

Effectively Manage your Product Information with

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Contents

The Case for Product Information Management	3
Increased Competition.....	3
Evolving Communication Methods	3
Smarter Customers.....	3
Hostile Economic Conditions.....	3
Obstacles to Effective Product Data Management	4
Distribution of Data.....	4
Over Reliance on ERP/PLM	4
Information Quality	4
Epitomy Data Manager.....	5
Core Features and Benefits.....	6
Data Structure.....	6
Security Measures	6
Flexibility and Customisation	6
Technical Architecture	6
Post Implementation Services.....	7
<i>Epitomy's Service Offering</i>	7
Data Manager in Action.....	8
Data Structure	8
Validation Rules	9
Automation Functions	9
Synchronized Information.....	10
Reporting and Business Intelligence	10
<i>Epitomy's Technology: Scalable, Reliable and Secure</i>	11
Data Manager in your Organisation	12
Cost Reductions.....	12
Increased Revenue	12

The Case for Product Information Management

Product information includes both the basic descriptive qualities of a product – its weight, dimensions, reference numbers and bills of materials – and also a wider ranging set of data including marketing materials, manuals, images and safety sheets.

In recent years, the environment has changed such that product information has become both more valuable and more visible at all stages of the supply chain and product lifecycle. There are a number of factors underlying this change.

Increased Competition

Higher levels of competition – stemming from the increased globalisation of the marketplace and the rising frequency of both vertical and horizontal diversification – have given greater importance to being first to market.

Evolving Communication Methods

The increasing number of online communication channels and social media present a myriad of interaction points between companies and their potential customers – often bypassing traditional supply chain hierarchies.

Smarter Customers

Customers are more discerning in their buying habits – both because of the current economic climate and because of the increased capabilities for communication and research afforded by the internet and mobile technology.

Hostile Economic Conditions

The current economic climate itself means that it is more important than ever to drive down operating costs and reduce time to market in order to increase margins.

In this environment, product information has become a strategic asset just as important as customer, financial and competitor information. When used effectively, product information can drive customer decisions, improve accuracy and efficiency, reduce lead times, and ensure that statutory requirements are met.

It is important, then, to properly manage and maintain product information and ensure that the right data is available to the right people at the right time – a process known as product data management.

Obstacles to Effective Product Data Management

Unfortunately, recognizing the need for product data management and effectively implementing it are two very different things. There are a number of challenges that can make this a tricky proposition for any company.

Distribution of Data

Information is often stored in separate locations throughout an organisation, in a variety of different systems, and a wide range of media or file formats. This makes it difficult to arrange for the data to be accessed when and where it is needed.

Over Reliance on ERP/PLM

Many manufacturers and retailers rely heavily on these systems – not unreasonably, given their capabilities. Product data management falls outside their intended purpose and this often leads to a proliferation of ad-hoc manual processes around the system that create a fragmented and unclear view of the product.

Information Quality

This may vary significantly throughout an organisation – especially when considering legacy data and material from sub-contractors or partners in other countries. When quality controls are not implemented, or when those employed in a particular time or place differ from current requirements, data often becomes inconsistent or incomplete.

All of these factors make it difficult to distribute, update, and maintain product information across the supply chain. Finding solutions to these challenges can take many man-hours and cause a lot of frustration. Even when a solution is implemented it might be inefficient or costly, potentially exacerbating the problem

What's needed, then, is a simple solution that can be easily implemented with a minimum investment of time and money. It needs to be able to provide a consistent source of information across the entire organisation, to quickly and efficiently publish updates, import and export from and to multiple applications with ease and apply rules and permissions to ensure correct use of product data.

