

# INTERNET DEVELOPERS TOOLKIT FOR G

## Version 5.0

These installation and release notes contain information about the Internet Developers Toolkit for G, which you can use to send, receive, store, and publish information across the Internet using virtual instruments (VIs) you develop in the G programming environment.

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# Installation Instructions

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The following sections contain instructions for installing the Internet Developers Toolkit for G on the Windows, Macintosh, and UNIX platforms.



## Note

*If you install this version of the Internet Developers Toolkit over an existing version, make sure that you first delete the `user.lib/internet/` and `project/internet/` directories.*

## Microsoft Windows

Complete the following steps to install the toolkit:

1. Insert the Internet Toolkit CD into your CD-ROM drive.
2. Run the `SETUP` program in the `WINDOWS\DISK1` directory.
3. The installer asks for a destination directory. Select the directory in which you have BridgeVIEW 2.0 or LabVIEW 5.0 or later installed.

## 680x0 Macintosh

Complete the following steps to install the toolkit:

1. Insert the Internet Toolkit CD into your CD-ROM drive.
2. Run the Installer in the `680x0 Macintosh` folder.
3. The installer asks for a destination directory. Select the directory in which you have LabVIEW 5.0 or later installed.

## Power Macintosh

Complete the following steps to install the toolkit:

1. Insert the Internet Toolkit CD into your CD-ROM drive.
2. Run the Installer in the `Power Macintosh` folder.
3. The installer asks for a destination directory. Select the directory in which you have LabVIEW 5.0 or later installed.

## Solaris 1

Complete the following steps to install the toolkit:

1. Mount the CD-ROM.
2. Change to the directory in which you have installed LabVIEW. You must have write permission for this directory.
3. Type the following UNIX command:  

```
tar xvf /cdrom/solaris1/internet.tar
```

## Solaris 2

Complete the following steps to install the toolkit:

1. Mount the CD-ROM.
2. Change to the directory in which you have installed LabVIEW. You must have write permission for this directory.
3. Type the following UNIX command:  

```
tar xvf /cdrom/solaris2/internet_1/internet.tar
```

## HP-UX

Complete the following steps to install the toolkit:

1. Mount the CD-ROM.
2. Change to the directory in which you have installed LabVIEW. You must have write permission for this directory.
3. Type the following UNIX command:  

```
tar xvf /cdrom/HPUX/INTERNET.TAR
```

## Changes to Installation Files and Directories

The Internet Developers Toolkit for G now installs core VIs in the `vi.lib/addons/internet/` directory rather than the `user.lib/internet/` directory. You can access the Internet Toolkit function and control palettes directly from the Functions and Controls palettes instead of from the User Libraries subpalettes, as described in the *Internet Developers Toolkit for G Reference Manual*.



### Note

*If you install this version of the Internet Developers Toolkit over an existing version, make sure that you first delete the `user.lib/internet/` and `project/internet/` directories.*

## Compatibility Issues

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The Internet Developers Toolkit for G is compatible with LabVIEW 5.0 and will be compatible with BridgeVIEW 2.0 when released. If you use BridgeVIEW versions 1.0 or 1.1, you can continue using the previous version of this toolkit.

# Getting Started with the G Web Server

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To better understand the concept of the G Web Server, look at the example pages included with the Internet Developers Toolkit. With the following procedure, you can configure the Web server to point to the example home directory and then you can view the example pages:

1. Select **Project»Internet Toolkit»Internet Toolkit Configuration**.
2. Select the HTTP (Web Server) page and point the DocumentRoot path at the `internet/home` directory inside your LabVIEW or BridgeVIEW directory.
3. Save the configuration by pressing the **Save** button.
4. Start the server by clicking on the **Start Server** button or by selecting **Project»Internet Toolkit»Start HTTP Server**. The server begins executing and eventually displays the message `Server hostname running...`
5. View the examples at the URL `http://hostname/`.

