



Introduction to ION

ION™, IDL On the Net, is a family of products that allow you to run IDL-driven applications in a networked environment, giving intranet or Internet users access to IDL visualization and analysis. The ION family currently consists of two products:

- ION Script™
- ION Java™

While ION Script and ION Java can be used separately or together to create interactive Web applications powered by IDL, they are distinctly different products with their own advantages and limitations. This introduction will briefly describe each product, and provide general guidelines on when to use each.

ION Script vs. ION Java

ION Script

ION Script is a powerful tool that allows you to publish IDL visualizations, analyses, and interactive applications on an intranet or the Internet. It is an easy-to-use scripting language that enables anyone with only a basic knowledge of HTML and IDL to quickly publish dynamic, IDL-driven Web documents. For more information on ION Script, see [Chapter 2, “Overview”](#) in the *ION Script User’s Guide*.

ION Java

ION Java combines both IDL and Java into a single, powerful tool for building client-server Java applications and Web applets. ION Java includes a low-level Java class library, pre-built Java applets, and mid-level component classes that provide you with the ability to create sophisticated Java applications that are driven by IDL. ION Java is the ideal solution for developing full-featured, distributed, network-based applications for visualization and analysis. For more information on ION Java, see [Chapter 2, “Overview”](#) in the *ION Java User’s Guide*.

Which Product Should I Use?

The choice between ION Script and ION Java is not an either/or decision. ION Script applications and ION Java applets can be integrated into one application, allowing you to use the optimum solution for each part of your application.

ION Script and ION Java each have their own benefits. Keep the following points in mind when deciding which products to use.

Ease of Use

- To get the full benefit of ION Java, you need to have some Java expertise. If you have experience programming in Java, you can create powerful applications that integrate IDL visualizations into your Java application.
- ION Script is easier to learn, requiring only a knowledge of HTML and IDL. Therefore, you can develop applications more quickly.

Interactivity

- Because Web based Java applications allow you to move some processing of the application to the client, ION Java enables you to achieve powerful Java interactivity within a single Web page.

- ION Script creates dynamic Web documents, which can be used to build interactive Web applications as well. With ION Script, the processing of the application resides on the server, therefore, anytime the application needs to update the HTML page, a new page must be sent to the browser. With HTML frames, the developer can create an application layout and minimize the area of the browser that is redrawn when each new page is sent.

Internet vs. Intranet

- ION Script is suitable for use on both the Internet and an intranet. ION Script outputs standard HTML pages (barring any JavaScript or VBScript you insert) that almost all up-to-date browsers can display.
- Due to differences in the way each browser supports Java, ION Java is more suitable for an intranet where you have greater control over the browser being used to access your application.

Combining the Strengths of ION Script and ION Java

The strengths of each product can be combined in a single site.

- Use ION Script to quickly and easily build your site so that users get your information faster. This minimizes the cases where browser differences can affect the behavior of Java applications.
- Then, insert Java applets where Java interactivity is required.

How This Book is Organized

This book is divided into two different books: the first book is the *ION Script User's Guide*, and the second book is the *ION Java User's Guide*. The books are separated by a card on which you will find an ION Script *Quick Reference*. The *ION Script User's Guide* and the *ION Java User's Guide* each have their own Table of Contents and Index.

Installation instructions for ION Script and ION Java can be found at the beginning of their respective books.