SUPPLIER EVALUATIONS - 2015
DASSAULT SYSTEMES

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DASSAULT SYSTEMES

A WhichPLM Supplier Evaluation is unlike any other vendor profile, benchmark or review provided by other industry analysts. Our research methods and assessment criteria are exhaustive and expert, and our conclusions independent, unbiased, and informed by hands-on experience:

❶ **Supplier competencies and industry knowledge**

❷ **PLM solution technical benchmark**

❸ **Roadmap and development**

❹ **Executive vision**

❺ **Customer feedback**

GENERAL SUPPLIER INFORMATION

DASSAULT SYSTEMES

CORPORATE HEADQUARTERS

10 rue Marcel Dassault, 78140 Vélizy-Villacoublay, France

TEL: +33 (0)1 6162 6162

WEB: www.3ds.com/consumer-goods-retail

DASSAULT SYSTEMES AT A GLANCE

As a subsidiary of the Dassault Group, Dassault Systèmes can trace its history from the founding of Dassault Aviation (previously named Avions Marcel Dassault) through to its present-day status as a leading developer of technology solutions for more than ten different industries.

Founded in 1981, Dassault Systèmes was initially tasked with the creation of a 3D CAD solution for Avions Marcel Dassault, but the company's vision has today grown to encompass a host of different cross-industry applications in addition to the original product, CATIA – all of which are today unified under the banner of what the vendor calls the "3DEXPERIENCE" platform.

As a multi-industry software developer and supplier, Dassault Systèmes' solutions are robust and, architecturally speaking, suitable for enterprises of any stripe. The vendor's PLM platform supports both Oracle and Microsoft SQL environments.

Dassault Systèmes maintains offices around the world. Its headquarters and primary campus are situated close to Paris, France, with a US headquarters close to Boston in the United States, but the vendor has active presences throughout Europe, the United States, Latin America, and Asia.

The company's PLM product is named ENOVIA, although Dassault Systèmes prefers to reduce the emphasis on product labels and focus instead on industry solutions. In case of the retail, footwear and apparel market, the vendor's PLM solution is called My Unified Development and Sourcing, or UDAS. This is in turn a component of the broader My Collection for Fashion, geared specifically for the needs of this industry.

Despite the collection approach being relatively new, Dassault Systèmes' PLM product itself is proven. The vendor has sold solutions to the consumer goods and retail industry for many years, and its PLM system is currently in use within a number of internationally-renowned brands, as well as a host of names perhaps more recognisable within Europe.

With its 3DEXPERIENCE platform, Dassault Systèmes aims to offer a common entry point to its growing (and inspiring) range of technologies – one that can be accessed by multinationals and boutique brands alike.

PLM SOLUTION OVERVIEW

SOLUTION NAME: My Unified Development & Sourcing (ENOVIA), part of My Collection for Fashion

DATE EVALUATED: 29/8/2014

VERSION NUMBER: R2014X

ANALYSIS METHOD: Live demonstration, campus visit, and executive interviews

WHICHPLM EVALUATION METHODS & ETHICS

Here at WhichPLM, we pride ourselves on being completely impartial. This ethical stance underpins our day-to-day work, and shapes the processes we use to evaluate PLM suppliers.

When a software supplier approaches WhichPLM looking to have their solution benchmarked, we first explain that our methods go beyond technical evaluation. Although we do benchmark the solution in question (based on our own hands-on experience of PLM from its inception to modern-day solutions) we also take a more holistic view of the vendor themselves, seeking to understand their ethos, competentices, industry knowledge, and sustainability.

This extension of what might typically be a purely technical evaluation is done for several reasons. Firstly, increasingly educated customers are able to assess core PLM functionality for themselves, based on education gleaned from WhichPLM and other sources.

Secondly, we recognise that choosing a PLM supplier involves choosing a long-term partner on the basis of more than just software.

Finally, WhichPLM are today the only PLM analysts to offer comprehensive apparel PLM education (either self-directed or in a classroom setting) and certification.

> **Our ethical stance underpins our evaluation process.**

KEY SUPPPLIER PERSONNEL

Name (left to right)	Position/Department
Susan Olivier	VP, Consumer Goods & Retail
Tanneguy de Fromont	Consumer Goods & Retail Sales Director
Jérôme Bergeret	Director, FashionLab
Jennifer Black	Industry Solution Experience Director
Celia Newhouse	Marketing Director

MILESTONE INSTALLATIONS

Name	Number and distribution of seats
GAP Inc.	More than 9,000 seats, worldwide.
Benetton	More than 500 seats, worldwide.
El Corte Ingles	More than 200 seats, worldwide.
s. Oliver	More than 500 seats, worldwide.
H&M	More than 2,000 seats, worldwide.

