Questions and Answers

1. About Autodesk MapGuide Enterprise

1.1 What is Autodesk MapGuide Enterprise?

Autodesk MapGuide® Enterprise software is Autodesk's web mapping platform. Built on MapGuide Open Source software, it enables developers and web designers to rapidly develop and deploy valuable spatial applications. It works with the latest PHP, .NET, and Java® tools to quickly build powerful applications for Windows® or Linux® server environments.

Developers can also easily distribute geospatial and design information internally, over the web, or using Autodesk's DWF™ format for offline portability. Applications built using Autodesk MapGuide Enterprise give users, internal teams, and the public a faster, easier, and more flexible way to query, analyze, and view crucial spatial information.

1.2 What are some of the features of Autodesk MapGuide Enterprise?

Autodesk MapGuide Enterprise helps users develop and deploy web-based applications that quickly and easily distribute spatial and design data.

Autodesk MapGuide Enterprise features include the following:

- Linux and Windows platform support
- Flexible Web Layout technology, to create mapping applications using a modular system of flexible design templates and application widgets. The Flexible Web Layouts include support for overview maps, improved tools for selection measure, and feature digitizing.
- Support for customized symbols, linetypes, and other cartographic artifacts such as dynamic labels embedded within symbols, and composite line styles. Import and convert AutoCAD blocks into symbol definitions.
- Uniform expression syntax support to create complex queries, filters, and labels using the powerful expression builder tool that works on all FDO-supported data sources
- Server-side programming and application delivery using PHP, ASP.NET, or Java/JSP
- Plug-in access for new data sources without requiring a recompile of the core server
- Support for simultaneous connections (parallel or simultaneous queries) to multiple database servers, residing locally or on Linux or Windows systems accessible via the network
- Built-in access-based security model to support delivery of your data or application to authorized users only

- Scalability: Built-in pragmatic load balancing that enables multiple server deployments as well as the ability to take full advantage of multiprocessor architectures
- AJAX-based viewing technology that does not require any plug-in to be installed
- Support for portable viewing applications using “disconnected” mode

1.3 What is new with the 2010 release of Autodesk MapGuide Enterprise?

Performance improvements—Autodesk MapGuide Enterprise 2010 includes several performance improvements such as better Oracle database connectivity, faster loading of the flexible web layouts framework, quicker selection processing, multiple raster file connections, as well as improved stability.

Raster reprojection—Autodesk MapGuide Enterprise 2010 incorporates on-the-fly reprojection of raster content from the source coordinate system to the map coordinate system.

Improved legend—Autodesk MapGuide Enterprise 2010 enables users to determine the geometry symbol preview icons displayed in the legend.

Other improvements and error reporting has been improved, as has resource repository management.

Deprecation of the DWF Viewer—The DWF Viewer functionality is available in Autodesk MapGuide Enterprise 2010, but it is no longer supported. In order for DWF Viewer to work in Autodesk MapGuide Enterprise 2010, Autodesk® Design Review 2009 must be installed on the client system. Future versions of Autodesk MapGuide Enterprise will not include support for the DWF Viewer. Autodesk MapGuide Enterprise will continue to support the DWF format as a part of a workflow, with the ability to plot a map to a DWF file format, which enables users to use Autodesk Design Review for stand-alone, offline viewing of the DWF file. Please consult the documentation for how to acquire the Autodesk Design Review 2010 version.

Developments from the OSGEO community: The OpenLayers javascripting library can use MapGuide Open Source and Autodesk MapGuide Enterprise as a map data source, enabling users a client side scripting toolkit to create richer client side interactions such as

- Client side redlining tools
- Use of multiple map data sources
- Markers and pop-up windows

1.4 Is this open source software?

No, Autodesk MapGuide Enterprise software is proprietary software. There is an active open source project, called MapGuide Open Source, available from the Open Source Geospatial Foundation (OSGeo) at mapguide.osgeo.org, which has substantially the same functionality as Autodesk MapGuide Enterprise. The open source version is based on software contributed by Autodesk to OSGeo.

1.5 What’s the difference between the proprietary and open source versions?

Both versions share the majority of core functionality. The open source version benefits from the general characteristics of collaborative software development: multiple contributors, faster innovation, and low cost of ownership.

