

IMPORTING ER/STUDIO DATA MODELS INTO WHERESCAPE 3D

BY SULTAN SHIFFA



INTRODUCTION

Most of IDERA's customers are looking to maximize the value of their data.

The end game is to present accurate and relevant data in a format that solves business problems. The chain of events that leads to this is complex with many steps.

The process starts with the initial requirements being understood. Key Performance Indicators and data points need to be understood and confirmed. For instance, when we ask for "North American Sales Figures" do we all agree on what we mean. We then need to source this data. Is it already in the warehouse, is that data accurate, where did it come from, is it relevant? If it is not in the warehouse, where does it live in the operational world? Again, is the source relevant and appropriate? A combination of ER/Studio and WhereScape can help with this process of identifying and understanding data, through to making it available in the warehouse to the BI layer. With these tools we can help build an efficient automated solution that lowers cost, increases the availability of data all whilst fitting into a broader data governance program.

BIOGRAPHY

Sultan Shiffa

Dr. Sultan Shiffa is a senior software consultant for Enterprise Data Management at IDERA and works as an expert for complex and diverse data management solutions. He has worked for 11 years with IDERA's largest customers to assist in the development of methodologies for best leveraging and integrating IDERA database products into their existing processes. He is also a key contributor to the IDERA product roadmap. He is known in the market as a polished public speaker at OUG and roadshows. Before joining IDERA he worked more than a decade as a database consultant and an Oracle certified (OCP) DBA.

WHAT IS ER/STUDIO?

ER/Studio Data Architect is an industry-leading data modeling tool for designing and understanding databases, helping companies discover, document, and re-use data assets.

With round-trip database support, you can reverse-engineer, analyze, and optimize existing databases. Productivity gains and organizational standards enforcement can be achieved with ER/Studio Data Architect's strong collaboration capabilities. A central business glossary is available to define the meaning and structure of information all published within a collaborative environment with discussion and change notification features.

WHAT IS WHERESCAPE 3D?

WhereScape Data-Driven Design (3D) is the industry's first data warehouse planning tool.

WhereScape 3D focuses on the characterization and testing of the constraints present in every data warehousing project - the source systems, the built or bought target schema, business rules, and end-user needs and expectations. It then walks data warehousing project teams through the process of source and target exploration, modeling and mapping; usability and data legibility sessions with users; and scoping, sizing and costing activities. The output from WhereScape 3D is complete project documentation - suitable for review, distribution and governance submission. The inbuilt automation of WhereScape dramatically reduces management costs and time to availability of data.

VALUE PROPOSITION FOR WORKING WITH IDERA'S ER/STUDIO AND WHERESCAPE 3D

Data Architects using ER/Studio have amassed great knowledge around operational data assets.

They have been reverse-engineering the physical databases pulling in all technical (tables, views, functions, procedures, triggers, permissions, indexes, schemas, storage parameters, indexes, etc) and business definitions around databases. They have documented these physical models with additional metadata. They have also documented the meaning of the data in business-friendly language using logical data models and business glossaries. This valuable knowledge is held in the Team Server repository for consumption across the organization. Warehouse Engineers working in WhereScape 3D select tables, views and operational data assets to be included in the warehouse.

They will design the structure of the DWH design (Operational Data Stores for historization of the data) or a data vault design. They create loads, staging tables, dimensions and fact tables which will receive the data and the ongoing automation that make it happen. Although WhereScape 3D can also reverse engineer databases directly from operational data assets they can import well-documented models from ER/Studio complete with the documented knowledge already gathered by the Data Architects. WhereScape 3D has different capabilities to convert and enhance ER/Studio data models for example with specific data vault elements (Hubs, Links, Satellites and many other data vault attributes for hub hash keys, change hash keys, load resource, creation/load time, low, medium and high type rate of change, etc..). That model can be designed in 3D and gets exported to WhereScape RED. DWH developers load those models and deploy them easily on their DWH and accelerate their development efforts. In this document, we discuss some options on how to export IDERA's ER/Studio logical and physical models and import them in IDERA's WhereScape 3D.

