What's New in TDM 4.1?

CA TDM Product Team

Legal Statement

ca technologies

Agenda

- Tester Self Service – Find and Reserve
- Parameterised Variables
- Set Source & Target in Meta Functions and TDM Portal
- Enterprise Option in Datamaker

Tester Self Service – Find and Reserve

Problem Statement - Test Data Engineer/Data Analyst

- Overhead of creating and maintaining TSS tiles for changing test data requirements
- Lack of common language between testers who work on application objects and TDE who work on backend data sources
- The current architecture restricted to relational data sources and the reserve action – no support for APIs, VSAM files as a data source

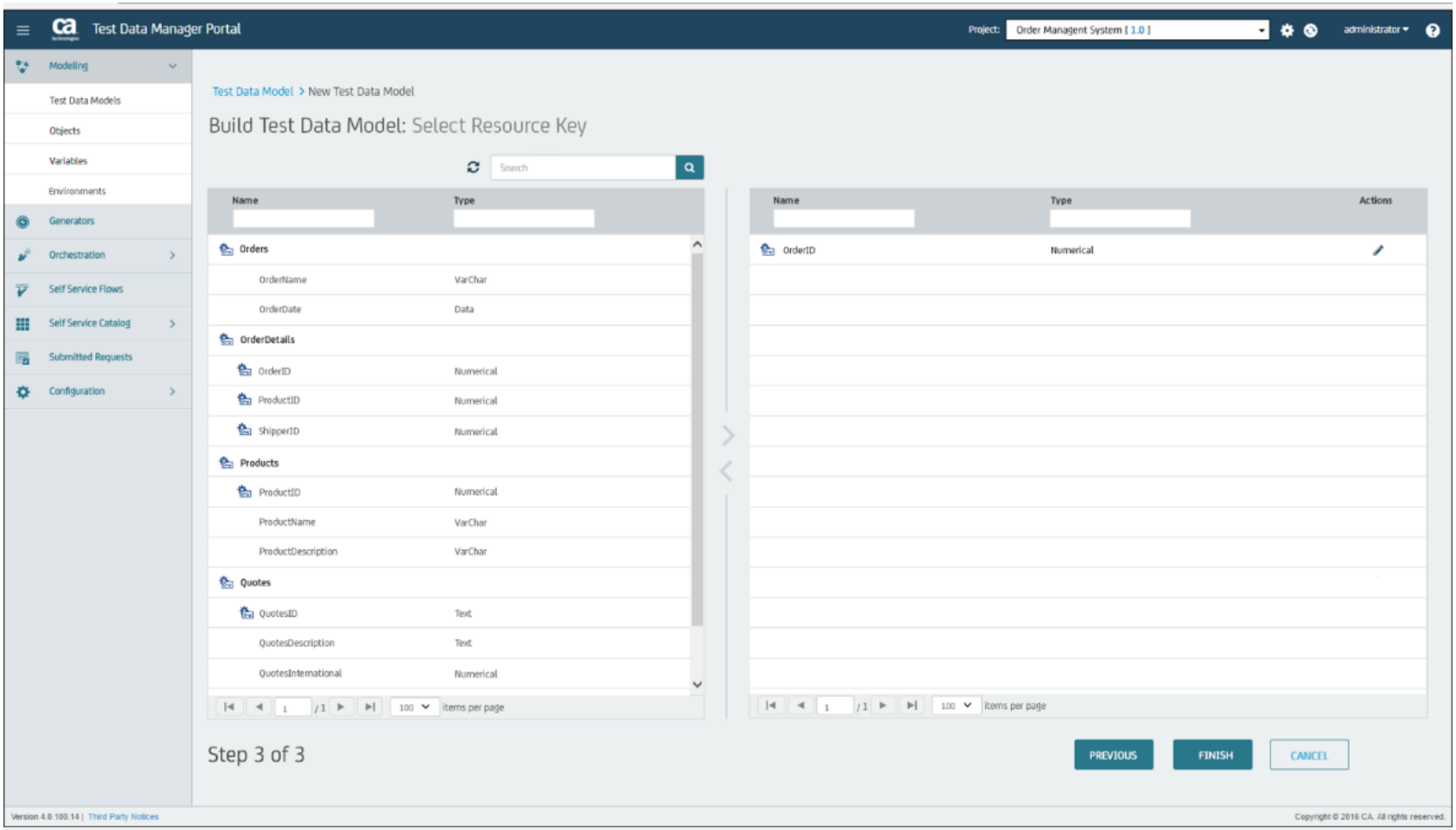
Problem Statement - Tester

- Lack of support to find and visualize the test data before initiating a test data engineering activity
- Lack of support for rapid release cycles – APIs, aggregate & reuse reservations
- Inability to synthetically generate in context of the missing data

Core Value Propositions

- Define an environment that allows logical grouping of application data sources so that we needn’t create duplicate projects for every environment
- Build a logical model via the UI so that extensive effort is not needed to build a denormalized data mart
- Provide a self-service catalog UI so that the testers can find the data and then reserve or release it
- Provide REST API support so that I can find, reserve and release data from my automation scripts

Demo



Parameterised Variables

What are Parameterised Variables (macros for short)?

- A macro is an extension of the existing notion of a variable.
- Normal variables can contain expressions which get evaluated when required.
- Previously, expressions could contain only constants, variables and functions of constants, eg ~v1~ = @add(42,~v2~)@
- In effect, a variable was secretly a function with no parameters.
- In TDMWeb 4.1, a variable can have parameters which are used in the expression. Eg ~v1(param1)~ = @add(#param1#,~v2~)@
- So if v2=2 then ~v1(100)~ returns 100+2=102

What are they for?

- A macro allows the TDE to re-use expressions.
  - Previously invocations of an expression in different columns or tables required replication of that expression. If a change was required then all occurrences had to be changed.
