

Enhancing the value of EDI through **JEDI**

The integration
of EDI and JIWA
Financials

Introduction

For over a decade Electronic Data Interchange (EDI) has been a major driver in delivering greater efficiencies to Australian industry. Unlike many other technologies, EDI appears set to enjoy a long life, remaining an important element of the electronic commerce mix for many years to come.

This paper looks at the support that EDI has enjoyed in Australia and in particular, why any organisation that is part of the national wholesale distribution and retail supply chain needs to consider EDI enablement to remain competitive. It also examines the process improvements that can be achieved by integrating EDI processes into an organisation's financial system.

What is EDI?

Defining EDI

Respected industry analyst, Gartner, Inc., defines Electronic Data Interchange (EDI) as "the electronic exchange of trading documents (such as invoices and orders) to facilitate e-commerce."

At its simplest, EDI is a way for two computers from different companies to "talk" to each other to share trading information, without relying on traditional paper-based processes. An example is the retailer that conducts much of its business with a supplier via computer. EDI enables the two companies to automatically and electronically exchange information such as purchase orders and invoices.

A technology that gradually gained momentum throughout the 1960s and '70s, EDI is exceptional among modern technologies for its longevity. Initially only available on mainframe or minicomputers, it was during the 1990s that EDI's adoption accelerated, as PC-based EDI software became available. This finally made the technology affordable for even small-to-medium enterprises.

Forty years later EDI remains a strong and vital part of Australian trade, particularly within the manufacturing, and wholesale distribution industries. Indeed the majority of Australia's major retailers – including Coles Myer, Woolworths, Harvey Norman, Rebel Sports and Target - request that trading partners communicate with them via EDI.

EDI Use Today

Built on enduring standards

Part of the reason for EDI's success can be attributed to the maturity of its two governing standards – the United Nations' EDI for Administration, Commerce and Transport (EDIFACT) and the Accredited Standards Committee's X12. Developed over decades, the standards ensure that EDI documents conform to an internationally agreed, structured business message format. Moreover, those making the standards didn't lose sight of the need for EDI to reduce employee time spent on administrative tasks, thus creating a guaranteed benefit for those who adopted the technology.

Another important consideration was that the standards ensure all trading partners could use them, regardless of industry or size and regardless of the computer hardware being used.

Over the years standards have continued to be developed so that now, the range of trading activities conducted through EDI is extensive and includes:

- Product identification
- Sales, inventory and orders
- Delivery and receipt of goods
- Electronic funds transfer of accounts receivable and payable
- Shipping (eg tracking of consignments).

Its benefits are primarily felt through the streamlining of processes and faster data transmission. Business procedures can be rationalised and data input streamlined, removing duplication and the opportunity for human error. Further advantages accrue from timely, reliable trading information resulting in improvements to inventory management, transport and distribution, and administration.

The net effect is to create a competitive commercial advantage through increased efficiencies.

Integration with complementary technologies: Scan Pack

While EDI creates efficiencies when raising orders and processing accounts, more recently developed Scan Pack applications help to get stock on the shop floor faster. In effect Scan Pack takes over where EDI ends, overseeing the integrity of goods as they are packed and shipped.

As the name implies Scan Pack involves scanning items as they are picked to meet a given order. That order may be a manually created order or an electronically generated advance shipping notice (ASN).

Regardless, the Scan Pack system offers a consistent set of procedures that ensure that contents match the requirements of the order, circumventing any potential for incorrect goods.

Scan Pack provides all parties with a high degree of certainty that the contents are accurate and saves the need to manually check each and every item within the delivery.

Because of these improvements in delivery accuracy, Scan Pack shipments are processed more rapidly. This has led many of Australia's major retailers to favour suppliers who use Scan Pack. In some instances – as with EDI - retailers demand it of their suppliers. In turn, suppliers using Scan Pack can usually expect faster payment for their goods.

EDI and the Internet

Even with the development of additional, supportive technologies, there have been questions raised in recent years regarding EDI's future. These have largely been driven by the ubiquitous nature of the Internet and the possibility of it offering a less expensive, more accessible trading alternative to EDI.

Some years into commercial acceptance of the Internet it is apparent that electronic commerce is evolving into a number of different practices. In addition to traditional EDI conducted via a secure network, e-commerce now includes EDI over the Internet, Web-based electronic storefronts or catalogues, and at its simplest, trade conducted by email.

Standards and tools such as XML, HTML and Java have helped Internet-based communication gain ground among small-to-medium organisations – especially for those that may not have an existing EDI infrastructure in place.

