



## TestIt! – Step by Step Tutorial

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### Introduction

What is TestIt! ?

TestIt! is a **data generator for testing purposes**. You use it to create real and meaningful data for your development and testing databases.

Our main design concerns were **simplicity and speed**.

Putting TestIt! to productive use is really a no-brainer. User interface is simplistic and intuitive and even the installation is trivial - unpack .zip and that's it. It's written in pure C/C++ and designed to be extremely fast. The bellow example on my old P4 machine works for **15 seconds to generate 1.000.000 records**.

### Example problem

But what do you do with it?

Let's say you are testing your new system and you have the table in your database with the following columns:

- ID
- Name
- Address
- City
- Company

You want to fill it with records, to look like:

ID	Name	Address	City	Company
1001	Bill Wright	Pilgrim Street 102	Madison, Spain	GeneralDinamics
1002	Catalina Ross	Swan Lane 2021	North Liberty, Tonga	Biogen
1003	Jane Nelson	King Edward Street 17	Rubio, Venezuela	Merck

There are quite a few reasons why you would want to do it, but since you are reading this, you probably know them more than you would like to. Just to mention the few, without the real data quantity: you can't do stress tests, developers don't feel the performance of the system, analysts have to exercise customer's abstraction with empty application screens, etc.



Traditionally, you have several options to choose from. You can:

- import existing data from somewhere,
- enter data manually,
- generate random strings, random numbers, etc.

To import the data, you need to obtain data from somewhere, and data has to be in acceptable format and structure. Otherwise you'll end up doing a lot of dirty work nobody will pay you for.

You can enter the data manually, but the effort to actually make up and enter 1000 (or even 100) records limits you from any serious data volume.

Sometimes people use random string/random number generators to populate the database with this kind of data. Problem is that it's still a lot of work, and you don't solve much of the original problem with people or street names like 'ASDFASDF'.

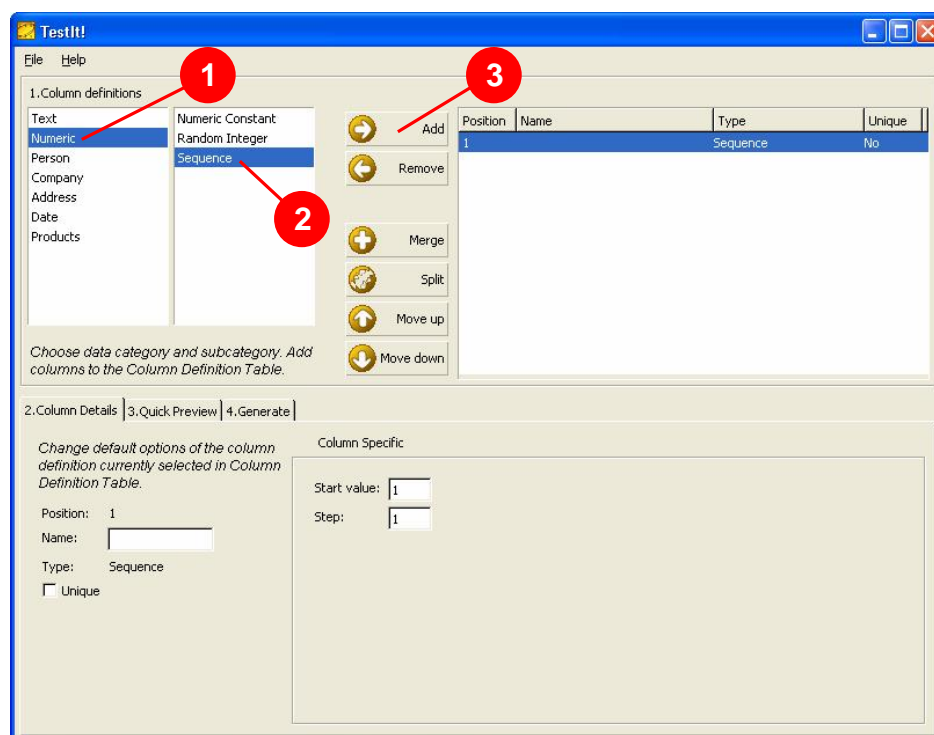
**When these methods don't work (which is more often than they do), you just use TestIt! and quickly generate large volume of meaningful data.**

And how exactly do you do that? Just read on and follow instructions.

