



IRI FACT
Fast Extract for DBs

- Accelerate ETL Operations
- Archive and Exchange Data
- Improve Reorg Efficiency
- Migrate and Replicate Faster

High-Speed Database Unloading



Product Summary

What Does FACT Do?

IRI FACT (FAst extraCT) unloads data from very large relational databases into flat files, in parallel, and is the fastest way to:

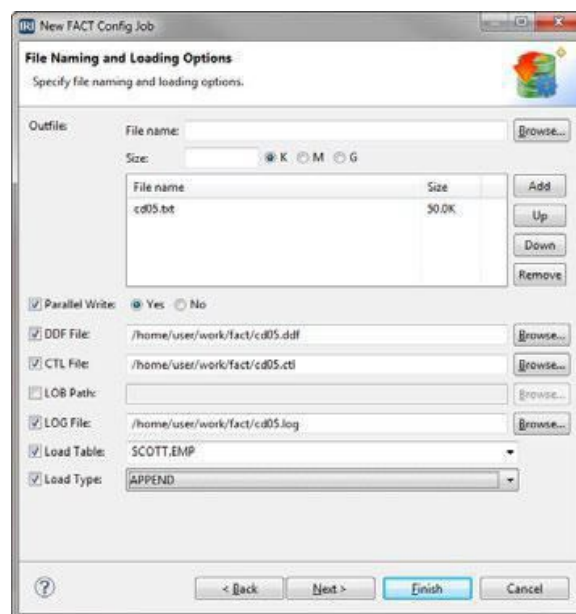
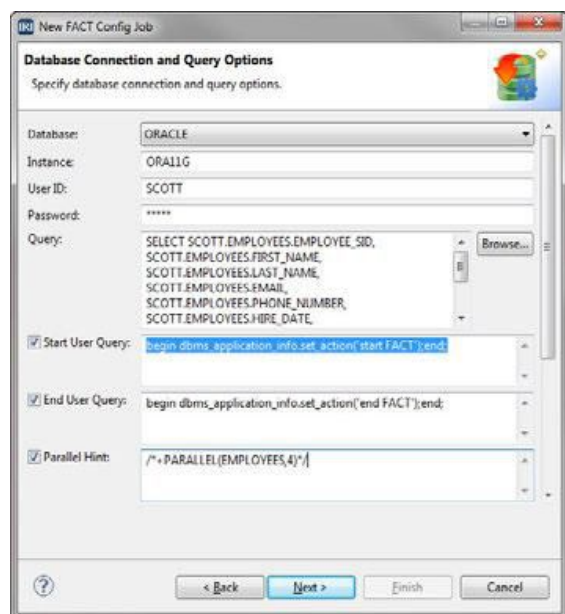
- Export transaction tables for high-volume ETL and reorg operations
- Create database archives and interchange files for database migrations
- Produce portable flat files for data sharing, replication, and reporting
- Create metadata for data transformations and bulk load utilities

How Does FACT Work?

FACT uses the native API for each supported database, multi-threading, query splitting, and other proprietary performance techniques to rapidly unload table data into flat files. FACT job specifications run from a simple text script:

fact ini_file

The configuration file specifies table details and columns to be extracted, along with the target file format and destination. FACT runs on the command line, from a batch script, an application program, or the [IRI Workbench GUI](#), built on Eclipse™:



Why Use FACT?

FACT allows DBAs and ETL architects to unload tables with more speed and flexibility than they would have with database tools like SQL*Plus, Oracle Export, Data Pump, or other unloaders.

SQL is designed to access and manipulate small amounts of table data. It requires resource overhead that makes the movement of bulk data inefficient.

And, unlike the proprietary data format of a database export tool that requires its import utility to load the data back, FACT extracts are in portable, flat-file formats that are compatible with any tool (like Excel), database load utilities, and IRI data manipulation and management products using Workbench, like CoSort, FieldShield, NextForm, RowGen, or the Voracity platform that supports them all and orchestrates ETL and reorg job using FACT and CoSort together with your load utility.

Finally, FACT can be used in the same way with multiple databases, without having to license it more than once.

Integrated ETL, BI, and Migration Operations

During extraction, FACT produces data definition files for Voracity ETL, CoSort data transformation and reporting, NextForm database migration, FieldShield data masking, RowGen test data generation, and database loaders. Creating that metadata makes it easier for DBAs and data warehouse architects to design and execute downstream or simultaneous file processing.