EXPORT FROM ER/STUDIO DATA MODEL

ER/Studio has its proprietary.dm1 data format which cannot be directly imported in WhereScape 3D today.

But WhereScape 3d supports import from a number of data formats including:

- WSC xsd
- OMG CWM xmi

The magic is to use ER/Studio's MetaWizard to export the dm1 formats either as a WSC .xsd or an OMG CWM .xmi format.

This document demonstrates the process of how to export models in ER/Studio and import them into WhereScape 3D for both logical and physical models.

Instructions

- 1 Start ER/Studio's GUI.
- 2 Go to File and open the dm1 file or if you are connected to a repository get the version of the model you would like to export.
- 3 Once the model is visible in ER/Studio, go to File > Export File > Export Diagram Metadata. *Figure 1*

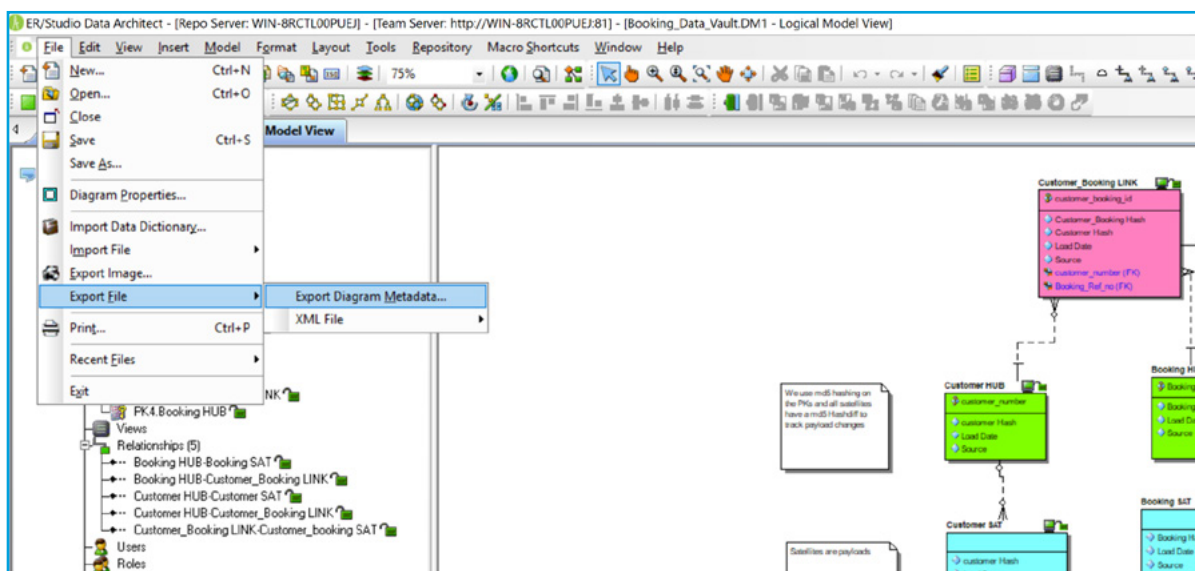


Figure 1

- 4 Choose from the “Export to” dropdown, select either xsd or xmi format, then under File, set the preferred file path of where the export file will be saved upon export, then click Next. *Figure 2*

