# AGILE E6
# RELEASE NOTES

April 26, 2005

Agile e6 is a major release comprising numerous new capabilities & enhanced features in each of the following areas:

- Agile e6 PLM Platform Support
- Product Data Management
- Customer Needs Management

This document outlines improvements as well as major enhancements.

## Contents

# Extended Platform Support

For a complete and most current list of all officially supported platforms, please visit the Platform Support page on our website at http://eignersupport.agilesoft.com/index.asp (you will need a password to enter the support website).

## Java Client

As a client independent of the operating system and thanks to the option to deploy effortlessly via "Java Web Start[1]", the Java client offers interesting possibilities to many companies.

The Java client is suitable for data consumers and – because it supports all ECI-based integrations like most CAD and E-CAD/EDA integrations – also suitable for designers and other power users that create or modify product data.

The Java client retrieves information about the user interface elements from the repository, just like the Windows client, the Unix client and the Web client, so there is typically no additional customizing required (Please see limitations below for possible reasons which may cause different treatment of forms in Java Client than in Windows client).

Equivalent functionality with the existing Unix Client was the goal for the Java Client. This has been achieved in all important areas, with only a few remaining limitations, e.g.:

- Combined search in combined forms does not work (using queries in both head form and sub list)
- Drag & Drop is not supported.
- Printing is supported via server-bases solutions, e.g. PrintStudio Server.
- Assistants are not available.
- Follow-up menus on folder tabs are not supported. (They are not compliant with common user interfaces and have therefore been deprecated in earlier releases already.
- Viewing mode (invoked via CTRL-O) is not available. However, field contents can be selected with the mouse without entering a special mode.

Based on this equivalence in functionality, the Java Client replaces the former Unix Client.

Because the Java Client is available for all supported client operating systems, it is also interesting to know the differences compared to the Windows client. Most functions/applications will be working identically, and the most important differences are these:

- The Java client does not support Windows specific functionality/interfaces, so this limits e.g. the capabilities of the OfficeSuite.
- Navigator-fields on the Preview tab of some entities (e.g. Project, Item, Document) are not supported, this is why in the standard there is a specific Preview tab for the Java Client, replacing the one used in the Windows client.

[1] Java Web Start is a technology from SUN Microsystems

- The Java client does not contain an internal browser as available in the Windows client.
- Some user interface elements may work slightly differently, but the general functionality should not be affected by this.
- The Java Client is not intended for customizing, so the DataView Manager masks are not supported (masks, fields, entities, mask generator …).

### Support for Oracle 10g

Agile e6 runs on the current release Oracle 10 g.

### Simplified Configuration

To simplify the configuration of Agile e6, the former “Manager” menu has been split in two menus:

- The “System” menu provides access to configurations, which are typically defined during the initial set-up of the system, e.g. look-up values for the classification system or configuration rules for change management. These values are rarely changed and this is typically done by customizers.
- The “Manager” menu provides access to configurations, which are frequently changed respectively enhanced. Examples are the definition of vaults, units of measure or workflows. These configurations are typically edited by privileged users or administrators.

The user interface for the configurations has been simplified, converting logically grouped configuration lists in tabs of combined configuration forms.

### New Browser Implementation

The existing implementation of the internal browser (available in the Windows client and the Web client) has been changed to a more powerful concept.

The new browser now combines multiple views (GLOBAL, My Workplace) in a single window with different tabs. The user can easily switch between these tabs.
Users can not only browse homogeneous structures (e.g. a project hierarchy), but also drill-down to related objects of other entities (e.g. associated items). While this had been solved insufficiently via tabs before, users can now simply activate a “Relationship” toggle to display or hide such additional relations.

Also, the browser is now based on a different data model. Although this is not visible to an end-user, it allows more flexibility in configuring and tailoring the browser functionality. For example, it is now possible to add user-specific tabs to the browser window.

## Enterprise Integration Platform

The Enterprise Integration Platform Version 2.1 / SAP-Link Version 4.1 is a requirement for using integrations in combination with Agile e6.

New features of the Enterprise Integration Platform / SAP-Link are described in the Release Notes for the Enterprise Integration Platform 2.1 / SAP-Link 4.1 available on the Agile Support page.

