Communicate, collaborate, and create with free tools from Google

A NEW VISION

Google believes most of what you do on a computer can happen in a browser window – from anywhere in the world. The versatile Google tool set brings that vision to everyday users, and it is all just a few mouse clicks away. **BY JOE CASAD**

The Google toolset keeps getting bigger, richer, and deeper. Our first Google special edition was so popular around the world that we decided to bring out a new edition – with updates for several of the tools and three brand new articles covering exciting developments in the world of Google.

We start with a preview of the revolutionary Google Wave environment – one of the boldest ideas yet from a company known for its innovative thinking. Wave, which is best described as part email client, part chat room, and part collaboration tool, brings a bold new vision for web interaction. At this writing, Wave is still making its way to end users, but we'll show you what to watch for when this wave finally hits land.

We also include a new article on Google tools for mobile phone environments, and we show you some Gmail extensions available through the experiments at Google Labs. In addition to these new features, you will find updates to several of the core articles on important applications such as Maps and Earth, as well as new sections about recent Java support and other updates for the Google App Engine cloud programming tool.

Search

Google started life as a search engine, and search is still at the center of the company's consciousness. When you surf to *www.google.com*, you land on a search prompt. The simplicity of the Google search page hides a vast infrastructure of data centers, web crawlers, and indexing tools. Google builds the spirit of the search into many of its online products. In addition to the famous search box, Google also keeps a collection of special-purpose search tools for users who already know what they are looking for (see Table 1).

Webmasters are often curious about how Google builds the colossal indexes used by these busy search engines. Although the indexing details are a closely guarded company secret, Google lets you get much closer than you would think to watching the Googlebot crawler at work. The Webmaster Tools application, which you'll learn about in this issue, provides vital statistics and an up-close look at how Google indexes your site.
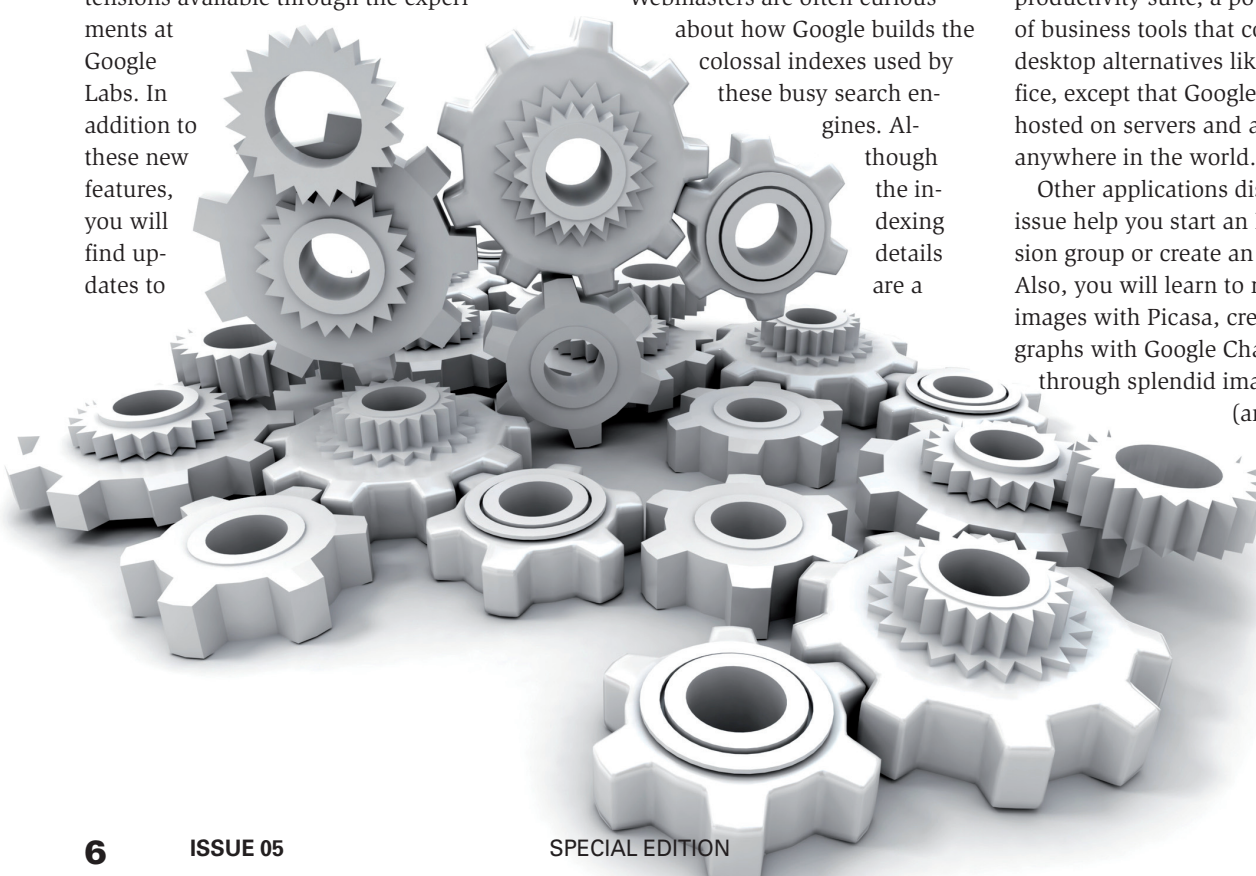
Tools

