

SPIDER

MANAGEMENT AND CONTROL OF MULTIDISCIPLINARY ENGINEERING DATA

OVERVIEW

Spider (Engineering Data Warehouse) is an application designed for companies working in the industrial plants market (EPC Contractors and Owner Operators). One of its key capabilities is allowing multidisciplinary teams of engineers to work together during the development of the engineering activities, defining all the items involved in the project design.

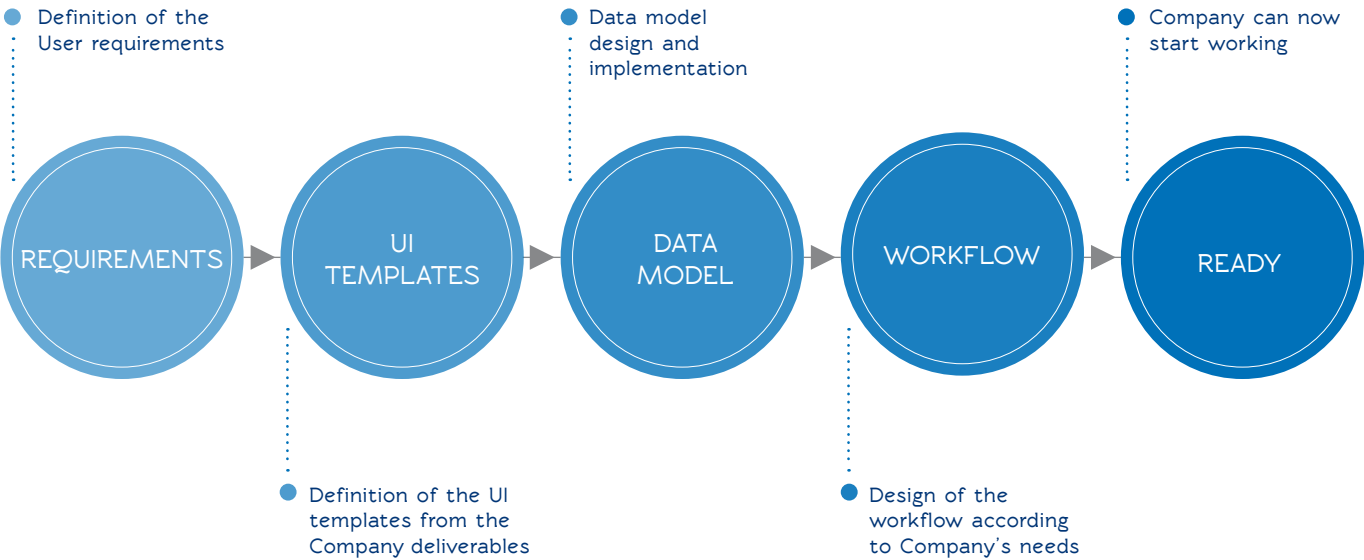
According to Spider workflow, each engineering department retains full control over its key data relating to any project item. The application has a fully configurable data model and workflow, making it suitable for a wide range of projects and industries.

In general, Spider aims to manage large quantities of data in a structured and controlled way.

Project data and their flows are usually managed by using Microsoft® Office™ documents, causing information to be duplicated and not guaranteeing its integrity and uniqueness. Information is exchanged by emailing documents or by sharing them through the filesystem, obviously causing data redundancy.

Spider allows Users to reset – independently and according to their own job scheme – the “dumb” documents to “smart” documents, also redefining their data model and information flow, still keeping control on them and guaranteeing their integrity and uniqueness.

IMPLEMENTATION PROCESS



BUSINESS BENEFITS

Quick learning curve due to the Microsoft® Office™ Excel-like UI, with a cost saving effect – your engineers will love to keep on using their spreadsheets.

Design your own document data model and workflow and get your data into a database.

Reduce the impact of data modification by transferring the information through the application and not by exchanging documents by email or paper.

Inconsistencies are not permitted because they get early detected by a powerful integrity data check.

Reduce the impact on the schedule by monitoring the changes through a controlled workflow and a powerful change tracking system.

Easy integration with other systems thanks to a modular component architecture and a complete set of API.

KEY FEATURES

DATABASE PLATFORMS

Scalable and multi-user architecture, independent from the relational database vendor: the supported platforms are Oracle®, Microsoft® SQL Server and PostgreSQL®; other databases which are currently not enabled can be quickly implemented.

ACCESS CONTROL

Each engineering department retains full control over its own data and, at the same time, every User working on the project can view the complete set of data.

REVISION CONTROL AND DATA COMPARE

A powerful revision control lets User keep both working and issued versions of each document. The atomic data model architecture can keep a complete history of the modifications operated on the single data and it allows undoing the data modification from any point in time. Changes are automatically saved in the database. Changed data can be viewed by Users by highlighting it through a WYSIWYG compare system on the deliverables.



HIGHLY CONFIGURABLE AND EXTENSIBLE

Every component of the product - UI, documents, data model and workflow - is fully configurable. The product has been developed with a component model architecture allowing our Customers to customize the application through either Microsoft® Office™ “Excel-like” macros or the development of new components written in .Net programming languages, that are totally independent from the rest of the application and which can modify the behaviour of every aspect of the product. For the integration with other engineering tools – such as 3D modelers, electrical and instrumentation schemes - a full set of .Net API is also provided.

EASY-TO-USE USER INTERFACE

Microsoft® Office™ “Excel-like” User Interface makes the product learning curve quick and the product easy to use. Users interact with the database via familiar spreadsheet functionalities with full Microsoft® Windows™ clipboard support. The UI can also integrate charts and drawings.

REPORTING

One of the big advantages of the product is that Users work in a WYSIWYG way on the deliverables, which are a direct view of the data stored into the database, making it easy to see how the output will look like once it gets produced by the application.

DATA AND WORKFLOW MANAGEMENT

Every modification is managed by a global transaction and it is possible to discard any modification by executing a single rollback operation at any time. Data propagation following the configured workflow is controlled by the User that owns the data, who can keep it private until he decides to publish it to other departments through the publication system. The workflow can be configured so that, even if the User is not the Owner, data change can go backwards as a proposal to the Owner, who can confirm it or reject it; during these operations other departments do not see this data flow until the data Owner approves it.

GLOBAL WORKING

The application can be installed in a centralized location and distributed through the web by using technologies such as Citrix® Metaframe™ or Microsoft® Terminal Services™.

TO-DO LISTS AND NOTIFICATIONS

The product can be integrated with the Company's emailing system. An internal messaging system will inform Users about key data changes and issuing of the deliverables. Users can also define custom triggers that can activate automatic updates and/or generate multidisciplinary To-Do lists which can keep track of important changes and monitor the time spent on their resolution.