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DATA Gen™

Test Data Generator

[Version a0.1]

DATA Gen™ Test Data Generator (ESSPL) offers facilities to automate the task of creating test data for new or existing data bases. It helps lower the programming effort required, while reducing manual test data generation errors and the ripple effect that they cause on production systems, users and maintenance.

Contents

Overview

Generating data that thoroughly exercises all program paths is essential to comprehensive testing, and therefore, is no small task. To help, ESSPL offers DATA Gen™ an easy-to use tool that creates test data from scratch with only a few simple entries needed to generate comprehensive and meaningful test data. With DATA Gen™ you can be more confident that you are maintaining application quality while reducing risk, cost and resource utilization

In your enterprise IT organization, you are under immense pressure to ensure high-quality applications. At the same time, you are challenged with doing more with fewer resources and reducing overall operational costs and risk when application changes occur. Generating production-like test data is one part of the application quality process that can be manually-intensive and cumbersome. DATA Gen™ automates the process of test data generation, saving you time and effort. Moreover, it enables you to reduce the risks associated with application changes by lowering the amount of guesswork required to manually create production like test data.

Features

• Use of JAVA VAADIN 6.7.4

• DATA Gen™ has web based interface which is browser independent that is designed in such a way that it would simplify your use of the product and enable your staff to use, configure and maintain it more effectively and quickly.

Key Features

• Automated generation of test data: With DATA Gen™, you can generate test data from scratch for databases. DATA Gen™ multiple data generation formats like SQL, XML, Excel and CSV.

• Mode of Operation: DATA Gen™ operates on a server which can be easily deployed; it does not require a data base server.

• Simple interface: DATA Gen™ offers a interface to users that help to simplify interaction and reduce typing errors. It allows you to perform online running of test data scripts directly unto the databases with simple clicks.

• Data Type Support: DATA Gen™ offers logical support for selection of test data, as well as supporting random selection, to enable comprehensive testing while lowering the amount of extraneous test data used. It has more than 10 different types of data types for selection.

• Ease of use utilities: DATA Gen™ enables printing of test data which provides comprehensive documentation and audit ability. User can create the data, run the script and then document that data for future use.

• Help and Tutorial: To enhance productivity and minimize the training effort required, DATA Gen™ offers extensive contextual HELP and an online tutorial.

Benefits

Application quality and integrity is more important today than ever before as you strive to meet increasing service level objectives. To meet these objectives for your critical applications, you need a solution that facilitates quick and efficient production-like test data generation. The benefits of DATA Gen™ include the fact that it can help you automate the creation of testing data for your applications, leading to correctness of test data, reduced risk of failure and lower cost and resource utilization.

How to Create Test Data using DATA Gen™

In the 1st section [Screenshot below] user has to select the Sql option. This would select the Generation Type. According to this selection the Options are decided for the different outputs.