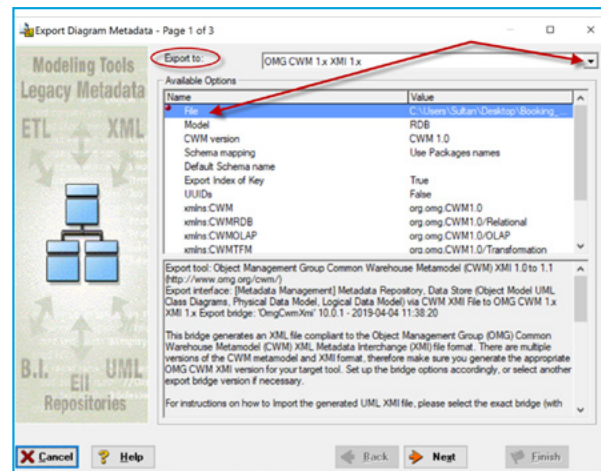


Figure 2

- 5 That takes you to page 2 of the wizard. Here, you can set different export options like:

- A Select either logical model only, physical model only or all models.
- B Specify the physical model name.
- C Import UDPs as Metadata, Metadata, migrate default values, in the description, migrate default values or Both, migrate default values. It is recommended to use Both, with default values if User Defined Properties are defined in the data dictionary.
- D Import schema owners – True/False as needed.
- E Removing text formatting – True/false as needed. *Figure 3*

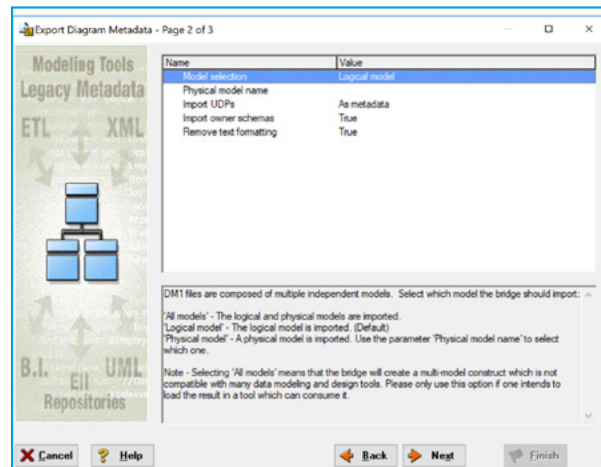


Figure 3

- 6 The bridge starts the generation of the xsd or xmi format and shows the details of the processing. *Figure 4*

This is what you will need from ER/Studio to import into WhereScape 3D. You can save the export log file if needed for documentation and analysis.

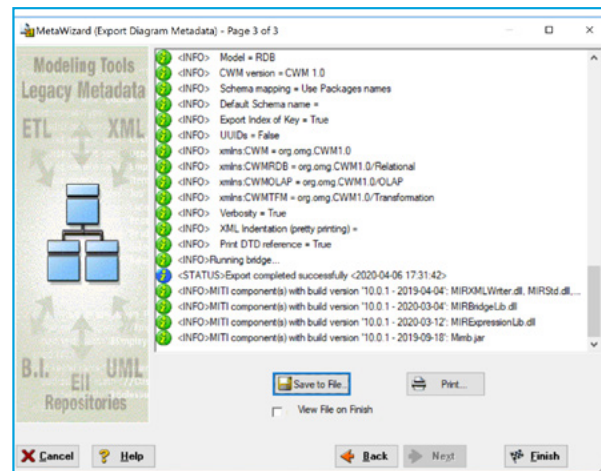


Figure 4

IMPORT INTO WHERESCAPE 3D

Here you need to import the above-exported file into WhereScape 3D. The following steps demonstrate how to accomplish this in WhereScape 3D.

- 1 Start the WhereScape 3D GUI.
- 2 Make sure that Advanced Mode is selected in WhereScape 3D – under Tools > settings > Enabled Functionality. *Figure 5*

