



The premier XML/DB/flat file/EDI data integration tool.

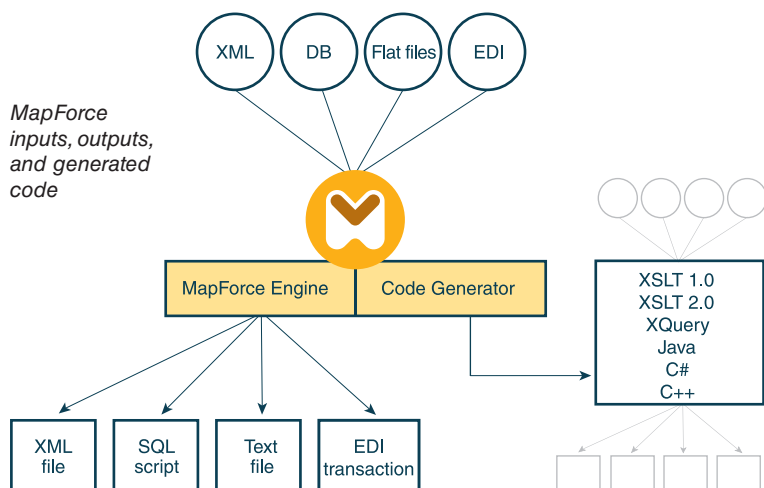
Altova® MapForce® 2005 is the premier XML/database/flat file/EDI data mapping tool for advanced integration projects. This award winning, visual data mapper converts data on-the-fly and auto-generates custom data conversion code in XSLT 1.0/2.0, XQuery, Java, C++, and C#. With the power to integrate any combination of XML, databases, flat files, and EDI, MapForce 2005 is the definitive tool for data integration and information leverage.

Integrate Enterprise Data

Internet technologies have given organizations the ability to share information in real-time with customers, partners, and internal business units. However, these entities often store and exchange data in dissimilar formats, such as XML, databases, flat files, and EDI systems. To remain competitive, today's companies must have the ability to seamlessly integrate information regardless of its underlying format.

Altova MapForce 2005 provides an easy-to-use interface for mapping between any combination of XML, database, flat file, and EDI data. It instantly exchanges data for one-time conversions and simultaneously auto-generates conversion code for use in custom data integration applications. In addition to XSLT 1.0, Java, C++, and C#, MapForce 2005 adds support for two important new W3C standards, including the first production-grade implementation of the XSLT 2.0 specification for transforming and formatting XML content, and support of the XQuery 1.0 specification for intelligent querying of XML documents and databases. This makes MapForce 2005 the industry's first and only product to let you choose between XSLT 1.0, XSLT 2.0, XQuery, Java, C++, or C# code generation – all from the same mapping design.

With all this power and its exceptionally low price, MapForce 2005 compares very favorably against unwieldy, server-based enterprise application integration (EAI) and enterprise service bus (ESB) products, which may sell for ten or twenty times its price.



XML, Flat File, Database, and EDI Data Mapping

When you load two or more data structures into the design window, MapForce 2005 represents their hierarchical structure visually, and you map them by dragging connecting lines between matching elements in the source(s) and target(s) and inserting data processing rules.

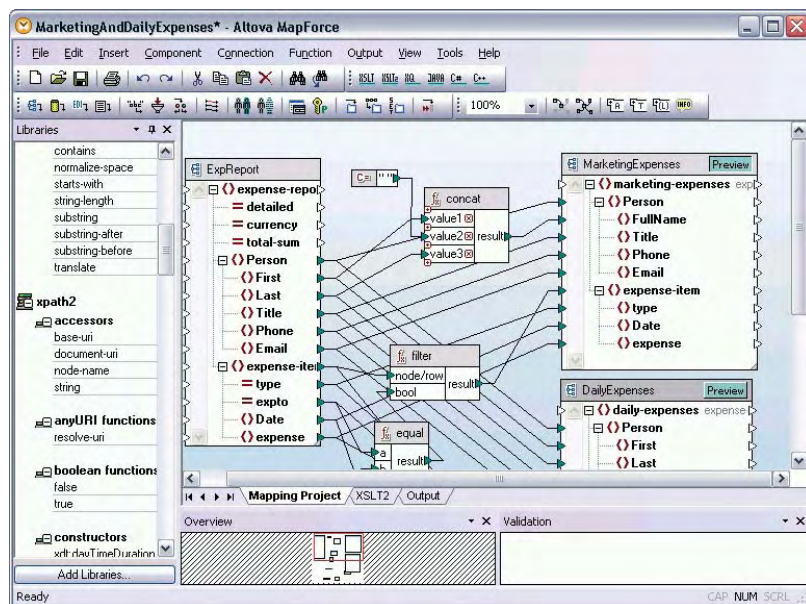
MapForce 2005 provides support for mapping between today's most common data formats with easy-to-use features that simplify the development of even the most intricate mapping projects.