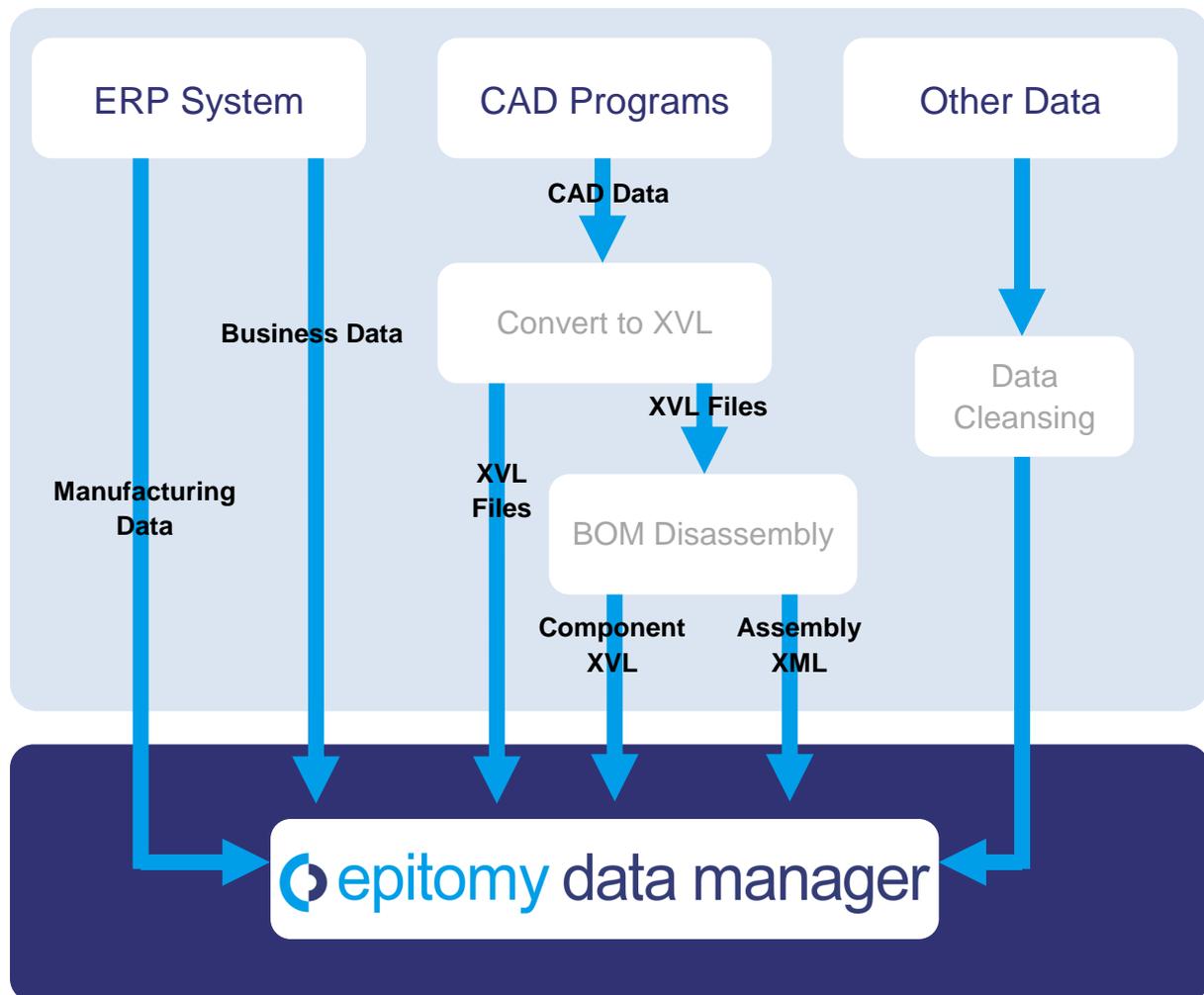
That solution is Epitomy Data Manager.



Epitomy Data Manager

Data Manager combines a central database with remote web services to provide a single consistent data source that is available throughout the organisation and along the supply chain. Users need only a password and internet connection to have access to the entirety of the company's product information from a single source.

Product data from multiple sources is collated into a single linked and highly structured repository – bringing together CAD data, service instructions, bills of materials, photographs, technical illustrations and more. This means that everyone in the organisation gets the same accurate, up-to-date view of the whole range of product information.



This increased quality and availability of product data can result in a significant reduction in operating costs and a significant increase in revenue. More accurate data means less time spent dealing with the consequences of staff and customer errors, as well as reducing the rate of product returns and service complaints, further driving down costs. The same factors contribute to higher revenues – alongside a quicker time to market and increased ability for sales staff to capitalise on their use of product data.

