3S ENOVIA

3DEXPERIENCE®

BUSINESS INNOVATION

OBJECTIVE

3DEXPERIENCE Social Collaboration Services unites employees, suppliers, customers, consumers and regulators into the framework for sustainable innovation.

DASSAULT SYSTEMES

Highlights:

- Innovate with a higher degree of confidence by engaging consumers and customers early in the ideation process. Consider valuable feedback from across the value stream with minimal effort.
- Make the right decisions considering all the data across the enterprise, not just data at hand or outdated reports.
- Improve productivity by sharing easily across the value stream. Spend less time updating data and managing status.

OVERVIEW

The **Business Innovation** role delivers the underpinning apps and services that digitally connect all users in the value stream – to establish social communities with consumers and customers to share, experiment and innovate effectively. Businesses can power their innovation processes with transformative technologies, leveraging legacy tools and systems.

CAPABILITIES

The **Business Innovation** role digitally connects all users and is the cornerstone towards achieving a data-driven, model-based framework for sustainable innovation. The **Business Innovation** role includes the following apps and services: 3DPassport – authentication and authorization with **3D**EXPERIENCE ID, 3DCompass – access to roles, apps and services, 3DDashboard – dashboarding, 3DSwym – social collaboration with communities, 3DDrive – file storage and sharing (available on cloud only), 3DSearch – semantic search, 6WTags – enhance content with meaningful tags, 3DPlay – immersive 3D visualization, 3DMessaging – instant messaging, 3DNotification – real-time notifications, 3DComment – social interactions, and Users Group – collaborate and share with groups of users (available on cloud only).

Best in-Class Experience on Mobile Devices. All apps operate seamlessly on mobile devices. Content can be viewed and shared, edited and formatted on mobile devices.

Public and Private Cloud. Deploy immediately on-public and private cloud. On-premise installations are also available for added flexibility.

3DPassport

3DPassport provides authentication and authorization services for the **3D**EXPERIENCE platform. Registered users create a personalized **3D**EXPERIENCE ID for access to all the roles, apps and services available in a secure manner. Administrators can easily maintain user authentication policies like password strength, expiry and configure patterns to detect brute-force attempts at unlocking passwords. Email verification required by critical applications can be enforced to validate a user's **3D**EXPERIENCE ID.

Data Privacy: At the creation of the 3DPassport, every user has access to the Dassault Systèmes' Data Privacy Policy and is required to accept it (public cloud only). Users have the possibility to revoke their consent from My Profile.

In addition, a company may also present their own Data Privacy Policy to users for acceptance. In this case, the platform administrator would upload the Policy through the Platform Management dashboard.

Single Sign On: By exchanging authentication and authorization data in a standard format, 3DPassport provides a seamless single sign-on experience across the apps on the platform. 3DPassport can be easily configured to work with other enterprise single-sign-on services (on premise and provide cloud).

2-Factor Authentication: A higher level of security can be achieved by leveraging 2FA capabilities on the platform. Once configured (by an admin – on premise or on private cloud), the user can use a mobile app to generate a code to be entered along with the password for added security.

3DPassport Control Center. Administrators can audit logs and administer security, integration and configuration with 3DPassport Control Center (on premise only), including:

- Audit: Logging and monitoring tools for searching, configuring of app logs and management of scheduled tasks
- Security: 2-Factor Authentication, password management, HTTP throttling and lockout
- Integration: View, modify and remove the repositories currently used by 3DPassport, configure federated SAML mode, and configure OAuth support
- Configuration: View and modify miscellaneous 3DPassport settings and configure the trust store.

3DCompass

The 3DCompass provides a unique and innovative user experience across all **3D**EXPERIENCE roles, apps and services. This includes access to **3D**EXPERIENCE Marketplace – Make and PartSupply. Cross-platform services are available on the top bar at all times. This includes the "Notifications", "Add", "Share", "Content", "Communities" and "Search" services. Apps may add a bottom-bar menu to provide app-specific services.

Discover Apps. Apps are deployed on the 3DCompass – an app store and navigation infrastructure that provides role-based access to the apps. Users can request access to these apps, and are now able to download them as OS native apps to install on their computers. Apps that require a local installation will prompt to install the **3D**EXPERIENCE launcher the first time, and then download, install, update and launch the apps associated with selected roles.

