

**InnoCielo Publisher Standard Edition with
Generic Render Engine to PDF**



Publish Engineering Data to the Enterprise

white paper

BlueCielo ECM Solutions
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1 Introduction

InnoCielo Publisher is an optional module for InnoCielo Meridian to render and publish engineering documentation.

InnoCielo Publisher provides generic publishing capabilities for engineering documentation managed by InnoCielo Meridian. InnoCielo Publisher allows both native and rendered files to be made available for users of engineering content. InnoCielo Publisher is part of BlueCielo's strategy of taking engineering content to the enterprise.

InnoCielo Publisher provides standard rendition modules for any file type for which a default printer driver is available. In addition standard rendition modules are available for MS Office, AutoCAD and Autodesk Inventor. InnoCielo Publisher also provides standard modules for publishing to a file system, ZIP file and InnoCielo Meridian.

Custom rendering and publishing modules can be added to InnoCielo Publisher to enable customer specific features.

2 Challenges

Engineering content is in continuous change. Documents are created, updated, reviewed, released, revised and deleted. At certain points in their lifecycle engineering documents must be handed over to other departments in the organization, or outside the organization. In many companies this is a cumbersome, manual or unstructured process.

In this process engineering documents must be converted into easily accessible formats and stored in systems where other people can retrieve the information, replacing outdated copies.

InnoCielo Publisher makes it possible to automate such processes, triggered by predefined document lifecycle events, time schedules or on an ad-hoc basis.

3 Solution Overview

InnoCielo Publisher is frequently used in scenarios where the engineering data managed by InnoCielo Meridian has to be made available to a wider audience in the native file format or in an alternative file format such as PDF or DWF.

InnoCielo Publisher provides an out-of-the-box publishing solution supporting several standard configurations, and also offers the possibility to add rendering or publishing components to create a fully customized publishing solution.

Assume the following scenario:

A company has its engineering documents stored in InnoCielo Meridian and uses a generic document management system where enterprise information is stored for common use.

Engineering documents are created in AutoCAD DWG format, but released engineering documents need to be made accessible in the document management system in DWF format for viewing purposes.

Other departments, such as the production department, require access to the information in the document management system to support their production processes.

This is a typical scenario where InnoCielo Publisher is the right solution. InnoCielo Publisher can process engineering documents that have been released on a regular basis (e.g. daily). InnoCielo Publisher renders these documents into the read-only Autodesk DWF format. When the rendering of a document is complete, the document is published

in the document management system, making it also accessible to non-engineering users within the company.

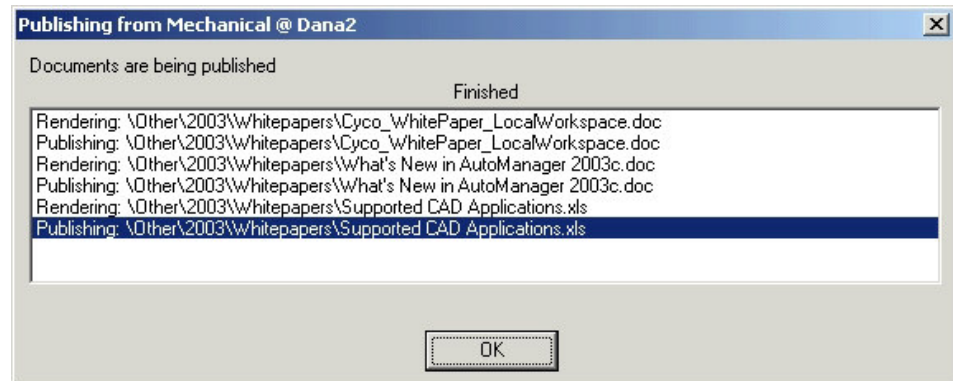


Figure 1 - InnoCielo Publisher Activities

In general, InnoCielo Publisher is needed in situations where engineering documents and data managed by InnoCielo Meridian must be published or archived in other systems or on the web. In this process, the documents may have to be rendered to more accessible formats like Adobe PDF or Autodesk DWF.