Core Features and Benefits

Epitomy Data Manager is designed to streamline and simplify the process of product information management, as well as to provide users with a wide range of functions that allow this data to be used throughout the organisation in a more effective manner. Data Manager does this through:

Data Structure

- Creating a single central data repository, ensuring a consistent view of information throughout the business.
- Providing a linked and structured database as a framework for the management and importing of data, increasing its accuracy, consistency and reliability.
- Offering product information access through an intuitive, customisable, and highly graphic interface that makes it easy for new users to learn.
- Handling complex BOM structures.

Security Measures

- Allowing secure remote access over the internet with role-based permissions, ensuring that sensitive business information is only available to the appropriate people.
- Providing a full audit trail of changes, helping ensure accurate and error-free data.
- Using versioned entities to allow for easy change management.

Flexibility and Customisation

- Providing multilingual functionality, allowing easy communication of product information in multinational organisations.
- Easily importing data from and to a wide variety of different programs and file formats.
- Integrating easily with existing business systems (ERP, PLM, etc) to allow automatic updates and spread the benefits of effective product data management throughout the business.
- Supporting part supersessions

Technical Architecture

- Allowing automated processes with workflow and custom business rules, using both a manual and scheduled job engine.
- Incorporating a report generator using SQL reporting services to provide detailed intelligence on product information management processes.
- Using Microsoft's .NET Framework to provide a highly scalable architecture.

Post Implementation Services

To ensure that the capabilities of Data Manager are used to their full effect, Epitomy provides a number of post implementation services. These include:

- Maintenance and enhancement of parts and service information through a range of data management tools and processes.
- Conversion of paper-based legacy data to electronic formats, including hot-spotted illustrations and datasheets.
- Data cleansing through de-duplication and validation.
- Creating supporting graphical data such as exploded diagrams from CAD data or other sources.
- Integrating Data Manager with Epitomy Publisher, an electronic parts catalogue linked to both Data Manager's product information database and the company's ERP systems.