The proprietary version offers the following added value:

- **Additional quality assurance.** Autodesk MapGuide Enterprise is the quality-assured version of the open source software, and has been subjected to commercial test engineering processes by Autodesk.
- **Formal support.** Organizations hosting mission-critical applications need more support than an open source community can typically offer. These organizations can choose from different levels of support offered by Autodesk.
- **Connectivity to additional data stores such as Oracle® and GE Smallworld.** Organizations using commercial-grade database systems benefit from robust access to their data stores.
- **Increased data and application integration.** A shared API (application programming interface) offers integration with AutoCAD® Map 3D and other Autodesk® products. AutoCAD Map 3D also offers one-step publishing to Autodesk MapGuide Enterprise.
- **Localized versions.** Autodesk MapGuide Enterprise is available in English, French, German, Italian, Spanish, Korean, and Japanese. While localized versions may be available through open source, the commercial versions have been thoroughly tested and are available with commercial support.
- **Subscription benefits.** For new Autodesk MapGuide Enterprise customers there is no licensing fee, although a purchase of subscription is required. This entitles users to the benefits of Autodesk® Subscription (technical support, software updates, and so forth). For more information, contact your Autodesk Authorized Reseller.

1.6 Who can use Autodesk MapGuide Enterprise?

Autodesk MapGuide Enterprise benefits any organization that needs to integrate and distribute maps and spatial information inside or outside their organization. Autodesk MapGuide Enterprise helps users develop, manage, and distribute GIS (geographical information systems) and design applications on the Internet or an intranet, broadening access to crucial geospatial and digital design data. For online sample applications, please visit: http://enterprise.mapguide.com.

1.7 What is Autodesk MapGuide Studio?

Autodesk MapGuide® Studio software is the authoring environment for Autodesk MapGuide Enterprise. It handles all aspects of integrating and preparing geospatial data for distribution on the Internet. Modeled after popular web development tools, Studio provides a unified environment that enables you to rapidly create spatial applications using a web designer–friendly interface.

1.8 What are some of the features of Autodesk MapGuide Studio?

Autodesk MapGuide Studio provides an intuitive authoring environment that puts files and resources close at hand, and provides the ability to preview the application as you are creating it. With Autodesk MapGuide Studio, users can:

- Perform all aspects of authoring a site, from uploading data files and connecting to databases to creating maps, remotely over the web
- Easily create rich Web 2.0–type mapping applications using a modular system of Flexible Layout Templates and application widgets
- Automatically create thematic rules based on attributes in the geospatial data

- Preview each resource as it is being created, including layers, maps, and the viewer layout
- Load many common file formats, including SDF, SHP, DWG, and raster formats
- Use intuitive .NET-compatible API to automate common tasks such as load, move, rename, and delete
- Integrate business logic written in PHP, ASP.NET, or Java directly into the application and preview it in Autodesk MapGuide Studio
- Create a single application that works with both the basic AJAX viewer and Flexible Web Layout viewer
- Create customized symbols, linetypes, and other cartographic artifacts such as dynamic labels embedded within symbols, and composite line styles. Import and convert AutoCAD blocks into symbol definitions.

2. Technical Information

2.1 What are the system requirements for Autodesk MapGuide Enterprise?

Viewer

- The AJAX viewer uses Asynchronous JavaScript and XML to deliver maps and spatial data to the browser. It does not require a plug-in and supports most browsers, including Windows Internet Explorer®, Safari™, Firefox®, and Google™ Chrome browsers. The flexible web layout templates, which are based on cascading style sheets, use AJAX natively.

Server

- Linux: Red Hat® Enterprise ES Version 5
- Windows Server® 2003 R2 (SP2), Windows Server 2008

Windows XP Professional may be used for demonstration purposes, but it is not a supported server platform. IIS on XP supports a limited number of HTTP connections and is not recommended for this reason. Apache™ is the recommended web server if you choose to use Windows XP for demonstration purposes.

