

InnoCielo Asset Management Module



Maintaining As-Built Assets including Engineering Content

white paper

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1 Introduction

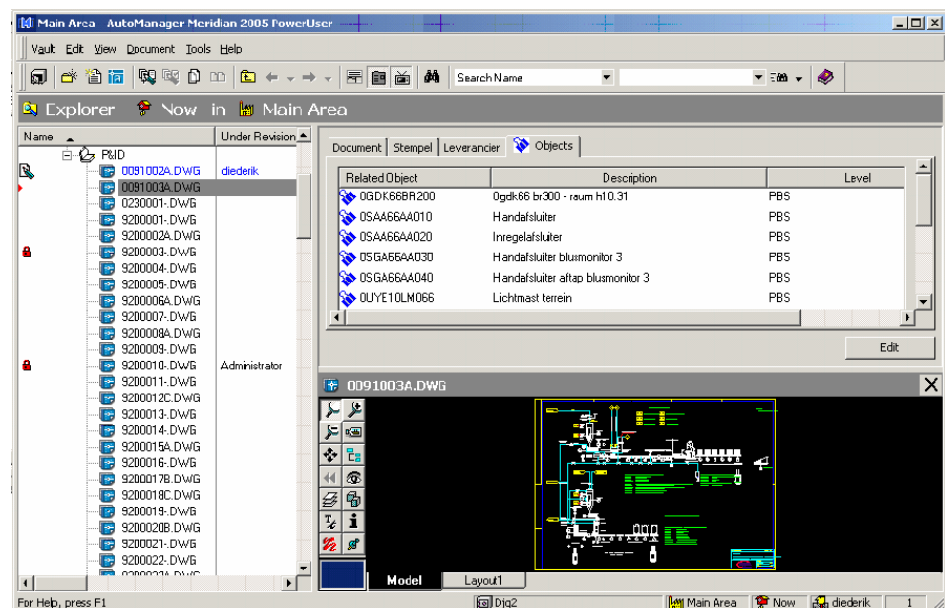
Over the last two decades companies have been implementing enterprise asset management (EAM) solutions to control the routine maintenance of production assets. However, enterprise asset management cannot reach its full potential without the proper management of asset-related technical documentation, such as drawings and technical specifications. Technical asset information is of critical importance in order to resume production as quickly as possible in case of unplanned downtime.

In a similar fashion, traditional engineering document management (EDM) solutions have been implemented without references to physical assets and asset information. In many companies cumbersome manual processes are in place to keep technical documentation synchronized with asset information in order to preserve their license to operate. These companies face the challenge to manage the asset-document relationship and make integrated information available to the various user groups. BlueCielo has introduced the concept of integrated engineering content management solutions which will provide up-to-date engineering content to the various user groups.

2 Asset-Centric Engineering Content Management

InnoCielo Meridian Enterprise is used extensively in the food and drugs, oil and gas, process, utilities and other industries to manage engineering content. One of the key requirements in these industries is the ability to provide and manage the relation between assets and engineering content. This enables intuitive content search and reduces as-built costs by keeping the engineering content consistent with the actual situation. A consistent as-built environment is required to execute vital processes and to preserve your license to operate.

In an average facility there are thousands of assets which are identified by a unique number like a tag number, functional location number or Kraftwerk Kennzeichen System (KKS) number. These numbers are usually managed in maintenance management or similar systems. Such systems lack ECM functionalities and thus are unsuitable to manage the hundreds of thousands technical documents and their relations to assets.



As such documents are not only related to physical assets but also to combinations of assets or activities, a more appropriate term is "object-document" relations. The InnoCielo Asset Management Module is the logical extension for InnoCielo Meridian Enterprise to make engineering content available across the organization.