## Define sequence

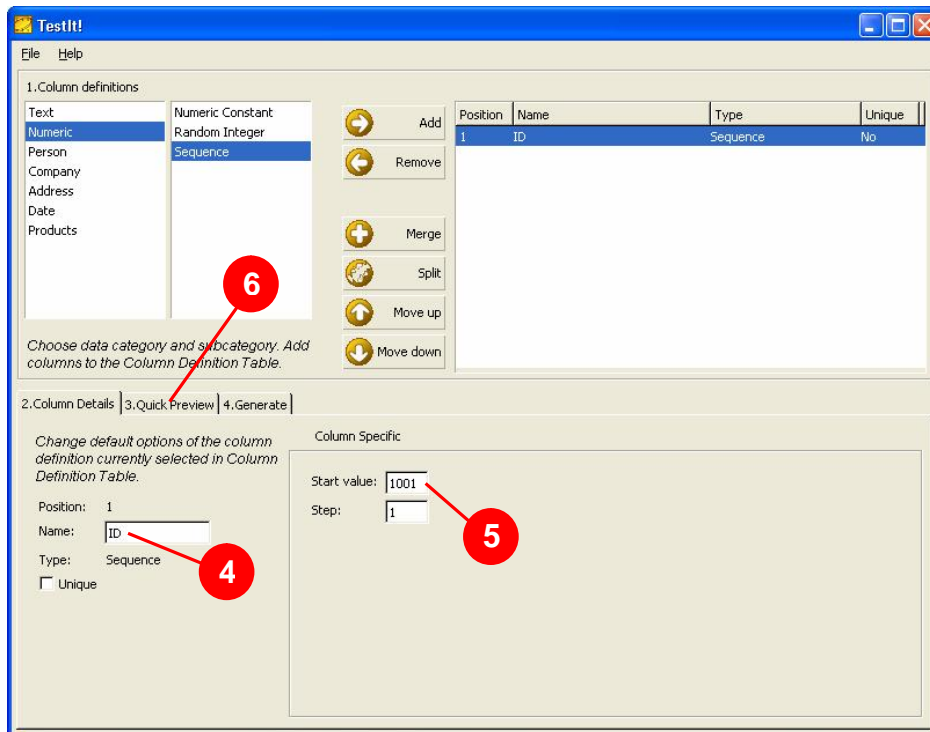
ID is a random number with 4 digits, but let's define it as a sequence starting with 1001.

Under 'Column definitions' (1) click on 'Numeric' category then (2) choose 'Sequence' rule and (3) add it to the list of column definitions.

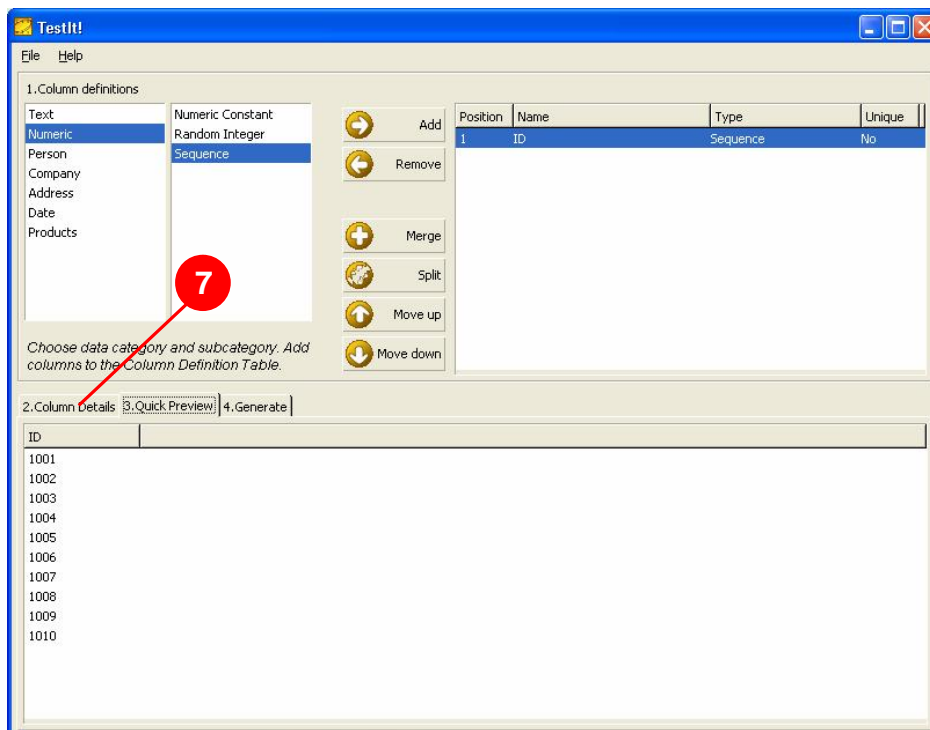




Under 'Column Details' (4) enter value 'ID' for the name, and (5) '1001' for the start value. Click (6) on the 'Quick Preview' tab to check the results.



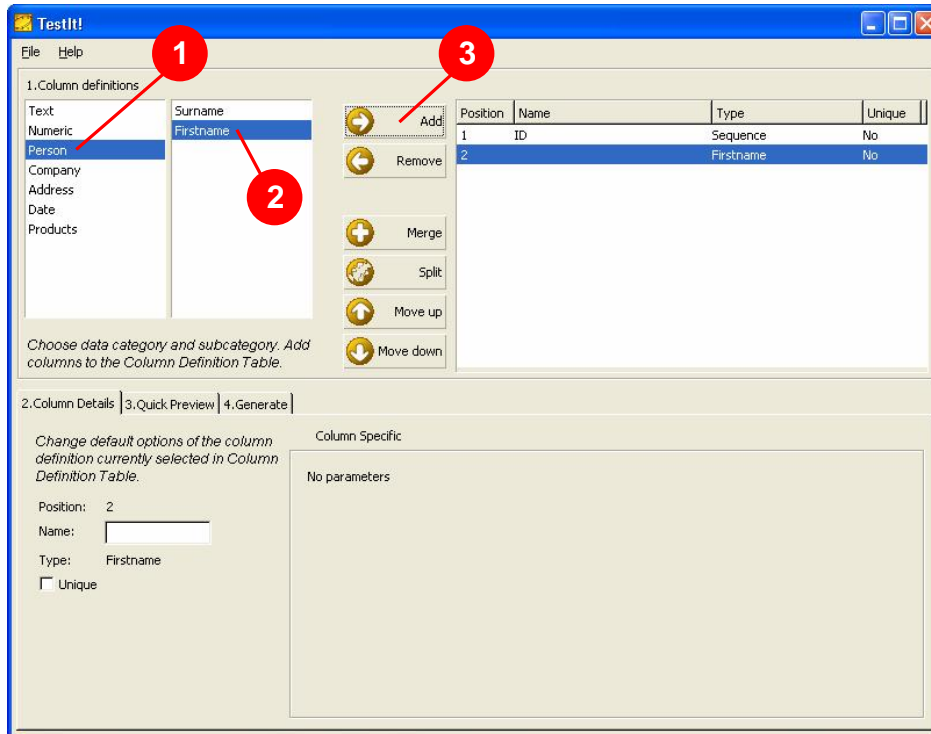
That's what we wanted, so (7) click again on the tab 'Column Details' so we can continue defining other columns.