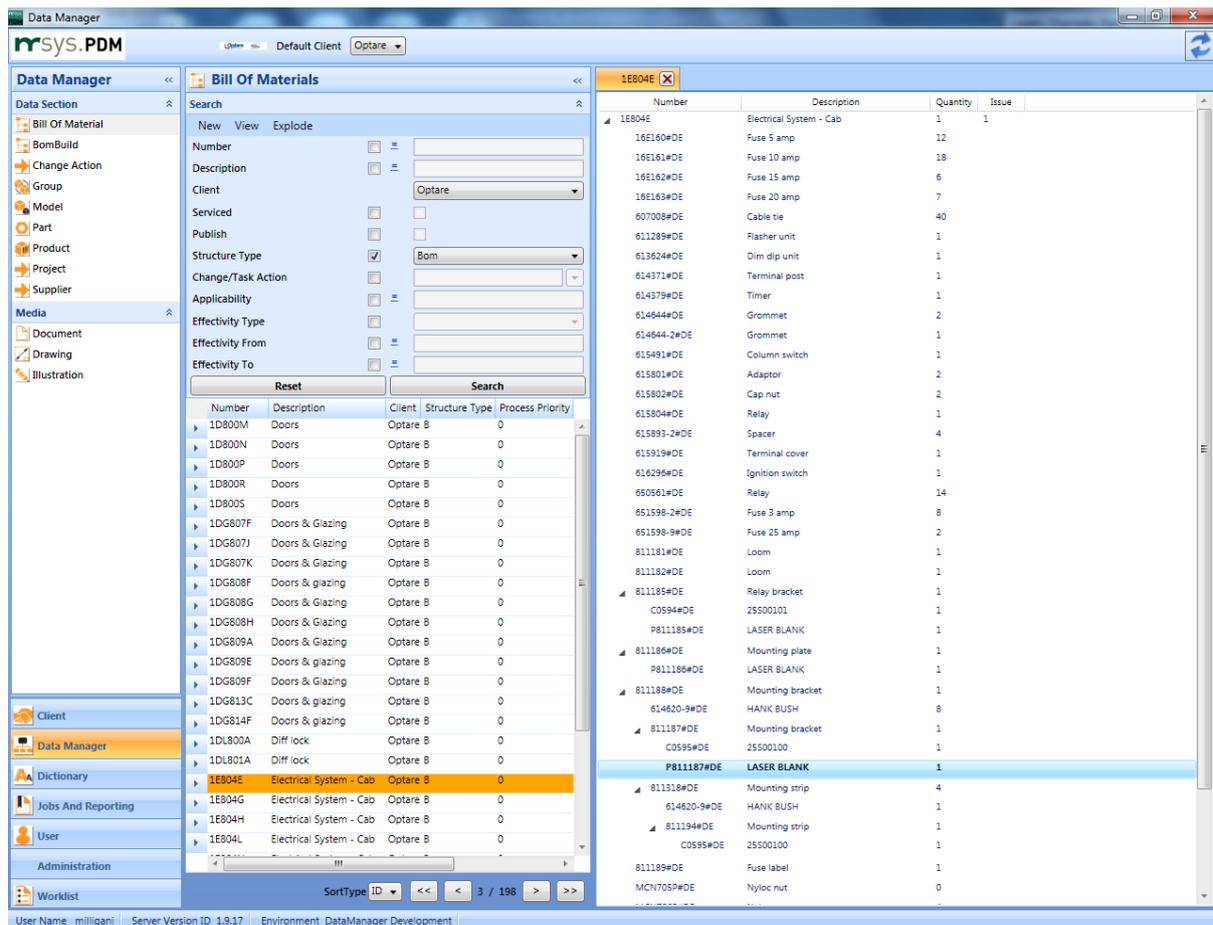
Data Manager in Action

To be effective, any product information solution needs to provide five key areas of functionality. These are the provision of a data structure, application of data validation rules, ability to automate key processes, synchronization of data, and the creation of reports and other business intelligence items. Data Manager's core features provide the functionality necessary to address all of these requirements.

Data Structure

Perhaps the most important function of any product information management system is the provision of a data model that is both extensible and flexible, and