2.1 Linking Engineering Content to Assets

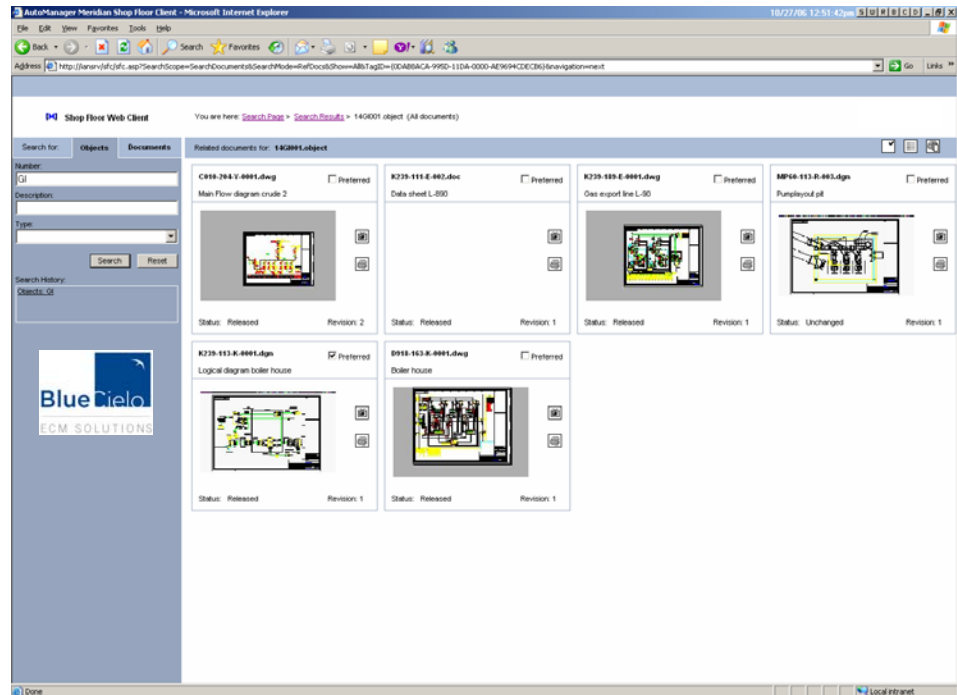
The integration of your existing enterprise asset management solution (such as Datastream 7i, Maximo, SAP Plant Maintenance and Ultimo Maintenance Management) and InnoCielo Meridian Enterprise which manages your technical documentation provides complete and powerful functionality to search and update technical documents on the basis of asset numbers. This will dramatically improve your company's efficiency during planned engineering changes and also during emergency maintenance and inspections.

The InnoCielo Asset Management Module provides extensive functionality to create and manage relations between technical documents and assets (asset numbers). Assets can be imported from your maintenance management system or created manually and put into a hierarchical structure, like a plant breakdown structure.

In the engineering phase assets are linked to documents and documents are linked to assets. For example, a process and instrumentation diagram represents multiple assets, and therefore needs to be linked to multiple assets. However, an asset like a pump or vessel is specified in multiple technical documents. When searching for an asset, you want to see all its related technical documentation, and vice versa: when searching for technical documentation you want to be able to see all related assets. The InnoCielo Asset Management Module offers you that functionality.

3 Integrating Engineering Content with Operations

The InnoCielo Asset Management Module also provides the unique possibility to leverage technical document management within other business processes. It can be complemented with the InnoCielo Shop Floor Client, giving users the ability to search for assets and asset-related technical documentation from an always-accessible and easy-to-use browser-based interface.



The InnoCielo Asset Management Module offers the unique possibility of leveraging engineering content within an enterprise asset management context. The InnoCielo Asset Management Module can be integrated with your existing maintenance management system, bridging the gap between Maintenance and Engineering.