REFERENCE CUSTOMERS

Benetton	Galeria Kaufhof	Under Armour
H&M	Monoprix	VF Corp.
OSTIN	Guess	REI
Adidas	The Gap Inc.	Trent Westside
s. Oliver	Columbia Sportswear	El Corte Ingles

ABOUT DASSAULT SYSTEMES

Dassault Systèmes is listed on the NYSE Euronext stock exchange, and as a public entity produces annual fiscal and roadmap information. With a strong multi-vertical base and more than thirty years' financial stability upon which to draw, we believe Dassault Systèmes to operate on extremely solid foundations, and therefore to present a very minimal risk as a long-term partner.

The vendor employs between 11,000 and 12,000 staff, and a considerable majority of the company's shares are owned by either Dassault Systèmes executives, or members of the Dassault family. This broad experience base and relatively narrow pool of stakeholders affords the company the flexibility to experiment, which is evident in its willingness to spend on research and development as well as acquisition.

Dassault Systèmes currently caters to twelve different industries, amongst which Consumer Goods & Retail (CGR) is considered a "transformative and growing" vertical. The company distinguishes this sector from Consumer Packaged Goods - which includes household products - and places CGR roughly in the centre of its industry portfolio, by volume.

Dassault Systèmes currently expects double-digit annual growth for its CGR vertical, and during the course of our assessment it certainly appeared as though retail, footwear and apparel is an industry for which the executive team have a great deal of affection – particularly when we take the relatively unfettered FashionLab incubator into account.

Historically, the vendor has targeted luxury, and large, multinational retailers and brands, but with the launch of its My Collection Fashion Express, Dassault Systèmes has begun to openly welcome smaller (defined in a recent company whitepaper as "not so big") businesses to the fold, in recognition of PLM's potential to deliver transformative experiences and efficiency savings to a more diverse range of businesses.

Support for multiple product types and flexible configuration is assured across the 3DEXPERIENCE platform, underpinned by the company's thirty-year history of catering to the requirements of diverse verticals like aerospace, automotive, consumer packaged goods and high-tech.

FINANCIAL INFORMATION

For the purposes of this Evaluation, we asked Dassault Systèmes to provide some insight into its apparel PLM business. Unfortunately, the vendor does not communicate revenue or investment allocations by industry.

Consumer Goods & Retail is considered to be a transformative and growing vertical for which the Dassault Systèmes executive team have a great deal of affection, and in furtherance of which a considerable amount of research and development has been directed.

As a public company, prospective customers of Dassault Systèmes can obtain the vendor's latest Annual Report (fiscal year 2013, as of the date of this Evaluation) from its website in order to learn more about the company's broader financial performance.

INDUSTRY SECTOR STRENGTHS

①	APPAREL
②	FOOTWEAR
③	ACCESSORIES
④	LUXURY
⑤	CONSUMER GOODS
⑥	JEWELLERY & TIMEPIECES
⑦	EYEWEAR
⑧	LEATHER GOODS
⑨	SPORTING EQUIPMENT
⑩	AUTOMOTIVE SOFT TRIMS

These sector strengths are ranked according to the extent to which they are supported by the vendor's PLM customer base and solution processes with minimal configuration or customisation, with 1 being the best-served.

OUR ANALYSIS

In order to assemble our analysis of Dassault Systèmes as a potential partner for a retailer, wholesaler, brand or manufacturer seeking PLM, the WhichPLM team undertook two key evaluation stages during our visit to the vendor's campus in August 2014.

First, we were given access to the vendor's international executive team, whom we questioned on the company's history, long-term strategic goals, its driving vision, its financial and market performance, and their own personal predictions for the future of the retail, footwear and apparel industry.

Secondly, our evaluation team was provided with a dedicated demonstration of the My Unified Development & Sourcing (ENOVIA) solution. Using our proprietary metrics and following the "day in the life" running order that we recommend for all shortlisting exercises, we examined what we considered to be key baseline functional requirements, as well as looking closely at the more unusual features or functions that Dassault Systèmes lists as its solution's unique selling points.

The results of our analysis are collected over the following pages, where they are broken down into four distinct sections:

- Approach & Overview analyses Dassault Systèmes' approach to PLM: how the solution is sold, its architectural requirements, and how its functionality compares to market expectations.

- Implementation & Resourcing examines the resources that Dassault Systèmes has at its disposal in various territories, and looks at how the vendor typically handles implementation projects.

- Customer Distribution sets out the geographical distribution of Dassault Systèmes' customer base for PLM.

- PLM Competencies lists the particular functional areas in which the vendor has chosen to demonstrate competencies (out of a possible 40+) and assigns a star rating to each, providing prospective customers with a method of cross-referencing the processes, functionality and competencies that matter to them against a composite industry average.

APPROACH & OVERVIEW

Dassault Systèmes has provided PLM (or, earlier, PDM) in one form or another for many years. The vendor began by offering the MatrixOne solution following its acquisition of the parent company in 2006; shortly thereafter, the ENOVIA brand offered specialised functionality known as the "Apparel Accelerator", on top of which integration to both Dassault Systèmes' own CAD solutions and the industry-standard Adobe Illustrator have been further developed.