The most common reasons for the rendering of engineering documents are:

- Archiving in a neutral, easy accessible format.
- Easy viewing, review and approval – native CAD formats are not available for users outside the engineering department
- Protection of intellectual property – in cases where the source format should not be provided to certain users (e.g. external parties)
- Protection of content – in cases where document content should not be modifiable
- Continuity – in cases where the document content must remain accessible in the future, even if the original authoring tools and formats are upgraded or retired

Typical file formats to render documents into are:

- PDF
- DWF
- TIFF
- HTML

Typical destination systems other than InnoCielo Meridian are:

- Document management systems
- Collaboration systems
- Web Portal systems

Examples are: Documentum, FileNet, Livelink, SAP Knowledge Management, SharePoint, Autodesk Streamline, Lotus Notes and Web Portals.

4 Usage Scenarios

InnoCielo Publisher is typically used for customers where one or more of the following scenarios apply:

Scenario 1: Regular distribution of updated engineering documents is needed

A company requires regular or immediate updates of engineering drawings to be submitted to internal or external staff.

The drawings are sent in a neutral DWF file format together with descriptions (document properties). This information is zipped and sent to its staff by email.

Scenario 2: Engineering documents need to be available in central Document Management System

A company's engineering department uses InnoCielo Meridian as their engineering content management solution, because of its unique features in integrating with their native CAD applications. The company also uses a generic document management system for information management and retrieval.

Released engineering documents from InnoCielo Meridian are made available in the generic document management system in a read-only format.

Scenario 3: External parties need access to engineering documents

A company requires external parties to review or retrieve information that has been produced by Engineering.

Engineering documents from InnoCielo Meridian are made available in a read-only format in a portal system for external retrieval.

Scenario 4: Clients need access to engineering documents via a web portal

The customers of a company must be able to access or download certain technical documents in a suitable format from the company's website.

Engineering documents from InnoCielo Meridian are made available in HTML, PDF or JPG format in a web application folder.

Scenario 5: Multiple sites require document exchange for collaboration

A company has several independent engineering departments located across multiple sites, each of which has their own InnoCielo Meridian installation.

Engineering documents are exchanged in their native format together with descriptions (document properties) between InnoCielo Meridian vaults.

In all of these scenarios InnoCielo Publisher makes it possible to automate the publishing process, making it faster, more reliable and more efficient than without automation.

What makes InnoCielo Publisher truly unique is its out-of-the-box publishing capabilities combined with the possibility to add completely customized publishing modules, supporting uncommon or highly specialized publishing needs.

5 Technical Overview

The InnoCielo Publisher works in combination with InnoCielo Meridian server and the InnoCielo Task server. In the picture the InnoCielo Meridian server is shown on the left side. On the right side we have target systems with their users. In the middle of the picture is the InnoCielo Publisher or InnoCielo Publisher Framework.

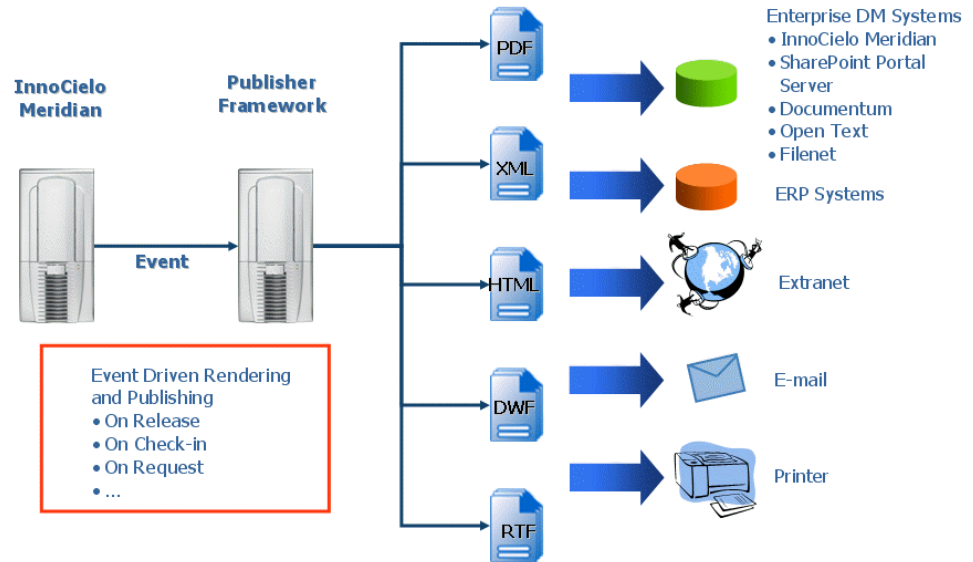


Figure 2 - Architecture of InnoCielo Publisher

InnoCielo Publisher's exporter performs the following steps to process a document:

1. The exporter is scheduled to periodically check a database to see what documents need to be published. It initiates a publishing scenario for each document found.
2. The document is transformed by a rendering process. The various rendering options are discussed in Section 5.1.
3. The document is then stored in the destination system. The various publishing options are discussed in Section 5.2.
4. After the exporter has finished processing the document, it provides feedback that the document has been successfully published, or that errors have occurred during the process.

5.1 Rendering a Document

The InnoCielo Publisher is delivered with a generic rendering module to render Office and CAD documents to PDF. Optional the following standard InnoCielo Publisher rendering modules are available:

- AutoCAD Plot to PDF
- AutoCAD to DWF
- Inventor to PDF
- MS Office to PDF
- Multiple Documents to PDF
- Default Printer Driver

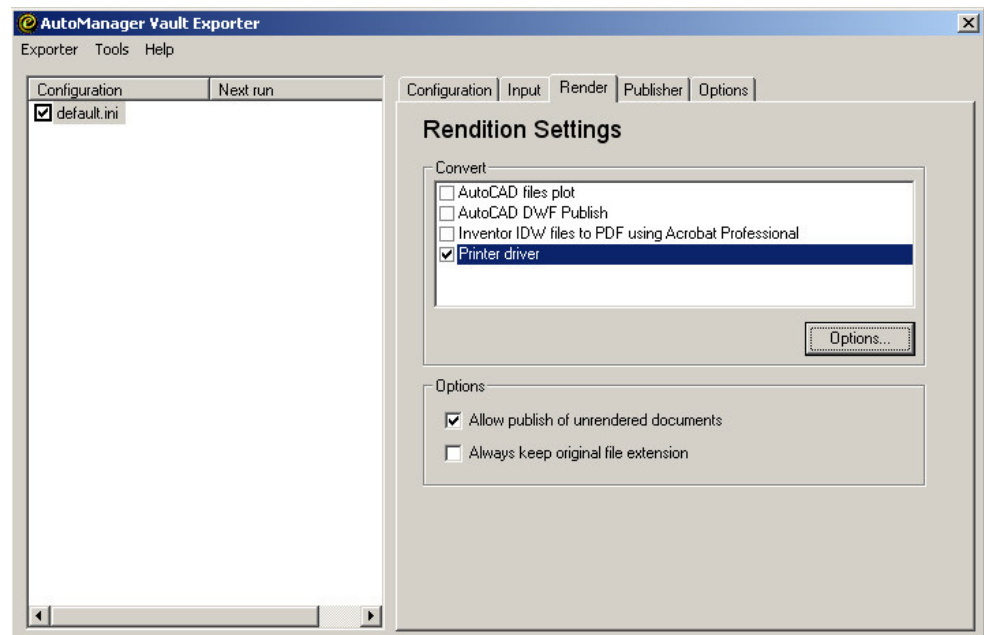


Figure 3 - Selecting the rendering components

Custom rendering modules may be developed using the InnoCielo Publisher Framework. BlueCielo Professional Services or your local reseller can provide assistance with that. See Chapter 6: Total Services Offering for more details.

Please note that rendering modules may require specific licenses and may have certain software prerequisites (e.g. AutoCAD DWF Publish requires AutoCAD to be installed on the InnoCielo Publisher system).