yet still provides a structured framework for product data. Support for multiple hierarchies, product relationships, and customisable entities all allow product information to be used in a more strategic manner.

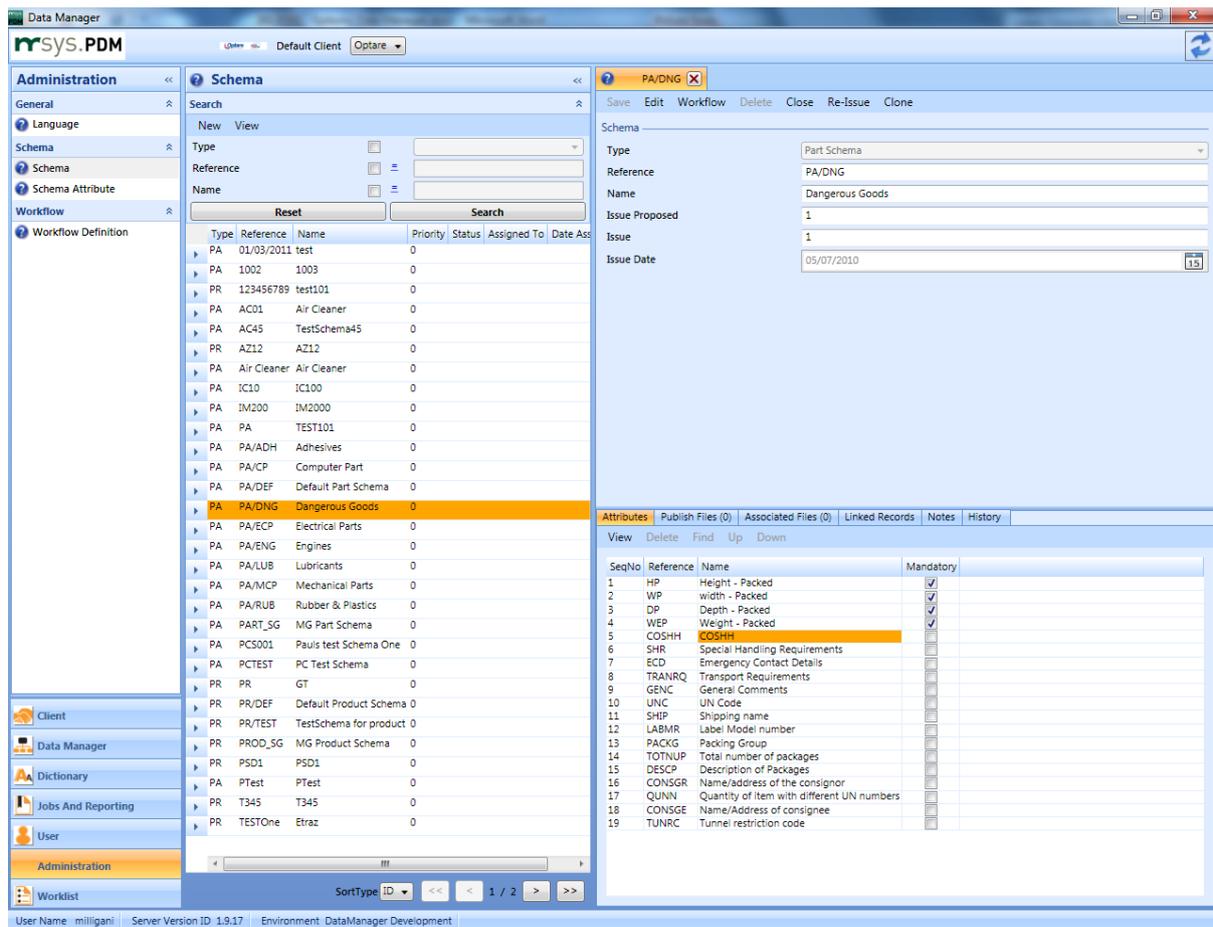
In Data Manager, product information is stored in a linked and highly structured database that allows for customisation through the application of schemas – custom groups of product attributes specific to different product categories. This allows relevant product information to be recorded for different types of product while still maintaining a consistent structure throughout.