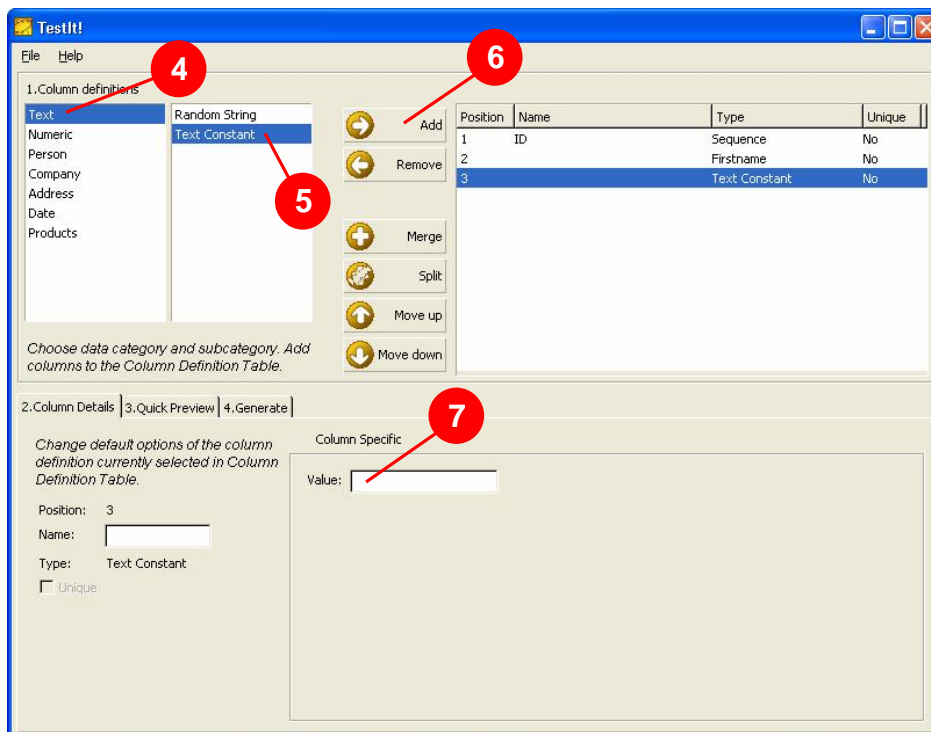
## Define people's names

Let's see, how do we want our names to look like? We were thinking something on the lines of 'Bill Wright', 'Catalina Ross' and such. So it's really a combination of a personal name (firstname), a one blank character, and a family name (surname).

So, (1) choose 'Person' category and (2,3) add a 'Firstname' rule.

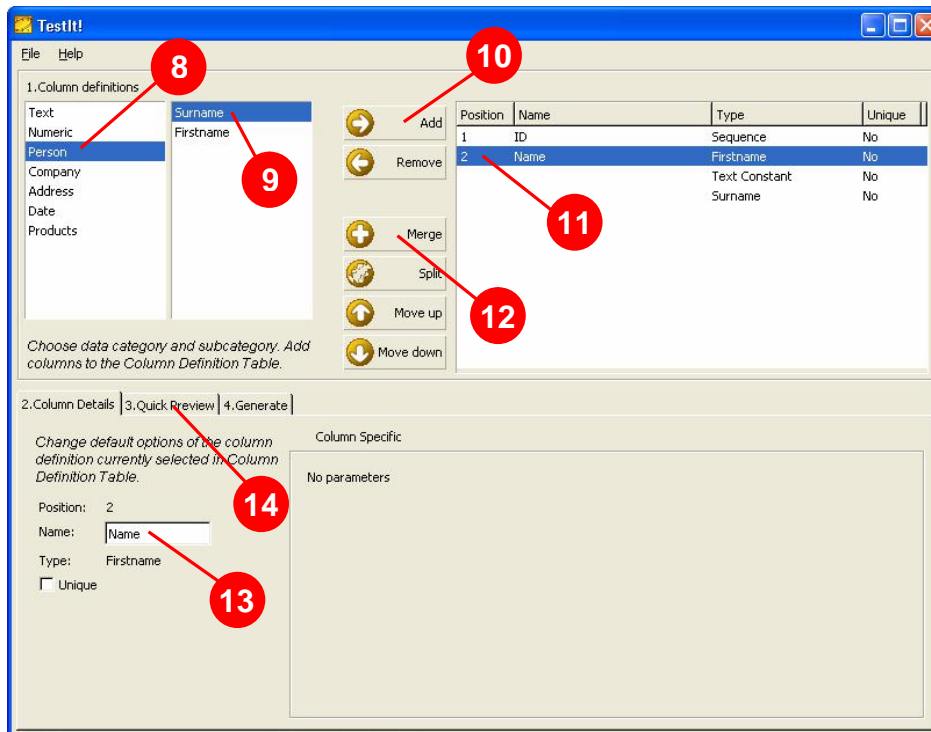


Then (4) choose 'Text' category, (5,6) add a 'Text constant' rule. Under 'Column Details', (7) set Value to ' ' (one blank character).

