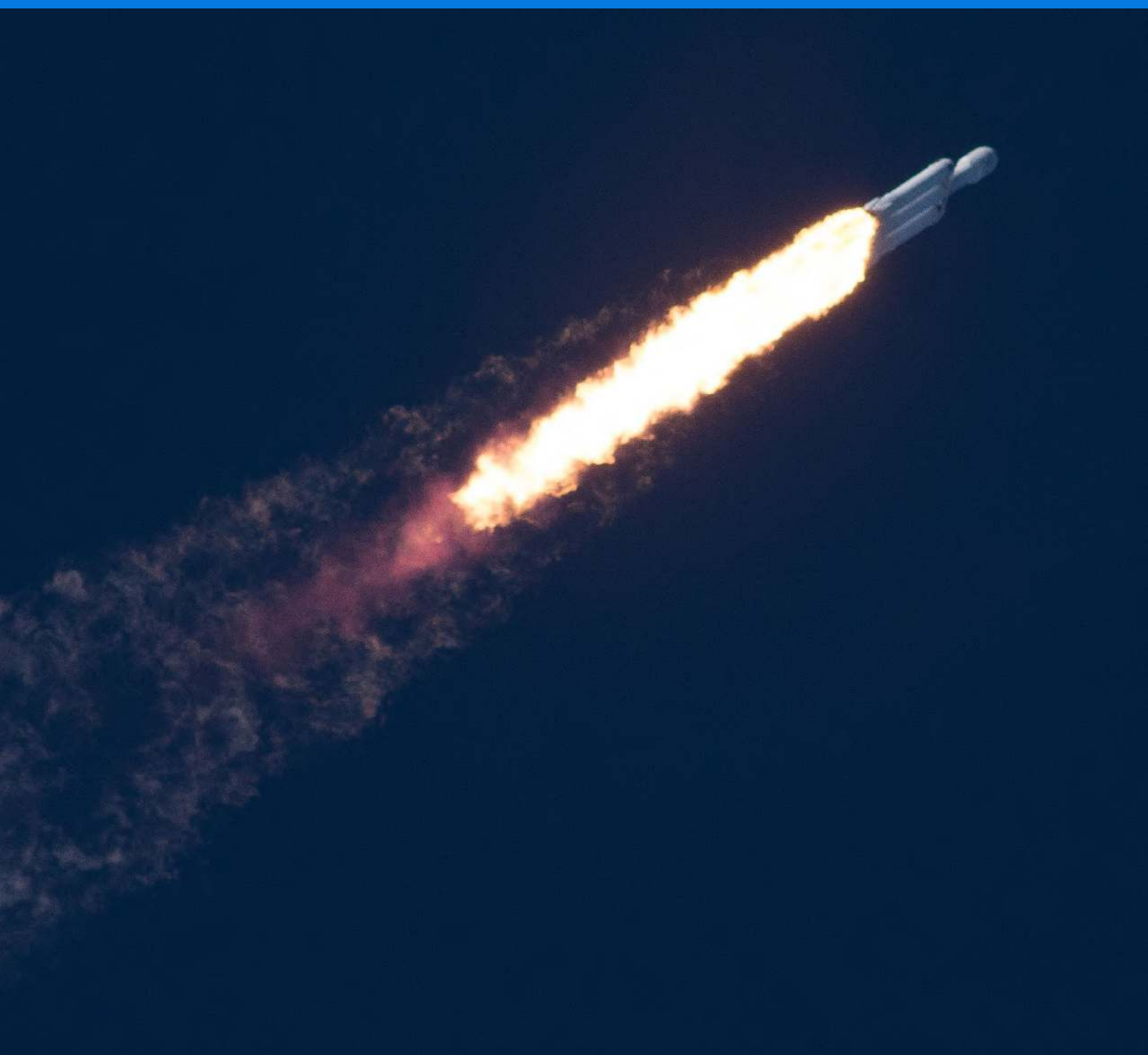


- Parallel Data Processing
- Legacy Sort Replacements
- DB and ETL Tool Acceleration
- Embedded Reporting and BI

Fast Manipulation of Big Data



It's About Time

- Fast, Consolidated Data Processing**

IRI CoSort optimizes and combines key data manipulations. Transform, convert, protect, and report in one I/O pass:



- Any Data Volume, Source, and Type, Relational Table and Flat-File Format**

CoSort collates, converts, and otherwise processes structure data in multiple formats. Handle unstructured, semi-structured, and other data sources through partner drivers or custom input procedures.

- Fast Database and Data Warehouse Operations**

CoSort can select, join, order-by, and group-by 6-10X faster than ETL and DB engines. CoSort captures changed data and speeds bulk loads, reducing database overhead and storage space.