- >> XML mapping support is based on XML Schema.
- >> Database mapping support includes accessing DB views and systems tables in all major relational databases.
- >> Flat file mapping support includes any comma separated value (CSV), tab delineated, or fixed width text file.
- >> EDI mapping support includes the hundreds of messages covered by the EDIFACT and ANSI X12 EDI standards.

Supported databases:

- >> Microsoft® Access®
- >> Microsoft® SQL Server
- >> MySQL®
- >> Oracle®
- >> Sybase®
- >> IBM® DB2®
- >> Any ADO/ODBC database

The unique capability of MapForce 2005 to easily integrate EDI data allows organizations to leverage investments in EDI technology and exchange their EDI data with universal formats like XML, databases, flat files, and other EDI formats. In addition, EDI integration allows smaller companies that do not use EDI themselves to effectively exchange information with partners that employ EDI systems. The ability to open the EDI model to Internet-based e-commerce and relational database stores allows businesses of any size to reap the benefits of real-time information exchange.



MapForce graphical user interface and visual mapping design

XML/database/flat file/EDI mapping capabilities include:

- >> Visual design of data mappings
- >> Viewing large mappings in overview window
- >> Mapping XML to XML/databases/flat files/EDI
- >> Mapping databases to XML/databases/flat files/EDI
- >> Mapping flat files to XML/databases/flat files/EDI
- >> Mapping EDI to XML/databases/flat files/EDI
- >> Auto-connection of matching child elements
- >> Mapping one or multiple sources to one or multiple targets
- >> Multi-stage mapping
- >> Data processing and transformation
- >> Automatic data conversion code generation

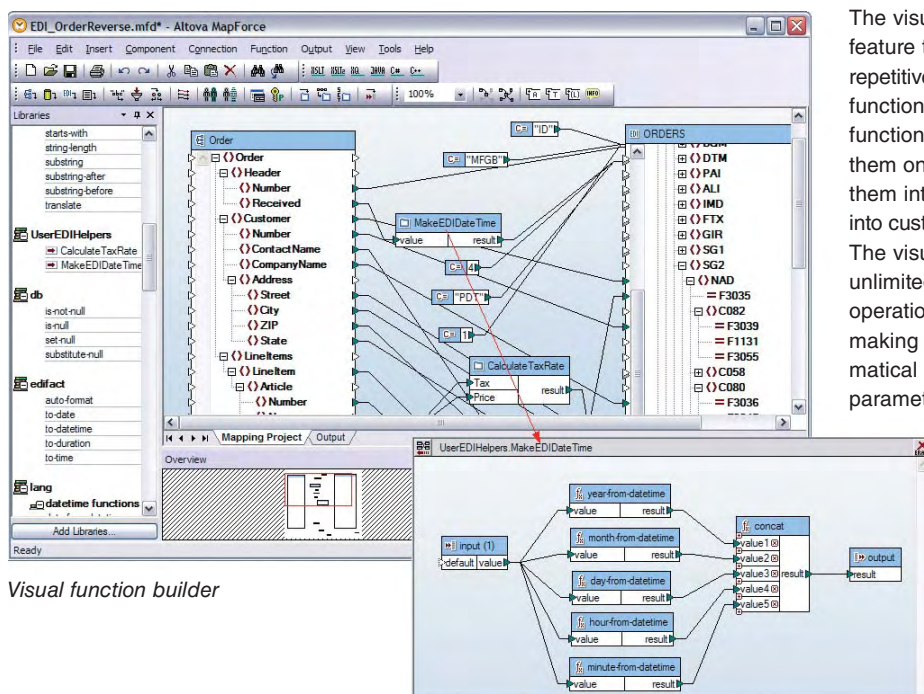
Data Processing Function Libraries

As you are designing a mapping, MapForce 2005 provides extensible function libraries for building advanced data processing functions, which allow you to perform any type of computational operation on data to make it adhere to the content model of the target. Support includes:

- >> Library pane for dragging and dropping functions
- >> Capability to import existing XSLT libraries
- >> Multi-stage data processing capability
- >> Context-aware function availability
- >> Unlimited function input parameters
- >> Visual function builder for custom defined functions
- >> Mouse-over result explanations
- >> Filters and conditions
- >> Transformation input parameters
- >> Default definitions for null or absent source fields

Libraries	
xpath2	
accessors	
base-uri	result = fn:base-uri (node?)
document-uri	result = fn:document-uri (node?)
node-name	result = fn:node-name (node())
string	result = fn:string (item())
anyURI functions	
resolve-uri	result = fn:resolve-uri (relative, base)
boolean functions	
false	result = fn:false ()
true	result = fn:true ()
constructors	
context functions	
current-date	result = fn:current-date ()
current-dateTime	result = fn:current-dateTime ()
current-time	result = fn:current-time ()
default-collation	result = fn:default-collation ()
implicit-timezone	result = fn:implicit-timezone ()
last	result = fn:last ()
position	result = fn:position ()
durations, date and time functions	
adjust-date-to-timezone	Adjusts an xs:date value to the implicit timezone in the evaluation context. result = fn:adjust-date-to-timezone (date, timezone)
adjust-dateTime-to-timezone	result = fn:adjust-dateTime-to-timezone (datetime)
adjust-dateTime-to-timezone	result = fn:adjust-dateTime-to-timezone (datetime, timezone)
adjust-time-to-timezone	result = fn:adjust-time-to-timezone (time)
adjust-time-to-timezone	result = fn:adjust-time-to-timezone (time, timezone)
day-from-date	result = fn:day-from-date (date)
day-from-dateTime	result = fn:day-from-dateTime (datetime)
days-from-duration	result = fn:days-from-duration (duration)
hours-from-dateTime	result = fn:hours-from-dateTime (datetime)

Function library pane



Visual function builder

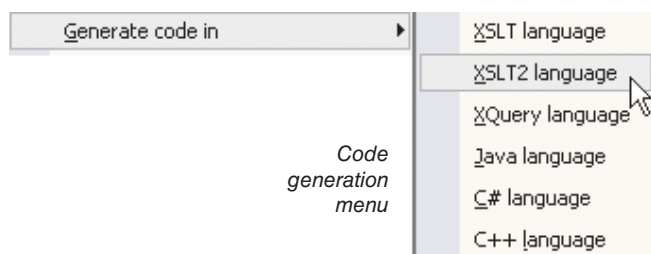
The visual function builder is a particularly useful feature that saves time by letting you automate repetitive tasks. It extends the data processing functionality of MapForce so that once you drag functions from the available libraries and drop them onto the design pane, you can then associate them into complex functions, which may be saved into custom function libraries and reused as needed. The visual function builder allows you to use unlimited parameters in several data processing operations, such as concatenate, add, and multiply, making it easier for developers to perform mathematical manipulations and concatenate multiple parameters.

Code Generation

MapForce 2005 auto-generates the program code required to execute your mapping according to industry standards and globally defined parameters. This ensures compatibility and interoperability across different platforms, servers, programming languages, and database environments. In addition, the resulting code consistency helps reduce software bugs while improving overall code readability and reusability.