Personal Data. All users of the platform will be able to access and update their personal data through My Profile from the top navigation bar. If needed, the platform administrator can not only remove access to the platform for a given user, but also pseudonymise this user. The user will have no access to the platform anymore, their personal data will be removed and any content attributable to the user is replaced by Anonymous User.

Custom Roles Embed Third-party Apps in 3DCompass. Administrators can create new roles, associate an icon and include third-party apps to the role. Administrators can then grant these custom roles to the relevant users.

Launch CATIA V5 and SOLIDWORKS Desktop Apps from 3DCompass. Users benefit from fast and accurate access to the right data by quickly filtering product structures and launching the necessary app associated with the data.

3DDashboard

Dashboard Everything. 3DDashboard delivers the real-time intelligence needed to monitor everything that matters to a business. Users can monitor the things they care about online –follow trends, be alerted by data feeds, and at the same time monitor enterprise processes and data. With the 3DDashboard, users see everything that's happening, 24/7, all in one dashboard.

Unified User Experience for All Apps. The 3DDashboard delivers a unified user experience across all apps by instantiating pre-configured widgets delivered along with the apps. Users can compose a personal dashboard by selecting relevant widgets from any of the 3D modeling, simulation, social collaboration, and information intelligence quadrants of the 3DCompass. For example, seamless cross operation between the 3DProduct Structure, 3DSearch and 3DPlay enables a user to navigate, review and compose assemblies at an unprecedented pace.

Widgets also interact with other widgets to provide intelligent switching of context, based on the data selected. Standard widgets include Media Reader, Web Page Reader and Feed Reader. Users can display links to their dashboards with images from the Web using the Media Links widget and play videos directly in the app if the link points to a video file. The Web Page Reader widget enables users to visualize rich media including images and pdf files with smooth scrolling and pagination.

Web Notes. Users can share notes with the collaborative Web Notes app on their dashboard. With concurrent editing, multiple users can update and keep track of changes to their notes. Users can also duplicate and merge notes by drag & drop.

Share Dashboards. Users can share their dashboard with other users including the widgets. The recipients of the shared dashboard only receive a copy of it. If the owner modifies the dashboard, the copy used by the recipient will not be updated and vice versa.

To keep a shared dashboard synchronized, select Manage and click Add Members to invite people with whom you want to keep the dashboard synchronized. The owner of the dashboard can define "Owner", "Contributor" or "Reader" access rights to the added members.

Enhanced Decision Making. With dashboarding, users can systematically and consistently analyze data from multiple sources and uncover key patterns to assist in decision making. This creates a culture of data-driven decision making for the entire organization.

3DSwym

With 3DSwym, people at businesses of any size can simply and quickly create their own complete, social innovation environment on the platform. Employees, partners, suppliers, consumers and any other stakeholders become active participants in the innovation process, extending and enriching the ecosystem.

Collaborate in Social Communities.

Create communities around common areas of interest, post blogs, review, comment and exchange observations and findings with a broader audience. Access your communities on any device.

3DSwym communities may be private or public, with membership approval requirements. Users can interact with suppliers, regulators and consumers by involving them in communities of common interest. The blog capabilities are enhanced with tagging and search, providing a means to capture unstructured information as a corporate asset. Social analytics and dashboards reveal what is trending. Subscription and notification services provide a good means to disseminate information. Subscribe to activities and/or new content to be notified of new or updated content and comments.

Connect to Experts. Members register their skills, qualifications, project information along with descriptions of areas of interest. Searching for members with experience in specific domains helps to leverage expertise across the eco-system.

Share and Collaboratively Update Knowledge. Wiki pages can be used to share knowledge and keep shared content updated. For example, users can create a knowledge base to keep track of a list of links, provide access to research papers or maintain a glossary database for projects.

The structured wiki layout with an expandable tree simplifies updating of the wiki. Community members can make modifications and a history is maintained on edited pages along with contributor information.

Member Management. Community owners can manage members via importing, removing, and exporting members. When a user is no longer active, ownership can be transferred to a new owner.

Ideation Maturation. Sharing ideas and participating in discussions is a necessity during product development. Ideas can be tracked with an ideation funnel and prioritized based on feedback from all stakeholders including consumers. The ideation funnel displays ideas status and count. Users can add and reorder ideas status in settings as needed. Ideas are advanced through the funnel as they mature.

