

TECHNICAL SPECIFICATIONS

INTRODUCTION

Syncsort DMExpress is the fastest, most reliable and cost efficient enterprise Data Integration software.* It speeds applications and delivers information to business users *when they need it*. Compared to other DI tools, DMExpress is twice as fast, enabling more timely business intelligence and decision-making; uses less memory and CPU, decreasing hardware requirements and costs; and saves up to 80% on software costs.

DMExpress high speed data processing is the result of patented performance algorithms, state-of-the-art parallel processing technology, and 40 years of innovative performance-related R&D. DMExpress provides an easy-to-use interface for rapid development and deployment, works across UNIX, Windows and Linux platforms, and delivers unmatched 24/7 Technical Support.

DMExpress can be deployed on servers or on workstations. The graphical user interface (GUI), typically used on workstations, speeds the development, deployment, and use of tasks and jobs.

DMExpress runs existing SyncSort applications seamlessly. Visual SyncSort and SyncSort for Windows applications are automatically converted to DMExpress applications, thus allowing developers to extend and enhance existing applications and programs.

DATA TRANSFORMATION

The data transformation model is based on a simple paradigm. Data transformations run directly from the desktop on any UNIX, Linux, or Windows server. They can be scheduled for later execution, embedded in batch scripts, or invoked from third-party applications. Jobs and tasks are reusable, saving development time when building applications. All major databases are supported.

The data transformation capabilities include:

Source Level Operations

DMExpress converts database tables to flat files and vice versa. Records can be fixed or variable.

Record Level Operations

DMExpress provides the ability to aggregate, join, sort, merge, and to copy records to appropriate targets. It filters, reformats, or transforms records before output.

Field Level Operations

DMExpress includes data type and format conversions, comparison operators (such as =, >, <, !=, CT, and NC), logical operators (And, Or, Not), and general purpose

functions (Extract, IfCompares, IfMatches, IfRecordJoined, IfRecordOrigin, IfThenElse, TargetRecordNumber, ToDate, Today).

DATA SOURCES AND TARGETS INCLUDED IN THE DMEXPRESS BASE PRODUCT

- Flat Files*
- Structured Files (e.g. indexed files and spreadsheets)
- Pipes*
- Data in Memory
- Support for RDBMS and other sources and targets is available. See Additional Components, below.

*gzip Compress Format is available for flat files and pipe sources and targets.

ADDITIONAL COMPONENTS

In addition to its base component, DMExpress offers powerful, separately licensed components:

Advanced Data Management

Advanced Data Management (ADM) includes: high-performance aggregation, high-performance join, and advanced data transformation capabilities, such as UNICODE (UTF-*) support, target layout mapping, external functions, arithmetic functions, date and time functions, string functions, user-defined values, data partitioning, and advanced aggregation functions.

Data Source and Data Target

The Data Source and Data Target components provide direct access to databases and XML files, eliminating the need for additional tools for extracting and loading. Support includes Oracle, DB2, SQL Server, and others.

Impact Analysis

The Impact Analysis component is a powerful productivity tool. It graphically displays the effect of a global variable change, identifies which input variables contribute to the value of a specific output variable, and provides global find across all jobs.

Grid Computing

The Grid Computing component provides a high-performance architecture for CPU-intensive applications by enabling users to harness the collective processing power of multiple computers.

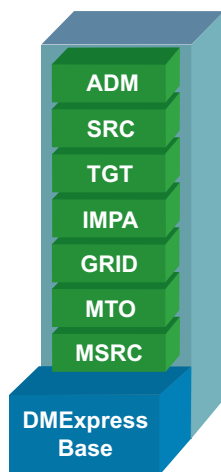
*Based on actual comparisons against leading competitors, including Informatica, IBM DataStage, and others. Claims are based on results of specific tests and may vary depending on environment. Verify DMExpress' superiority in your current application by contacting Syncsort to arrange a Proof of Concept.

ES/MTO Support

Support for MicroFocus Enterprise Server with Mainframe Transaction Option (ES/MTO), provides significant advantages:

- Seamless integration with ES/MTO JCL sort steps (PGM=SORT)
- Ability to set ES/MTO environment variables MF_ALIAS and MFJEXTSM to exploit DMExpress sort technology.
- Significant reduction in elapsed time and system resource utilization (CPU, memory, disk I/O)
- Performance savings comparable to the DMExpress MicroFocus COBOL Sort verb accelerator.

DMExpress ES/MTO is supported on AIX, Windows, and Linux.



DMExpress Components

For more information about DMExpress additional components, see the DMExpress *Additional Components*, *Impact Analysis*, and *Grid Computing* data sheets.

FILE DATA FORMATS

DMExpress processes the following formats:

File Types and Record Formats

DMExpress processes sequential files, indexed files, records passed to and from standard input/output, and records passed to and from an invoking program.

DMExpress also processes record formats of both fixed and variable length as well as delimited text, variable length, Fortran unformatted, Micro Focus fixed and variable, Micro Focus line sequential, Micro Focus indexed, and ACUCOBOL-GT indexed records.

Data Types

DMExpress processes text, edited numeric, date and time, packed decimal, signed integer, unsigned integer, floating integer, bit, unsigned decimal, leading separate sign decimal, trailing separate sign decimal, leading embedded sign decimal

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(Micro Focus format and alternative format), trailing embedded sign decimal (Micro Focus format and alternative format) data, and Oracle Large Objects. UNICODE (UTF-*) text is supported with ADM.

Collating Sequences

DMExpress processes standard (ASCII, EBCDIC, folded ASCII, folded EBCDIC, Multinational, UNICODE), locale-defined, and user-defined (one-for-one, one-for-two, two-for-one, and two-for-two replacements) collating sequences.

METADATA MANAGEMENT

DMExpress features a flexible, simple, and reusable metadata model. Metadata, including record layouts, business rules, transformation definitions, run history, and data statistics, are maintained either within a specific task or in a central repository.

ADVANCED GRAPHICAL USER INTERFACE

The DMExpress advanced, easy-to-use graphical user interface (GUI) speeds the development, deployment, and use of tasks and jobs. The overall design of the GUI reduces user keystrokes, eliminates data duplication, and allows for the reuse of objects. For additional details, see the DMExpress *Advanced Graphical User Interface* data sheet.

INSTALLATION

DMExpress can be downloaded and installed either from Syncsort's web site or from a CD.

SUPPORTED OPERATING SYSTEMS

Windows Platforms

- Windows XP and Windows 2000 for Intel and AMD x86 processors
- Windows Server 2003 for Intel Itanium processors
- Windows XP and Windows Server 2003 for Intel and AMD x64 processors

UNIX/Linux Platforms

- AIX release 5.1 (PowerPC) and later
- HP-UX release 11.11 (PA-RISC) and later
- HP-UX release 11.23 (ia64) and later
- Solaris release 5.8 (SPARC) and later
- Solaris release 5.10 (x86/x64) and later
- Tru64 release V5.1 and later
- Linux on IBM PowerPC, Intel ia64, and Intel and AMD x86/x86_64 processors

For minimal Linux kernel versions supported, contact your local sales agent or consult the DMExpress Installation Guide.

For additional information, visit: www.syncsort.com/products/dmx.