## Internet Toolkit Configuration VI

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Use the Internet Toolkit Configuration VI to perform basic configuration of the Internet Developers Toolkit. Launch the VI by choosing **Project»Internet Toolkit»Internet Toolkit Configuration**. With this VI, you can configure the following settings:

- SMTP (Email)—Return Address, Default Subject, SMTP Server, and Character Set
- FTP (File Transfer)—Anonymous Password
- HTTP (Web Server)—ServerAdmin, Port, UseDNS, and DocumentRoot. You can also configure VI and directory access and edit User and Group password files. For additional configuration information, see Appendix A, *Configuration Directives*, in the *Internet Developers Toolkit for G Reference Manual*.

# Additions to Panel Image URLs

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Additional parameters have been added to the Static Panel Image (`.snap` URL) and the Animated Panel Image (`.monitor` URL). For more information on using URLs with panel images, see the section titled *What URLs Can I Use With My Panel Images?* in Chapter 6, *G Web Server*, of the *Internet Developers Toolkit for G Reference Manual*.

## Static Panel Image (`.snap` URL)

The `.snap` URL accepts two additional parameters, `refresh` and `full`.

### Syntax

```
.snap?VI_Name  
[&refresh=refresh]  
[&full=fullPanel]
```

`refresh`—The maximal age of a cached image. If a cached image is older than `refresh` seconds, a new image is generated. If no `refresh` is specified, the value of the **PanelImageRefresh Server Configuration** directive is used instead.

`full`—Specifies whether to return the image of all controls or just the part visible in the window. Set `fullPanel` to `on` to indicate all controls and `off` to indicate the window content. If no `full` is specified, the image of the visible panel in the window is returned.

## Animated Panel Image (`.monitor` URL)

The `.monitor` URL accepts an additional parameter, `full`.

### Syntax

```
.monitor?VI_Name  
[&full=fullPanel]
```

`full`—Specifies whether to return the image of all controls or just the part visible in the window. Set `fullPanel` to `on` to indicate all controls and `off` to indicate the window content. If no `full` is specified, the image of the visible panel in the window is returned.

# New Client-Side Cookie VIs

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To store state information on the client machine, use client-side cookies. Client-side cookies are useful because they persist while your server is not running. Unfortunately, not all browsers support them. Use the following VIs from the CGI VIs palette to read and set client-side cookies:

- **CGI Set Client Side Cookie VI**—Creates a `Set-Cookie:` reply header line consisting of a URL encoded cookie name and value with the specified expiration time.
- **CGI Get Query Client Side Cookies VI**—Parses and returns the `HTTP_COOKIE` entry from the environmental variables array. `HTTP_COOKIE` is assumed to be URL encoded.

# New Server Configuration Directives

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New server configuration directives have been added to this version of the Internet Developers Toolkit for G. Server configuration directives control the operation of the server.

## CheckPNGSupport

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The **CheckPNGSupport** directive determines whether to change the default image type specified by the **PanelImageType** directive to the PNG image type for browsers with built-in PNG support. Generally, panel images look better when encoded in PNG format rather than in JPEG format.

### Syntax

```
CheckPNGSupport setting
```

setting is either ON or OFF.

You can use only one **CheckPNGSupport** directive in the configuration file.

### Default

If you do not specify to **CheckPNGSupport**, the server assumes the following:

```
CheckPNGSupport on
```

### Example

The following directive instructs the server not to check for PNG support of the browser:

```
CheckPNGSupport off
```

# PanelImageRefresh

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The **PanelImageRefresh** directive specifies the length of time a VI image is kept in the server image cache before it is refreshed. A short **PanelImageRefresh** time returns more up-to-date images for `.snap` requests.

## Syntax

```
PanelImageRefresh time
```

`time` is the number of seconds during which panel images are cached.

You can use only one **PanelImageRefresh** directive in the configuration file.

## Default

If you do not specify **PanelImageRefresh**, the server assumes the following:

```
PanelImageRefresh 10
```

## Example

The following directive instructs the server to cache panel images for two seconds:

```
PanelImageRefresh 2
```



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