When Google started the transition from search engine giant to full-service provider, they knew enough to stick with what they did well – and what they did well was the Internet. With other companies controlling much of the market for desktop applications and desktop operating systems, Google needed a way to define a user experience that was independent of the local desktop environment. The center of this Google end-user experience is the Google Docs online productivity suite, a powerful collection of business tools that competes with desktop alternatives like Microsoft Office, except that Google's tools are hosted on servers and accessible from anywhere in the world.

Other applications discussed in this issue help you start an Internet discussion group or create an online calendar. Also, you will learn to manage digital images with Picasa, create charts and graphs with Google Chart, and browse through splendid images of the Earth (and Mars and the Moon) with Google Earth.

Web Works

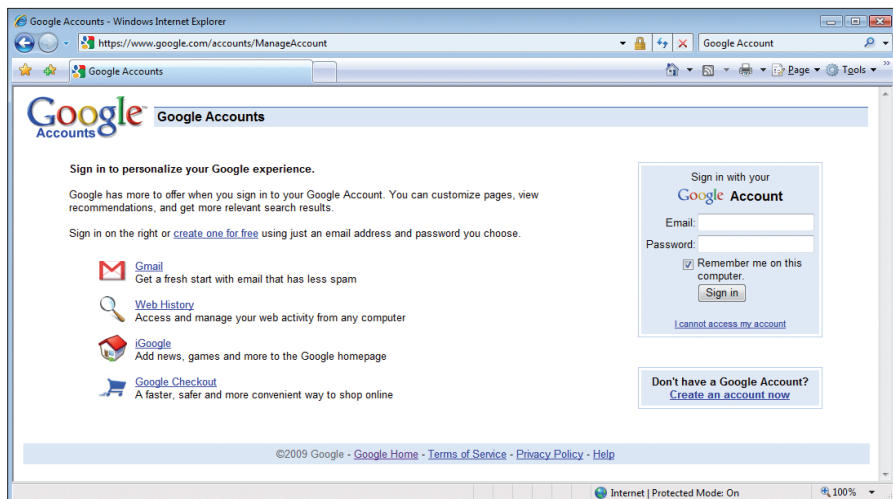Google offers an impressive assortment of free tools for building and

Figure 1: Creating a Google account.

managing websites. Anchoring the collection are Google Sites and Google Blogger – tools for creating websites, wikis, and blogs. Later in this issue, you'll learn about Sites and Blogger, as well as several other great applications for web developers.

Google Gears, for instance, lets you run web applications even when your computer is offline. The Google Gadgets project provides web-based applets for the desktop.