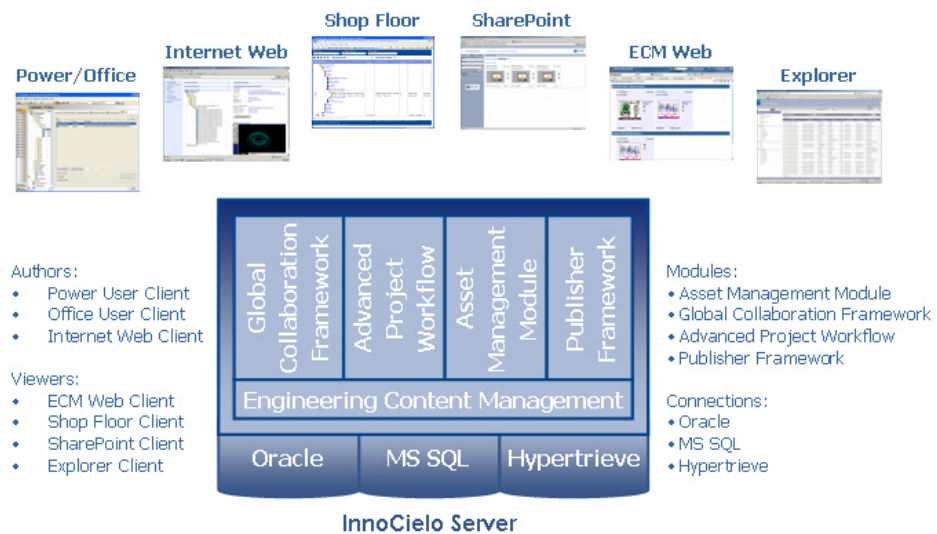
Integrations are available for Maximo and SAP Plant Maintenance, and are in development for Ultimo Maintenance Management and Datastream 7i. Users can easily search and retrieve technical documentation from within their present maintenance management system, such as when accessing a work order, equipment or job plan.

Users of the InnoCielo Shop Floor Client and users of your maintenance management system will see the revisions and current status of their technical documentation, as well as the content itself using BlueCielo's unique viewing technology. Users can redline drawings and add comments to document executed maintenance tasks. Interdepartmental communication is improved and made more efficient, as the engineering department is immediately aware of deviations, changes and other remarks.

4 Benefits

The InnoCielo Asset Management Module enhances, automates and streamlines asset operations throughout their lifecycle to ensure the performance of mission-critical assets and avoid costly disruptions of their operations by linking assets with technical documentation, such as drawings and technical specifications. Keeping control of and providing access to up-to-date documentation is crucial in all phases of the asset lifecycle.

- Intuitively find technical documents using an asset identifier as a search key
- Easily maintain the N-to-N asset-document relationship
- Navigate and find documents using the asset structure
- Identify the set of documents that is subject to change due to a plant change
- Improved completeness and reliability of technical asset information and as-built data
- Compliance with quality, environmental and legal regulations
- Increased product quality and reduced access time
- Reduced equipment failure and number of accidents
- Seamless handover of engineering data to Maintenance
- Reduced costs of production, maintenance and engineering
- Increased production through shorter unplanned process downtime and stop preparation



5 Customer Case-Story

Met-Mex Peñoles, part of the Metals-Chemicals Division of Industrias Peñoles, SA de CV, is the largest non-ferrous metallurgical complex in Latin America, and the fourth largest in the world in terms of production value. It is also the largest sodium sulfate plant in the world. Met-Mex Peñoles has implemented our InnoCielo Meridian Enterprise ECM solution with the InnoCielo Maximo Module.

As a company with over 1,200 Maximo users, Met-Mex Peñoles did not need help managing their maintenance data. What they needed was a way to manage their engineering documents, as well as a way to connect Maintenance and Engineering.

“InnoCielo Meridian Enterprise will not only help us manage our engineering documents, but its seamless integration with Maximo will enable us to properly document and manage the entire lifecycle of our manufacturing facilities,” says José Rodríguez de León, engineering manager at Met-Mex Peñoles. “When Maintenance and Engineering can easily exchange documents and information, we will be able to reduce our risk of lengthy process downtime and continue our mission to add value to non-renewable natural resources in a sustainable manner.”



6 BlueCielo ECM Solutions

BlueCielo ECM Solutions (formerly Cyco Software) provides Engineering Content Management (ECM) solutions for multiple vertical industries, including utilities, oil & gas, petrochemical, pharmaceutical, government, transportation and process and discrete manufacturing. BlueCielo has over two decades of industry experience with more than 275,000 users in 50+ countries worldwide. The company has offices in the USA, UK, Russia, Germany, and The Netherlands and an extensive global network of established partners. BlueCielo ensures a high level of service and support on a truly worldwide scale for its leading software solutions InnoCielo Meridian Enterprise and InnoCielo Teamwork (formerly AutoManager Meridian and AutoManager TeamWork).

7 Questions?

For further information on this subject or about BlueCielo, please feel free to contact us by phone, email info@bluecieloecm.com or visit our websites.

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