# Product Data Management

Agile Product Data Management™ focuses on organizing and managing product design assets supporting globally distributed engineering teams. It comprises secure and scalable product document management including vaulting, access control, history and revision control, the integration of Microsoft Office applications and numerous file types as well as visualization and mark-up capabilities. In addition Item, BOM and Variant management, Engineering change management as well as Workflow are supported.

Agile Product Data Management™ helps the customer to have controlled access to the product record for users throughout the extended enterprise. It provides a seamless, project based, design chain from conceptual design through release to manufacturing.

New and enhanced features for the Agile e6 release include:

- OfficeSuite
- Document Management
- Change & Release Management
- Enhanced Change Management
- Text Management
- Item Management Enhancements
- Alias ID
- Classification Enhancements
- Product Usage
- Multi-Project Access Rights

## Improvements in OfficeSuite

The list of supported version of MS Office has been extended. Among other releases, MS Office 2003 is now officially supported by the OfficeSuite. For more information, please visit the Platform Support page on our website at http://eignersupport.agilesoft.com/index.asp (you will need a password to enter the support website). This website will be updated if support for new releases is added.

It is now possible to create Office Documents and check in files via the Web client, which can be later utilized by the OfficeSuite from the Windows client. File properties and the thumbnail (preview graphic) are updated when the file is checked-out and checked-in again with the Windows client. This enhancement allows companies to better leverage the Web client throughout the extended enterprise.

The existing Fileguard allows to monitor save operations into a dedicated directory. Due to limitations in the Windows operating systems, there can be situations where the Fileguard will not work correctly. Unfortunately this is out of control of Agile. For this reason, we recommend to not use Fileguard in new implementation projects. For the time being, we will continue to ship the Fileguard, but only in an “as-is” status with limited support.

## Document Management

Today, employees outside engineering often still rely on directory structures on their local computer or the company wide file system to manage documents. This makes it difficult to share important information in a controlled manner. With Agile e6, streamlined document management capabilities have been added, so that even non-technical users throughout the organization can add information to the product record or make qualified decisions based on it.

The document management capabilities combine the OfficeSuite with an easy-to-use user interface. To encourage non-technical users to work with the document management capabilities in Agile e6, the design has adopted familiar concepts of the Windows operating system:

- The internal browser provides a hierarchical structure of projects, sub-projects and specific „document folders“ – similar to a directory structure in the operating system.
- By clicking on an entry in the browser, a specific “Element List” will open. This list shows detailed information of the current browser entry and the subordinate entries.
- The element list provides context specific menus for all elements and allows direct access to the corresponding form via a hyperlink.

With this design, users will find it easy to switch from using Windows file system to using Agile e6 for centralized document management functionality. Check-in and check-out capabilities have been designed to support daily operations, such as:

- Single files or complete directories can be uploaded via drag&drop to the element list, making de-centralized data migration easy.
- Project hierarchies respectively document structures can be downloaded from the browser to a local directory structure, making such data available offline.

Due to the tight integration with the Windows operating system, the full set of capabilities of Document Management is available with the Windows client only.

Document Management is ideally combined with “Multi-Project Access Rights” (see below) to define access rights on a project basis.

The Document Management leverages the existing investment in Agile e5/e6. It ensures early visibility of projects, their information and product content.

## Improvements in Change & Release Management

The existing Change & Release Management allows the definition of states an object can be in and organizes these states together with state transitions in specific lifecycles. Several improvements have been realized in Agile e6:

- State transitions can be flagged to be system internal, so that they can be executed via userexits and LogiView scripts, but not interactively by users.
- The user interface for the definition of lifecycles has been simplified, including the definition of phases (formerly called “maturity levels”) for the individual states.

- The version view has been enhanced, allowing to filter objects in a given phase or range of phases.

- When creating a new object, users can pick from a list of initial states of the lifecycle

## Enhanced Change Management

With the Enhanced Change Management, the creation and modification of objects can be based on a strict process management. Agile e6 allows to easily configure, which entities or relations shall be controlled by Enhanced Change Management, and how “strict” this control shall be: It is possible to define if individual objects can only be created, changed or released under control of work requests and work orders. Along with this, it is possible to define if parallel versioning and/or parallel effectivity shall be permitted.

Work Requests are used to initiate a change process by describing the reason and purpose of an intended change. Also, the affected products (product-level assemblies where the objects are used) can be identified. Affected products can either be selected manually or with the so-called "Change Impact Analysis" based on the affected objects. The Change Impact Analysis automatically executes a complex "where-used" query which then displays the affected products of the corresponding work request.

