1 Introduction

Infragistics® is a market-leading component vendor selling a wide range of commercial software components. Technical communications is a key part of the Infragistics product offering and is currently managed by a team of full-time Technical Communications staff. Short 'Agile' development cycles, multiple documentation outputs, and a wide product range present a constant challenge just in keeping documentation accurate and minimizing duplication.

Infragistics has been using Innovasys' Document! X and HelpStudio since 2001 in order to help meet the documentation challenge. Using Innovasys tools, Infragistics is able to author and publish almost 4GB of help materials. By leveraging a common set of content, the Document! X project system, and HelpStudio build flags, Infragistics is capable of producing both online and installed help systems from a single source.

The quantity of documentation currently published for the Infragistics NetAdvantage® for .NET product alone is impressive:

- 51 .NET assemblies (documented in the API Reference Guide)
- 106 individual components - 68 WinForms and 38 ASP.NET controls (documented in the Developer's Guide)
- Compressed .hxs (Microsoft Help 2.x) files totaling 224MB, as well as .chm (Microsoft Help 1.x) files totaling 3.5MB
- Uncompressed HTML files totaling 3.8GB
- Almost 300,000 individual topics in total
- Help is output to .hxs (Help 2.x) format and .chm (Help 1.x) format for installed help, and HTML format (for online help)

Example Infragistics help content: web output
2 Workflow

The documentation workflow at Infragistics involves preparing the core reference documentation using Document! X and authoring the accompanying additional content (concepts, overviews, walkthroughs etc.) in HelpStudio.

**Document! X**

Content for the core reference originates from XML source comments in combination with Document! X Content Files.

Document! X allows Infragistics to extract XML comments for protected and public members, and hide comments for private and internal members. These XML comments contain descriptions and remarks and are stored in the XML documentation file generated by the compiler from source code comments when compiling the corresponding assembly DLL.

A new Document! X project is created for each new release, but existing content is re-used by leveraging the content originating from source.

**HelpStudio**

Topics are created and/or modified (i.e., conceptual/overviews, How Do I’s, walkthroughs) using HelpStudio. This authoring activity includes:

- Writing conceptual topics, How Do I/walkthrough procedures, code snippets
- Capturing screenshots and inserting them
- Updating the Table of Contents
- Updating the Glossary

**Quality Assurance**

The Document! X and HelpStudio link checker and spell checker are used to find/fix broken links and detect/fix typos prior to publishing.
3 Benefits

- Rather than continue to use a standard HTML editor, Infragistics was able to easily port all of the help documentation into HelpStudio, which provided much more flexibility in the authoring and styling of the help.
- Allows documentation content to be integrated with Infragistics’ source control tool.
- Allows for multiple Technical Communications team members (including the Technical Communications Manager) to author the same help project simultaneously, and securely store all of the source files (e.g., project files, configuration files, styles, templates, images).
- Allows Infragistics’ in-house automation system to pull the source (help content and product source code) from the same source control system in order to automate the compilation of the help systems and code.
- Provides templates that reflect the standard look of MSDN help documentation, while allowing Infragistics full flexibility to customize the templates in order to obtain the look and feel of Infragistics’ branding.
- As part of the documentation development workflow, allows self-testing of help source by verifying the internal links in the HelpStudio project before checking the topic(s) back into source control.
- Meets Infragistics’ requirements of providing multiple versions of the help using single-sourcing (build flag) capabilities. The single-sourcing feature allows Infragistics to produce documentation for products that share functionality across Windows Forms and ASP.NET platforms (e.g., Charting control).
- Generates HTML output, which allows Infragistics to provide NetAdvantage online help on Infragistics’ Web site. This has been a valuable feature to Infragistics’ customers and internal Infragistics’ employees, since it allows anyone to read the help content without having to install the entire Infragistics NetAdvantage product.
- Infragistics uses HelpStudio to create glossary terms in Infragistics’ help documentation. Every first mention of an Infragistics control/component name in the Developer’s Guide section of the help is a glossary term. This feature is very beneficial because it provides the user with a brief description of the control in one location, rather than repeat the same information in multiple help topics. With a single mouse click, the user can access a brief overview of the control.
- HelpStudio and Document! X are robust enough to handle the almost 300,000 topics that are included in Infragistics NetAdvantage for .NET help.
- The user-friendliness of HelpStudio allows for a quick ramp-up period for any new hires to the Technical Communications team who already have experience with popular help authoring tools.
- Allows for the production of multiple formats of the help (i.e., .hxs or .chm). Infragistics generates a .chm (stand-alone help) for Infragistics TestAdvantage® for Windows Forms help, Infragistics NetAdvantage for WPF help, and part of Infragistics NetAdvantage for .NET help. The .chm feature of HelpStudio saves time by allowing the Technical Communications team to organize and distribute the documentation for internal review purposes.
- Allows for “cross-linking” of help topics in the Table of Contents. This is a very valuable feature because in Infragistics’ feature-based structure of the Table of Contents, there are a number of instances where one topic (e.g., “How Do I” or walkthrough) is valid for multiple features. By cross-linking the help topic, Infragistics can ensure that the user will be able to access the topic from multiple locations in the Table of Contents.