CoSort Version 9

THE OPEN SYSTEMS STANDARD

Product Summary

Fast Manipulation of Big Data

- Transformation
- Conversion
- Protection
- Reporting

IRI

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CoSort: It's About Time

- **Extremely Fast Sorts and Parallel Transformations**
  CoSort combines high performance with functional versatility. With CoSort, you can simultaneously:

Aggregate	Hash	Randomize
Convert	Join	Re-map
Cross-Calculate	Integrate	Report
De-identify	Lookup	Sequence
Encrypt	Mask	Sort
Filter	Merge	Validate

  - all in one pass through large, multi-formatted inputs. CoSort also supports Perl Compatible Regular Expressions (PCRE) and custom field functions for: protecting PII, data, cleansing, and other complex transforms.

- **Any Volume, Data Type, Relational Table and Flat-File Format**
  CoSort collates and converts more than 100 data types, including EBCDIC, zoned decimal, IP addresses, Unicode, COBOL, VarChar, multi-byte Asian characters, and timestamps. CoSort can also convert files between CSV, ISAM, LDIF, Vision, XML, and several other sequential file formats, while also moving between big- and little-endian formats.

- **Fast Database and Data Warehouse Operations**
  CoSort can select, join, order-by, and group-by faster than DB2, Oracle, Informatica, and DataStage. By sorting, joining and segmenting billions of flat-file rows, CoSort captures changed data and speeds bulk loads while reducing database overhead and storage space.

- **Targeted Data Security**
  CoSort can de-identify, encrypt, filter, mask, pseudonymize, and randomize sensitive data at the field level. CoSort can secure sensitive fields in tables and files, create an audit trail, and leave remaining data open for processing.

- **Simple, Centralized, Open Metadata**
  CoSort runs with familiar and explicit data definition and manipulation statements residing in reusable text repositories. Several applications create or leverage CoSort metadata, including IRI's Fast Extract (FACT) and RowGen (test data) tools, the RapidACE data model consolidator, the Meta Integration Model Bridge (MIMB), and the following:

Legacy Sort and Metadata Migration Tools

- **JCL:** Converts MVS and VSE sort parameters to CoSort (SortCL) job scripts.
- **Micro Focus COBOL:** Drop-in replacements for Micro Focus COBOL (Net Express, Server Express and Workbench) runtime sort verbs. CoSort also collates and converts MF Variable Length and I-SAM files.
- **ACUCOBOL-GT:** Drop-in replacement for the ACUCOBOL-GT sort verb on UNIX. CoSort also collates and converts Vision index files.
- **COBOL Copybooks:** Converts COBOL FDs to SortCL data definitions.
- **Other Metadata:** CSV, CTL, ELF, LDIF and XML file parsers create SortCL data definitions.

Third-Party Sort Replacements

- **Amdocs Ensemble** - via legacy script replacement
- **IBM WebSphere DataStage** - exclusive sort stage plug-in
- **Informatica PowerCenter** - exclusive Sorter Tx custom transform
- **Clerity Mainframe Rehosting Software -** UniKix MBE/TPE sorts
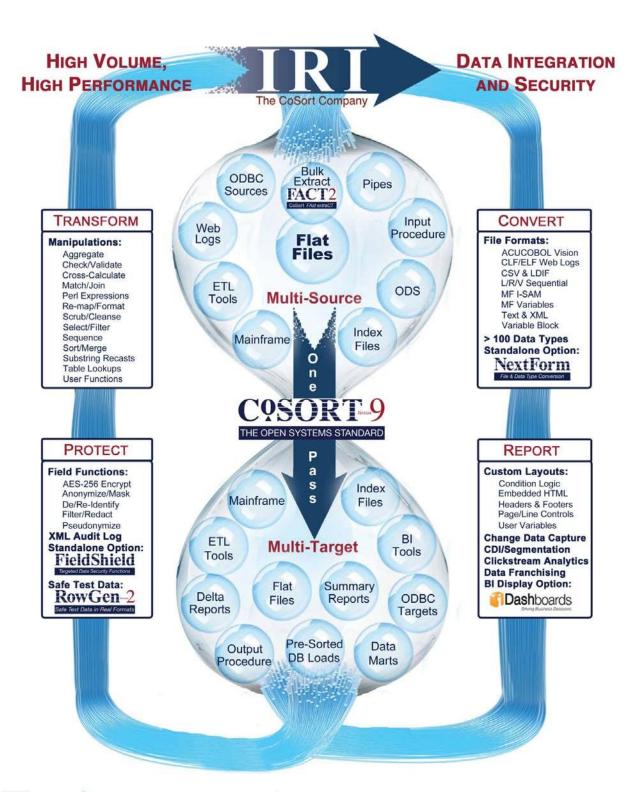- **UNIX** - /bin/sort command