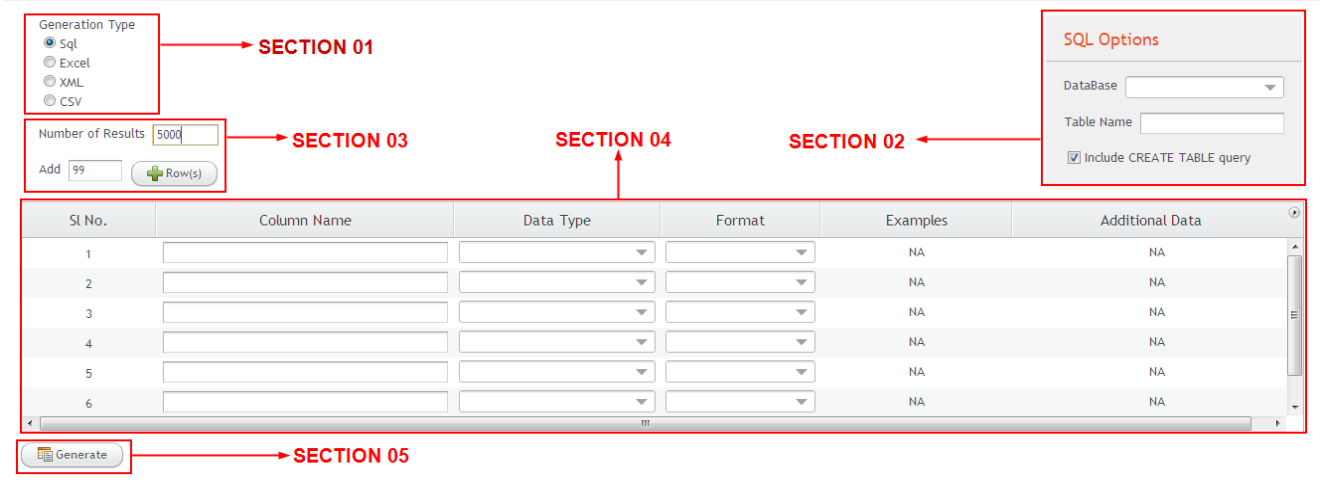
The 2nd section is SQL Option here the user can select the data base type for which the data is to be generated. This can be done by selecting the dropdown having the label Data Base. Then user can set the table name for which the data is to be generated. There is a check box [Include CREATE TABLE] by selecting this option the Create statements will be added to the Generated data. So that when user runs the script the table gets created first and then the data is inserted into it.

The 3rd section has two fields "Number of Results" & "Add". 'Number of Results' field decides how many rows of data are to be generated. 'Add' field has a text box and an +Row(s) button, here user can increase the number of columns that is need for data generation. User will be able to add a maximum of 99 rows and a minimum of 1 row. There can be more than 500+ rows added to one Data Generation.

The 4th Section is where the details of the columns are to be set. It has multiple sections where user can set the Column Name, Data Type, Data Type, Format and Additional Data. There is another column as Examples which shows the user what type of data is to set, this would be a dummy data. The default is 5 rows.

Details about the data types and formats are explained later in this document.

Then there is a Generate button on click there will be a Popup which will show the generated data and have controls to copy the data.



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Below are some simple examples of how to generate data using DATA Gen™.

1. Generation Type: SQL

STEP 1: In the first section user has to select the Sql option.

STEP 2: User selects the Database to ORALCE and types a Table name as EMP. The field include CREATE TABLE query is also selected.

STEP 3: Number of rows is set as 10. In the Add section user Enters 2 and clicks on the +Row(s) button, this adds 2 more rows for data generation.

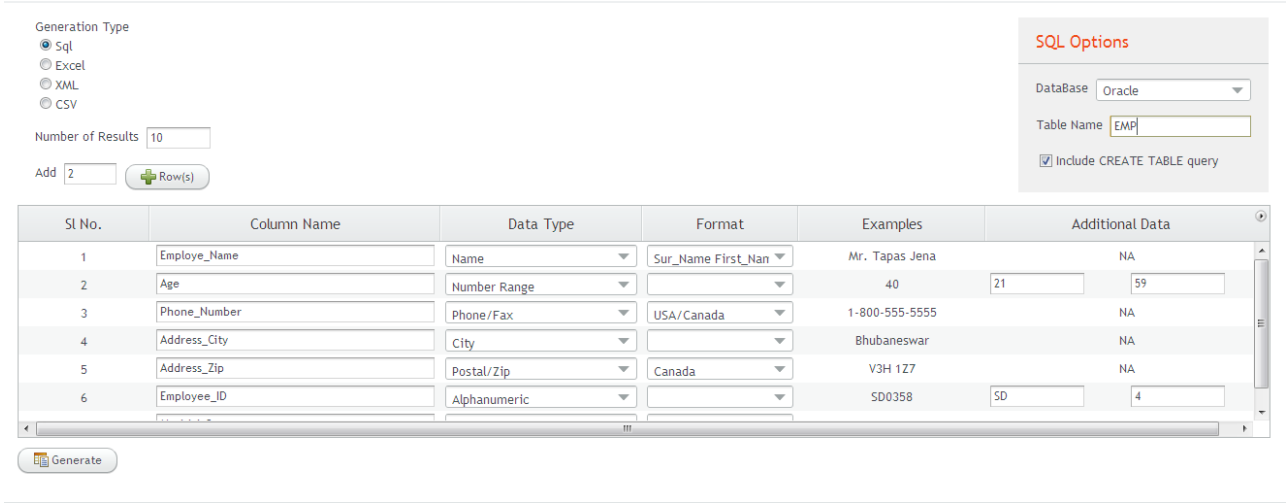
STEP 4: Set the data in the column detail section [as shown in the screen shot 1]