Validation Rules

With product information stored in one central repository it becomes much easier to apply validation rules and other quality assurance policies. This in turn means that data becomes more accurate and consistent throughout the organisation.

Data Manager applies validation rules through its workflow engine, assessing the accuracy of data as it is entered. In addition, the creation and application of product schemas allows separate mandatory fields to be defined for different product categories, helping to ensure that required data is made available.



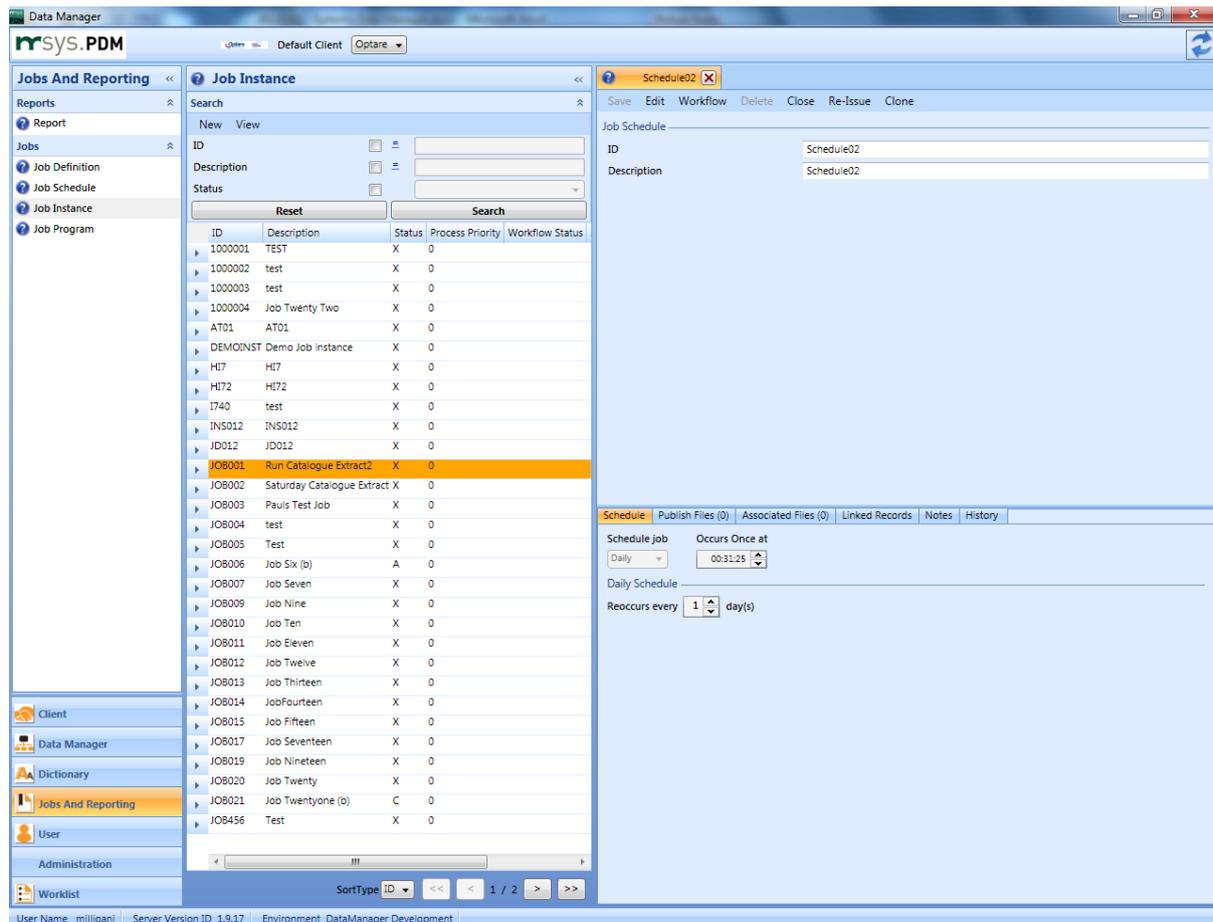
The screenshot displays the Data Manager application window. The left sidebar shows navigation options like Administration, Client, Data Manager, Dictionary, Jobs And Reporting, User, and Worklist. The main area is divided into a 'Schema' list and a 'PA/DNG' configuration window. The 'PA/DNG' window shows fields for Type (Part Schema), Reference (PA/DNG), Name (Dangerous Goods), Issue Proposed (1), Issue (1), and Issue Date (05/07/2010). Below this, a table lists attributes for validation:

SeqNo	Reference	Name	Mandatory
1	HP	Height - Packed	<input checked="" type="checkbox"/>
2	WP	width - Packed	<input checked="" type="checkbox"/>
3	DP	Depth - Packed	<input checked="" type="checkbox"/>
4	WEP	Weight - Packed	<input checked="" type="checkbox"/>
5	COSHH	COSHH	<input checked="" type="checkbox"/>
6	SHR	Special Handling Requirements	<input type="checkbox"/>
7	ECD	Emergency Contact Details	<input type="checkbox"/>
8	TRANRQ	Transport Requirements	<input type="checkbox"/>
9	GENC	General Comments	<input type="checkbox"/>
10	UNIC	UN Code	<input type="checkbox"/>
11	SHIP	Shipping name	<input type="checkbox"/>
12	LABMR	Label Model number	<input type="checkbox"/>
13	PACKG	Packing Group	<input type="checkbox"/>
14	TOTNUP	Total number of packages	<input type="checkbox"/>
15	DESCP	Description of Packages	<input type="checkbox"/>
16	CONSGR	Name/address of the consignor	<input type="checkbox"/>
17	QUINN	Quantity of item with different UN numbers	<input type="checkbox"/>
18	CONSGE	Name/Address of consignee	<input type="checkbox"/>
19	TUNRC	Tunnel restriction code	<input type="checkbox"/>

Automation Functions

To increase efficiency, effective product information management applications allow for the automated creation, modification and dissemination of data in response to certain triggers. Automation allows users to concentrate on those tasks requiring human input and leave time-consuming and repetitive tasks to automated processes.

Data Manager’s powerful and flexible job infrastructure can automate tasks such as catalogue updates and data importing through custom written applications. This means that any organisation can benefit from the automation of key processes, no matter what their individual business rules and workflows are.