Collaborate Across the Value Stream. Connect all relevant customers together in a social network around common themes. Harness the ideas from the supply chain with social collaboration.

Extended Interoperability Between 3DSwym and 3DDrive. Users can take files from 3DDrive and publish directly to 3DSwym blog posts, or include them with commenting using 3DComment. This helps users leverage the file sharing capabilities of 3DDrive more broadly.

Authoring Capabilities. When creating a post, users can call out key topics with #hashtags and embed thumbnails as part of the summary for better visibility. Users can also alert other users with @mention.

Bookmarks provide a quick reference for any content.

Community owners, can highlight or pin specific content to the top of the community feed to ensure that the content (post, media, idea, question, wiki page or survey) has maximum visibility.

3DDrive (cloud only)

3DDrive provides cloud-based document sharing capabilities as an integral part of the platform.

Share Securely on the Cloud. With 3DPassport authentication, users can securely store their documents on 3DDrive and access them from any device. They can also create folders and share the documents with co-workers and collaborators across the value stream.

Mashup Files from Multiple Cloud Drives and Compass the Data. Users can mash-up data from multiple cloud drives including Google Drive and Dropbox. The data from these sources are indexed by the platform search services and are 6WTagged to enable better navigation and discovery.

Seamlessly Interact with 3DDrive from Microsoft Windows Explorer. 3DDrive presents a familiar folder experience to the users. Users can drag and drop their files into 3DDrive and operate using familiar commands like copy and paste, lending to rapid adoption.

Share with Guest Users. With 3DDrive, users can share links to content with external users through a social media platform or email. Access to content can be restricted to a set of people identified by emails if needed. Guest users can register for the platform and gain access to content, including 3D content and experience the same with 3DPlay.

File Intelligence. 3DDrive understands relationships between files and intelligently navigates related files during download, open, move and copy operations – in particular, for CATIA V5 and SOLIDWORKS assemblies and parts. Referenced files are automatically taken into account in share, copy and rename.

File Management. Users can upload a new file onto existing content in 3DDrive, automatically updating the existing one. This updated file is historized, making it possible to retrieve previous iterations of the file.

Publish to 3DSwym. Publish content from 3DDrive into social communities via drag and drop and receive feedback from across the value stream.

3DPlay

3DPlay provides immersive 3D visualization in the browser in context of the apps and widgets. This highly responsive capability enhances collaboration by providing instant visualization of 3D parts and assemblies on all devices.

Zoom, pan and rotate your 3D objects with instinctive multi-touch gestures. Manipulate 3D objects, examine them in an exploded view and annotate them. Experience CATIA® kinematic animations and SIMULIA® simulation results.

File Intelligence. Visualize entire CATIA (V5, **3D**EXPERIENCE) and SOLIDWORKS assemblies, navigate assembly structure and cross highlight components.

Share Model-based Simulation Results with the Enterprise. 3DPlay capabilities including immersive annotation, visualization of simulation results, and visualization of motion on assemblies make it the perfect collaboration tool across different functions.

Performing Levels of Detail. Progressive loading allows users to explore the model even before it is completely loaded.

HTC Vive Immersive Experience [Rich Client].

Enjoy a truly immersive VR experience with kinematics support and improved displacement speed, transparency, and kinematics replay.

Experience 2D and 3D. Experience 3D content in 3D XML, CATIA V5, SOLIDWORKS, STEP / STEPZ (AP242 tessellated format), and STL formats as well as 2D content (images and drawings) in SVG, JPG, PNG, GIF and BMP formats from the different data sources available in the **3D**EXPERIENCE platform: 3DDrive, 3DSwym and 3DSpace. Specifically, with the 3DDrive integration, the user can also experience SOLIDWORKS, eDrawings and HWF, DXF, DWG formats. In addition, immersive visualization and annotation of pdf files is supported.

Support for IFC. 3DPlay offers enhanced viewing capabilities to Industry Foundation Classes in the building and construction industry, providing the ability to visualize, review and collaborate with architectural, engineering and construction designs from other applications.

Enhanced user interface and controls of the Fly Walk scenario allow a user to benefit from touch support, align-to-ground feature, and automatic speed adaption depending on the size of the model.