Code generation capabilities include:

- >> Generation of stylesheets and program code from a single design
- >> XSLT 1.0 and XSLT 2.0 stylesheet generation
- >> XQuery code generation
- >> Java code generation
- >> C++ code generation
- >> C# code generation
- >> Previewing/saving transformation output (described below)

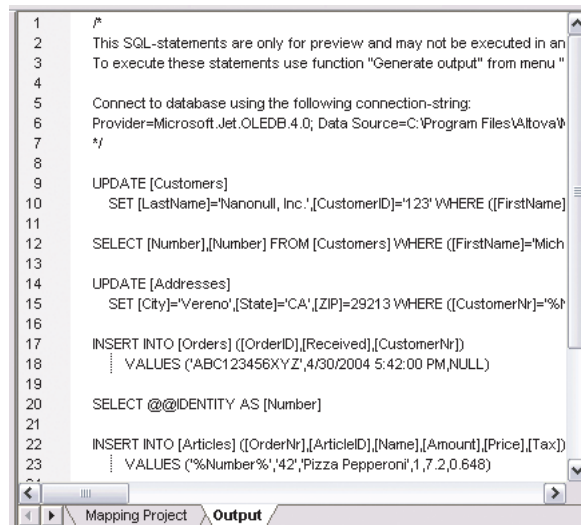


Code generation menu

Examples of generated XSLT 2.0 and XQuery code

The built-in MapForce engine allows you to preview and save the output of your transformations to test your data conversion code or to execute one-time mappings directly within MapForce 2005. Mappings to target XML Schema produce XML documents as output, mappings to databases produce sample SQL select/insert/update/delete statements, mappings to flat files produce CSV or text files, and mappings to EDI targets produce EDIFACT messages or X12 transaction sets.

MapForce 2005 is the first retail-priced, general purpose data integration tool to support all major relational databases and programming languages, and it provides an easy, cost-effective way to develop and integrate XML, database, flat file, and EDI technologies. Using MapForce 2005 simplifies and accelerates the development of data integration applications to make information leverage a reality.



```

1  /*
2  This SQL-statements are only for preview and may not be executed in an
3  To execute these statements use function "Generate output" from menu "
4
5  Connect to database using the following connection-string:
6  Provider=Microsoft.Jet.OLEDB.4.0; Data Source=C:\Program Files\Altova\
7  */
8
9  UPDATE [Customers]
10     SET [LastName]='Nanonull, Inc.',[CustomerID]='123' WHERE ([FirstName]
11
12  SELECT [Number],[Number] FROM [Customers] WHERE ([FirstName]='Mich
13
14  UPDATE [Addresses]
15     SET [City]='Vereno',[State]='CA',[ZIP]='29213' WHERE ([CustomerNr]='%t
16
17  INSERT INTO [Orders] ([OrderID],[Received],[CustomerNr])
18     VALUES ('ABC123456XYZ',4/30/2004 5:42:00 PM,NULL)
19
20  SELECT @@IDENTITY AS [Number]
21
22  INSERT INTO [Articles] ([OrderNr],[ArticleID],[Name],[Amount],[Price],[Tax])
23     VALUES ('%Number%','42','Pizza Pepperoni',1,7.2,0.648)

```

Auto-generated SQL statements from database mapping

Ordering Information

MapForce 2005 is available in Enterprise and Professional Editions. It is supported on Windows NT, 2000, and XP.

You may download a free 30-day trial of MapForce 2005 at www.altova.com/download. To purchase a permanent license please visit the Altova Online Shop at shop.altova.com.



Altova® XML Suite

MapForce 2005 is also available as part of the specially priced Altova XML Suite 2005 – the most complete XML development toolset on the market. The Altova XML Suite 2005 includes Altova XMLSpy® 2005, Altova MapForce 2005, Altova StyleVision® 2005, and Altova SchemaAgent™ 2005 and is offered at bargain prices in Enterprise and Professional Editions.

About Altova

Altova accelerates development and integration projects with software, services, and solutions that enhance productivity and maximize results. As an innovative, customer-focused company and the creator of XMLSpy, MapForce, and other leading software development and data integration tools, Altova is the choice of over 1.5 million clients worldwide and virtually every Fortune 500 company. With customers ranging from vast development teams in the world's largest organizations to progressive one-person shops, Altova's line of software applications and custom-tailored professional and educational services fulfills a broad spectrum of business needs. Altova is an active member of the World Wide Web Consortium (W3C) and is committed to delivering standards-based platform-independent solutions that are powerful, affordable, and easy to use. Altova was founded in 1992 and has headquarters in Beverly, Massachusetts and Vienna, Austria. Visit Altova on the Web at www.altova.com.