- Targeted Data Security**

CoSort can de-identify, encrypt, redact, pseudonymize, and randomize data at the field level. Mask personally identifiable information in tables and files, and create an audit trail either ad hoc, or during transformation and reporting.

- Simple, Centralized, Open Metadata**

CoSort uses familiar and explicit data definition and manipulation metadata in reusable repositories. All IRI software uses the same 4GL, which leading metadata management products also support.

Legacy Sort and Metadata Migration Tools

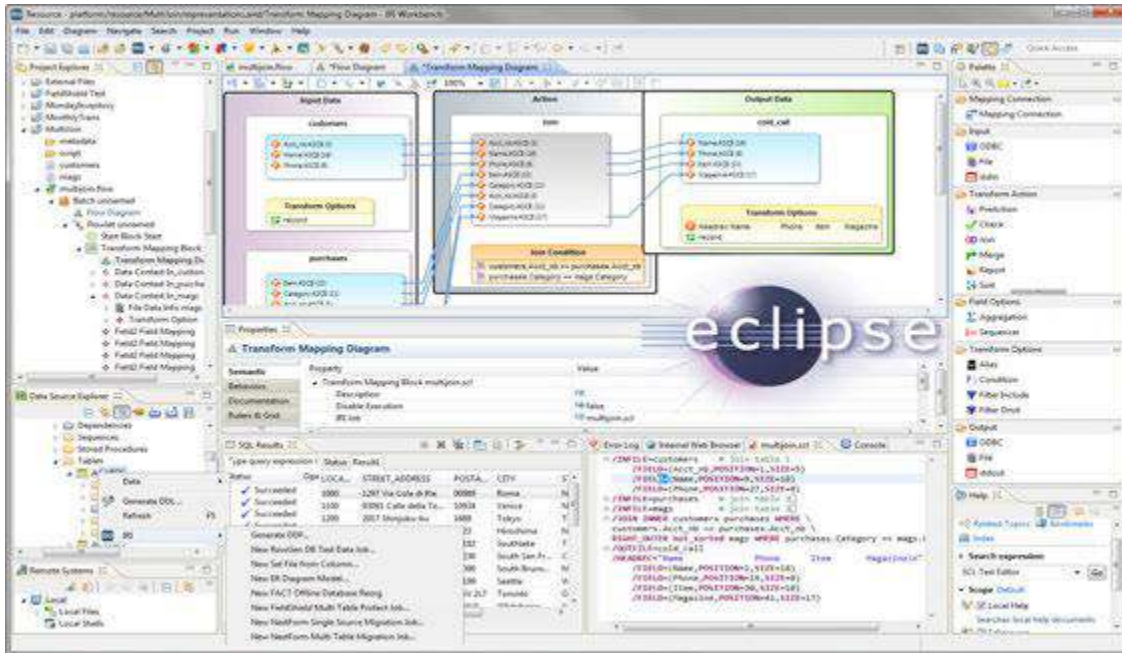
- JCL:** Convert MVS and VSE sort parameters to CoSort (SortCL) job scripts.
- Amdocs Ensemble:** Via legacy sort migration
- Micro Focus COBOL:** Replacements for ACUCOBOL-GT and Micro Focus COBOL (Enterprise Server, Net Express, Server Express, and Workbench) runtime sort verbs. Collate and convert Vision, I-SAM, and MF Variable Length files.
- COBOL Copybooks:** Convert COBOL FDs to SortCL data definitions.
- Other Metadata:** Use included CSV, CTL, ELF, LDIF and XML file parser to create SortCL data definitions.

Third-Party Sort Replacements

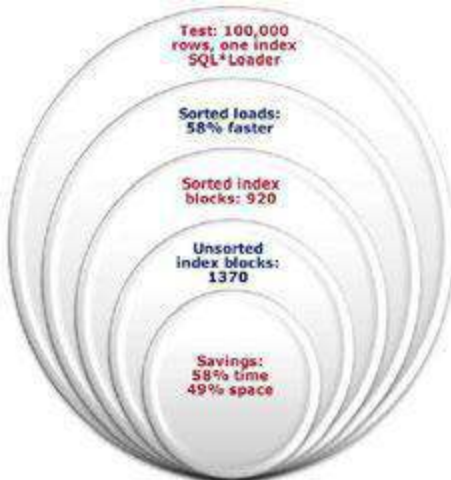
- IBM DataStage** - sequential file stage command
- Informatica PowerCenter** - pushdown optimization
- Software AG** - Natural sort plug-in
- Dell** - UniKix MBE/TPE sorts
- UNIX** - /bin/sort command

IRI Workbench - GUI for CoSort, Built on Eclipse™

Create, run, and manage jobs in a free graphical IDE. Wizards and dialogs, plus a syntax-aware, outline-supported script editor to facilitate onboarding, solution development, job modifications, functional expansion, and metadata management.