3DSearch & 6WTags

Index Everything. All data on the **3D**EXPERIENCE platform is indexed. This big data approach adopted by the platform connects to multiple systems and creates an index of the information. Apps on the platform adopt intelligent algorithms that scan this index to automatically discover links and collate all related information in relevant dashboards specific to the use-case at hand.

Find What You Need in an Instant. 3DSearch delivers a unified search capability across the apps on the platform. Content in the platform is tagged automatically with one or more tags describing the content in terms of "Who, What, When, Why, Where, and How."

Use the search field in the **3D**EXPERIENCE platform top bar, or use the 3DSearch app, accessible from the Information Intelligence quadrant.

Users benefit from a unified user experience in finding information using 3DSearch services. Full-text search allows for all metadata and data stored in the **3D**EXPERIENCE platform to be searched. The categories for searching are contextual depending on the current application scope.

Search from CATIA V5 and SOLIDWORKS Desktop with in-context menu on objects.

Unique Filtering to Find What You Need Faster. Content in 3DDrive, collaborative spaces and communities are tagged automatically when saved using one or more tags describing the content in terms of "Who, What, When, Why, Where, and How". In addition, users can also add their own tags and use them to filter the search results. Users can filter the search results based on these tags and find the results in a few clicks.

3DMessaging (cloud only)

Instantly Collaborate and Share Ideas in 3D.

Users collaborate with each other in real time by using the 3DMessaging service. 3DSwym users can collaborate with each other and with users of native apps in real time by using 3DMessaging.

Richer Collaboration. App users can also collaborate with other users to share 3D content and markups in real time. Enrich collaboration with audio and video calling in context right from the dashboard right pane.

Always connected. Users can maintain buddy lists and understand status of co-workers in a non-intrusive fashion.

Users Group (cloud only)

Collaborate with groups of users. Leveraging Users Group, a user can very quickly create a group, add or delete people to the group, and then deliver cross functions from the different apps, such as 3DSwym, 3DDrive, Collaborative Space, etc. to the groups. Without the Users Group, you would have to add each of the people to each individual app, one by one.

Creating Users Group speeds collaboration and improves productivity by reducing the steps required to share content or invite new users into a collaborative space or community. Users can be members of several groups. The groups are managed at the platform level to be leveraged by other services on the platform, such as 3DSwym, 3DDrive, etc. Any user can create a group, and apart from administrators, only the group creator can modify or delete the group. You can share dashboards and 3DDrive content with Users Group, and invite Users Group into Collaborative Spaces and 3DSwym communities, leveraging the group approach to collaboration.

3DNotifications

3DNotifications provide an effective way to update users about any activity on the platform. Notifications can include pictures and links to other content.

You can archive and purge old notifications in the notifications panel. For quicker review, you can filter your notifications by Who, When, Where and What.

Real-time Alerts. Alerts are delivered in real time to users working on the platform. Pop-up notification alert appears for 5 seconds and takes the user directly to the context of the notification, upon the user clicking on it. Act on the notification by clicking on the content; for example, view comment.

Notification Center. The notification center provides a convenient way for users to track the notifications along a timeline and take appropriate action.

Notification Settings. Users can choose to receive notifications from specific apps only. Notifications can be received as an email, alert or just to the notification center by setting a flag.

Notification Filtering. Users can filter by group notifications of the same type and expand to see individual notification.

3DComments

Comment on content in 3DDrive and 3DSwym and receive feedback from all users sharing the content.

Rich comments. Embed pictures and links to other content in the comments.

Threaded Discussions. Reply to comments and manage discussion threads.

Deliver notifications to all users mentioned in the comment.

Like and @mention. Like and unlike to deliver instant feedback to all collaborators.

Notify users by directing the comment using @user.

Platform Manager

The Platform Manager role allows administrators to manage members and assign roles, and manage platform vocabularies and 3DDrive usage via controls center widgets on the **3D**EXPERIENCE platform. Platform Management dashboards are available for platform and members' management.

3DPassport Control Center: On Premise. Management of authentication options in a dashboard.

Members Control Center: Invite users to join the platform and grant roles to users.

Enterprise Control Center: Manage platform vocabularies.

Drives Control Center: Monitor usage and manage settings for 3DDrive.

Communities Control Center: Manage platform and community settings.

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.

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