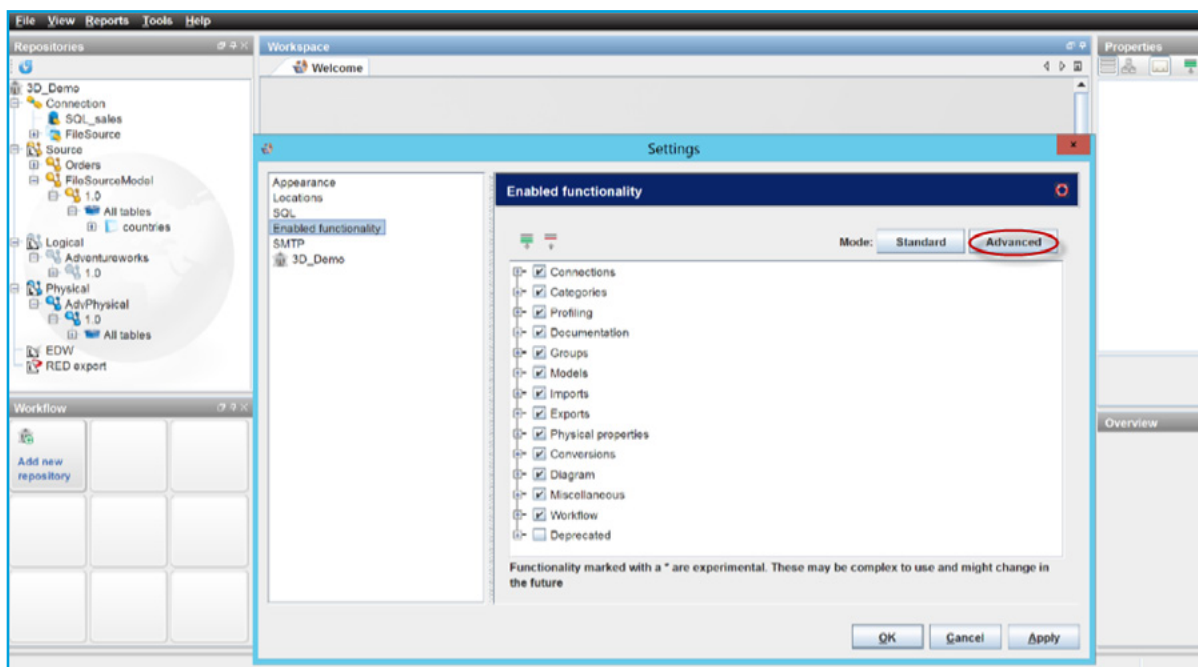


Figure 5

- Right-click on the repository see diagrams below 3D_Demo and select manage categories and make sure the logical and physical model types are selected depending on what type of model you would like to import. *Figure 6 & 7*

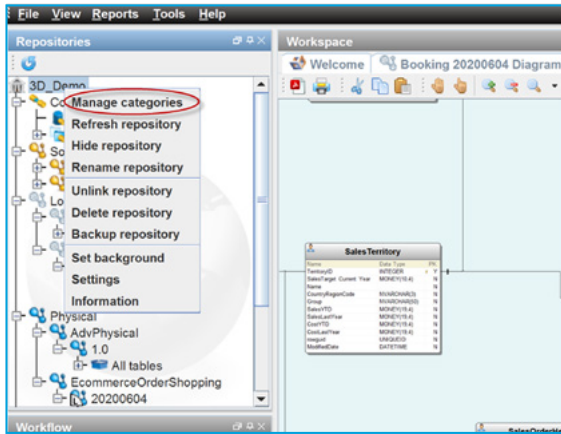


Figure 6

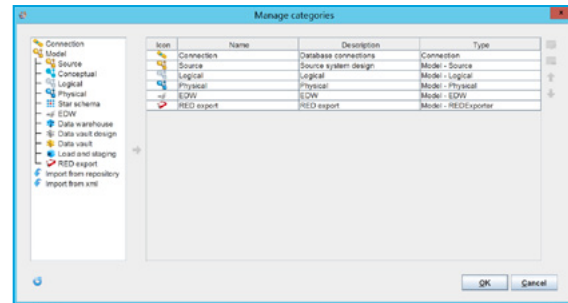


Figure 7

- Create either a logical or a physical model as shown in the diagram to the right:

Right-click on a logical or physical model depending on what model to import and select Add logical or Add physical. *Figure 8*

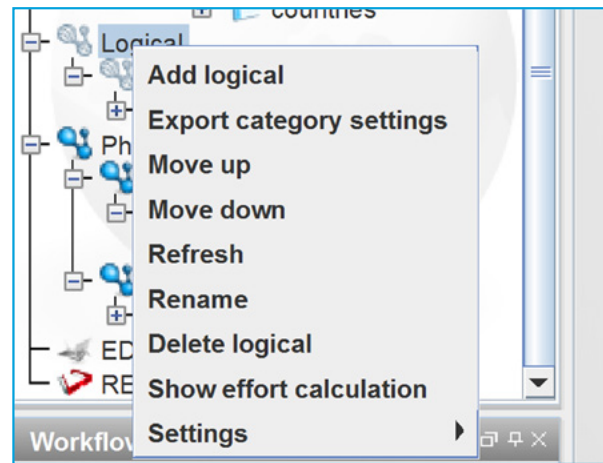


Figure 8

- On the next page, provide the name and version of the logical or physical model and click Next to create the model. *Figure 9*

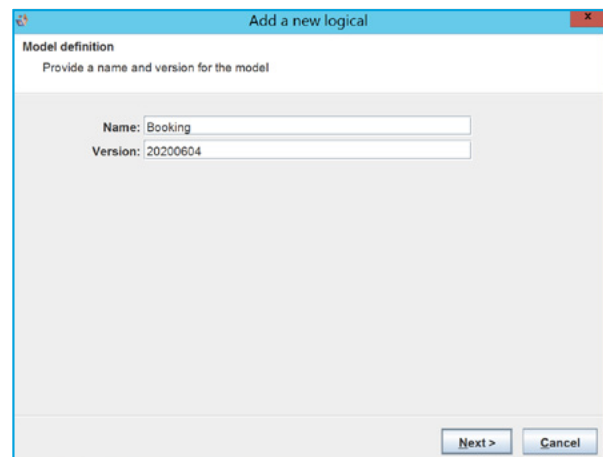


Figure 9

- 6 Once the model is created select the version model, right-click and select Import > From external format. See diagram below. *Figure 10*

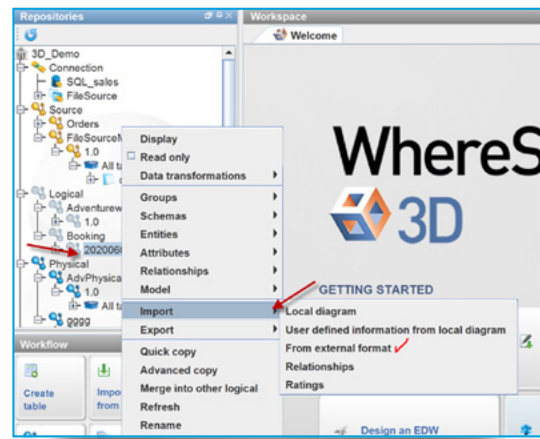


Figure 10

- 7 Under File types select either xsd or xmi format. *Figure 11*

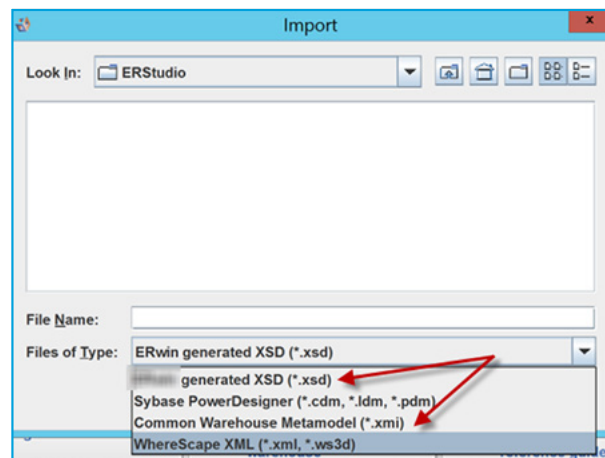


Figure 11

- 8 Then, select the appropriate file, which you had previously exported from ER/Studio and click Open.