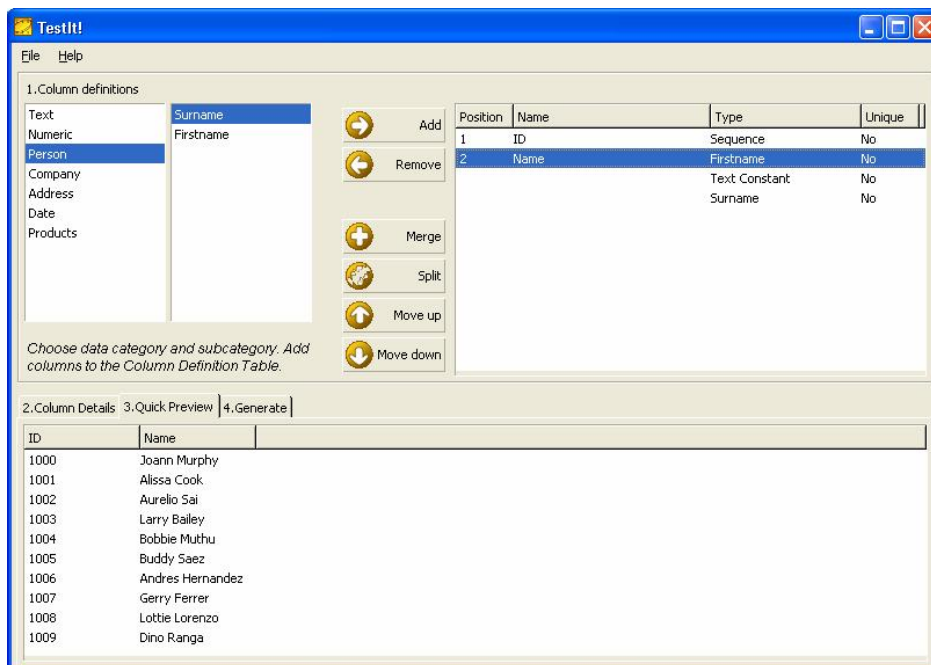




Again (8) to 'Person' and (9,10) add rule 'Surname'. Now, (11) click on 2<sup>nd</sup> row (Position is '2') and (12) twice click 'Merge'. Under 'Column details' (13) set Name to 'Name' and (14) check the 'Quick Preview'.



Looking at the preview of generated data, we are confident we are doing just fine.