Work Orders are typically used to implement the changes. Every Work Order has one or more so-called "Work Sets" which group and control change operations and the associated objects (respectively object relations). All objects will be released – and thus become valid/effective – when completing the corresponding Work Set. In the standard configuration the affected objects have to be approved before the Work Set can be completed. For this reason the new state “Approved” was added to the lifecycle definition of the corresponding objects.

Enhanced Change Management supports formal change processes, where each intended change is described in detail (defining the affected objects and the requested change operations), and an ad-hoc mechanism, where intended changes are directly applied to the corresponding objects. All changes have a preliminary nature and the resulting modifications of e.g. bills of material are transparent for most users, unless the corresponding Work Set is completed. This allows to specify the scope of a Work Request/Work Order in detail, without impact on daily operations.

An outstanding feature of the Enhanced Change Management is the compatible replacement of an item in a selected number of bills of material: Within a single dialog, designers can perform multiple replacements instead of having to edit each bill of material individually. In addition to this, there are different eligible change operations, e.g. "Modify", "Replace 1:1" or "Version", allowing efficient structure changes. It is also possible to define via the so-called “Interchangeability” settings, if objects must be replaced together as a group (setwise) or can be replaced as independent objects (non-setwise).

## Text Management

The Text Management provides a central text management facility to control the textual data used in the system. It enables the definition of multi-lingual text templates/instances. Placeholders can be used in text templates for variable content.

Text Management improves the documentation of a bill of material by assigning text positions to structure it (providing textual information for a “section” in the BOM) or by adding individual text to a BOM position (e.g. assembly information).

Glossaries can be defined with the Text Management, supporting the entry of multi-lingual information independent of the language skills of the users. It also simplifies the retrieval of data by using unified terms, predefined in the glossary and available from look-up tables for selection when adding new data.

Based on powerful where used reports, modifications of text templates/instances and glossary can easily be propagated.

## Improvements in Item Management

Improvements in the Item Management provide an optimized documentation of bills of material. Readability has been improved by allowing informal BOM positions and annotated item positions (e.g. assemble instructions) via Text Management. The handling of units of measurement has been streamlined. An improved Context has been implemented to maintain several views of the same BOM. As a result, the Item Management supports a more precise and unambiguous definition of the product record, while improving overall productivity.

The improvements include:

- The entity for item masters has been extended to permit the definition of a default unit of measure and item specific unit conversions (e.g. to convert the unit “kg” in unit “liter” for an item with specific properties). To get access to these data, the item master is now accessible via the start menu.

- The default unit of measure will be used for all item versions. In a bill of material, the unit of measure can be replaced with any unit of the same group (e.g. “g” instead of “kg”), or with any unit, that the default unit can be converted in, based on the item specific unit conversions.

- The position type has been added to the bill of materials, supporting normal (item) positions and text positions, where text is assigned by referencing a text instance (see Text Management above).

- A new Context concept has been implemented for the bills of material. Up to 255 separate Contexts can be defined in parallel, dramatically lowering the effort to maintain multiple views of a bill of material.

## Alias ID

Many supplier organizations suffer from parts proliferation, and one reason is that parts and assemblies need to be managed with a number that is imposed by the customers. Suppliers who do business with multiple customers typically need to duplicate items because their existing IT-applications can manage only a single number per item. Agile e6 provides a solution to these challenges and allows you to speak the language of your customers:

- Redundant items and thus additional costs are eliminated through the ability to assign one or several “Alias Identifiers” to items, documents and even work requests/work orders. Each Alias Identifier defines a unique identification of the

object for a specific “Cooperation Partner” (a customer, an engineering service provider or a supplier).
User specific settings allow to define a cooperation partner in order to display the object’s Alias Identifier for this company.

- The language of your customer is not limited to numbering systems. Each OEM uses a different terminology for configuration options they have defined to configure vehicles, and Agile e6 allows translating these “external” configuration options to “internal” ones.

## Improvements in Classification

Classification is an existing module which has already been enhanced significantly in recent releases, specifically regarding the attribute pool. With Agile e6, this functionality has been further improved, adding support for classes with a large number of attributes and helping users to focus on attributes of their interest.