In February 2012, the vendor (hereafter also referred to as "3DS" for brevity) pioneered what it calls the "3DEXPERIENCE" platform, collecting 3D design, analysis, simulation and intelligence software in what the 3DS refers to as a collaborative interactive environment.

In our conversations with the 3DS executive team, it emerged that the vendor considers 2012 to have been, therefore, the first year of its current strategy, and the first period in which its team began to crystallise and work together in the way it does today.

The current general availability (GA) release of the ENOVIA solution is dubbed R2014X, and brought with it an entirely new user interface – unified under the 3DEXPERIENCE banner – and next-generation Adobe Creative Suite integration. 2014 also proved to be a significant year for 3DS, with the acquisition of Real Time Technologies (or RTT, afterwards known as 3DEXCITE) adding leading-edge 3D photo-realistic rendering to its existing product portfolio for the retail, footwear and apparel market.

The R2014X version of ENOVIA is sold in two forms, both specifically tailored for the retail, footwear and apparel market: as part of the aforementioned UDAS facet of My Collection for Fashion, and in a slightly curtailed version, packaged in another collection targeted specifically at the smaller business market called My Collection Fashion Express.

This echoes a more general facet of 3DS's approach to the development and sale of its solutions – one that's important we cover as part of this Evaluation.

Generally speaking, Dassault Systèmes develops technologies that are essentially industry-agnostic. Their CATIA 3D CAD solution, for example, is considered the company's "pioneer brand" and is engineered to provide a robust and fully-featured platform for product design and innovation in everything from eyewear to engines.

From this purely functional foundation, 3DS then tasks itself with making all of its eleven product brands relevant and resonant for each of the twelve industries it serves. These "verticalised" products are then bundled into "industry solutions", tailored to the unique requirements of the relevant vertical.

This approach is not necessarily unique, but the addition of the 3DEXPERIENCE social collaboration platform as the foundational layer for each verticalised solution, coupled with the "collection" approach could present the potential for some confusion as to which products, exactly, each collection comprises when customers are more used to shopping for single platforms

It is for this reason that we are dedicating more of this Evaluation to Dassault Systèmes' approach to PLM than we have other vendors'. The 3DS executive team acknowledge that their strategy differs from the industry norm, and the WhichPLM team openly admits that the relationship between 3DEXPERIENCE and the core ENOVIA product may not seem obvious at first but, as previously mentioned, 3DS has taken the conscious decision to downplay their individual brands, which are today unified and sold under the 3DEXPERIENCE Platform.

In essence, then, the 3DEXPERIENCE platform operates above all other 3DS solutions, providing a social, collaborative "wrapper" from which a single identified user can launch applications that are relevant to their role, join and participate in communities both internal and across their enterprise's extended supply chain, and access 360-degree realtime information.

> **"A PERSUASIVE MESSAGE, BUT ONE THAT REQUIRES QUALIFYING IN ORDER FOR A PROSPECTIVE CUSTOMER TO TRULY UNDERSTAND."**

This approach is geared around what Dassault Systèmes believes to be the future of enterprise technology and consumer interaction: the experience. We have written much on WhichPLM itself about 3DS's definition of the "experience economy" as being a logical progression from commodities to products, to services to experiences, and interested readers would be advised to look up our reports on the 2014 3DXCITE show in Munich, and 2014 3D Forum in London.

Retailers, brands and manufacturers who are given the right environment, the vendor's reasoning goes, will be those who create the most memorable consumer experiences rather than just the best products.

This is a persuasive message, but one that requires qualifying in order for a prospective customer to truly understand the

intersection between the 3DEXPERIENCE and the individual products and industry solutions – in this case My Unified Development & Sourcing (ENOVIA PLM).

By way of example: following our visit to the Dassault Systèmes campus, the WhichPLM team was able to develop a fuller understanding of what the 3DEXPERIENCE means. Our Evaluation team members now understand it to be about leveraging high-fidelity, tangible assets at every stage of the product lifecycle, sharing these in a natural, social environment, all with an emphasis on re-use rather than recreation.

And when those assets are created in three dimensions to begin with, their inherent value becomes even greater – particularly when they can be seamlessly re-used across previously-disconnected solutions that are now essentially "invisible" and part of a holistic platform.

This experience-centric ethos is strongly reflected, too, in the FashionLab incubator, which Dassault Systèmes uses to predict and to trend-set the 3-5 year goals of the apparel industry as a whole, not just its own roadmap.

> Beautiful technology being invisible (at least at the named product level) is something that certainly fits with the 3DS stated aim of de-emphasising product names in favour of an overriding platform experience, but even despite our newfound understanding of the approach, we retain concerns about how the industry as a whole has responded.

In the financial year 2012/13, Dassault Systèmes signed five completely new customers, worldwide, for its apparel PLM solution – a number that fell to four in 2013/14. And although raw customer numbers are by no means the only – or even the best – metric by which potential vendor partners should be graded, we do remain concerned that Dassault Systèmes wider message is potentially clouding rather than accentuating its strong PLM capabilities.