Web Server

- Apache HTTP Server 2.0
- Microsoft® IIS 6.0 on Windows Server 2003
- Microsoft IIS 7.0 on Windows Server 2008

Optional Application Development Software

- PHP 5.2.5 (Windows or Linux)
- .NET Framework 2.0 (optional, Windows only)
- Java JDK™ 6.0 and the Tomcat™ Servlet engine version 6.x (optional, Windows or Linux)
- FDO version 3.4

2.2 What spatial data formats are supported?

Using FDO Data Access Technology, Autodesk MapGuide Enterprise takes advantage of data from the following:

- Oracle Database 10g R2 and Oracle 11g R1
- Microsoft SQL Server® 2005 and 2008
- ArcSDE® 9.2 and 9.3 on Oracle and SQL Server
- GE Smallworld 4x (separate download from Autodesk Subscription Center)
- SDF
- MySQL® 5.67
- ESRI® SHP
- ODBC to Microsoft Office Access® and Excel®
- OGC WMS and WFS
- Multiple raster formats

2.3 What is FDO?

Feature Data Object (FDO) Data Access Technology is the mechanism that enables Autodesk Geospatial products and enterprise applications to work natively with spatial data stored in relational databases, files, and web services. FDO technology is included in Autodesk MapGuide Enterprise, MapGuide Open Source, AutoCAD Map 3D, AutoCAD® Civil 3D®, and Autodesk® Topobase™ software products.

2.4 What is SDF?

SDF is an Autodesk file format that is used to store GIS features. An SDF file contains primarily a list of features (points, polylines, and polygons). In addition to the geometry coordinate data, each feature has these three attributes: name, key, and URL entry. SDF supports a mechanism that allows a feature to be quickly "looked up" based on either its key or spatial location.

SDF supports general attributes beyond the three specific attributes supported by the SDF format.

2.5 What are the system requirements for Autodesk MapGuide Studio?

- Windows XP Professional (SP2 or SP3)
- Windows Vista® Business (or SP1)
- Windows Vista Ultimate (or SP1)
- Windows Vista Enterprise (or SP1)

2.6 Can Autodesk MapGuide Enterprise use SDF 2.x files?

Yes. The Autodesk MapGuide Enterprise server supports/reads SDF version 3.0, while the Autodesk MapGuide® 6.5 server supports/reads SDF version 2.*x*. To use SDF 2.*x* data files in Autodesk MapGuide Enterprise, you can use Studio to convert the SDF from 2.*x* to 3.0, and then upload the SDF file to the Server.

2.7 Does Autodesk MapGuide Enterprise support DWG files?

Yes. DWG™ files are transformed on the fly to either DWF or SDF format by Studio and uploaded to the Server.

2.8 Why use MapGuide technology with AutoCAD Map 3D?

When used together, AutoCAD Map 3D and Autodesk MapGuide Enterprise enable organizations to do everything from initial data design to web deployment more effectively—without translation or data loss. The result—a powerful foundation for meeting core geospatial needs.

Work done in AutoCAD Map 3D is directly compatible with Autodesk MapGuide Enterprise due to shared common data access technology (FDO). When you create a design or build a map in AutoCAD Map 3D, you can access and use information stored in different formats (ArcSDE, SHP, Oracle format) via direct FDO connectivity. Therefore, the same design or map with the same stylization is instantly available online to web users when published to Autodesk MapGuide Enterprise. So, regardless of whether the data consists of files from your desktop or from a database or web service, Autodesk MapGuide Enterprise can quickly make the data available via the web.

You can also maximize the full value of information created in AutoCAD Map 3D by easily building custom applications with the flexible Autodesk MapGuide Enterprise development platforms (PHP, Java, and .NET) and powerful APIs. Users can work with data in a streamlined manner, helping you get the most value from your work—inside and outside your organization.

By turning to AutoCAD Map 3D and Autodesk MapGuide Enterprise, organizations can

- Integrate spatial data for all geospatial, engineering, and online needs
- Streamline the process of creating, maintaining, and disseminating data
- Leverage CAD-trained staff to keep GIS data current
- Accelerate business processes with easy-to-use, real-time information
- Realize more value from all investments in GIS technology and data

2.9 Does Autodesk MapGuide Enterprise support ColdFusion?

Adobe's Macromedia® ColdFusion® software is one of many development tools that can be used with Autodesk MapGuide Enterprise. Many Autodesk MapGuide Enterprise users have used ColdFusion to build reporting or other functions into their application. Those familiar with ColdFusion can continue to use it. Other programming languages offer several advantages that are worth considering.