Synchronized Information

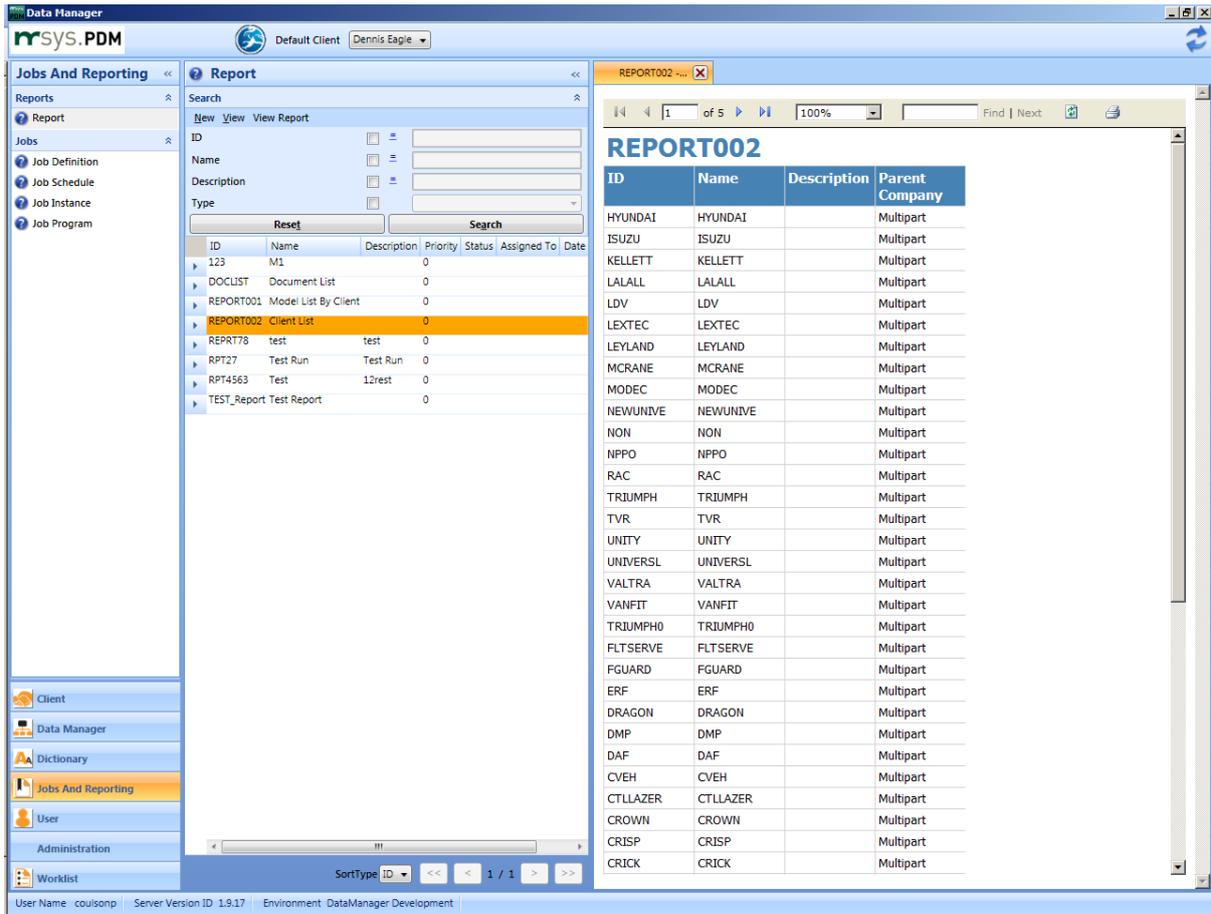
Product data needs to be made available to the right person, in the right format, at the right time – both internally and externally. The product information management system has to be able to communicate effectively with other applications used within the company, from desktop publishing software to ERP implementations and ecommerce platforms.

Depending on the level of integration required, Data Manager provides two different Application Programming Interfaces (APIs) to link with other applications. The Data API allows for basic data validation functions such as the detection and prevention of circular references and duplicate keys, while the Service API uses workflow to perform other required business rules.

Reporting and Business Intelligence

As a strategic asset, it is important for organisations to have insight into how product data is being used. Measurement of appropriate key performance indicators and availability of this information through reports or dashboards allows for informed and timely business decisions, as well as comparisons of performance over time or against industry benchmarks.

