIKELY SOME OTHER FUN THINGS!



THANK YOU, YOU WERE GREAT.

KAREN LOPEZ @DATACHICK