STEP 5: Click on the Generate button. [Screen shot 2]

STEP 6: Select all the data and click on the Copy icon. [Screen shot 2]
STEP 7: Open the Data Base client and login to the data base. In the SQL editor paste the data and execute it.

It's done. You have now successfully created test data which is ready for use.

SCREEN SHOT 01



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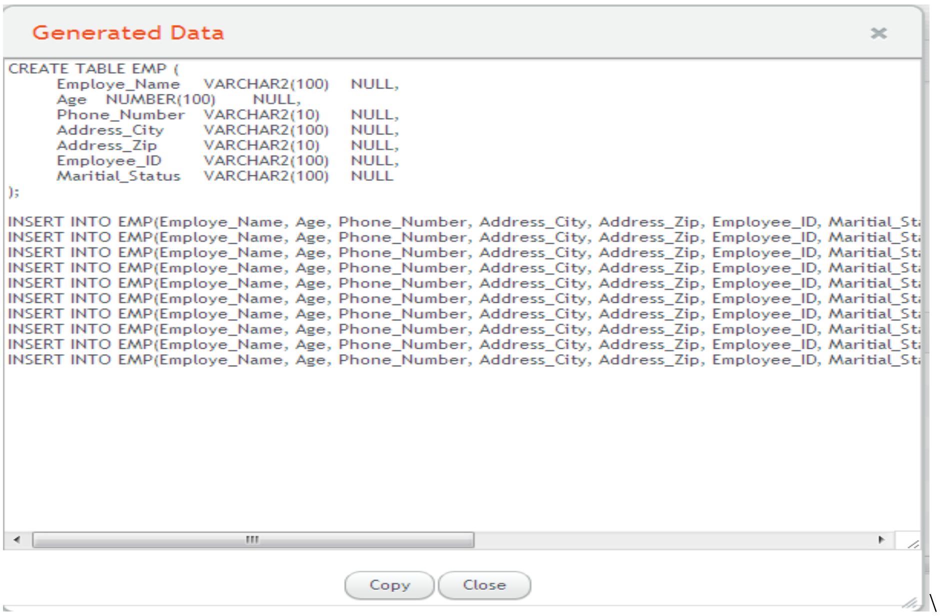
SCREENSHOT 02



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2. Generation Type: Excel

STEP 1: In the first section user has to select the Excel option.

STEP 2: Number of rows is set as 10. In the Add section user Enters 2 and clicks on the +Row(s) button, this adds 2 more rows for data generation.

