Website Download Counter Implementation

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C O P Y R I G H T

Disclaimer

Acknowledgements

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Background

The implementation of a Download Counter can be a good way of getting statistics about which files are being downloaded from your website. This document walks you through the steps for implementing our sample Download Counter code.

The data is held in a SQL table.

The SQL table will be defined by the PHP code if it doesn't exist. The table will assume the following format unless you manually change these. If you do change the fields you must reflect these changes in the PHP code.

There are several pre-requisites for the implementation of this code:

- An SQL type database (i.e. MySQL) This is for holding the Download Counter table. Normally this should be part of the webhosting platform that you are using.
- PHP needs to be available (This also should be part of the webhosting platform).
- All the PHP and INC files should be file transferred to your web server.
- All the PHP and INC files should be in the same folder/directory.
- The sample TestDocument.txt file can be transferred into your chosen download directory so it can be used to test the download functionality.

Download Counter Collateral

The sample Download Counter facility, as provided, consists of a Zip file (DownloadCounter.zip) that contains several files. These files are:

Name	Type	Description
Downloader.php	PHP	This is the code that actually updates the database with he Download Counter comment.
Download Counter Implementation.pds	PDF	This document.
DownloaderTest	PHP	This file is simply a page to allow testing of the Download Counter facility and to demonstrate how to call the main **Downloader.php** page.
ListCounters.php	PHP	This is a sample webpage that shows how to display the download counters.
Downloader.inc	INC	This is the file that contains the log in information that is used to allow access to the database table. This file gets included in the PHP files.
TestDocument.txt	TXT	This is a sample test document which should be placed into the download directory, if needed for testing.

For a fuller description and any tailoring required, please refer to the pertinent section of this document.

The code itself is written in PHP but some pages also have some HTML in them.

Installation

To install the download counter, follow the process below:

- Download the DownloadCounter zip file.
- Unzip the file into a directory.
- Create (on your website) the download directory that you are going to put your downloadable file in.
- Make the changes detailed below to the Downloader.php and Downloader.inc files.
- (Optional) Change the DownloaderTest.php and ListCounters.php files if you change the name of the INC file or table layout.
- (Optional) File transfer the TestDocument.txt file to your download dirtectory
- File transfer the Downloader.php, Downloader.inc, DownloaderTest.php and ListCounters.php files to your website.

Flow Overview Schematic

```
                              ┌──────────────────┐
                              │  Download.php    │
                              │    called        │
                              └────────┬─────────┘
                                       │
                                       ▼
                                   ◇ Filename ◇
                     ┌─────No─────── passed? 
                     │                 │
                     │                Yes
                     │                 ▼
                     │        ┌──────────────────┐
                     │        │ Split out passed │
                     │        │    filename      │
                     │        └────────┬─────────┘
                     │                 ▼
                     │        ┌──────────────────┐
                     │        │ Include logon    │
                     │        │   (INC file)     │
                     │        └────────┬─────────┘
                     │                 ▼
          ┌──────────────┐         ◇ Is table ◇
          │ Create Table │◄──No──── extant?t
          └──────┬───────┘             │
                 │                     Yes
                 │                     ▼
                 └─────────────►   ◇ Download ◇
          ┌──────────────────┐     Directory
          │ Issue Fail       │◄─No─ extant?
          │   Message        │        │
          └──────────────────┘       Yes
                                      ▼
          ┌──────────────────┐    ◇ Is the file ◇
          │ Issue Fail       │◄─No─  extant?
          │   Message        │        │
          └──────────────────┘       Yes
                                      ▼
       ◇ Collateral name ◇
   No── in table? ──Yes
   │                  │
   ▼                  ▼
┌──────────────┐  ┌──────────────────┐
│ Create table │  │ Increment counter│
│ entry and    │  │  for collateral  │
│ Set count to1│  └──────────────────┘
└──────────────┘

        ┌──────────────────┐
        │ Call to download │
        │      file        │
        └──────────────────┘
```
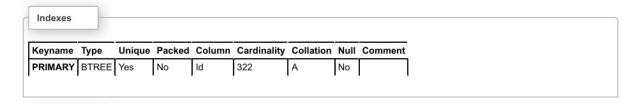
EXIT

Important things to note are:

- If the **Downloader.php** webpage is called without passing a file name to it, the page will fail.
- The inc file should be tailored to specify your own database name, userid, password etc.
- If the inc file doesn't exist or has incorrect credentials the page will fail.
- The files **Downloader.php** and, if required, the **ListCounters.php** files will need changing to include the name of your database credentials.
- If the desired table doesn't exist, it will be created using the format below.
- If the download directory you specify doesn't exist the page will fail.
- If the file attempting to be downloaded from the download directory doesn't exist, the page will fail.
- If the table entry for the file being downloaded doesn't exist in the table, it will be added to the table and the download count set to 1.
- If the table entry for the file being downloaded does exist in the table, the download count will be incremented by 1.
- If the table was updated with a new record, or the existing record download count was incremented, the page will pass control to the actual download of the target file.