3. About DWF Technology

3.1 What's a DWF file?

A DWF file is a vector-based file that enables users to pan, zoom, turn layers on and off, and plot from within a web browser or DWF-enabled application.

DWF allows nontechnical users to easily view and print 2D and 3D drawings, maps, and models. Only DWF technology is purpose-built for distributing CAD and GIS files so the fidelity and intelligence of maps and designs can be communicated securely, including layers, scale, and object properties. Often at 1/10 the size of other formats, DWF files are easy to distribute, post, and share online.

3.2 Why is DWF format important?

The use of DWF file specification with Autodesk MapGuide Enterprise provides the following features:

- High-quality printing and plotting of maps
- Offline map viewing capabilities
- Printing of multisheet map books

3.3 Is DWF technology also available as open source?

While not available as open source, the DWF format is an open format. Autodesk publishes a toolkit that enables developers to build applications that read or write multisheet 2D or 3D drawings in DWF format. Portions of the DWF Toolkit are also included in the MapGuide Open Source software, but the DWF file specification will continue to be managed by Autodesk.

The toolkit is available as a free* download with a simple license for developers who want to support DWF capabilities as part of their application.

3.4 What's Autodesk Design Review?

Autodesk Design Review software helps save time and money with easy-to-use tools for team members to review, mark up, and revise maps and designs electronically. This free* tool is tightly integrated with most Autodesk design software and enables project teams to move to a two-way design review process and gain timesaving functionality in their markup and approval processes. Specific timesaving functionality includes the following:

- Intuitive measure, markup, and annotation tools
- DWF and DWG file viewing, plotting, and publishing
- Ability to combine project data such as images and specifications in a single file
- Powerful status tracking to manage engineering change orders
- Round-trip markup integration with Autodesk design software, so designers can overlay changes and comments on the original CAD file

Autodesk Design Review is available as both a stand-alone application and as an ActiveX® control embedded in Internet Explorer. Autodesk MapGuide Enterprise can use Design Review software to display and print maps and spatial information. Autodesk Design Review can also be used offline for measure and markup purposes. The AJAX Viewer provided by Autodesk MapGuide Enterprise does not include or require Autodesk Design Review.

4. About Open Source

4.1 What's the background of Autodesk's involvement in open source geospatial software?

In late 2005, a group of developers and individuals initiated discussions around the formation of a nonprofit foundation for open source geospatial software. These discussions, with community input and involvement, resulted in the formation of the Open Source Geospatial Foundation™ (OSGeo™) in early 2006.

Initial foundation activities included participation from several existing open source projects, including GDAL, GRASS, MapBender, MapBuilder, UMN MapServer, and MapGuide Open Source.

The foundation is an independent nonprofit organization whose mission is to foster and support the ongoing development and promotion of open source geospatial technologies. It provides a common development environment and promotes community activities. The foundation also serves as an independent legal entity to which community members can contribute code and other resources, knowing their contributions will be maintained for public benefit.

In addition to helping organize the foundation, Autodesk has contributed its web mapping software to the open source community, which became the MapGuide Open Source project (mapguide.osgeo.org). The software is available under an open source license that benefits the open source web mapping community while balancing the business interests of Autodesk and Autodesk partners.

Autodesk has assisted with initial funding and resources to help establish the Foundation, develop an effective governance model, and provide a robust open source development infrastructure. Autodesk is now a sustaining sponsor of OSGeo.

4.2 Why did Autodesk make MapGuide Open Source available as open source?

Autodesk developers and customers had been requesting the following:

- Faster innovation of web mapping solutions
- More frequent software releases
- Lower cost of entry and ownership

Autodesk wanted to help make map serving technologies more readily available for widespread adoption. Partnering with the MapServer community and making the next-generation web mapping platform available as open source was the best approach.