While WhichPLM's comparative metrics do not extend to upgrades (since the extent of this revenue is typically hidden from the public), our conversations with the 3DS executive team did reveal that a significant percentage of the vendor's customer base has either extended their implementation through additional licenses, or purchased upgrades to their existing platform.

When we delve into those RFA-specific PLM capabilities, we discover that the core functionality of the solution (referred to hereafter as UDAS - My Unified Development & Sourcing, again for brevity's sake) is extremely good.

The overriding 3DEXPERIENCE platform is entirely web-based and platform agnostic, operating in all major operating systems and on the full complement of modern web browsers. During our demonstration, the WhichPLM Evaluation team was shown how the inspiration-to-store lifecycle can operate on multiple devices, with all data being served over a plain HTTP protocol.

That workflow operates on the principle of narrowing "funnels" which allow an end user to visually and intuitively track the progress of a product from an initial inspiration photograph on the camera roll of their mobile device, right through to production.

This demonstration took place on a PC and iPad, but our team was assured that Windows mobile devices are also supported, in addition to OSX-based laptops and desktops, with more devices to follow.

During our demonstration, Dassault Systèmes were keen to emphasise what they consider to be the cornerstones of R2014X: usability, configurability, enhanced collaboration, and performance. In practice, these broad goals appear to have been mostly achieved within the current GA release of the 3DS PLM solution.

From a usability perspective, the solution is strong. The user interface at a 3DEXPERIENCE level is clean, clear, and takes design cues from a number of intuitive, consumer-grade social applications in order to create its community-centric look and feel. In terms of the user experience, click and refresh rates are well within the expected margins, and we found the presentation of information to be clear, concise and considered throughout.

The interface offers multi-language support for more than ten different languages, as well as the ability to quickly and easily

generate role-based reports and dashboards - catering to everyone from the designer to the merchandise-driven CEO.

With full bi-directional integration to Adobe Illustrator (including single-sign-on) that designer may never actually need to launch the 3DEXPERIENCE platform. All PLM libraries - colours, materials, trims, components, BOM items - can be accessed from within Illustrator, alongside seasonal plans, placeholder plans, multiple artboards and layers, and a complete version history archived in native Ai format.

This bi-directional integration works across both CS6 and Creative Cloud versions of Adobe Illustrator, and has been extended to also support the same releases of Adobe PhotoShop – although InDesign (a marketing department's tool of choice) is not yet integrated.

There remain, however, some inconsistencies in the user interface when moving from one application to another, which suggests that there is still work to be done to unify the look and feel of every aspect of the 3DEXPERIENCE platform across the portfolio of potential brands and modules a user could have centralised access to.

The 3DS partnership and acquisition strategy has also created a significant recent opportunity to expand upon the digital asset management functionality of UDAS, in the form of PictureBook, a robust DAM solution that Dassault Systèmes obtained along with the RTT acquisition now renamed 3DEXCITE. 3DEXCITEis a recent acquisition and its solutions like PictureBook are planned to be integrated with the My Collection Fashion solution, and My Unified Development & Sourcing.

PictureBook is a strong example of the vendor's "re-use, don't recreate" ethos, allowing end users to catalogue everything from static images to 3D models, altering components and colours on the fly, and serving up suitable images for a host of different purposes across a range of devices.

Continued integration is still being enhanced across some of the other solutions in Dassault Systèmes' portfolio. Competent storyboard functionality (with stackable objects and clear manipulation capabilities) appears to still be separate from the core PLM backbone in a number of ways. And although the CATIA and Solidworks 3D CAD solutions are fundamentally impressive, there is not yet a completely common data set allowing them to interoperate seamlessly with the RFA-specific My Unified Development & Sourcing PLM.

There is, too, some storyboarding functionality missing that we would expect to see within a mature storyboard solution, but it must be said that the 3DS storyboard solution is one of the better products on the market today.

Moving on through the "day in the life", the concept development and merchandise planning functionality we were shown was good. A visual "funnel" concept allows for clear articulation of where in the process of ideation a particular product is, and merchandise planning is complemented with clear and effective support for product briefs, and product families that can share materials, hardware, stitching et al across a particular group of products.

The UDAS PLM solution is also able to accept data fed from a number of different third party core planning solutions (including Excel), making adoption and integration a relatively seamless process

Colour management support within the PLM solution was found to be standard, and although no license for Pantone or other colour libraries is included with the software at present, it was stated to us that the license agreement (at least with Pantone) is a work in-progress task.

Strong capabilities were demonstrated in the core competencies of material development, specification development, measurements, sample management bill of material (BOM) management and costing. We should draw particular attention to the vendor's encouraging developments in the areas of supplier management, ethical and technical auditing and compliance, and sustainability.

From a functional point of view, sourcing and capacity planning is enhanced in the R2014X solution, offering deep visibility into the supply chain. Similarly, vendor management functionality allowed for insight into a given supply chain partner's technical capabilities, capacity (product per period) and performance, and to block book minutes - via configuration - as well as allowing the user to track logistics and duties.