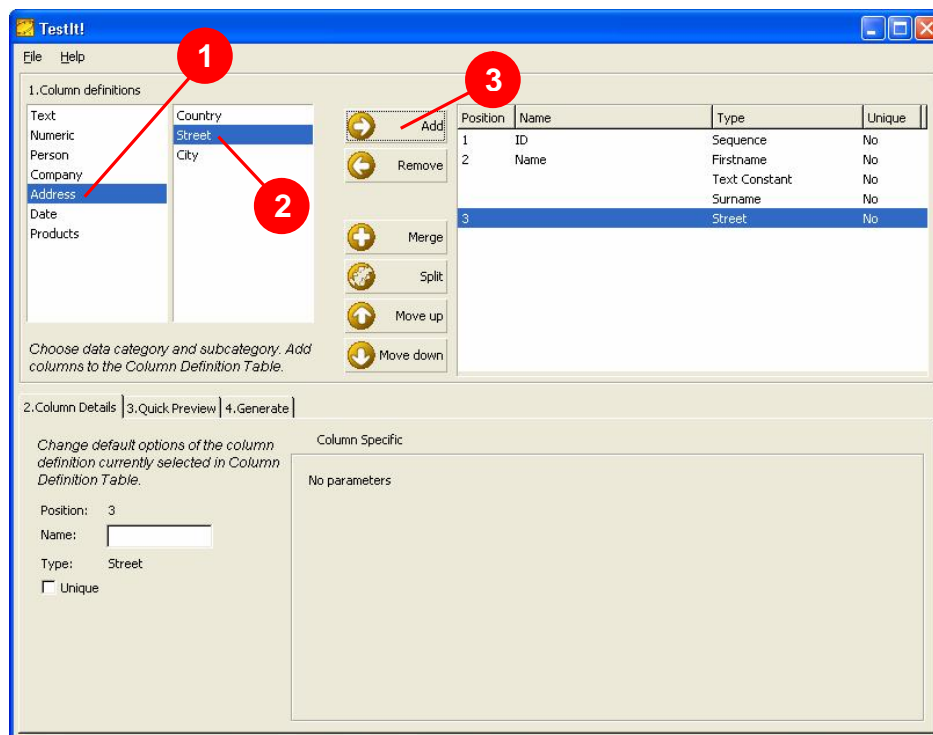


## Specify Address and Location Data

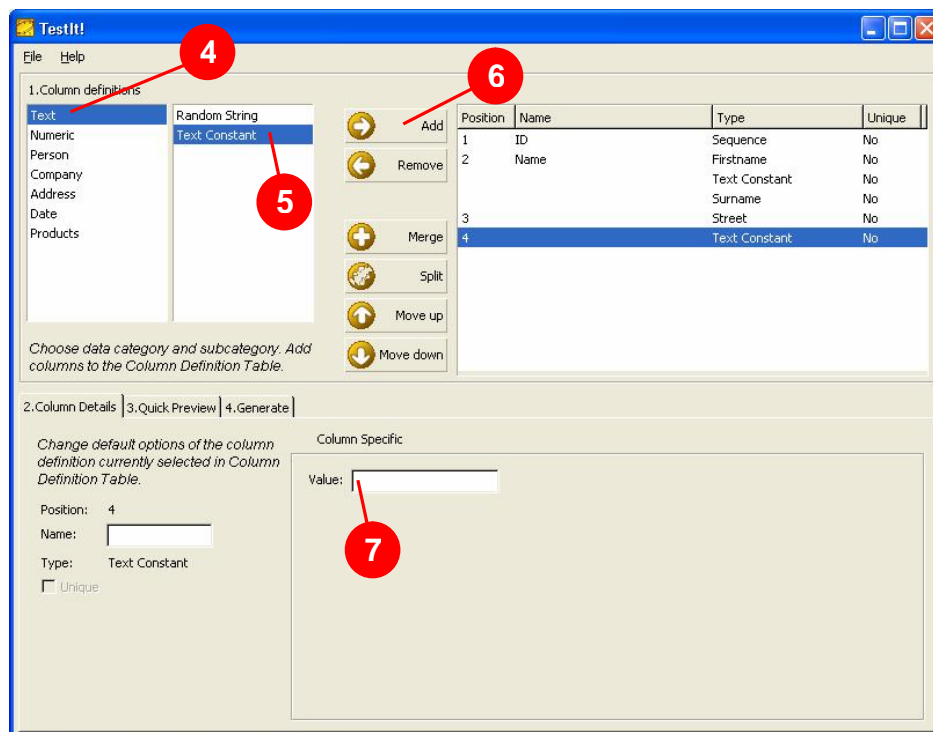
Now, how do we want the address to look like? Looking at the 'Pilgrim Street 102' we see that the address is actually a combination of street name, again a blank character, and house number. We will define house number as a random integer between 1 and 5000.



From (1) 'Address' category add (2,3) a 'Street' rule to column definitions.

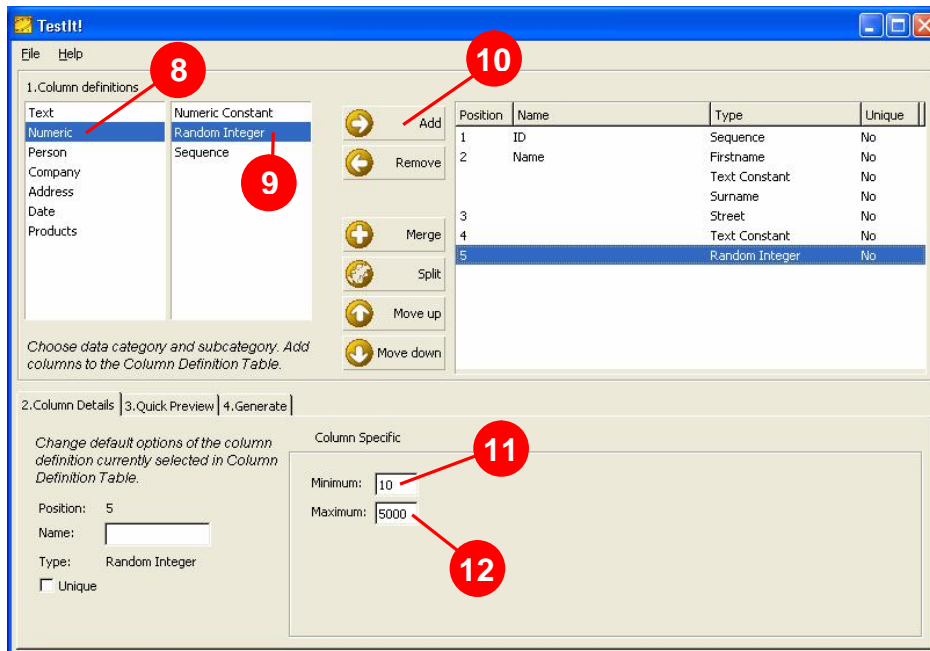


From (4) 'Text' category (5,6) add 'Text Constant' rule. Under 'Column Details' (7) set Value to '' (blank character).