- Attributes can be grouped into “Sets”, which are then assigned to classes. Sets typically contain attributes with the same logical/functional background, e.g. Energy, Tolerances.

- Sets of attributes are also used to control the visibility of attributes in a classification list. The total number of fields in a classification list is limited to 255 fields. A default visibility defines which set of attributes should be contained in the classification list by default. The user can then define specific visibility settings in the context of the parent mask (Class mask or Item mask). These settings will be valid within a session, as long as the parent mask exists.

- Classes can be structured in subclasses and superclasses. Subclasses inherit the attributes of superclasses and of all classes of higher hierarchy levels (except an inherited attribute is explicitly suppressed). In Agile e6, it is now possible to individually define the sequence of all attributes (local and inherited ones) within the classification list.

## Product Usage

With the Product Usage module the release of a product related to a specific application is managed.

The module provides the facility to define a “Product Platform”, thus specifying the manufacturer and describing the characteristics of the platform. A product platform typically represents a product family of a manufacturer (customer) and is the basis for specific applications a product is used for.

An “Application” specifies how the product shall be used and contains all relevant information, including the underlying product platform. The Application is detailed by assigning specification documents, organizations or classifying attributes, thus capturing the product usage specifications. The assigned document typically contains conditions/requirements that are part of the agreement/contract with the customer.

Since an individual product (typically a top-level assembly) can now be released in the context of an application, it is clear which checks have to be performed to approve and then

release the product. The release steps are documented, controlling the whole release procedure.

New or changing specifications due to different product usage applications can be easily edited, supporting a better product usage coordination with your customer.

### Multi-Project Access Rights

While historically many manufacturers were vertically oriented with most design and manufacturing work being done inside the company, many now outsource these activities to suppliers and engineering service partners. Such an extended enterprise is highly project-driven, requiring teams with experts from multiple companies. In such an environment, companies that can open their system to supply chain and/or engineering service partners while protecting their intellectual property achieve a competitive advantage. Multi-Project Access Rights is a unique solution to efficiently manage access rights in a multi-project environment.

Multi-Project Access Rights is based on the former implementation of “Project Driven Working” (PDW) and makes this functionality generally available. These enhancements include:

- Project specific job functions can be easily defined in a corresponding sub-list of the project form. Along with pre-defined privileges, this allows to de-centralize the management of access rights, so that project managers can staff their teams – including the possibility to assign individual users project manager privileges for sub-projects.

- Privileged users (typically administrators) can create job functions not only for users, but now also for user groups, which reduces the definition effort in some situations.

- Different from the ‘strict’ PDW, it is now possible to define several Projects that shall be displayed in parallel. There still is exactly one “current” project/job function.

- The dialog to select the current project has been improved, allowing to select from all assigned job functions, or to select only from job functions within the currently displayed projects.

- Inheritance of access rights to subordinate projects can be stopped, allowing to make sensitive information in such a project accessible only to those users, which have been explicitly assigned to it.

## Customer Needs Management

Agile Customer Needs Management™ is a new solution that closely links customers, marketing/product management, and engineering in the requirements specification, systems engineering, and engineering design of products. It supports the innovation process and ensures that products meet their requirements and needs of the market. It also enables to trace the impact of “Moving Targets” across the complete product definition.

Features in Customer Needs Management include:

- Requirements Management

- Conceptual Product Structure
  - Neutral BOM
  - Modular BOM
- Product Configurator

## Requirements Management

The basis for getting a product “right to market” – on time, with the right set of features, with the right quality, and at the appropriate costs - is defined in the early development phase; often before CAD design is even started. Getting the interpretation of customer needs and product specifications right the first time is also a key to further shorten development cycles.

- Agile e6 lets you capture requirements in a structured way. The origin of a requirement, its priority, and its connection to other requirements becomes transparent for all involved stakeholders.
- External requirements (in the voice of the customer or marketing) can be refined and thus translated into internal requirements.
- Measurable criteria can be defined by which it will be confirmed at a later stage that an individual requirement is met.
- By gathering the criteria for all requirements, precise test plans can be defined, which build the basis for customer acceptance tests.

## Conceptual Product Structure

The “Conceptual Product Structure” is used in an early development phase to define a possible product structure. The elements in a Conceptual Product Structure represent product components (placeholder for a physical component like an item) or product funtions (describing the functional aspects of a product). The product structure is build top to down. The Conceptual Product Structure will evolve in a Bill of Materials (consisting of “real” items) which is especially important for complex products that may also include variants.