At the same time, EDI is continuing to play its role among the larger technology-enabled organisations and their trading partners. For these companies and their trading partners, the investment in EDI technology has been extensive and for as long as EDI continues to meet modern trading requirements, they see no reason to change.

Given there are new companies adopting EDI every day, the most likely scenario for the future is that EDI will remain a standard part of the electronic commerce mix, complemented by Internet offerings for those organisations unable to undertake a full EDI implementation.

EDI and Wholesale Distribution: A natural affinity

By far the largest users of EDI in Australia come from the wholesale distribution and retail supply chain. This stems in part from the fact that almost all major retailers' in this country request that suppliers adopt EDI. Without EDI, a manufacturer or wholesaler can damage important customer relationships and risks losing orders.

It is also helped by the fact that EDI comes into its own in situations where there are very large orders for multiple items involving multiple product codes. The more complex the order, the more obvious the efficiencies of EDI become. It is not uncommon to see EDI users who have several thousand line items in a single order. This environment is a perfect match with wholesale distribution.

Yet even within a market sector that has embraced EDI, the technology remains isolated from much of the core business. Most low-end and inexpensive EDI solutions today are still not integrated into a company's financial system.

The high cost of integrating EDI with back-end transaction systems has traditionally been a barrier, especially for those organisations with a relatively low number of EDI transactions compared to their overall business. Much of their business is external to the EDI system, with EDI being treated as an isolated silo.

In fact for many Australian businesses, data that is already being captured by the EDI system is later manually re-keyed into the financial system. Such re-keying is labor intensive, inefficient, and opens the door to greater risk of data entry error. Companies operating this way fail to achieve any of the process and procedural improvements, or subsequent cost efficiencies on offer through their investment in EDI technology.

JIWA EDI (JEDI): the Integration of JIWA Financials and EDI

The case for EDI is clear. While it is largely a technology mandated by customers (i.e. the retailers), it also offers benefits in terms of reporting and financial management.

The fact that some Australian companies maintain such trading information in isolation from their core financial systems is counter-productive, but understandable where the cost of integration is prohibitive.

To resolve this problem, JIWA has developed JIWA EDI (JEDI), a “bridge” between JIWA Financials and standards-based EDI packages. Already incorporated as an optional integrated component within the standard JIWA Financials solution, JEDI offers elegant, seamless EDI integration.

All that is physically required to achieve the integration is:

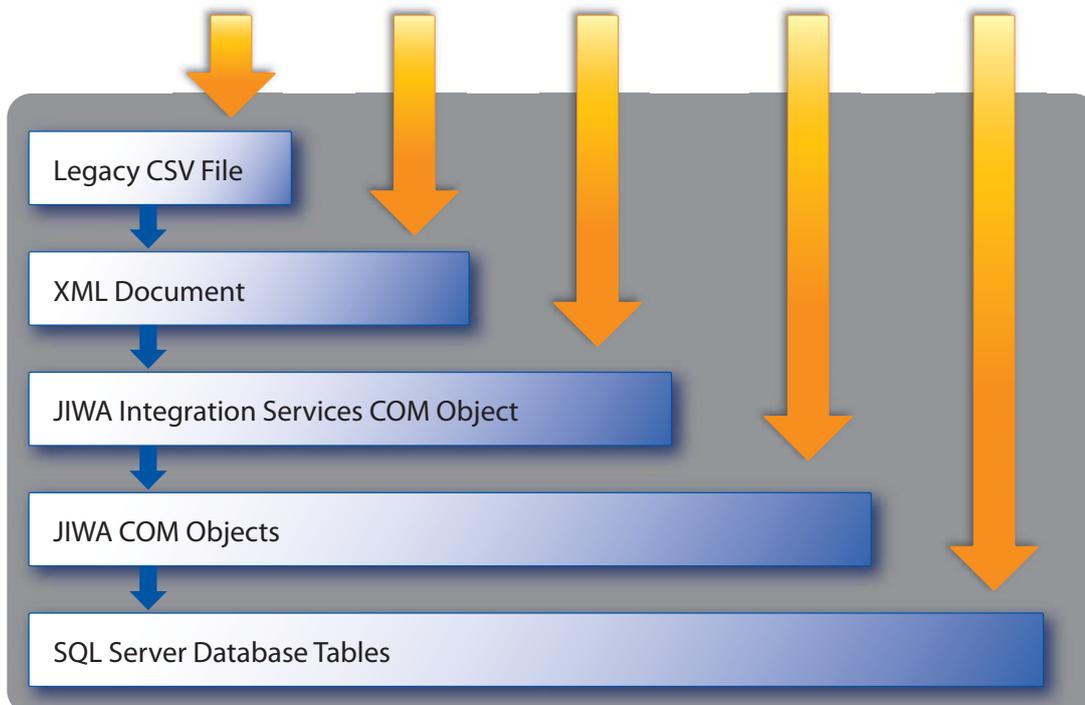
- An EDI application
- JIWA Financials V6.4.15 (or above)
- A nominal level of consultancy to carry out some custom configuration.