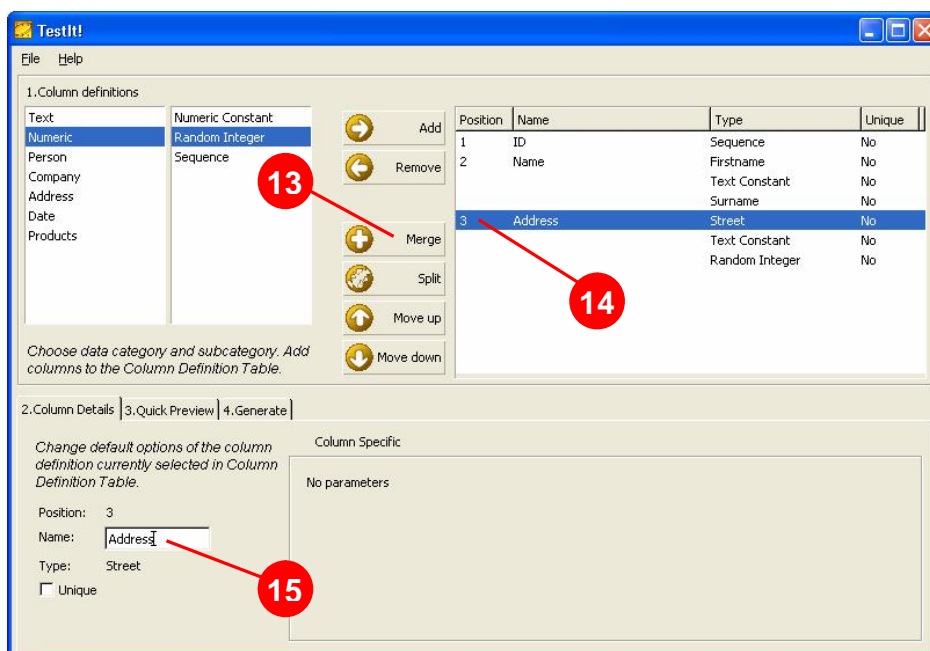




From (8) 'Numeric' category (9,10) add 'Random Integer' rule. Set (11) Minimum to '1' and (12) Maximum to '5000'.



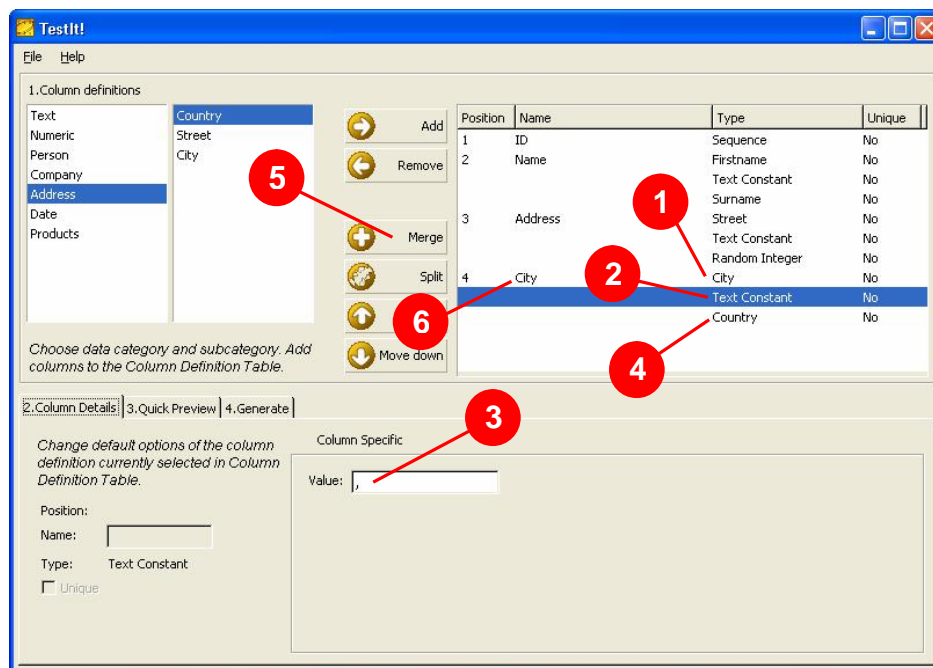
Twice (13) click on 'Merge' button. (14) Select Column definition at Position #3 and (15) under 'Column Details' set 'Name' to 'Address'.



We want the City to be generated as 'Rubio, Venezuela', so it's really a city name, then a text constant ', ' (comma followed with a blank) followed by a country name.



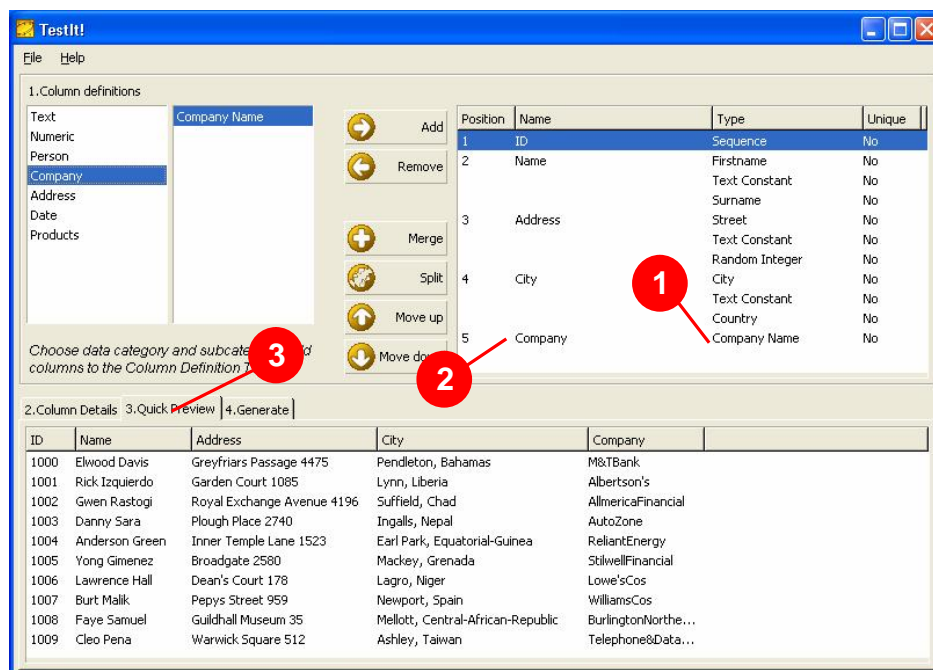
Similarly to previous definitions, we (1) add 'City' rule from 'Address' category, (2) add 'Text Constant' from 'Text' category, (3) set Value of text constant to ', ' and (4) add 'Country' from 'Address' category. Finally, we (5) merge all three rules into one column definition and (6) set its name to 'City'.