Data Manager makes use of Microsoft's SQL Server Reporting Services, allowing users to automatically create interactive, tabular, graphical or free-form reports. Alongside SQL Server Integration Services and Analysis Services, this provides a proven framework for the creation, management, and delivery of in-depth business intelligence.



The screenshot shows the 'Data Manager' application window. The main area displays a report titled 'REPORT002' with a table of data. The table has columns for ID, Name, Description, and Parent Company. The data includes various car models like HYUNDAI, ISUZU, KELLETT, etc., all listed as 'Multipart'.

ID	Name	Description	Parent Company
HYUNDAI	HYUNDAI		Multipart
ISUZU	ISUZU		Multipart
KELLETT	KELLETT		Multipart
LALALL	LALALL		Multipart
LDV	LDV		Multipart
LEXTEC	LEXTEC		Multipart
LEYLAND	LEYLAND		Multipart
MCRANE	MCRANE		Multipart
MODEC	MODEC		Multipart
NEWUNIVE	NEWUNIVE		Multipart
NON	NON		Multipart
NPPO	NPPO		Multipart
RAC	RAC		Multipart
TRIUMPH	TRIUMPH		Multipart
TVR	TVR		Multipart
UNITY	UNITY		Multipart
UNIVERSL	UNIVERSL		Multipart
VALTRA	VALTRA		Multipart
VANFIT	VANFIT		Multipart
TRIUMPH0	TRIUMPH0		Multipart
FLTSEVE	FLTSEVE		Multipart
FGUARD	FGUARD		Multipart
ERF	ERF		Multipart
DRAGON	DRAGON		Multipart
DMP	DMP		Multipart
DAF	DAF		Multipart
CVEH	CVEH		Multipart
CTLLAZER	CTLLAZER		Multipart
CROWN	CROWN		Multipart
CRISP	CRISP		Multipart
CRICK	CRICK		Multipart

Epitomy's Technology: Scalable, Reliable and Secure

Epitomy's products are built on the Microsoft.NET Framework and feature n-tier DNA architecture, providing a high level of scalability confirmed by both testing in the field and through load simulations. Extensible Mark-up Language – the widely accepted format for structuring, storing, and representing business data – is deeply embedded within all of Epitomy's products and they offer a range of security features from password encryption to full user audit trails.

Data Manager in your Organisation

How does this work in practice? Implementing Epitomy Data Manager provides companies with significant benefits in two main areas, creating increased profit margins through efficient and accurate data management. These main benefits are reduced operating costs, and an increase in revenue and sales volume.

Cost Reductions

By providing a single source of information with validation rules and a defined structure and relationships, Data Manager ensures that product information is accurate and up-to-date wherever it is deployed.

This reduces the costs incurred by staff and customer errors, whether they are re-printing inaccurate material, dealing with order errors, or time spent fielding easily-answerable customer enquiries.

As well as contributing to the availability of consistent and accurate data throughout the organisation, Data Manager's ease of access cuts down on the costs of physical publication.

Either by direct remote access or by publishing information to an ecommerce platform like Epitomy Publisher, users can view detailed and up-to-date product information without needing to wait for physical catalogues or CDs.

Replacing multiple redundant and overlapping product information systems throughout the organisation provides further reductions in costs. A single central application means less time and money spent on training, as well as removing inefficient processes for converting and transferring data between systems.

Increased Revenue

Access to detailed and accurate information is an important aid to effective decision making, and this is just as true with product information as with any other form of business intelligence.

By making better and quicker decisions, organisations benefit from a quicker time to market and can better react to changes in their business environment.

The time savings created by automated functions, increased efficiencies, and reduced in-bound calls allow sales staff to spend more time proactively selling, leading to a higher volume of sales.

By providing access to richer and inter-related product data Data Manager also provides more opportunities for cross-selling, and by making more information available at the point of sale it allows for a more attractive sales pitch.

When integrated with Epitomy Publisher, Data Manager can also directly drive aftermarket parts sales through the provision of accurate and detailed product information in a company-branded electronic parts catalogue and online store.