Once JEDI is enabled, JIWA Financials automatically begins to read and integrate relevant EDI data, regardless of the EDI data file format. JIWA Financials is unique in this ability, as many alternative accounting packages rely on the EDI software to convert file formats to XML¹ before any integration can occur. As XML was only developed in the mid-to-late ‘90s, older EDI packages are simply incapable of such a conversion. By accepting both legacy and XML formats, JIWA avoids this problem.

As integration begins the only noticeable changes are the addition of new fields – such as the inclusion of ASNs, trading partner identification numbers, and updated inventory data in the JIWA Financials modules.

¹ XML (Extensible Markup Language): A programming language and specification for the exchange of structured documents and data over the Internet. Introduced in 1996 by the World Wide Web Consortium.

JIWA Financials: seamless EDI integration regardless of data format

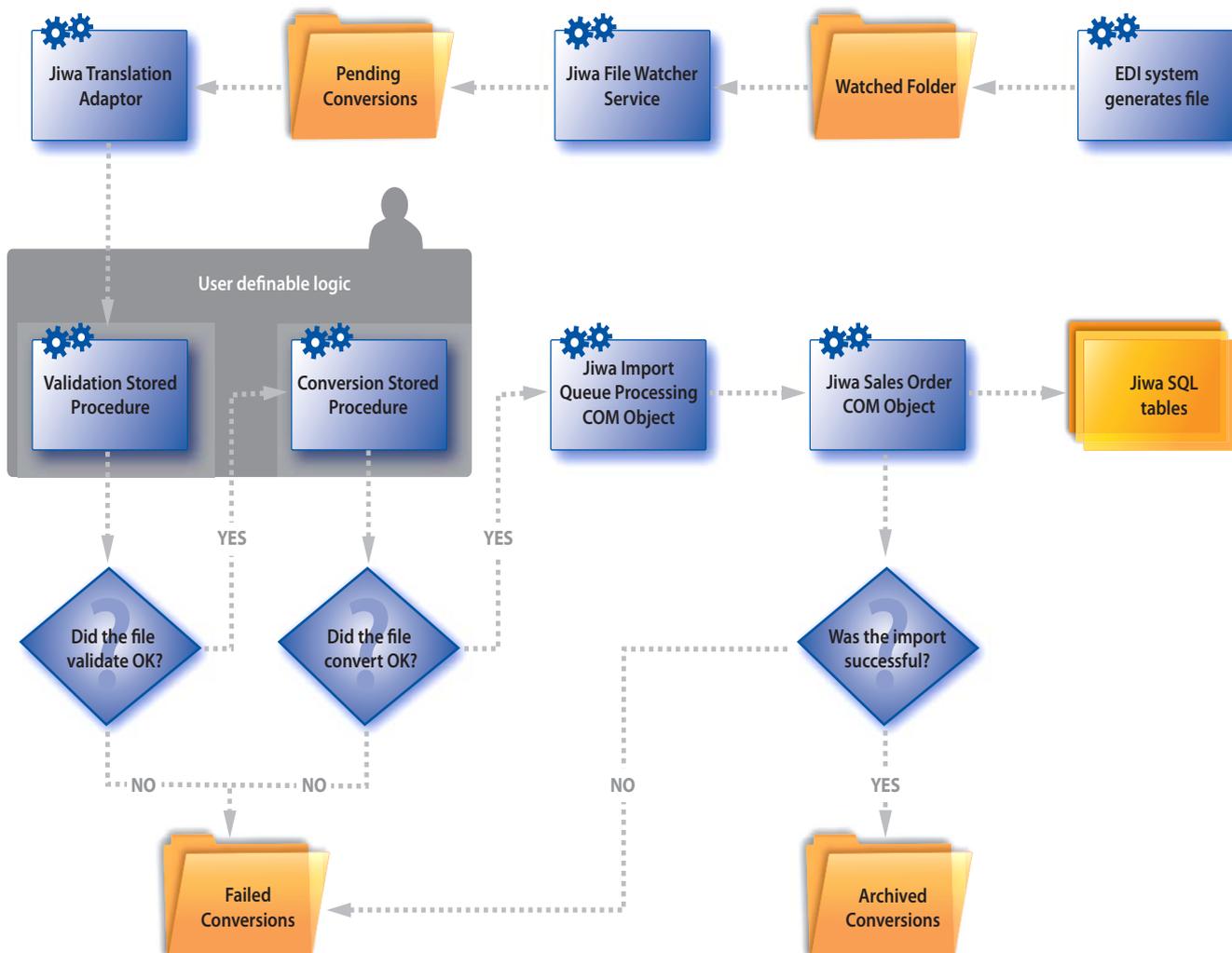


The native flexibility of JIWA Financials ensures that particular quirks or requirements of EDI trading partners are automatically taken into account within the relevant Financials modules. For example, JIWA Financials has no difficulty dealing with the multiple delivery addresses, multiple delivery dates, or even windows of delivery that are frequently stipulated in an EDI transaction.