## Other Data - Company Name

Company is simple; we just want a random company name.

We (1) add a 'Company Name' from 'Company' category and (2) set the column name to 'Company'. By now we should be finished, so don't forget to (3) check the 'Quick Preview' pane. As we can see, everything is ok.

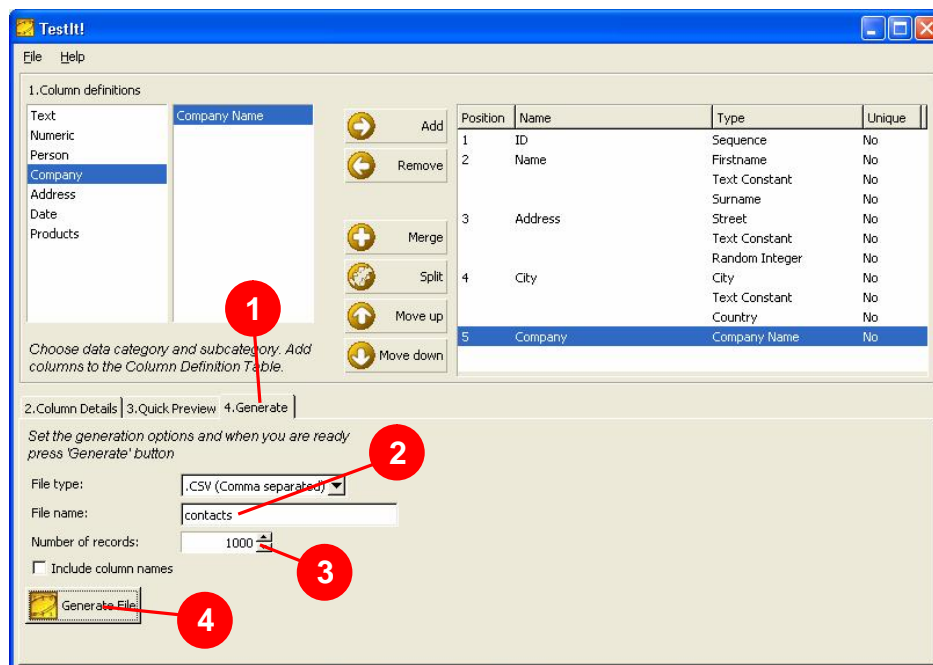




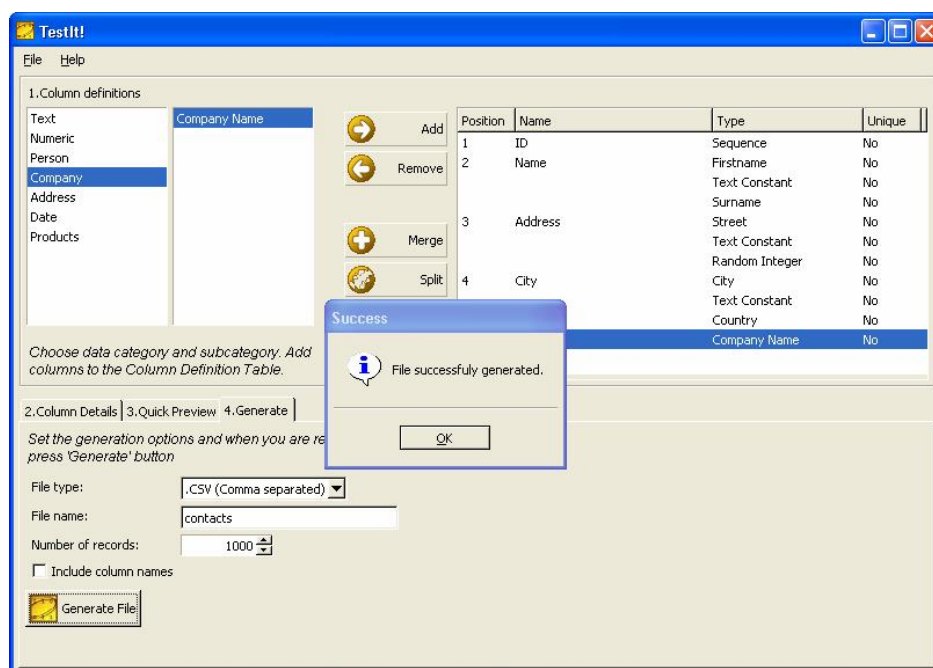
## Generate and Save Data

Now we are ready to generate data.