Figure 12

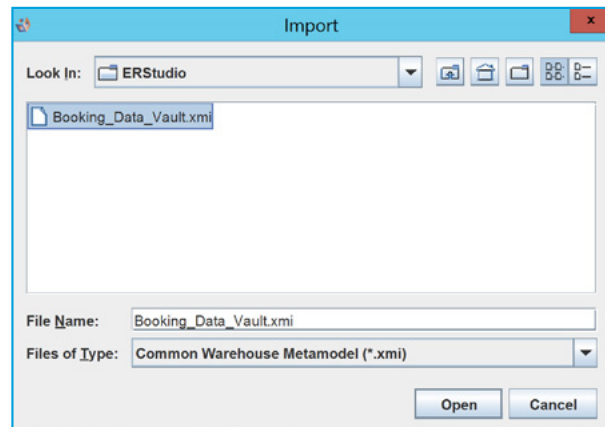


Figure 12

9 The model is now imported into 3D and can be viewed by right-clicking on the new model and selecting Display. *Figure 13*

10 The final page displays the imported model. If foreign keys are not defined in the logical model, it is easy to use 3D to infer those keys. However, if the relationships are defined properly in ER/Studio, then the relationships get created automatically. Submodels in ER/Studio are also created automatically and are shown as a group in 3D.

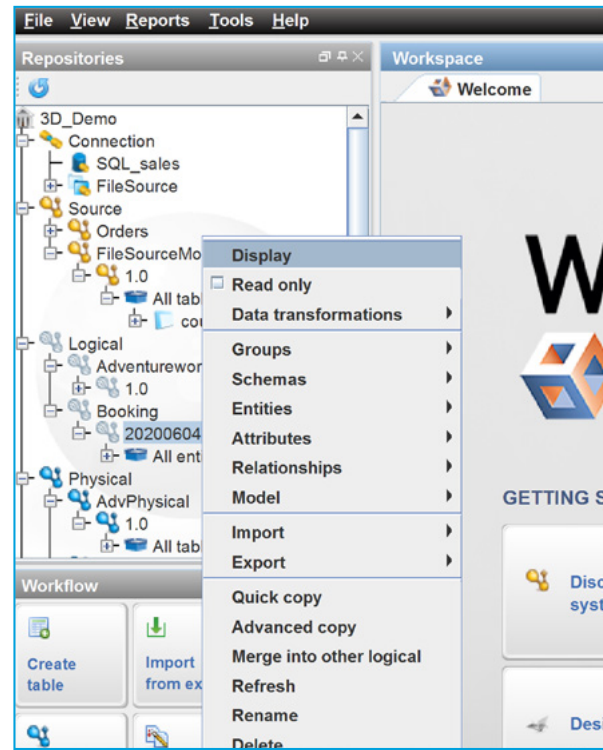


Figure 13

10 Here are examples of models imported in 3D. Note: that ER/Studio submodels get grouped in 3D. See e-commerce order shopping physical data model below: *Figure 14, 15, & 16*