CoSort Business Benefits

- Parallel transforms increase data availability for ETL and BI operations
- Task consolidation speeds runtimes, minimizes CPU cycles, and delays hardware upgrades
- Built-in field security reduces risk of fines, brand damage, and litigation
- Intuitive syntax reduces development time, training and modernization costs, and job maintenance
- Seamless accelerations optimize ROI for packaged applications and ETL tools
- Flexible, perpetual-use licensing models lower acquisition and ownership costs

Fast Single-Pass Data Manipulation

CoSort's parallel processing engine accelerates big data integration and staging jobs.
All these critical functions can run at the back end of any large data warehouse or webhouse -
and all in one pass through the data.

HIGH VOLUME, HIGH PERFORMANCE

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DATA INTEGRATION AND SECURITY

TRANSFORM

Manipulations:
Aggregate
Check/Validate
Cross-Calculate
Match/Join
Perl Expressions
Re-map/Format
Scrub/Cleanse
Select/Filter
Sequence
Sort/Merge
Substring Recasts
Table Lookups
User Functions

CONVERT

File Formats:
ACUCOBOL Vision
CLF/ELF Web Logs
CSV & LDIF
L/R/V Sequential
MF I-SAM
MF Variables
Text & XML
Variable Block

> 100 Data Types
Standalone Option:

NextForm
File & Data Type Conversion

PROTECT

Field Functions:
AES-256 Encrypt
Anonymize/Mask
De/Re-Identify
Filter/Redact
Pseudonymize

XML Audit Log
Standalone Option:

FieldShield
Targeted Data Security Functions

Safe Test Data:

RowGen 2
Safe Test Data in Real Formats

REPORT

Custom Layouts:
Condition Logic
Embedded HTML
Headers & Footers
Page/Line Controls
User Variables

Change Data Capture
CDI/Segmentation
Clickstream Analytics
Data Franchising
BI Display Option:

Dashboards
Driving Business Decisions

Multi-Source

- ODBC Sources
- Bulk Extract FACT2 — CoSort FAst extraCT
- Pipes
- Web Logs
- Flat Files
- Input Procedure
- ETL Tools
- ODS
- Mainframe
- Index Files

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One Pass

Multi-Target

- Mainframe
- Index Files
- ETL Tools
- BI Tools
- Delta Reports
- Flat Files
- Summary Reports
- ODBC Targets
- Output Procedure
- Pre-Sorted DB Loads
- Data Marts

Data & File Sources

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

Compatible Products

- BIRT - Eclipse Reporting Tool
- FACT - Fast Extract for Oracle, DB2, et al.
- FieldShield - Audited Data-Centric Security
- iDashboards - Visual BI
- MIMB - Meta Integration Model Bridge
- NextForm - File and Data Type Conversion
- RapidACE - 3D Data Model Integration
- RowGen - Referentially Correct Test Data
- Trillium - Data Quality

Support Platforms

- UNIX (AIX, HP-UX, Solaris, Tru64 & more)
- Linux on x86, Itanium, IBM s/p/i/z, FreeBSD
- Windows® (XP, 2000/2003/2008, Vista, 7)

CoSort Graphical Integrated Development Environment