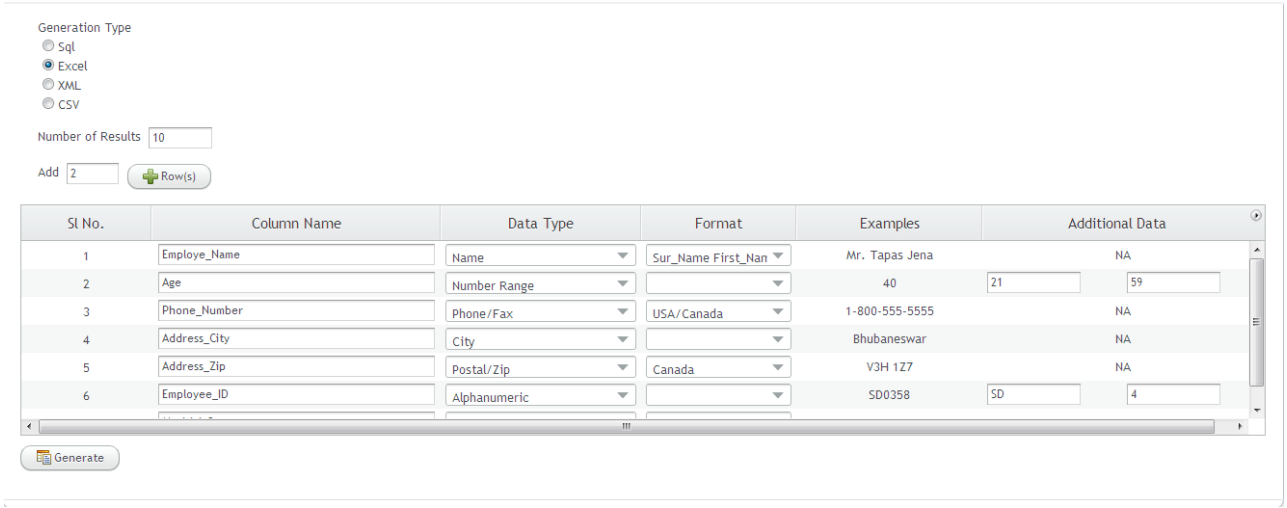
STEP 3: Set the data in the column detail section [as shown in the screen shot]

STEP 4: Click on the Generate button.

STEP 5: Click on the Save as button, on the Save As Dialog Box type in a file name and save it in the desired location. Extension of the file would be *.xls.

It's done. You have now successfully created test data which is ready for use.

SCREEN SHOT



3. Generation Type: XML

STEP 1: In the first section user has to select the XML option.

STEP 2: User selects the Root Node Name to PARENT and Record Node Name to CHILD.

STEP 3: Number of rows is set as 10. In the Add section user Enters 2 and clicks on the +Row(s) button, this adds 2 more rows for data generation.

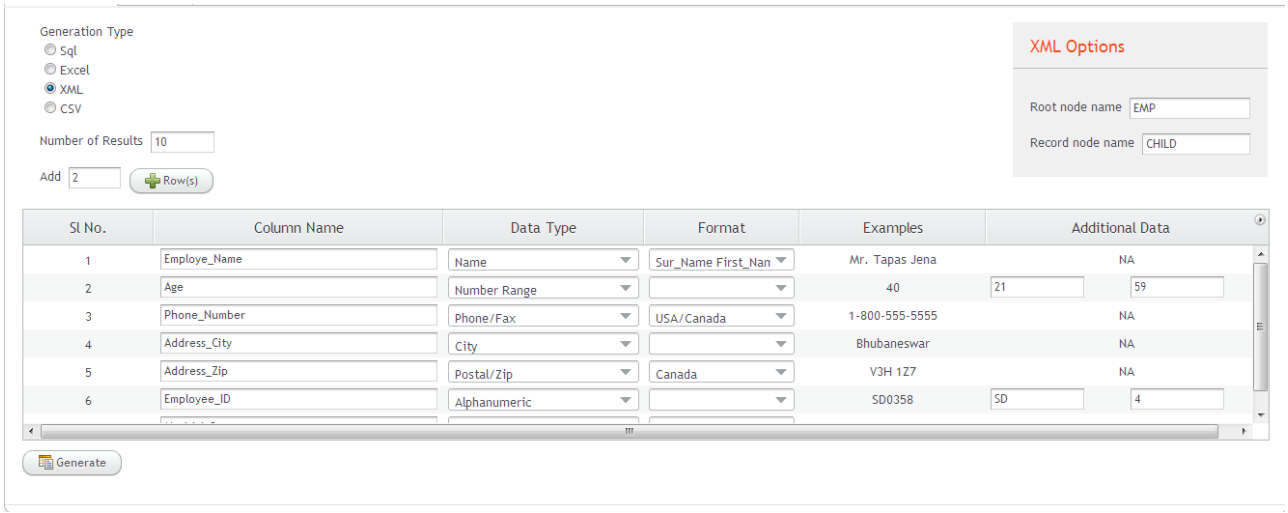
STEP 4: Set the data in the column detail section [as shown in the screen shot]

STEP 5: Click on the Generate button.