4.3 Who should use MapGuide Open Source?

MapGuide Open Source is of particular interest to the following types of users:

- Developer and end-user organizations using proprietary web mapping technology, that are concerned about the cost of initial licensing and ongoing support
- Government agencies that are turning to, or mandated to use, open source technology and are seeking an open architecture for their geospatial solutions
- Utilities and communications companies already using Linux platforms and other open source technology to drive down their costs
- Universities, nonprofit organizations, and small businesses with limited resources

4.4 Has Autodesk made other software available through open source?

Yes. In addition to MapGuide Open Source, the following technology—developed by or contributed by Autodesk—are available as open source from OSGeo:

- FDO Data Access Technology, which provides a powerful API for accessing any type of spatial information. FDO helps increase productivity and save time by enabling users to work seamlessly on a variety of spatial and non-spatial databases and file formats natively, without the need for translation and risk of

data loss. FDO providers offer access to specific files and databases, including SDF, SHP, ESRI ArcSDE, OGC WMS/WFS, ODBC, SQL Server, and MySQL technology. The open source FDO providers are available for download on OSGeo at http://fdo.osgeo.org

- CS-Map is a coordinate system and map projection library that enables users to more easily support geographic coordinate conversions and deliver more accurate and precise geospatial analysis. It currently supports a library of more than 3,000 map projections and coordinate systems. Coordinate systems are fundamental pieces of any mapping or geospatial application and are constantly being added and updated. With open source code, the open source community will be able to develop coordinate conversions as needed and give organizations and developers access to this critical piece of technology. For additional information on CS-Map, please go to http://metacrs.osgeo.org.

Autodesk will continue to evaluate its technology portfolio for other products and components that would thrive as open source projects and benefit the broader CAD, geospatial, or civil engineering industries.

There are no plans to release AutoCAD® software or other products based on AutoCAD as open source.

4.5 What is Autodesk contributing to the Foundation?

Autodesk has assisted with initial funding and resources to help establish the Foundation, develop an effective governance model, and provide a robust open source development infrastructure. Autodesk is now a sustaining sponsor of OSGeo.

In terms of technology, Autodesk has contributed MapGuide Open Source, FDO Data Access Technology, and CS-Map.

4.6 Autodesk has contributed code to allow MapGuide Open Source to be distributed as open source software. Can the contribution be rescinded?

No. MapGuide Open Source is licensed by OSGeo under the LGPL (GNU Lesser General Public License). Once code has been released under the LGPL, it cannot be withdrawn. Autodesk is committed to the MapGuide Open Source project and has no plans to return to a closed development model for this product. Like other developers working on the MapGuide Open Source project, Autodesk expects to contribute further enhancements to the code base that will be licensed under the LGPL.

4.7 What is the benefit for Autodesk? What's the business model?

Autodesk customers are requesting more frequent software releases, faster support for new standards, faster access to new data sources, and lower cost of ownership for their web mapping solutions.

By better addressing the needs of these customers and the broader geospatial community, and helping the mapping industry grow, Autodesk hopes to increase demand for other products used to create and manage spatial information.

Autodesk offers a commercial software product called Autodesk MapGuide Enterprise software, which has the same core functionality as MapGuide Open Source software, but provides quality assurance and product support provided by Autodesk. Both MapGuide Open Source and Autodesk MapGuide Enterprise can be used with the Autodesk MapGuide Studio authoring tool. Customers who are attracted to the advantages of MapGuide Open

Source software but prefer a commercial-grade support model and related services can choose the commercial version.

In addition, rapid innovation in sister OSGeo projects can result in increased flexibility to users. One such example is OpenLayers. MapGuide Open Source, and as a result Autodesk MapGuide Enterprise, can be used as source map data by OpenLayers JavaScript library. This in turn benefits Autodesk MapGuide Enterprise as it provides developers additional scripting flexibility to users as well as providing access to other data sources supported by OpenLayers.

4.8 How does Autodesk's participation benefit the open source geospatial community?

Autodesk's participation strengthens the presence, credibility, and long-term viability of the existing open source geospatial community by adding technical expertise, sponsorship, and business resources to the existing effort. Organizations that may have been reluctant to implement solutions based on open source technology may now be more likely to use them.