Open (1) 'Generate' pane. (2) Set 'File name' to 'contacts' - combined with extension '.csv', file with generated data will be 'contacts.csv' in working directory. Increase (3) number of records to '1000' (you can go for a 1.000.000 records if you like, my old P4 need 15 seconds for this exercise) and (4) click 'Generate file'.

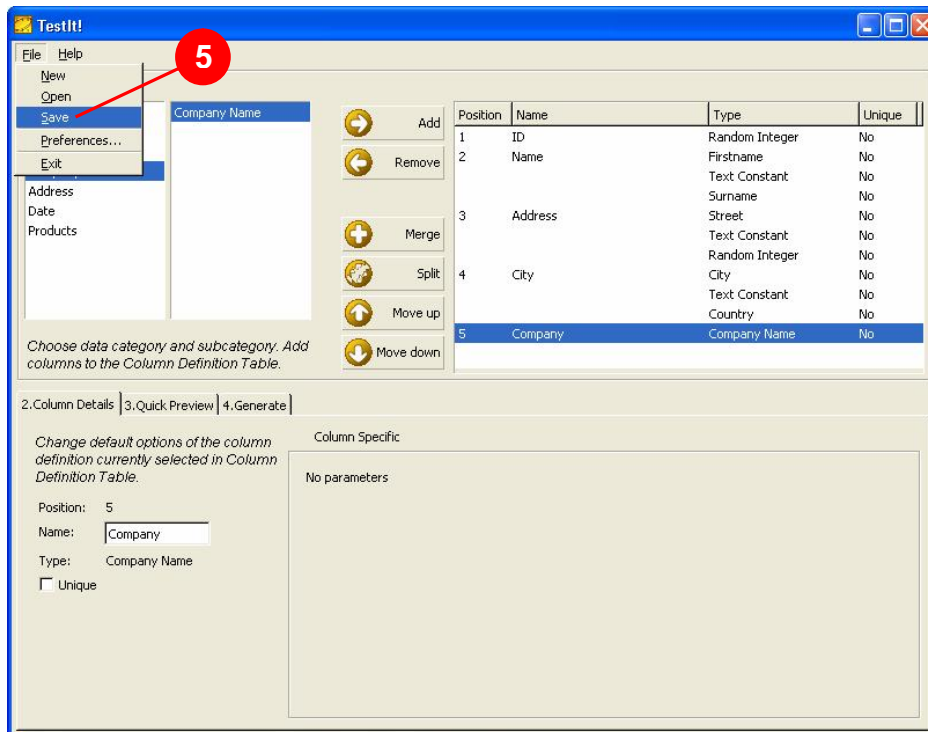


Almost instantly (for 1000 records) you get a friendly message: "File successfully generated."

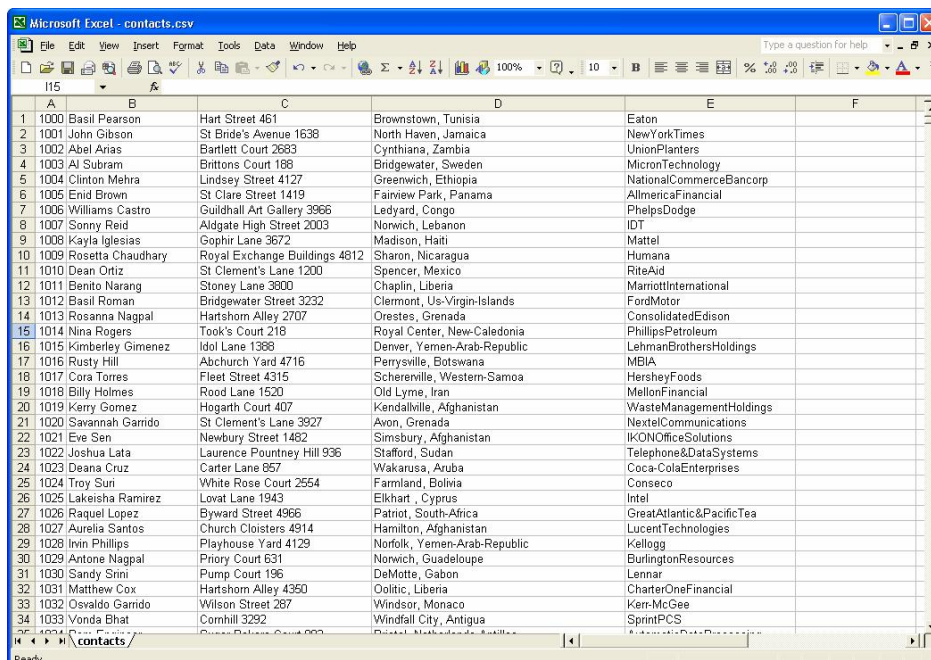




Maybe we'll want later to change something or generate more records, so save (5) column definitions to a file for future use.



And now we can examine results. Browse to file 'contacts.csv' and open it with e.g. MS Excel.



Congratulations - you are ready to import the generated data in your database! Any modern database (Oracle, IBM DB2, MSSQL, MySQL, PostgreSQL, ...) knows how to import a CSV file. The first three even have wizards to assist you with this task.

This is the end of the tutorial. Hopefully, now you feel ready for the real work. We hope you'll find our software as productive as we aimed for.