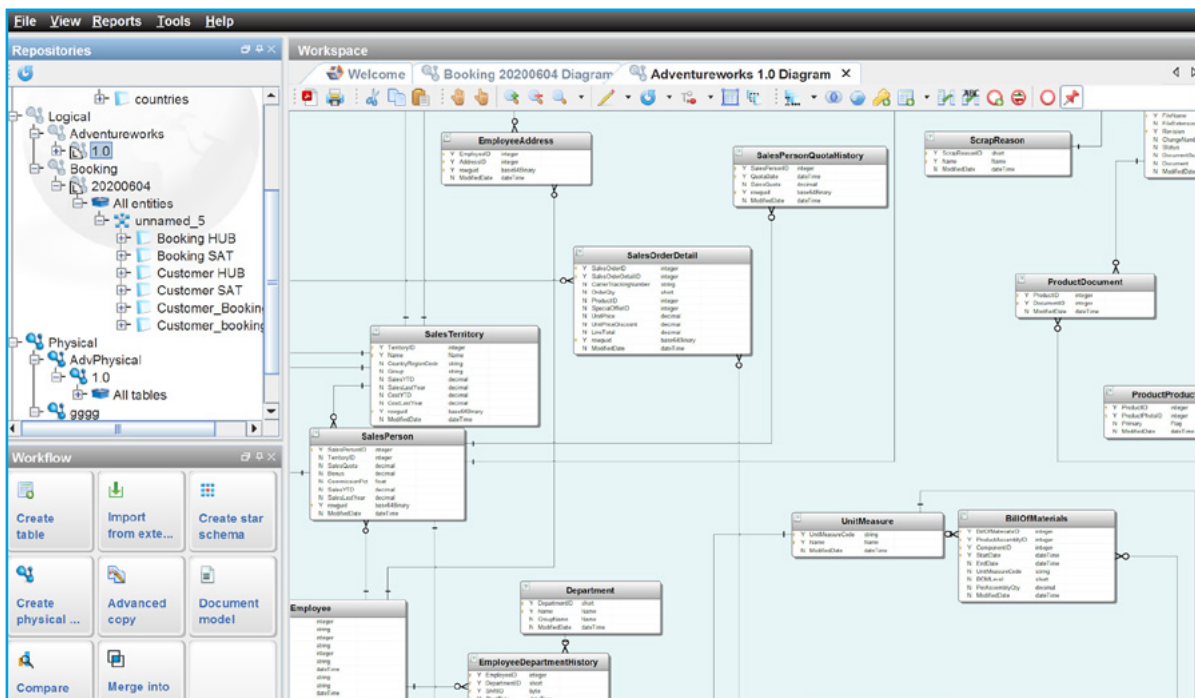


Figure 14

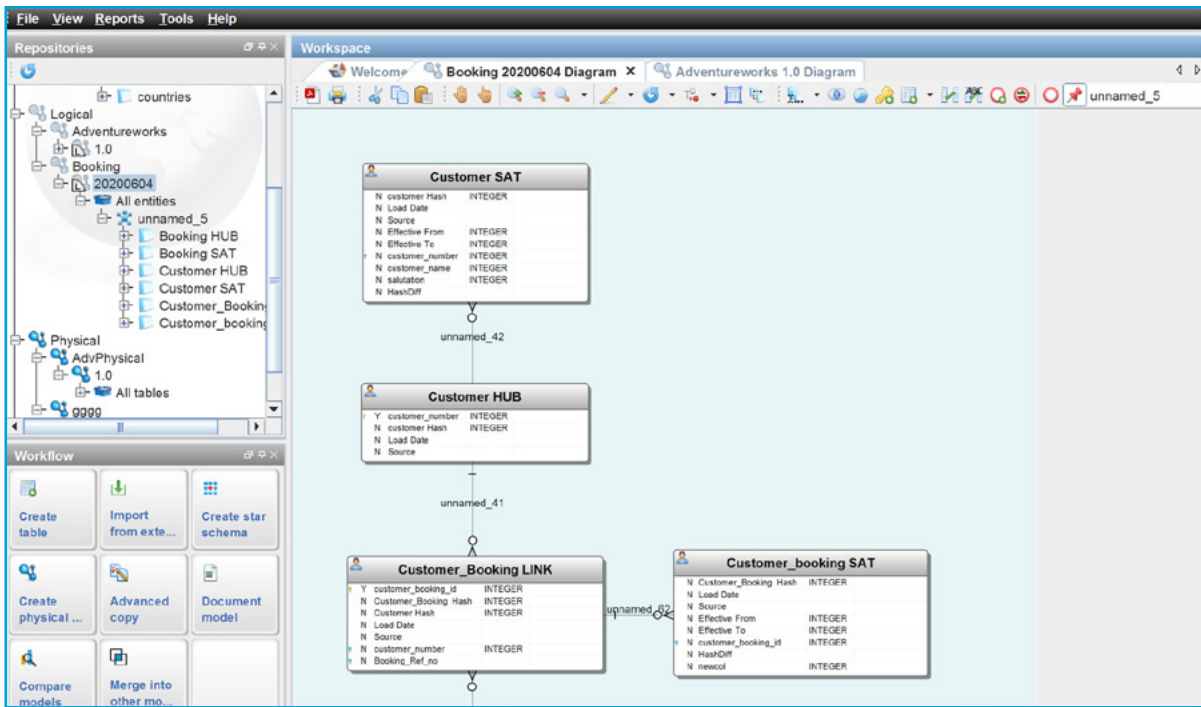


Figure 15

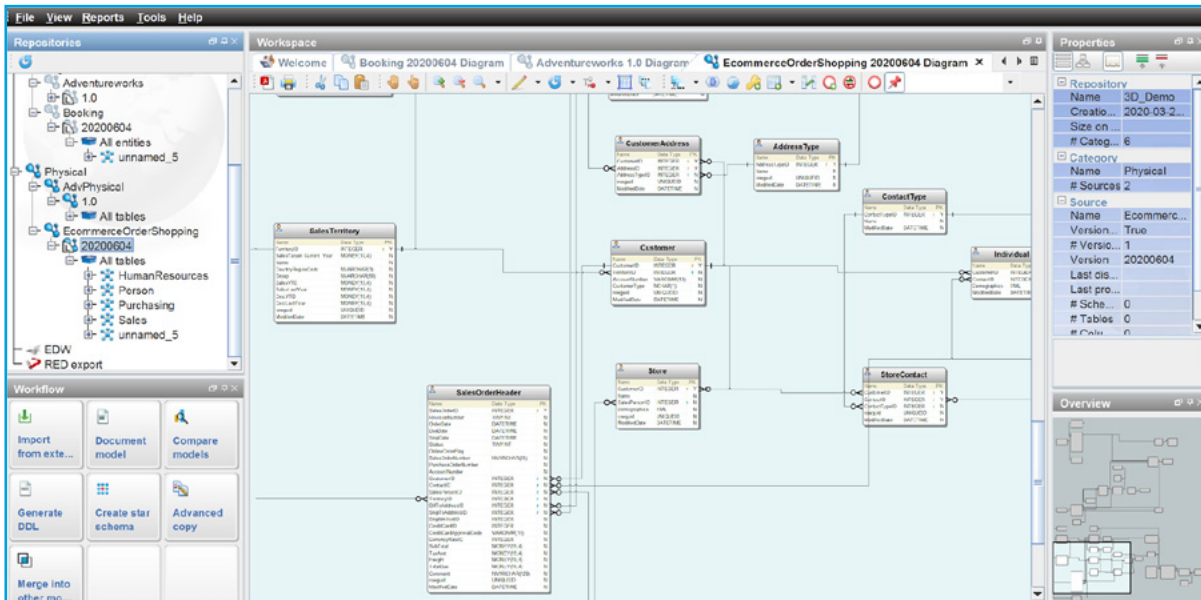


Figure 16

ER/Studio Data Architect enables you to efficiently catalog your current data assets and sources across different platforms and track end-to-end data lineage.

Simplify your data architecture with a common language leveraging consistent naming standards and data definitions. Easily specify the sensitive data objects that need heightened protection, to withstand audit scrutiny.

[Request Demo](#)

WhereScape 3D enables you to quickly and easily plan, model and design all types of data infrastructure projects.

Use sophisticated data discovery and profiling capabilities to bulletproof design and rapid prototyping to collaborate earlier with business users.

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