Autodesk plans to continue its cooperation with other Open Source Geospatial Foundation participants to help ensure the future growth and success of the open source geospatial community in response to the upcoming opportunities in the web mapping arena.

4.9 Where can I download MapGuide Open Source, FDO providers, and Autodesk MapGuide Studio?

MapGuide Open Source is currently available for download at the OSGeo website**.** Visit the FDO pages of the OSGeo website for more information on FDO**.** Get a free trial version of Autodesk MapGuide Studio**.**

4.10 How can I participate in the MapGuide Open Source project?

Whether you're a software developer, a user, or an interested bystander, you can participate by visiting the project site on the OSGeo website**.** This site provides a framework for developers interested in joining the project and contributing to MapGuide Open Source. Users can submit requests and issues, or be informed of project developments or new releases. Several project-related mailing lists and discussion forums are available depending on your needs and interests.

4.11 What is OpenLayers and how can it be used with MapGuide Open Source and Autodesk MapGuide Enterprise?

OpenLayers makes it easy to put a dynamic map in any web page. It can display map tiles and markers loaded from any source. MetaCarta developed the initial version of OpenLayers and provided it to the community to further the use of geographic information of all kinds. OpenLayers is free, Open Source JavaScript, released under a BSD-style License.

MapGuide Open Source and Autodesk MapGuide Enterprise are map sources that OpenLayers can use to build web mapping applications. It also allows MapGuide Open Source and Autodesk MapGuide Enterprise developers additional client side scripting flexibility to provide map tools to their applications as well as use multiple map sources. A portion of the OpenLayers code is already being used in the Flexible Web Layouts technology that is built on the Fusion framework for MapGuide Open Source.

For more information, refer to OpenLayers.

5. About Autodesk MapGuide 6.5

5.1 How is Autodesk MapGuide Enterprise different from Autodesk MapGuide 6.5?

Autodesk MapGuide Enterprise is a different product, providing a powerful modern architecture, different programming language support and viewing options, improved data access methods, and broader platform support. Some of the notable technical differences are as follows:

- The server component of Autodesk MapGuide Enterprise runs on Linux as well as Windows. (Autodesk MapGuide 6.5 Server runs only on Windows.)
- Applications are written using PHP, ASP.NET, or Java using a new API on the web tier instead of script code that calls the Autodesk MapGuide ActiveX control API on the client tier.
- Viewing of Autodesk MapGuide Enterprise applications is provided by anHTML/AJAX viewer that renders raster-based maps.
- Use of new FDO technology provides access to a wide and expanding set of spatial and tabular data sources.

5.2 Will Autodesk MapGuide 6.5 software continue to be available?

Autodesk has thousands of successful customers worldwide who use Autodesk MapGuide 6.5 to deliver maps and design data. Autodesk MapGuide Enterprise is the next evolution of Autodesk MapGuide technology. Autodesk plans to retire MapGuide 6.5 at the end of 2009. Until then, Autodesk continues selling Autodesk MapGuide 6.5 software and subscription pursuant to the terms of the Autodesk Subscription agreement.

5.3 Can applications developed on Autodesk MapGuide 6.5 run on Autodesk MapGuide Enterprise?

No. Because of fundamental differences in the product architectures and programming environments, existing applications built on Autodesk MapGuide 6.5 need to be rewritten to run on Autodesk MapGuide Enterprise. It is not possible to automatically migrate existing applications built on Autodesk MapGuide 6.5 for use with Autodesk MapGuide Enterprise.

5.4 How can existing Autodesk MapGuide 6.5 customers on Subscription get Autodesk MapGuide Enterprise?

For most customers who have developed applications on Autodesk MapGuide 6.5, the process to migrate to Autodesk MapGuide Enterprise may take place over time. You might want to port one application for use on Autodesk MapGuide Enterprise, while still using other applications on Autodesk MapGuide 6.5. To make your transition easier, here are a couple of options to consider:

- If you need time to migrate your applications built on Autodesk MapGuide 6.5, you can maintain your Autodesk MapGuide 6.5 Subscription and consider trying MapGuide Open Source or buying a new Autodesk MapGuide Enterprise Subscription to evaluate application development on this new platform. MapGuide Open Source is free, and the pricing for Autodesk MapGuide Enterprise is designed to provide a very low barrier to entry.
- If you are ready to migrate your existing applications to Autodesk MapGuide Enterprise and have an active Autodesk MapGuide 6.5 subscription, you can transfer to an Autodesk MapGuide Enterprise subscription for a small administration fee. Subscription transfers are made at your request; they do not

happen automatically. If you transfer during the subscription term, Autodesk prorates the remaining value and applies this amount to the new Autodesk MapGuide Enterprise subscription.

