

RowGen Version 2

Safe Test Data in Real Formats

The Complete Test Data Solution

- **Generate Huge File Volumes Rapidly**
- **Preserve Realism and Referential Integrity**
- **Apply Custom Rules and Ranges**
- **Leverage Data Models and Metadata**
- **Transform, Segment, and Report**
- **Format in Custom File Layouts**
- **Audit Jobs to Verify Compliance**

Product Summary



RowGen

What Does RowGen Do?

RowGen synthesizes test records and files using both randomly generated values, and randomly selected field data from 'set' files. While generating these rows, the data can be transformed and formatted into:

- One or more detail and summary flat files (i.e. custom reports)
- Named or unnamed pipes (stdout)
- Custom output procedures that RowGen can link to

RowGen preserves the primary/foreign key relationships in your data models, and leverages the metadata you have already defined for any number of application formats. RowGen also uses metadata repositories so you can share and re-use test data layouts and job specifications.

What Are the Benefits of RowGen?

RowGen is a high-volume generator of intelligent test data that can reduce the risk, effort, guesswork, and costs involved in complex test data synthesis. Designed with developers, DBAs, ETL architects, and compliance teams in mind, RowGen provides an easier way to generate test data that:

- Complies with privacy laws
- Preserves referential integrity
- Conforms to your business rules
- Does not tax database resources
- Does not require complex programs
- Cuts development and testing time/costs
- Undergoes detail and summary transforms
- Scales across an enterprise data warehouse
- Leverages existing data models and file layouts
- Improves quality control via data realism and ranging
- Outputs to multiple targets simultaneously, including reports

Selected RowGen Uses

Database Population

RowGen can generate millions of rows of ordered test data for loading into referentially correct database tables. Records can be built in the format, size and layout that your RDBMS can load and process, leveraging DDL models, and preserving the relationships between tables. By populating tables with realistic and pre-sorted data, you can build and test very large load, unload, and query scenarios quickly, reliably, and securely.

Application Development

RowGen can synthesize, transform, and format test data to meet the volume, range, and layout requirements of any program or prototype. By creating real-looking, intelligent test data, RowGen enables the simulation and stress testing of applications, making them more likely to work in production and less likely to depend on other development stages or confidential data.

Format Sharing

With RowGen's powerful data transformation and formatting functions, test data targets can range from simple, single-field flat files to custom-formatted, detail and summary reports with user-defined headers, footers, HTML tags and variables. By building test data that populates the desired file or report layouts, real formats can be outsourced, but not private content.

Benchmarking

Utilizing fast I/O techniques, RowGen can rapidly create massive columns of output records and build multiple representative files at once, using your desired file layout and value ranges. RowGen can rapidly build a scaling test suite - enabling you to run a complete and consistent battery of tests against different software and hardware products in order to find the most efficient processing configurations for a production environment. Large test files are also required when benchmarking high-performance file management and data processing systems.



RowGen

RowGen Operations

RowGen provides a fast and easy way to build multiple test data targets - all in different formats, and all at once. Through its integration with the Rapid Architectural Consolidation Engine (RapidACE), RowGen can quickly populate test files and tables for an entire enterprise data warehouse team. You can write RowGen Control Language (RCL) job scripts by hand, or create them using the RapidACE GUI for RowGen.

RowGen's Graphical User Interface

The RapidACE GUI for RowGen, RA-RowGen, automatically parses DDL models to create RowGen scripts that build structurally and referentially correct test data. RA-RowGen creates drag-and-drop categories with generic settings to handle multiple classes of tables, and then applies the script creation engine to the category. RA-RowGen also contains a scripting wizard that provides you with an easy mechanism to generate and create scripts for single structures.

RA-RowGen supports DDL exports from the following vendors:

- Oracle
- Microsoft SQL Server
- Teradata
- IBM DB2 UDB
- Sybase
- Informatica

The screenshot displays the RA-RowGen Special Edition interface. On the left, a workspace tree shows a project named 'oraSATURN.ddl' containing various table definitions. The main window shows the DDL script for the 'SATURN.SMBSOTK' table, including column definitions and constraints. A console window at the bottom provides summary statistics: 0 sequence objects, 1752 total constraints (87 invalid), 485 total primary keys, 1005 total foreign keys, 104 total non-unique indexes, and 25 total unique indexes. On the right, the 'Infile Options' dialog is open, showing a 'Populate fields from DDF File' section with three field definitions. Below this, the 'Set File' section is configured with 'Name: products.set', 'Data Type: CHARACTER', and 'Pre-Sorted' selected. The 'Field Options' section shows 'Position: 4'. Navigation buttons at the bottom include '< Back', 'Next >', 'Finish', and 'Cancel'.

The screenshot above illustrates two of the ways RA-RowGen can generate test data through RowGen scripts. The easy-to-use wizard automates RowGen script creation by directly reading DDL files from industry leading databases. RowGen also allows you to specify the parameters of generated data using a point-and-click interface. Finally, all generated files can be further customized using the embedded text editor, providing full control over test data generation scripts.

Supported Platforms

A IX (IBM I, p and zSeries)
HP-UX (RISC and Itanium)
Linux (x86, Itanium, IBM POWER &z)
Mac OS X
Solaris (SPARC and Intel)
Other UNIX (e.g. BSD, SINIX, Tru64)
Windows (NT/XP, 200/3 Server, Vista)

Supported Metadata

3NF DDL and compliant data vaults
COBOL copybooks
CoSort (SortCL) data definition files (.ddf)
Microsoft CSV & W3C ELF headers
Oracle SQL*Loader control file
DTD/XSD, plus BI/ETL tools, via Meta Integration Model
Bridge (MIMB)

Test-Related Functions

Random Data Generation and Selection
Parallel Sorting (faster loads & queries)
Conditional Filtering (for value ranging)

Calculations, Aggregations, & Sequencing
Custom Flat-File and Report Formatting
Logging (in XML format, for compliance)
Multi-Targeting (esp. for table relations)

Test File Formats

ACUCOBOL-GT Vision
Fixed or Variable Position Flat Text
Line, Record, or Variable Sequential
LDAP Interchange Format (LDIF)
Micro Focus Variable Length & ISAM
Mainframe Variable Blocked Format
MS Comma-Separated Values (CSV)
W3C Extended (Web) Logs
W3C XML

Test Data Types

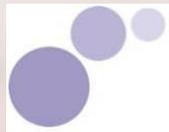
ASCII & EBCDIC Characters
Numeric, Whole, Currency, IP Address
Alpha & EBCDIC Digits
RM and MF COBOL Numerics
Other Binary Numerics
US, European, ISO, Japanese Timestamps*
Unicode & Multi-byte Characters*

*requires output conversion specification

MEXICO

SYSVIEWSOFT S.A de C.V.
Río Mississippi 52 – 3er. Piso
Col. Cuauhtémoc México, D.F
C. P. 06500

TEL.+52 (55) 5233.6173
TEL.+52 (55) 5233.6183
info@sysviewsoft.com
www.sysviewsoft.com



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