Speed VLDB Loads & Reorgs



By pre-sorting with CoSort, bulk loads are faster, which makes it easier to maintain more tables in query order.

Data & File Sources

- ACUCOBOL-GT (Vision) Indexed Files
- ASCII, EBCDIC, COBOL and C (binary) forms
- Bulk RDBMS Unloads - via Fast Extract (FACT)
- Custom Input Procedures (e.g. UIMA)
- DB Tables and Excel Spreadsheets
- European, ISO, Japanese & U.S. Timestamps
- Fixed Block File Format
- IBM Unblocked Variable Record Format
- IP Addresses, Whole Numbers
- LDIF (LDAP), Microsoft CSV, Flat XML
- Micro Focus Variable Length & I-SAM Files
- Sequential Flat Files (Line, Record, Variable)
- Unicode and Native Multi-Byte Character Sets
- VSAM - via Clarity Mainframe Re-hosting
- W3C Common & Extended Log (Web)

CoSort Speeds ETL Tasks & Tools

- **ETL Tools** - Actian, DataStage, Informatica, ODI, Pentaho, SSIS, Talend, etc.
- **BI Tools** - BIRT, BOBJ, Cognos, DW Digest, iDashboards, MicroStrategy, OBIEE, QlikView, R, Splunk, Spotfire, Tableau
- **RDBs** - DB2, MS SQL, MySQL, Oracle, Sybase

Compatible Products

- AnalytiX DS Mapping Manager
- BIRT - Eclipse Reporting Tool
- IRI FACT - Fast Extract for Oracle, DB2, et al.
- IRI FieldShield - Data Masking
- IRI NextForm - Data and Database Conversion
- IRI RowGen - Referentially Correct Test Data
- IRI Voracity - Total Data Management
- Melissa Data & Trillium - Data Quality
- MITI - Meta Integration Model Bridge

Supported Platforms

- Linux on x86, Itanium, IBM s/p/i/z, FreeBSD
- UNIX (AIX, HP-UX, Solaris, Tru64 & more)
- Windows® (XP, 2000-2016, 7, 8, 10)

CoSort Business Benefits

- Parallel transforms increase data availability for data warehouse ETL, ELT, and ODS staging
- Task consolidation speeds runtimes, minimizes CPU cycles, and delays hardware upgrades
- Fast, feature-rich 4GL can replace slower 3GL programs, shell scripts, and SQL procedures
- Big data integration and reformatting capabilities rapidly franchise data for BI and analytics
- Intuitive and open job scripts and metadata reduce developer training and maintenance costs
- Familiar Eclipse GUI facilitates job design, cross-platform execution, and project management
- Seamless sort acceleration plug-ins optimize ROI for packaged applications and ETL tools
- Built-in detail, delta (changed data capture), and summary reporting marries decisions to transformations
- Built-in field data masking reduces risk of fines, brand damage, and litigation
- Flexible, perpetual-use licensing models lower acquisition and ownership costs

Typical CoSort Users

- American Airlines - Sabre

“Fortune Magazine says our yield maximization system is private industry’s most frequently updated database -- one of the world’s largest! We chose CoSort to quarter the time batch reorgs take our airline clients on their SMP systems. The CoSort team responds rapidly and fairly to our technical and business needs.”

- Blue Phoenix

“We completed a migration of a large MVS/ADSO environment (CICS and BATCH) to Sun Solaris/Oracle. The sorting requirements were very complex with a lot of totaling and speed requirements. This project required a lot of technical interaction and support from the CoSort team who were very responsive, helpful and professional. In our experience the CoSort solution provides the best value for performance, support, and cost of ownership.”

- Comcast

“The Comcast Data Engineering and Management Integration (DEMI) organization distributes 10 terabytes of business-centric DAP (Directory Access Protocol) data on a daily basis to the rest of the company. The fact is we would not be able to pull this off successfully without CoSort. It accurately and quickly processes billions of rows of DAP data; and allows us to join and analyze this information in connection with our other data warehouse processes. No other tool gives us this much speed and flexibility, or even allows the processing of this volume of flat-file LDIF records. The very talented CoSort team worked with us to develop and prove out this capability very quickly. In turn they developed a long-term customer relationship with America’s largest Cable Operator, and a large (50 TB) and growing data warehouse.”



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