In fact, these FACT-created data definition files can be referenced in various jobs:

CoSort data transformations, such as:

- Sorting
- Joining
- Aggregation
- Type-conversion
- Cross-calculation
- Reporting/mapping

FieldShield protection functions, such as:

- De-identification
- Encryption
- Hashing
- Masking
- Pseudonymization
- Randomization

Running optimized extraction, transformation, and loading steps together can dramatically accelerate data warehouse ETL:

Oracle-to-Oracle ETL Benchmark

FACT / CoSort / SQL*Loader

vs.

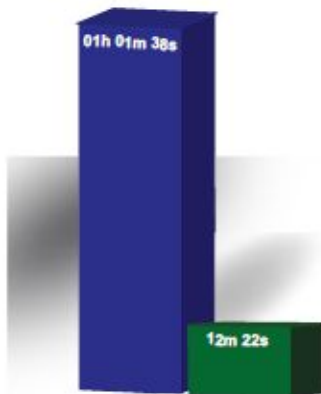
Oracle SQL*Plus insert into
(select* ...order by)



Software versions:
FACT v3.0, CoSort v9.5.3, Oracle
11g, Fedora Core Linux 4

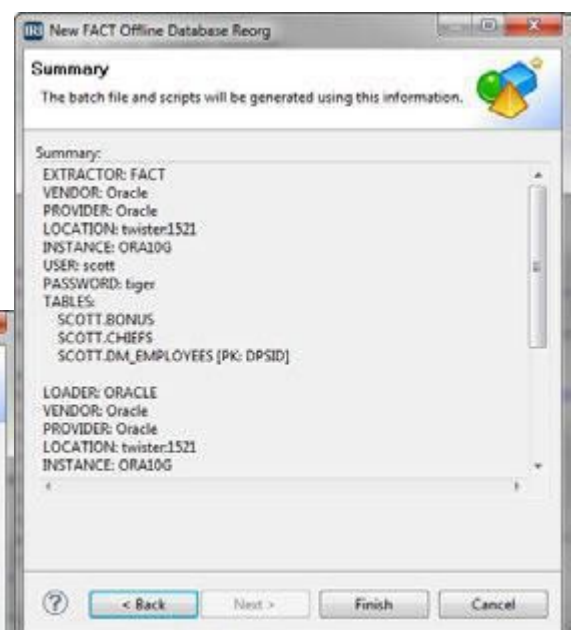
Source Data:
50 M, 50-byte rows (2.5GB)
sorted on longest index key

Test Hardware:
Dell 1-CPU Intel Celeron, 4GB RAM



Bulk Reorg Operations

FACT users in IRI Workbench -- the Eclipse IDE for FACT and CoSort -- can use the Voracity offline DB reorg job wizard to automate mass unloading, sorting, and reloading of relational database. The wizard generates the metadata for all of these steps, which can be modified for ETL, database migration, archival, replication, and reporting projects in IRI Workbench.



Additional Functions

- Extracts custom date and timestamp formats
- Reduces column widths to trim white space and reduce extraction time
- Converts numeric columns to computational, packed decimal, or RM data types
- Adds frame character to fields
- Splits the extract into multiple files of a specified maximum size
- Supports environment variable parameter values

Business Benefits

- Increases data availability for business intelligence
- Helps businesses meet SLAs and other commitments
- Mitigates hardware and software upgrade expenditures
- Speeds data migrations for faster CRM, ERP, and SCM roll-outs
- Frees people and computing resources for higher-value operations, improving enterprise agility

Supported Databases

- Oracle
- IBM DB2
- MySQL
- MS SQL Server
- Sybase ASE, IQ, OCS
- Altibase
- Greenplum
- MongoDB
- Teradata
- Tibero

Supported Data Types

- BLOB & CLOB
- Char & Varchar/2
- COBOL computational (packed decimal)
- Date and Timestamps
- Float
- Integer
- Long
- Nchar & Nvarchar
- Number & Numeric

Supported Platforms

- IBM PowerPC
- HP PA-RISC
- HP Itanium
- Solaris SPARC & x86
- Linux x86
- MS Windows

Compatible Products

- IRI CoSort - Data Transformation & Reporting
- IRI FieldShield - Data Classification & Masking
- IRI NextForm - Data, File & RDB Conversion
- IRI RowGen - Test Data Subsetting & Synthesis
- IRI Voracity - ETL, Data Quality & Wrangling
- DataStreams TeraStream - ETL



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