

# Web Bug

(Basics)



## **What does the term Web Bug mean?**

Nothing in particular. That term was created by Richard M. Smith. On August 30, 2000 he showed how Web Bugs and cookies can be used in Word, Excel and PowerPoint documents: "A *Web bug* could allow an author to track where a document is being read and how often. In addition, the author can watch how a "bugged" document is passed from one person to another or from one organization to another."

## **What exactly is a Web Bug?**

A Web Bug is a graphics on a Web page or in an Email message that is designed to monitor who is reading the Web page or Email message. Web Bugs are often invisible because they are typically only 1-by-1 pixel in size. They are represented as HTML <IMG> tags.

## **Why are Web Bugs invisible on a page?**

To hide the fact that monitoring is taking place.

## **Are Web Bugs always invisible on a page?**

Not necessarily. Any graphics on a Web page that is used for monitoring purposes can be considered a Web Bug.

## **Are all invisible GIF images, Web Bugs?**

No. Invisible GIF files are also used for alignment purposes on Web pages. A Web Bug will typically be loaded from a different Web server than the rest of the page, so they are easy to distinguish from alignment GIF files.

## **What other names are Web Bugs known by?**

The Internet advertising community prefers the more sanitized term “clear GIF”. Web Bugs are also known as “1-by-1 GIFs” and “invisible GIFs” or “One-Byte-Tracker”

### **What information is sent to a server when a Web Bug is viewed?**

- The IP address of the computer that fetched the Web Bug
- The URL of the page that the Web Bug is located on
- The URL of the Web Bug image
- The time the Web Bug was viewed
- The type of browser that fetched the Web Bug image
- A previously set cookie value

### **What are some of the uses of a Web Bug on a Web page?**

Ad networks can use Web Bugs to add information to a personal profile of what sites a person is visiting. The personal profile is identified by the browser cookie of an ad network. At some later time, this personal profile which is stored in a data base server belonging to the ad network, determines what banner ad one is shown.

Another use of Web Bugs is to provide an independent accounting of how many people have visited a particular Web site.

Web Bugs are also used to gather statistics about Web browser usage at different places on the Internet.

They also support “**Data Spills**” (*The accidental transmission or display of private online data to a third-party*), when you fill out an online Form. **This could create an unwanted profile information about YOU and is out of control.**

### **Where can I find Web Bugs being used?**

- Quicken
- FedEx
- Metamucil
- Oil of Olay
- StatMarket
- And many others

**According to a study of the University of California in 2009, 88% of all web pages are tracked by Google Web Bugs.**

### **How can I see a Web Bug on a page?**

A Web Bug can be found by viewing the HTML source code of a Web page and searching for IMG tags. A Web Bug will typically have its HEIGHT and WIDTH parameters in the IMG tag set to 1. Also for the tag to be a bug, the image should be loaded from a different server than the rest of the Web page.

### **What kinds of uses does a Web Bug have in an Email message?**

- A Web Bug can be used to find out if a particular Email message has been read by someone and if so, when the message was read.
- A Web Bug can provide the IP address of the recipient if the recipient is attempting to remain anonymous.
- Within an organization, A Web Bug can give an idea how often a message is being forwarded and read.

### **Why are Web Bugs used in "junk" Email messages?**

- To measure how many people have viewed the same email message in a marketing campaign.
- To detect if someone has viewed a junk email message or not. People who do view a message are added to even more mailings.
- To synchronize a web browser cookie to a particular email address. This trick allows a web site to know the identity of people who come to the site at a later date.

### **What are some of the Email marketing companies who are known to use Web Bugs?**

- Exactis
- Digital Impact
- Responsys
- DoubleClick (*about 10,000 clients*) never (as far we know) admit using web bugs

### **What companies have used Web Bugs in Email marketing campaigns?**

- Barnes and Noble
- eToys
- Cooking.com

- Microsoft
- InfoBeat
- And many others

### **What do Web Bugs in Email messages look like?**

Email Web Bugs are represented as 1-by-1 pixel IMG tags just like Web Bugs for Web pages. However, because the sender of the message already knows your Email address, they also include the Email address in the Web Bug URL. The Email address can be in plain text or referencing an internal database. For example, here are two Web Bugs sent to me in junk Email messages:

```

```

```
<IMG SRC="http://email.bn.com/cgi-bin/flosensing?x=ABYoAEhouX">
```

### **Is there any method of removing Web Bugs from HTML pages?**

Not really. The technical problem is that there is no method of distinguishing web bugs from spacer GIFs which are used on Web pages for alignment purposes. Your best defence against Web Bugs is to turn off cookies (which can create trouble because of „GOOD Cookies“) or use MAXA-Cookie-Manager, because it does the job for you!

### **Why don't Web site privacy policies ever mention Web Bugs?**

Good question. Clearly Web site privacy policies need to disclose the use of Web Bugs as a minimum. Also the general practice of online profiling by third-party ad networks should be talked about in privacy policies. However, this important topic is rarely mentioned.

### **Are the use of Web Bugs legal?**

A complicated question that is best answered by a lawyer.

### **Are the use of Web Bugs unethical?**

Clearly Web Bugs are controversial. Because they allow people to be monitored, when they don't expect it, they certainly can be very upsetting. ***For example, most people will likely be troubled to learn that an outsider is tracking when they read Email.***

### **Can newsgroup messages be bugged as well?**

Yes. If someone is using news reader software supporting HTML messages to read a newsgroup, then Web Bugs will also work inside of newsgroup messages. A Web Bug can be used to log people who are reading messages in particular newsgroup. Such bugs might be used for example by investigators to track illegal activity such as trading in child pornography and copyrighted MP3 music files. Web Bugs might also be used to monitor people in extreme political groups.

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