Sustainability itself is a more difficult issue, but one that Dassault Systèmes has clearly taken steps to address. No official API yet exists for the Sustainable Apparel Coalition's Higg Index, but nevertheless the vendor has begun to define how version 2.0 of that standard might be incorporated into future revisions of its solution. We understand that 3DS has a team dedicated to fostering and growing an integration between UDAS, the Sustainable Apparel Coalition guidelines, as well as other hot topics such as conflict minerals. We feel that it is important, however, to note that the challenges of sustainability go far beyond the Higg Index, and that any vendor's development strategy should also include a broader mix of compliance directives.

Our evaluation team were also shown very good mass functionality and multi-product hierarchy demonstrations – the former of which has been dramatically improved since WhichPLM were last shown the UDAS (ENOVIA) solution.

Finally, the EXALEAD solution that currently populates the analytical information in My Unified Development and Sourcing appears to be extremely competent. If desired, a company could also use EXALEAD on applications outside of PLM to provide more complete enterprise "business intelligence".

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CUSTOMER DISTRIBUTION

Region	Percentage of customer base
Americas	33%
Europe	40%
Asia	27%

IMPLEMENTATION & RESOURCING

Dassault Systèmes claims around 200 people dedicated to consumer goods and retail, worldwide. These are considered to be "specialists" rather than "generalists", and although WhichPLM is not certain how these are distributed around the world, the vendor currently serves 12 territories from a sales, implementation and support perspective.

Due to the 3DS policy of conducting solution development in a vertical-agnostic framework and only later "verticalising" those solutions, it is important to note that the resource figure listed here does not take account of the full scope of research and development staff that may be assigned to the actual ENOVIA and 3DEXPERIENCE platforms.

Recently, Dassault Systèmes have conducted implementations through their own in-house retail, footwear and apparel solution experts, sometimes supplemented by expert implementation resources from a number of partner companies. This is a similar model to that adopted by the majority of other leading vendors, but WhichPLM does have some reservations around the experience level of 3DS's current in-house sales, pre-sales and implementation experts depending on location.

This being said, we understand and have seen evidence to support the fact that Dassault Systèmes is at the time of publication undertaking far-reaching training initiatives to address these concerns at all levels.

WhichPLM has also interviewed two of Dassault Systèmes existing customers to confirm their satisfaction with the solution and with the vendor as a partner to the best of our ability. Of the small sample contacted, we can report that all were satisfied their implementation proceeded according to plan and within budgetary constraints, and all were satisfied that their ongoing relationship with Dassault Systèmes was mutually beneficial and productive.

Further to this, we believe that the vendor has recently re-started its user group forum events in North America and Europe, with the goal of supporting new and existing implementations in those territories and, eventually, further afield.

"REFERENCE CUSTOMERS WERE SATISFIED WITH THEIR IMPLEMENTATION AND THEIR ONGOING RELATIONSHIP WITH DASSAULT SYSTEMES."

PLM COMPETENCIES

TECHNICAL ANALYSIS AND COMPARISON TO INDUSTRY AVERAGE

The most technical aspect of our Supplier Evaluations, this section collects our scoring of this vendor's PLM solution in more than 40 different functional areas, comprising what we believe to be the key product lifecycle functionality a prospective customer should be seeking. Each functional area is awarded a star rating out of a maximum of 5(turn to the following page for explanations of each star rating's meaning), with 5 representing the theoretical end point that we believe vendors should be striving for in each particular process.

This is a scale designed to last, and WhichPLM has clear documentation charting what we believe will be the future of PLM research and development over the coming three-to-five year period, after which the higher echelons of our scoring system may be reached by certain vendors. As a result, we do not expect to award any 5-star ratings during the first two years of running these Evaluations (beginning in early 2015) and, indeed, expect to award few if any 4-star ratings for the same reason.

To make this as clear as possible, the industry average score (a composite of more than 10 modern PLM solutions' capabilitis) is presented alongside the scoring for this vendor for each of the 40+ processes we assessed during this Evaluation.

Technical PLM Competency	Dassault Systèmes Score	Industry Average Score
Storyboard	★★☆☆☆	★☆☆☆☆
Digital Asset Management	★★☆☆☆	★★☆☆☆
Concept Development	★★☆☆☆	★★☆☆☆
Merchandise Planning	★★☆☆☆	★★☆☆☆
Creative Design (CAD)	★★☆☆☆	★☆☆☆☆
Creative Design (CAM)	★☆☆☆☆	★☆☆☆☆
Creative Design (Pattern)	★☆☆☆☆	★☆☆☆☆
Creative Design (3D)	★★☆☆☆	★☆☆☆☆
Adobe Creative Suite Integration	★★★☆☆	★★☆☆☆
Colour Management	★★☆☆☆	★★☆☆☆
Colour Licensing	★☆☆☆☆	★☆☆☆☆
Colour Integration	★☆☆☆☆	★☆☆☆☆
Material Development	★★★☆☆	★★★☆☆
Component, Trims & Packaging	★★★☆☆	★★★☆☆
Specificaion Management	★★★☆☆	★★★☆☆
Sample Management	★★★☆☆	★★☆☆☆
Bill of Material (BOM) Management	★★★☆☆	★★☆☆☆
Supplier Management	★★★☆☆	★★☆☆☆
Auditing & Compliance	★★☆☆☆	★☆☆☆☆