Download Counter Table Format

As shipped, the download counter table (**tblDownload** by default) has the following structure:

tblDownload

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	Id	int(10)			No	*None*	Primary Key	AUTO_INCREMENT
2	Collateral	varchar(60)	ascii_general_ci		No	*None*	Name of Collateral	
3	Type	varchar(10)	ascii_general_ci		No	*None*	Type of Collateral	
4	DownloadCount	int(10)			No	*None*	Counter	
5	FirstDownload	timestamp			No	current_timestamp()	Date of First Download	
6	LastDownload	timestamp			No	current_timestamp()	Date and Time of Last Download	

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	Id	322	A	No	

If you make any changes to the format please remember to reflect those changes in the corresponding SQL statements, especially in the **Downloader.php** page.

Tailoring the Code

The INC file is the only file that you will definitely need to customize. This contains the values for the database connection, the table name to be used, and the directory that contains the files being downloaded.

The **Downloader.php** page will only need changes if you decide not to use the provided table format or you need to change the time zone . These are optional changes. Below we will identify the **required** changes.

Line 62 is where you specify the time zone to be used for the dates in the table. By default this will be set to **'America/Chicago'**. Line 62 reads:

```
date_default_timezone_set('America/Chicago');
```

Tailoring Download Counter.inc

Description:

The **Download Counter.inc** page is the included code that contains the username, password, database and server name for accessing the database table (by default "test"). It gets included into the other code so that any changes to these fields are automatically updated in the rest of the code.

Language

PHP

Included Code

-none-

Called by

Downloader.php
TestCounter.php

Required Changes

Line	Code	Required Change
2	$username="yourusername";	Change username value to the username you have set up for your database. This username should have the following privileges: **SELECT** **INSERT** **UPDATE** **ALTER**
3	$password="yourpassword";	Change the password to the password you have defined for the username defined on line 2.
4	$database="yourdatabase";	This should be the name of the database that contains the table.

5	$servername="yourlocalhost";	This **must** be changed to point to your database server. **LOCALHOST** may work in most cases.
6	$tablename= 'tblDownload';	This defines the table name to be used. tblDownload is the default.
7	$DownDir = 'Yourdownloaddirectory'	This **must** be changed to point to your download directory. (where the downloadable files are).

It is essential that the server name, username, password and database name are correct otherwise the entire process will fail. The **Downloader.sql** will, if needed, create the download counter table. If you prefer to set the table up before running the **Downloader.php** make sure that the field names match those in the PHP pages, otherwise errors will occur.

Note: The download directory <u>must </u>be created before running the Downloader.php

We have provided a little text file that can be loaded into the directory to provide a file to test with.

Tailoring Downloader.php

Description:

Downloader.php is a SQL script that, when executed, will, if needed, create the database table ("tblDownload") and all the fields within that table. It is the page which increments the download counter table and redirects the browser to download the actual file.

Language

PHP

Included Code

Downloader.inc

Called by

Any webpage that provides a download link for a file.
All pages that want to use the download counter should point to Downloder.php
(see DownloaderTest.php for the syntax)

Required Changes

There are no required changes unless you change to format of the table or if you change the name of the INC file

If you change the name of the INC file then you <u>**must**</u> reflect that change in this page and in the **DownloaderTest.php** page.

Screen shots

Please note that Downloader.php does **not** display any screen unless something fails.

The DownloaderTest.php Page

The **DownloaderTest.php** page will call either **Downloader.php** or **ListCounters.php** depending on the button that was clicked.

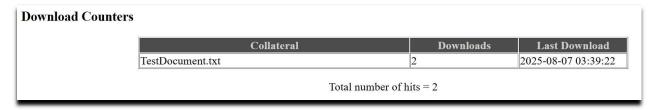Enter the name "TestDocument.txt" in the input field and click download.

If all is working as it should you will see the following :

The TestDocument.txt File

If you clicked on the "Show Counters" button the will see the following (or similar)

Collateral	Downloads	Last Download
TestDocument.txt	2	2025-08-07 03:39:22

Total number of hits = 2

The ListCounters.php Page`2