The diagram below describes the transaction flow from EDI files through to the import of the data into JIWA Financials. In particular the “User definable logic” is the area of strength for Jiwa Financials. This is the area of the import where the of data to be imported, the tests and checks to be run on the data prior and during import are able to be defined for each separate set of EDI data. These changes are made using Stored Procedures, which makes the functionality extremely flexible and open.

Creating and Updating Jiwa Sales Orders

- Creation of new orders
- Updating of existing orders with new information

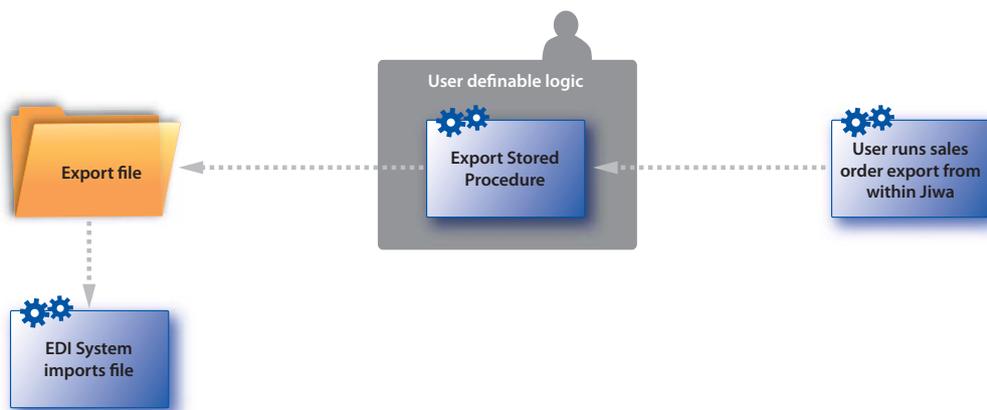


Likewise, when Jiwa Financials is exporting data to be imported and read by an EDI Scan Pack Solution, the following diagram describes the transaction flow. The “User definable logic” is the area that can be changed for each data import, such that the customer’s required result is achieved.

When it comes to the critical area of inventory, the EDI/ JIWA Financials integration brings added visibility to stock levels, providing alerts to shortfalls and delivering greater information about order fulfillment.

Export of Jiwa Sales Orders

→ Sales orders are exported into a format recognisable by the EDI system



Conclusion

Electronic commerce is now an everyday aspect of business life. EDI is one of the earliest forms of e-commerce and its longevity is testament to the breadth and maturity of its standards.

It retains a pre-eminent role in Australian business and this is particularly noticeable among manufacturers and the wholesale distribution industries. In some instances, EDI is vital to the establishment of new trading relationships.

Yet many small-to-medium enterprises are failing to reap the full benefit of their EDI implementation by not taking full advantage of the business management possibilities that it can offer. Having established EDI capabilities to conduct business with particular partners, they fail to integrate the data with the very backbone of their organisation – their financial systems.

The result is duplication of data entry across both systems, greater opportunity for errors, slower data capture and a failure to achieve many of the procedural and cost benefits promised by EDI. Additionally, many of the proactive financial management advantages that can be achieved through an integrated EDI/Accounting solution are being missed out on.

Recognising the difficulty, JIWA has developed JEDI – a simple bridge that allows data to travel back and forth between any standard EDI solution and JIWA Financials.

Delivering fast integration at minimal cost and without disruption to the business, JEDI finally brings the benefits of EDI and financial software integration within the reach

of any enterprise.

About JIWA

Established in 1995, JIWA Financials is an Australian software house and the developer of one of Australia's most respected business financial solutions, JIWA Financials. Designed for the Australian environment, JIWA Financials is a Microsoft Windows-based financial solution servicing a client base that ranges from single user sites up to global enterprises. With an emphasis on data integrity and software performance regardless of transaction or user numbers, accurate stock costing and tracking, and efficient general ledger and cashbook functions, JIWA Financials has found a natural niche among importers, distributors, manufacturers and service repairers.

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