  - Multiple occurrences with variations can be defined which vary only in the parameters, not by duplicating and modifying code.
- A macro allows a library of more flexible common expressions to be created.
  - These macros would be defined with global scope.
  - They could then be used in multiple projects.
  - Complex expressions are written and tested once only.

How do you create a macro?

- Macros are created using the variables page in the usual way.
- The name of the macro specifies the parameters, eg myvar(a,b,c).
- The expression is defined using datapainter as usual.
- Note that DP can’t evaluate a macro because it doesn’t know what the values of the arguments are so it just does a syntax check.

Examples

Variable	Expression	Purpose
ifmore5(a)	@if(#a# > 5, yes, no)@	Outputs yes if a>5 otherwise no
addcheck(a,b,c)	@if(@sum(#a#,#b#,#c#,~OFFSET~)@ > 1000, std, non-std)@	Add three numbers and the value of variable OFFSET. If the result is more than 100, then output the string "std", otherwise "non-std".
sayhello(n)	@repeat(hello,#n#,-)@	Output “hello” n times
factorial(x)	@case(#x# < 0, error, #x# = 0, 1, #x#=1, 1, @multiply(#x#,~factorial(@subtract(#x#,1)@)~)@)@	Factorial function eg @factorial(4)@ = 4x3x2x1 = 24

S & T Feature

Using S & T in Meta functions

SQL commands in meta-function expression can contain a connection profile name.

Examples:

@execsql(**connection**,select column from table where something)@

@seqlov(percnull,@sqlist(**connection**, select column from table where something)@

Previously TDMWeb(Portal) only supported connections of the format
P{profilename}

@execsql(**Ptravel**,select name top 1 from cities)@

Using S & T in Meta functions

In Datamaker

At login, the user selects a source & target profile.

These can be used by meta functions, replacing P{profile} with T or S.

@execsql(**S**,select name top 1 from cities)@
@execsql(**T**,select name top 1 from cities)@

This feature now available in TDM Portal.

Enterprise option in Datamaker

Enterprise Support in Datamaker

- Call the enhanced publish engine for large publish jobs
- Call Datamaker built in publish engine for smaller and quick job