STEP 6: Click on the Save as button, on the Save As Dialog Box type in a file name and save it in the desired location. Extension of the file would be *.xml.

It's done. You have now successfully created test data which is ready for use.

SCREEN SHOT



4. Generation Type: CSV

STEP 1: In the first section user has to select the CSV option.

STEP 2: User sets the delimiter that is to be used in separation of the data in the Delimiter Character(s) field.

STEP 3: Number of rows is set as 10. In the Add section user Enters 2 and clicks on the +Row(s) button, this adds 2 more rows for data generation.

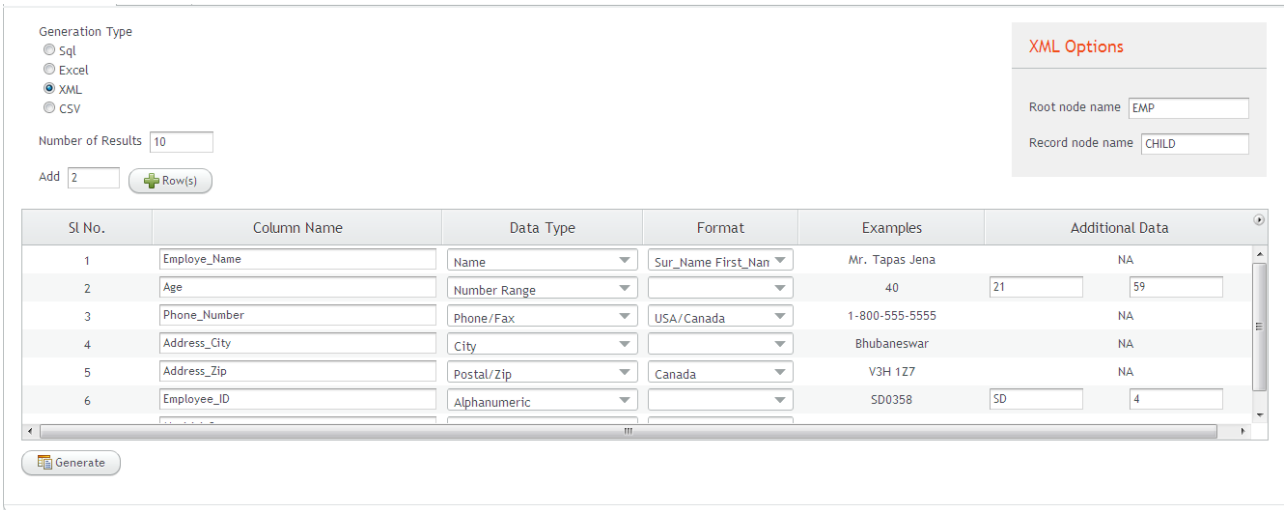
STEP 4: Set the data in the column detail section [as shown in the screen shot]

STEP 5: Click on the Generate button.

STEP 6: Click on the Save as button, on the Save As Dialog Box type in a file name and save it in the desired location. Extension of the file would be *.csv.

It's done. You have now successfully created test data which is ready for use.

SCREEN SHOT



Other Buttons

RELOAD Button

This button is used to reset the page to default. If user has filled in some data and then wants to reset to the default screen then the user can use this button. **NOTE:** Page refresh won't reset the values as user should not lose all the data that has already been set in the column section.

Future Enhancements

- There are plans for implementing the Scrip Editor tab which will help user to run the generated scripts in the data base directly from DATA Gen™.
- The implementation of Excel and XML is yet to be completed.
- There will be a forum open where we can discussion within the community that is using this tool; this forum will be like other forums that provide support.
- There are plans for making this application completely standalone where user does not need this site to be hosted any where.