5.5 What's the difference between Autodesk MapGuide 6.5, MapGuide Open Source, and Autodesk MapGuide Enterprise?

	Autodesk MapGuide 6.5	**MapGuide Open Source**	**Autodesk MapGuide Enterprise**
Operating System Support	Windows	Windows, Linux	Windows, Linux
Development Environment	ColdFusion, JavaScript, XML	PHP, .NET, Java (JSP)	PHP, .NET, Java (JSP)
Supported Data Sources	SDF, DWG, ESRI ArcInfo Coverage, Intergraph DGN, MapInfo Interchange (MIF and MID), ESRI Atlas BNA, comma-separated values (CSV), DXF™ files, Oracle, Microsoft Office Access, numerous raster formats, and OLE DB- and ODBC-compatible databases	Basic FDO "providers" such as SDF, SHP, ESRI ArcSDE, OGC WMS/WFS, ODBC, SQL Server 2008, and MySQL, raster support Open source providers such as OGR, Post GIS, SL-King Oracle, and SQL Server 2005 providers	Additional FDO providers Oracle Spatial, SQL Server 2005 , GE Smallworld, and numerous raster formats
Support	Autodesk and partners	Available from the community	Autodesk and partners
Localization	English, French, Italian, German, Japanese	English, Japanese	English, French, Italian, German
Viewing Options	ActiveX control, or Java-based viewer (works on Mac OS® X and Sun® platforms)	Viewing of raster maps using AJAX	Viewing of raster maps using AJAX
Licensing/ Pricing	Per server, per processor, per named user	Open source	Commercial, per CPU (or 2 Cores)
Coordinate System Support	Coordinate System Mapping Library (CS-MAP) from Mentor Software	Open Source Coordinate System Mapping Library (CS-MAP)	Open Source Coordinate System Mapping Library (CS-MAP)

	Autodesk MapGuide 6.5	**MapGuide Open Source**	**Autodesk MapGuide Enterprise**
Authoring Tools	Symbol Manager, Raster Workshop, Dynamic Authoring Toolkit, SDF Loader	Autodesk MapGuide Studio (commercial) or MapGuide Maestro	Autodesk MapGuide Studio

5.6 What resources are available to help Autodesk MapGuide 6.5 users migrate to Autodesk MapGuide Enterprise?

To meet the unique needs of users migrating existing applications built on Autodesk MapGuide 6.5 for use with Autodesk MapGuide Enterprise, the following resources are available. You can also contact your local Autodesk Authorized Reseller for training and consulting services.

- **Migration white paper:** To help developers migrate, this guide illustrates how typical features are implemented in the current release and how they are implemented in Autodesk MapGuide Enterprise. The migration white paper includes code samples and documentation.
- **ADN support:** The Autodesk Developer Network (ADN) support team not only supports both Autodesk MapGuide 6.5 and Autodesk MapGuide Enterprise but also supports developers on migration issues and implementation. Support is available to customers and partners who are part of ADN.
- **ADN training:** In addition to ongoing migration support, ADN provides a class to educate partners and customers on migration issues and how to migrate applications.
- **Autodesk Consulting:** Autodesk Consulting can develop and deliver a fully customized, step-by-step action plan that shows how to migrate to Autodesk MapGuide Enterprise and why it's worth it. For more information about Autodesk Consulting contact your Autodesk Account Executive or visit **Autodesk Consulting.**
- **The Data Migration Toolkit**: This toolkit supports the process of migrating data these file formats to Autodesk MapGuide Enterprise 2010: MWF, MWX, UDL, MLF, SMB (Symbol Library). The Autodesk MapGuide Enterprise pages on the Autodesk Subscription Center.

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