5.2 Publishing a Document

InnoCielo Publisher provides the following standard publishing modules:

- InnoCielo Meridian
- Windows file system
- SmartZIP

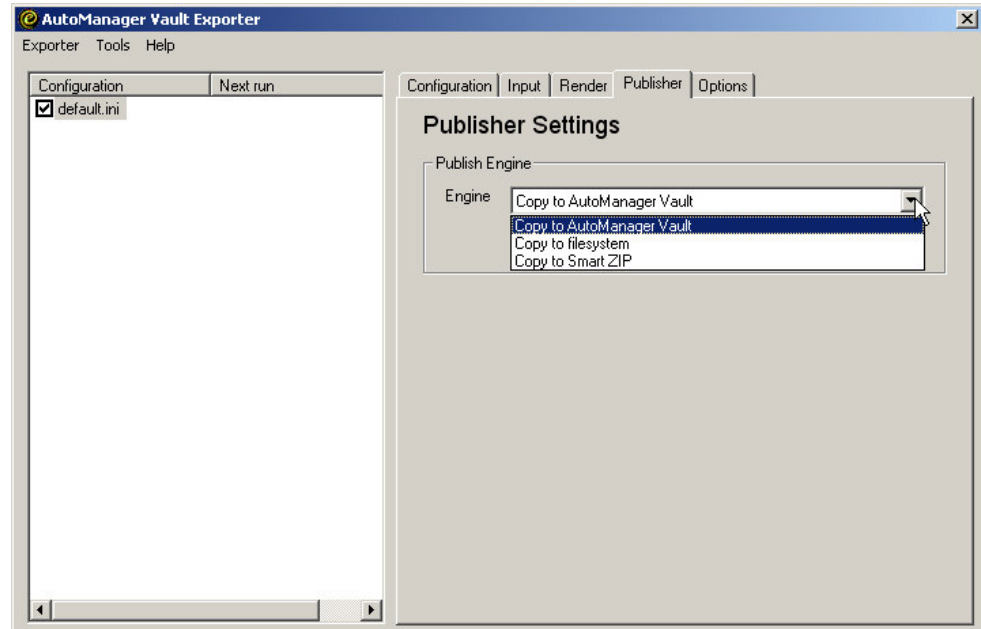


Figure 4 - Configuring the publishing components

Custom publishing modules may be developed using the InnoCielo Publisher Framework. BlueCielo Professional Services or your local reseller can provide assistance with that. See Chapter 6: Total Services Offering for more details.

The following are examples of publishing modules that can be set up and configured by BlueCielo Professional Services:

- Documentum
- Web Portal
- SharePoint
- Livelink
- Lotus Notes
- Autodesk Streamline

6 Services Offering

The InnoCielo Publisher Framework allows developing and implementing specific rendering and publishing modules. These modules can be implemented by BlueCielo Professional Services or BlueCielo Certified Partner. The requirements analysis will determine what functionality can be provided out-of-the-box or with simple configuration, and what functionality can only be achieved by additional customization. The customer can then make an informed cost-benefit decision with respect to the degree of customization.

Subsequently, BlueCielo Professional Services or a BlueCielo Certified Partner will configure and/or enhance InnoCielo Publisher Framework modules to support custom features (such as layout, size, fonts, property information and so on), or develop new modules for rendering specific formats or for publishing to specific target environments.



7 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).

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.

Contact info

Corporate Headquarters BlueCielo
Handelskade 49
2288 BA Rijswijk
The Netherlands
T +31 70 413 37 00
F +31 70 413 37 01
info@bluecieloecm.com
www.bluecieloecm.com

Americas
2400 Lake Park Drive
Suite 450
Atlanta, GA 30080
U.S.A.
Toll-Free 800 323 29 26
T +1 404 634 33 02
F +1 404 633 46 04
info@bluecieloecm.com
www.bluecieloecm.com

Europe, Asia, Pacific Rim,
Middle East, Africa
Handelskade 49
2288 BA Rijswijk
The Netherlands
T +31 70 413 37 00
F +31 70 413 37 01
info@bluecieloecm.com
Benelux: www.bluecielo.nl

DACH
Essener Strasse 5
46047 Oberhausen
Germany
T +49 208 305 85 00
F +49 208 305 85 025
info@bluecieloecm.com
www.bluecielo.de

United Kingdom, Ireland
Empress Business Centre
380 Chester Road
Manchester
M16 9EA
United Kingdom
T +44 161 877 55 79
F +44 161 877 55 80
info@bluecieloecm.com
www.bluecielo.co.uk

Russia, Russia and CIS countries
Korolev Street 6
249030 Obninsk
Kaluga region,
Russia
T +7 (48439) 63079
F +7 (48439) 65095
info@bluecielo.ru
www.bluecielo.ru

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