Technical PLM Competency	Dassault Systèmes Score	Industry Average Score
Sustainability	★★☆☆☆	★☆☆☆☆
Costing	★★★☆☆	★★☆☆☆
Sourcing Management	★★☆☆☆	★☆☆☆☆
Purchase Order Management	★☆☆☆☆	★☆☆☆☆
Logistics & Tracking	★★☆☆☆	★☆☆☆☆
Factory Capacity & Commitment Management	★★☆☆☆	★☆☆☆☆
Quality Auditing	★☆☆☆☆	★☆☆☆☆
Collaboration & Integration	★★☆☆☆	★★☆☆☆
Mobile Applications	★★☆☆☆	★★☆☆☆
Offline Capabilities	★☆☆☆☆	★☆☆☆☆
Reporting	★★☆☆☆	★★☆☆☆
Dashboards	★★☆☆☆	★★☆☆☆
Business Intelligence	★★☆☆☆	★☆☆☆☆
Document Management	★★☆☆☆	★☆☆☆☆
Graphical User Interface	★★★☆☆	★★☆☆☆
Multi-Language Support	★★★☆☆	★★☆☆☆
Calendar Management	★★☆☆☆	★★☆☆☆
Workflow & Critical Path	★★☆☆☆	★★☆☆☆
Mass Functionality	★★★☆☆	★★☆☆☆
API	★★☆☆☆	★★☆☆☆
Master Data Integration	★☆☆☆☆	★☆☆☆☆
Multi-Product Hierarchy	★★★☆☆	★★★☆☆
Support	★★☆☆☆	★★☆☆☆
Customer Advisory Board	★★☆☆☆	★★☆☆☆

OUR SCORING SYSTEM

1 star = Acceptable (basic functionality may require more processing to achieve end results, further enhancements are required to the process)

2 star = Reasonable (reasonable functionality requires fewer clicks to complete processes, there are still, however, outstanding areas of functionality and further improvements required to the process or module)

3 star = Better (above average process and module functionality with automation & triggering, but a module that still requires further expansion and integration)

4 star = Very good (strong processing, good U.I., auto triggering of lifecycle management processes, more completeness of the module, but lacks the additional smart processing and integrations that would elevate it to the top)

5 star = Best in class (Intuitive U.I., smart processing, fully complete module additional evidence of integrations to related processes & solutions that drive additional value)

ROADMAP
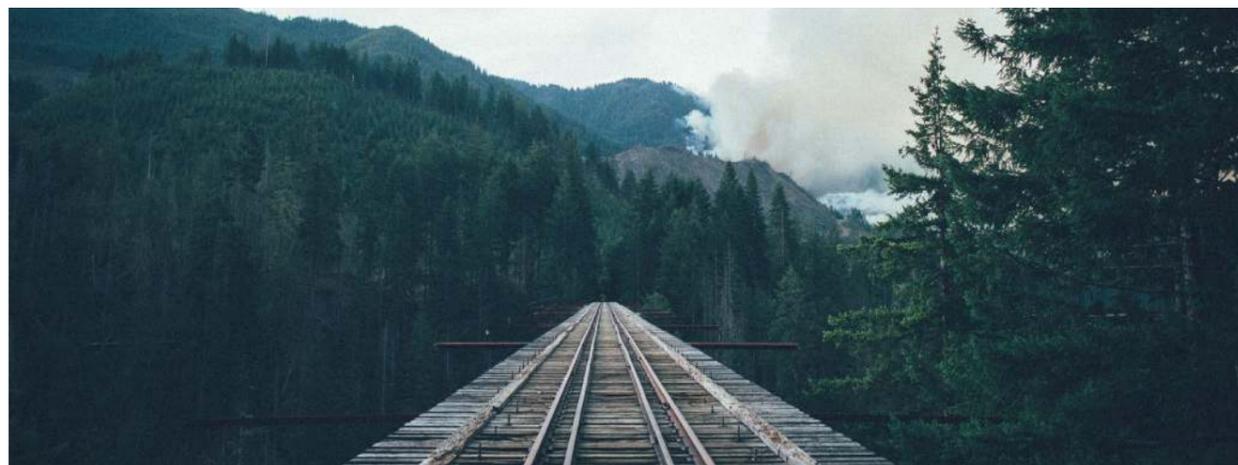
During our visit, we were given a glimpse into R2015X (due in calendar year 2015), which Dassault Systèmes was at the time building around several fundamental principles:

- Further integration between the My Store 3D store visualisation solution and PLM (including apparel and footwear specific enhancements, such as assortment planning and greater automation).

- Unification and improvement of the user experience.

