A Case Study Database for Simulation Modelers

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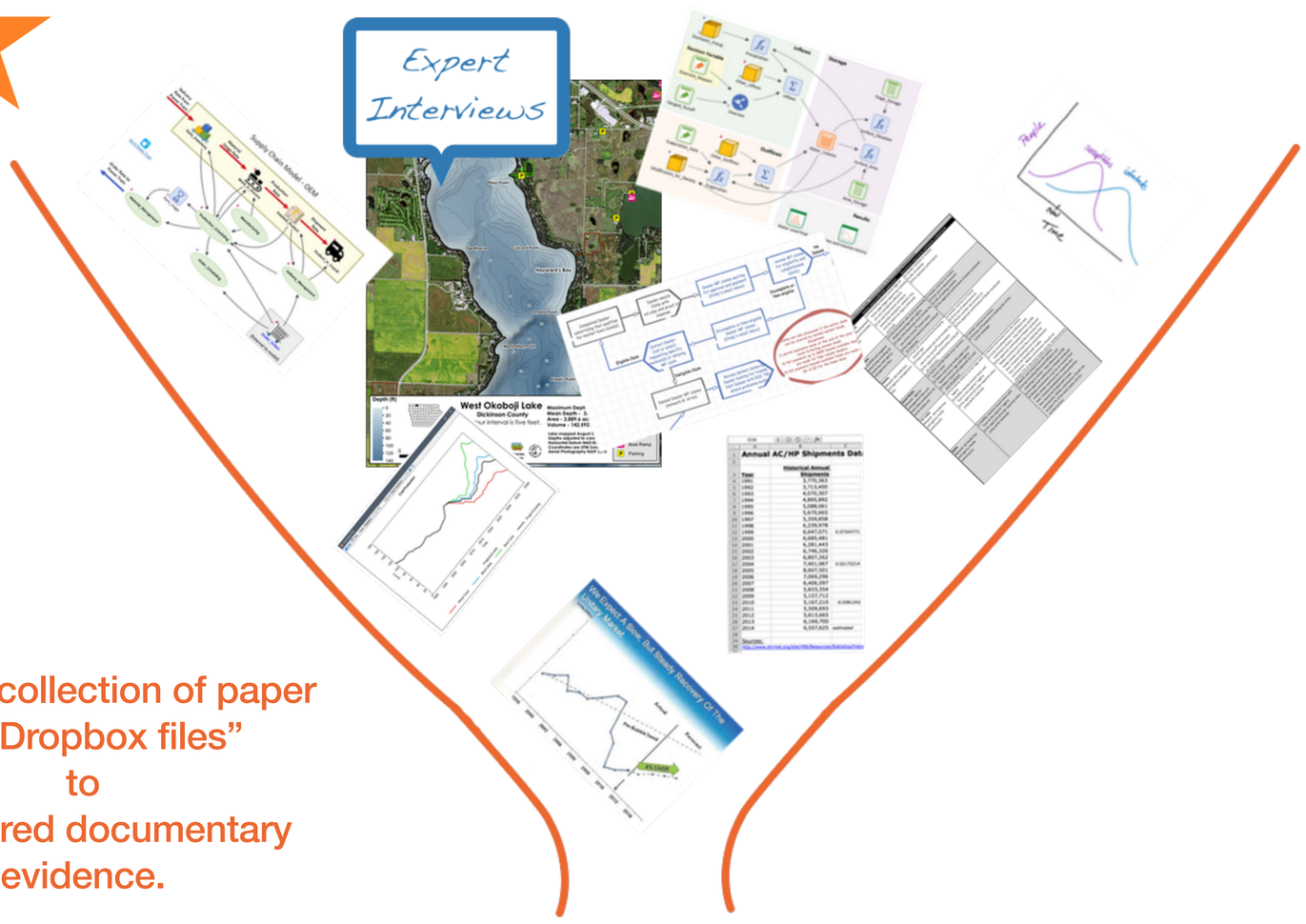
1



From a "collection of paper and Dropbox files" to Structured documentary evidence.

Project Container

Question to be answered, Model boundary, Desired result, Simulation timeline, …

Sessions
- Chronology
- Process used
- Hours worked

Participants
- Experts, Sponsors, and Facilitators
- Record who was present during Sessions
- Provide artifact attribution

Artifacts
- Spreadsheets, Process Flow, FEP tables, Research articles, Model revisions, …
- Creation attributions (source - who & session - when)
- Organized with categories, tags, key words, source Artifact, …
- Searchable for variables and other model concepts previously discussed

Linked

Model Objects, Elements, Containers, and Variables (KeyWords)
- Documented definition, unit of measure, and priority reduces misunderstanding
- Provides a direct link from model structure to supporting evidence
- Aliasing capability ties "different names for the same thing" together to simplify modeling

Benefits:

2

1) Increased Productivity
- Artifacts are collected as they are revealed.
- PDF reports are available to share.
- Simultaneous access by team members.

2) Inform Future Work
- Future work with this client can begin exactly where the prior work ended.
- Compatible with any simulation software.
- Ovoid redoing project work.

3) Preserve the Chain of Evidence
- Support the model structure and values with documented evidence.
- Document who said what and when.

4) Preserve the Evolution of Thought
- Document problem definition as it changes.
- Capture the chronology of insights.
- Showcase the real value of your work.

5) Document Models Rigorously
- Build transparent models where assumptions are linked directly to source data.
- Document the discussion and link it to model structure.
- Document the reason for model modules and model revisions.

6) Reproducibility
- Source data is recorded separately from the simulation model and project summary report.
- Source data is available for independent inspection allowing for confirming or refuting work.

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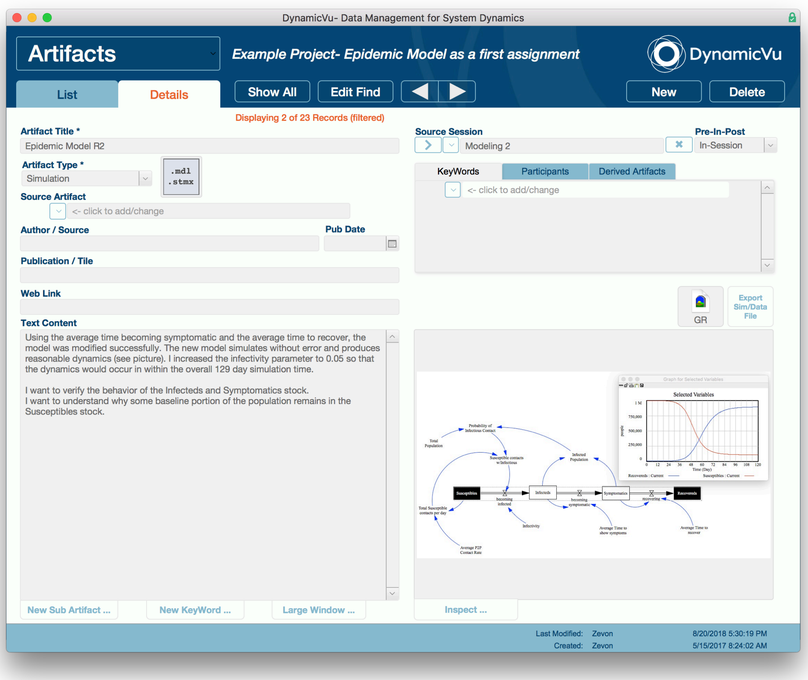
3



Information Management for Simulation Modeling
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