If you're ready to go deeper into the code, try the Google Web Toolkit – a framework for building AJAX-based JavaScript front-end applications in Java. Also, we'll show you how to incorporate mapping features into your website with the Maps API, and you'll learn how to run your apps on Google hardware with the Google App Engine.

Logging In

Google's search tools and some other popular apps are available to all web users. However, applications that restrict access or let you store data online require you to log in. Setting up a Google account is easy, and once you create it, Google remembers you. You won't need a separate account for every tool.

Tools that require a login usually provide a link for creating an account if you don't have one already. Alternatively, you can point your browser to *https:// www.google.com/accounts/ ManageAccount* and click on *Create an account now* (Figure 1).

Once you have created your account, the *Manage Account* page (Figure 2) becomes a central point for managing per-

sonal documents, group memberships, and services.

Systems and Browsers

Most of the Google applications in this issue run on Windows, Mac OS X, and Linux. Some of the Google applications do not provide Linux support; however, in a few cases, Linux users can still ac-

cess the tools through the Wine API.

The various applications provide differing degrees of browser support. Most Google apps support recent versions of the Internet Explorer, Mozilla Firefox, and Safari browsers. Google Maps, for instance, advertises support for IE 6.0+, Firefox 2.0+, and Safari 3.1+. Other browsers might work also, but the interaction with the browser is a critical element of Google's web environment, and Google developers don't guarantee support for every alternative.

You might have noticed that Google is working on a browser of its own. The Google Chrome browser is specifically designed to work with Google tools. Chrome currently supports only Windows Vista/XP SP2; however, versions for Linux and Mac OS X are in development.

Read On

Whether you are a home user, a first-time webmaster, or an advanced web developer, this Google Tools special edition will have something you can use. ■
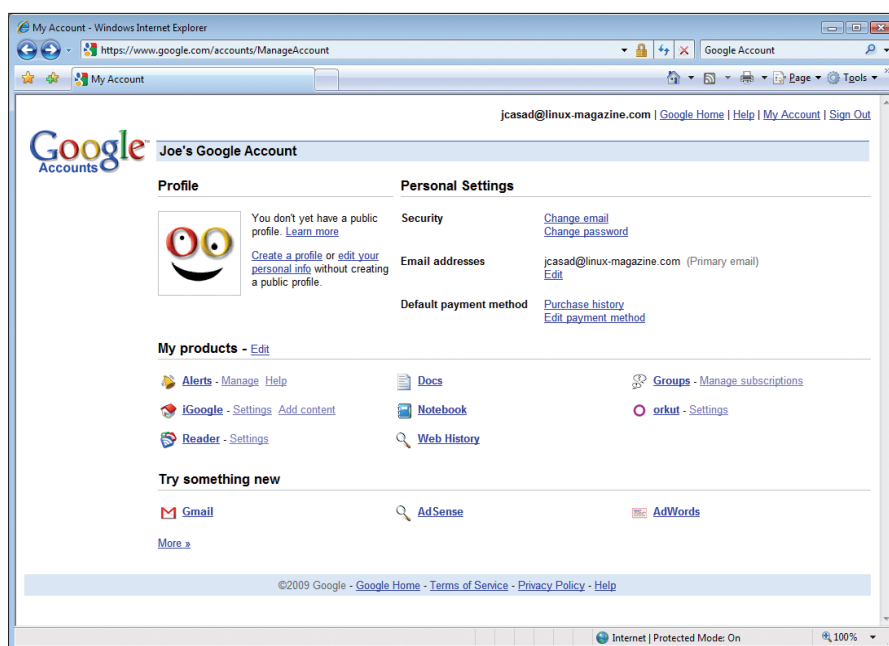

Figure 2: Manage documents and services from the My Account page.

Table 1: Some Alternative Google Search Tools	
Tool	**URL**
Blog Search	*http://www.google.com/blogsearch*
Digital Image Search	*http://www.google.com/imghp*
Google News Search	*http://news.google.com/*
Product Search	*http://www.google.com/products*
Academic Paper Search	*http://scholar.google.com/schhp*
Video Search	*http://video.google.com/*