The company is also working on configurable costing for an upcoming release; and moving to a one-click cloud deployment, with My Unified Development and Sourcing considered a shortterm priority for this model.

In our discussions with the executive team, it also emerged that mobility is a significant focus for the research and development and solution experience teams. It is important to note, though, that 3DS does not simply wish to replicate all PLM functionality on mobile devices (except where appropriate), but rather to create specific use case scenarios in which mobile working can further the end user

and, eventually, consumer experiences.

Outside of core PLM functionality, the 3DS team acknowledged the industry-wide challenge that much of what currently works well in three dimensions for more rigid consumer goods items like jewellery, handbags and accessories, will not easily make the transition to soft goods and apparel. Our tour of the Dassault Systèmes Paris campus included captivating demonstrations of electronics, sporting goods, jewellery, timepieces and vehicles rendered in exacting detail – some that could even be manipulated on three axes and viewed in stereoscopic 3D with head tracking.

It remains to be seen how much of this potential can make the transition to the apparel vertical, since the simulation of fabrics and photorealistic avatars is both demanding and complex.

Beyond 2015, the vendor plans to integrate its existing portfolio with the solutions it acquired along with RTT (now 3DEXCITE), and so the potential for further partnerships or acquisitions in this area may deliver a transformative 3D experience where apparel and soft goods is concerned.

OUR ANALYSIS OF DASSAULT SYSTEMES' ROADMAP

Following our visit to the Dassault Systèmes campus, the WhichPLM evaluation team came away very pleased with what was presented. This may sound minor, but in fact it was the inverse of our expectations; our confusion around the demarcation between PLM, the 3DEXPERIENCE, and ENOVIA itself was replaced by a genuine appreciation for the end goal that 3DS is attempting to reach.

This being said, not every prospective customer has the luxury of a day-long tour of the Dassault Systèmes buildings, and as such we believe there could be further refinement in the way the relationship between the 3DEXPERIENCE platform and actual products is communicated.

To that end, we also believe that full product integration should be an absolute priority for the 3DS development teams. Today, the company owns and has created some truly compelling solutions, and we believe that all of those individually-impressive products should be brought into a common data framework – with a fully

unified interface design – in order to become a completely holistic product offering. Similarly, a move to standardisation should also take place at the code level: our investigations revealed that while some of the 3DEXPERIENCE platform is built upon HTML5 and CSS3 standards, there is still work to be done in this area.

Our team would also like to see consideration given to offline working and synchronisation functionality. Admittedly this is an area in which Dassault Systèmes' solution performs at the industry average, but while the vendor has not identified any potential use cases for offline / online synchronisation, we believe that its mobility-heavy roadmap is likely to present a number of situations where key workers find themselves outside the reach of a data connection.

On balance, Dassault Systèmes' roadmap is clear and compelling, with much work still ongoing, and a significant amount of potential to be realised as a result.

EXECUTIVE INTERVIEW

SUSAN OLIVIER, VP, CONSUMER GOODS & RETAIL

WhichPLM: Tell us where PLM fits into Dassault Systèmes' overall portfolio.

Susan Olivier: For almost 30 years, Dassault Systèmes was a research and development organisation. Different sections of the product portfolio had their own sales team and channels with no particular organisational reason to talk to each other.

This has changed recently in line with where we see PLM fitting into our overall portfolio, and the emphasis we're placing on it for consumer goods and retail.

We're a visual, creative, product-led industry. PLM has long been the foundation for storing, relating and managing product data, from concept to consumer, but up until recently it has been separated from that visual aspect. Our aim with PLM today is to change that, and to use that visual identity – along with all the data, metadata and complementary solutions that accompany it – to empower the future of the consumer goods and retail industry.

WhichPLM: On that basis, do you consider 3DS to be a vendor of discrete pieces of software, or as a holistic solution provider?

Susan Olivier: Absolutely we want to position ourselves as a provider of holistic solutions. I am always keen to explain to prospects where the particular solution they are initially looking for – be it PLM or another part of the 3DEXPERIENCE platform – fits into our broader offering, because I want to see our customers grow, and for them to understand the full scope of their options with Dassault Systèmes or with other vendors in the future.

We recognise that much of the industry is designing today in 2D, but we believe in the near future that will likely shift to 3D, and we believe our platform can help to enrich that visual aspect with all of the related attributes and information that it takes to support tomorrow's connected product lifecycle.

WhichPLM: How are Dassault Systèmes' solutions adopted around the world, and what do you see as major growth areas?

Susan Olivier: In North America and throughout Europe, we see existing customers of PLM looking to go several steps further – to grow their PLM environment on top of that initial investment.

Emerging brands in South America and India, on the other hand, are beginning to compete with their multinational counterparts, but in order to really scale they require better organisational tools. These brands are very open to our core message: that PLM is not just a back-office operational system for delivering technical specifications, but rather something that can drive collaboration, informed decision

making and business growth.

