

# MESSAGE MAPPER

*Message Mapper is a flexible, labour saving payments message transformation product. It is easy to use, enabling message transformations to be effected by point and click windows-based configuration, without coding. Message Mapper is an essential building block for building and integrating payment systems whether using XML-based formats such as ISO 20022, ISO 8583 or other formats.*

**What is Message Mapper?**

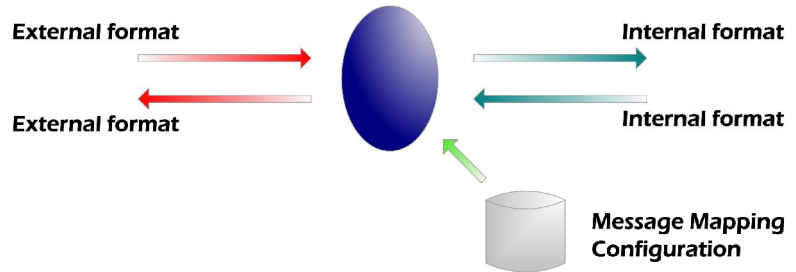
Message Mapper is a Java software product which enables payment messages readily to be mapped from one message format to another by a point-and-click windows-based configuration process, without programming. This radically foreshortens development and testing time when deploying new payments interfaces and applications.

Message Mapper’s intuitive interface means that customers’ staff quickly come to grips with the product and rapidly become competent to maintain existing interfaces and develop new interfaces without any need for external programming support.

User-maintained configuration parameters define message formats, validation, and transformation without the need for expensive, specialist programming.

Message Mapper is fully portable and runs on virtually any distributed, modern operating system and hardware environment.

**Message Mapper**



Message Mapper can be used for both real time and batch message transformation.

**Payments messages**

Messages between different devices, payment networks and in-house systems all contain similar data, but the format of the messages varies even if the message conforms to, say, ISO 20022 or ISO 8583 standards.

External interfaces to networks such as Visa and Mastercard are liable to change. These changes are often mandatory, even though the function supported by the change may not be used immediately.

In many payment systems, the mapping between internal and external formats frequently is hard coded for each interface. Adding or changing such code is typically a costly and time-consuming exercise, which relies on the continuing availability of specialist skills.

**Message Mapper’s origin**

When designing Authentic, Alaric’s next generation EFT product, it was recognized from the outset that message transformation and interface management are high cost items in conventional, programmatically designed payment systems.

Thus, to enable customers to realize substantial implementation and support cost

**Fast Facts Message Mapper**

- ✓ The ultimate in configurable, high performance payments message transformation
- ✓ PABP PCI/DSS compliant
- ✓ GUI-based definition of transformations, without coding
- ✓ Rapid, cost effective implementation of new interfaces
- ✓ Commonly required message formats available off-the-shelf
- ✓ Highly scalable
- ✓ 100% written in Java
- ✓ Fully portable – runs on many operating systems including Linux, UNIX and Windows
- ✓ Proven on IBM, Stratus, HP and Sun amongst others
- ✓ Relational Database using Oracle or DB2
- ✓ Designed for 24x7, 99.999% resilience

reductions, Alaric set out to design a product which would enable message transformations to be effected by configuration, without programming. These efforts resulted in the Message Mapper product.



As well as being deployable on a stand alone basis, Message Mapper is used as the core messaging component by all members of the Authentic product family, namely, Authentic itself, Authentic Gateway and Authentic Faster Payments Gateway.

Message Mapper is also provided as a component of the Fractals system, enabling rapid integration of Fractals with transaction source systems.

In contrast to generic EAI and SOA message transformation software, Message Mapper was designed by payments people for the payments market.

**Supported message types**

Message Mapper is able to support any of the message formats commonly encountered in payments applications. Support for ISO 20022, bit mapped (such as ISO 8583), tagged and fixed field formats is built-in.

Proprietary interfaces can be built using Message Mapper’s extensive library of field formats.

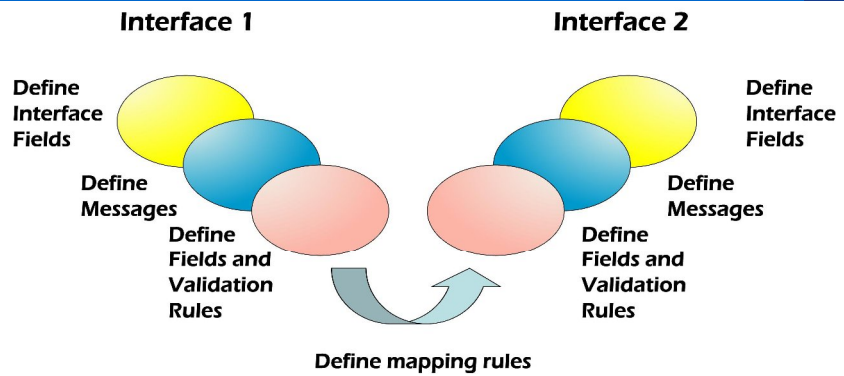
Occasionally, a new field type may be needed. In such cases, development is restricted to a few new Java classes, based on standard templates. The new classes are plugged into the Message Mapper framework and new interfaces can be configured and started up without a break in service.

These capabilities greatly simplify interface maintenance, in particular reducing the cost of conforming to changes mandated by payment networks.

**How does it work?**

Message Mapper has two main subsystems – the Configuration and the Run Time System (RTS).

Message Mapper uses flexible configuration parameters to define how messages will be mapped from one format to another. Business analysts are able to define each interface and the message mappings between them, using a screen-based,



interactive “point-and-click” method.

Message Mapper’s Run Time System (RTS) is capable of running on a distributed network of processors. RTS is written in Java, so it can operate in a wide variety of mixed hardware and operating system environments.

Continuous 24x7 operation and open-ended scalability are intrinsic to the design - multiple copies of RTS components on networked computers share the processing load.

**Message Mapper and SOA**

A major theme in payments IT today is the trend towards implementing SOA and/or SOA-like architectures.

The objective is to expose the functionality of existing legacy payments applications as SOA/ Web Services, enabling heterogeneous, new applications to readily request services from legacy applications, thereby insulating the existing systems from change, extending their service life and improving ROI, while allowing new functionality to be built in a modern environment.

High performance, flexible message transformation (from internal payment system formats to Web Services XML format) is essential in any SOA/Web Services implementation.

With its Java/XML-based implementation, Message Mapper is an ideal component for enhancing existing payment systems in readiness for their

deployment in SOA and ISO 20022 messaging environments.

**Message Mapper benefits**

Message Mapper’s GUI-based configuration eliminates the need for costly programming. Implementation times are dramatically shortened and ongoing support costs reduced, turning what used to be a labour intensive activity into a quick, routine configuration exercise which can be performed by business analysts rather than programmers.

**Improving business agility**

Financial institutions today are faced with constant business pressure to widen the availability of legacy payments systems functionality across a range of different service delivery mechanisms, to integrate payments with new business applications, to adopt new device technologies and to conform with new messaging standards such as ISO20022.

These business-driven changes often require modifications to legacy systems, but the specialist skills needed are increasingly scarce and act as a real constraint on business agility. Further, systems that have been changed repeatedly over many years become inexorably harder to change and support, so costs and risk increase each time further modifications are made.

Message Mapper offers a way forward, by providing an easily configured, scalable payments message transformation layer.



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Message Mapper June 2009

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