Depending on the business model for a product (Engineered-to-Order to Assembled-to-Order), there are two different ways to define a Conceptual Product Structure:

**Neutral BOM**

In an Engineered-to-Order environment the “Neutral BOM” will typically be used, pre-defining the BOM structure of manually configured (engineered) product variants. It is complete in terms of having a top-level item, components and parts. A "real" BOM is derived from the structure and saved as a complete BOM. The structure of a neutral BOM acts as a template to automatically verify the item structures.

Product components are defined as placeholders and can be used in multiple neutral BOMs. Only the elements of a neutral BOM link the product component to a hierarchical structure.

**Modular BOM (also referred to as “150% BOM”)**

The “Modular BOM” is suitable for products with a fully determined configuration logic, as typically the case in Assembled-to-Order environments. A single modular BOM covers all product variants. Each position in the modular BOM can have several “Position Variants” and each of them has a specification rule assigned to it.

The modular BOM is ideally combined with the Product Configurator (see below), to derive order specific bills of material.

Different from the neutral BOM, the resulting order specific bills of material are not complete, that is, the structure is defined by the modular BOM.

For each product component, a solution space can be defined with suitable items. This leverages re-use of existing data.

Requirements can be linked to an individual product structure element and thus define how a possible solution (a real item) must be designed. This is also the basis to trace the impact of changing requirements (“moving targets”) on the final design – and vice versa to check, if a changed design is still in line with existing requirements.

Each product component can implement one or several basic functions, e.g. ‘Convert Torque’, ‘Store electrical Energy’. This supports a function-oriented design process, where in a first step a product structure element can be created, which only determines the needed function. In a second step, one of the product components that implement this function can be selected. The decision for a specific product component can be driven by the requirements for the current product structure element.

## Product Configurator

The Product Configurator derives order specific bills of material from the modular BOM.

The language used to defined the configuration logic is based on “Specifications”, which describe individual features or properties of a product (e.g. a specific color, a specific engine type). Customer select the specifications of an individual product they want to configure. With inclusions and exclusions, possible combinations of Specifications can be defined (respectively limited) and thus invalid combinations are rejected.

In the modular BOM, each Position (a product structure element like ‘Steering Wheel’) can have multiple Position Variants. Each has a “Specification Rule”, which is a Boolean expression made up of individual Specifications.

Based on a valid set of Specifications, the Product Configurator evaluates all Specification Rules and creates an order specific bill of material. The modular BOM may still be in a development stage, and the derived bill of material can be intended to build an early physical or virtual prototype. Because some configuration rules are likely to be incomplete at this stage, it is possible to manually change the order specific bill of material by adding/removing positions or replacing the selected items.

# De-Support

## De-Supported Functionality

The following table lists all functions, which will be de-supported. The term “de-support” indicates that Agile’s Engineering resources will no longer be allocated to these functions—Agile will not produce Hot Fixes or Service Packs for issues reported on a de-supported function. However, from a technical point of view customers can continue to use it.

- ❑ Calendar
- ❑ SAP-Link "ESI" (replaced by SAP Link based on Enterprise Integration Platform)
- ❑ Advanced Resource Planning ("ARP")

## De-Commissioned Functionality

The following table lists all functions, which will be de-commissioned. The term “de-commissioned” indicates that the corresponding function will have been removed from the shipped product. Consequently customers will not be able to use it any longer.

- ❑ Graphical Editor for Release Procedures
- ❑ Graphical Editor for Data Model
- ❑ Netmeeting Integration
- ❑ Hitwords ("HIT")
- ❑ Material-Resource Link ("MRL")
- ❑ GUI Browser
- ❑ QT/Unix Client
- ❑ Creation of temporary objects:
  - Projects: Default EDB-TMP-PRO-STR
  - Items: Default EDB-TMP-ART-STR
  - Documents: Default EDB-TMP-DOC-STR
- ❑ Automatic Change Notification (German: "Ablaufnachrichten"), as part of State Changes
- ❑ Portal Support

**Note:** This list is subject to modifications and amendments. For an up-to-date list, visit the De-Support page on our website at http://eignersupport.agilesoft.com/index.asp (you will need a password to enter the support website).

In case of doubt, please get in touch with your local Agile representative.