Different markets are really embracing different technologies for different stages of their evolution. And more importantly, in all regions, customers are recognising that simple feature and price comparisons fall short of telling the full story when it comes to investing for the future in PLM. Many of the solutions on the market can meet global customers' immediate needs, but as a prospective customer I recommend looking beyond that, and considering what changes your business goals will bring to bear on the way you work in five years' time.

WhichPLM: What is the 3DS mission statement – at both the corporate and PLM-specific levels?

Susan Olivier: Our official purpose statement reads: "Dassault Systèmes provides business and people with 3DEXPERIENCE universes to imagine sustainable innovations capable of harmonising product, nature and life."

> "PLM is a vehicle to help our customers change their approaches to business and social collaboration."

For me, what this means is that we produce world-class software applications but our real mission lies in applying those to the retail, footwear and apparel industry in a way that helps to transform the way products are designed, produced, and supported. With 3D, for example, the intent is to allow designers to be much more creative up front than they might be otherwise, and iterate through their vision without committing to the creation of samples.

Around the world, businesses are beginning to realise that the consumer experience is shaping the future of retail and brand operations – something we call the "experience economy".

To reflect this, we try to avoid using acronyms like CAD and PLM in our communications. We are trying very consciously, as a company, to think about capabilities rather than individual products – to treat PLM not as a discrete application, but as a vehicle to help our customers change their approaches to business and social collaboration, and deliver those delightful consumer experiences.

Dassault Systèmes re-invests over 25% of its R&D spend on an ongoing basis, and as stable enterprise solution provider, we intend to be with those customers – and providing for those consumers – for the long haul.

FINAL THOUGHTS

In the past Dassault Systèmes may have been criticised for having its feet planted too firmly in the future. Certainly nobody can accuse the owners of a three-wall 3D shopping "cave" of looking backwards – something that we believe will be to their credit as three-dimensional working makes it impact felt more strongly across the apparel industry.

Although in the interests of fairness we obviously cannot weigh pure PLM against 3D CAD, for example, our thoughts throughout this Evaluation have taken account of the considerable potential that Dassault Systèmes' work in this and other areas presents for the future.

Luckily, for the purposes of this Evaluation, 3DS also scored above average overall, with strong showings in 3D, Adobe Creative Suite integration, digital asset management, sample management and supplier management, user interface and experience design, multi-language support, mass functionality and storyboarding.

There is much potential in the work Dassault Systèmes have either produced – My Store – or acquired – PictureBook – and this is emblematic of the vendor's current status as a whole. The company has invested deeply and well in the shorter term (in R&D) to help ensure that they will only become more potent an investment and partnership opportunity for prospective customers in the longer term.

Despite these exciting technological advancements, however, our market research has previously left us with concerns regarding the number of experienced "experts" in retail, footwear and apparel that Dassault Systèmes had to draw upon in particular regions. We must mention again, though, that evidence has been presented to us to demonstrate that comprehensive training programmes are being delivered to not only internal sales, pre-sales, and business analyst professionals, but also the wider 3DS partner network, addressing these previously-held concerns.

The integration task that the vendor has on its hands is something that may take several software revisions to fully realise, but once this work is completed, WhichPLM fully expects that Dassault Systèmes will be able to offer one of the most fully-featured, robust and exciting solutions on the market.

It can be easy to lose sight – as we believe the vendor itself has periodically done – of what Dassault Systèmes offers today, when the longer-term goal it advertises appears so exciting and so close at hand. For a prospective customer in 2014/15, however, the vendor offers extremely good functionality spread across a broad base of solutions, not to mention a proven PLM system that can already support some compelling extended PLM opportunities

My Unified Development and Sourcing, for example, can be complemented with a 3D store visualisation solution called My Store, which can deliver a truly unique experience by leveraging three-dimensional or even two-dimensional assets that already exist within PLM.

CLOSING REMARKS

Couple this potential with simple configuration, a clear roadmap for sustainability, and an attractive, intuitive user interface, and we see a PLM solution that – in its current GA release – scores at or above the industry average in most of the 40+ functional areas that WhichPLM assesses.

In a more holistic sense, Dassault Systèmes itself represents a strong partnership project for a similarly visionary customer – a retailer or brand willing to embark on a long but potentially extremely lucrative journey towards a complete (and a completely unified) 3D experience.

On the basis of release 2014X of its PLM solution, as well as its broader business roadmap, resourcing and implementation strategies, Dassault Systèmes has earned the following star rating in September 2014:

3/5 possible stars, and an overall grade of "above average".

By way of comparison, the current industry average star rating is as follows:

2/5 possible stars, and an overall grade of "reasonable".

FINAL SCORING

Overall Supplier Score (out of a possible 5 stars)

★ ★ ★ ☆ ☆

3DEXPERIENCE®

"…a long but potentially extremely lucrative journey towards a complete (and a completely unified) 3D experience."

"3DS has invested deeply […] in the shorter term [to] become more potent an investment for prospects in the longer term."

FURTHER READING

- Dassault Systèmes website
- Dassault Systèmes 2013 Annual Report
- My Collection For Fashion web page
- FashionLab web page

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