



## **Metalink 3.0 Specification**

**A Publisher's Guide to Metalink**

<http://www.metalinker.org/>

Anthony Bryan ([albryan@comcast.net](mailto:albryan@comcast.net)) [Author/Architect]

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### **Abstract**

This guide specifies a way to publish Metalinks which describe location(s) and content for a faster and simpler downloading experience by automating typically advanced features.

## Quick Starter's Guide

1. Create a Metalink

Use either [automated tools](#) and scripts or the [Metalink Generator](#).

2. Publish your Metalink

FTP the .metalink file to your website and edit the HTML to provide a link to the .metalink and possibly a brief explanation of how to use it. Sites that serve Metalinks need to add a MIME type for .metalink files of “application/metalink+xml” on their web servers.

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## 1.0 Introduction

### 1.1 What is a Metalink?

Metalinks bundle the various ways (FTP/HTTP/P2P) to acquire files into one format for easy content distribution/Electronic Software Distribution (ESD). This can increase download performance, reliability, usability, & efficiency.

### 1.2 Benefits over traditional download methods

- Backward compatible with regular links.
- Combines FTP and HTTP with Peer-to-peer (P2P, shared bandwidth).
- Standard unified format that collects links for automatic accelerated (segmented) downloads from multiple sources.
- Automatic load balancing distributes traffic so individual servers are under less strain.
- No Single Point of Failure (SPOF) like FTP or HTTP URLs. More fault tolerant.
- Useful for automatic updating programs when new versions are released.
- No long confusing list of possibly outdated Mirrors and P2P links.
- Makes the download process simpler for users (automatic selection of language, Operating System, location, etc).
- Stores more descriptive and useful information for ESD.
- No separate MD5/SHA-1 file or manual process for verification.
- Uniquely identifies files, so even if all references to it in the Metalink stop working, the same exact file can be found via a P2P or Web search.
- Can finish P2P downloads even if no full seeds are shared.
- For FTP/HTTP, an updated client is needed, but not a separate client like some P2P (For example, BitTorrent (Official client) is a 6.5 megabyte download).

### 1.3 Goals

- Remain backward compatible with traditional hyperlinks.
- Make downloads faster and cheaper by making mirror/P2P use automatic and integrated.
- Make downloads more reliable and more likely to finish. Higher availability.
- Simplify the download process: Less options and user interaction by default.
- Improve the way that large multi-located files are distributed.
- Make the use of a unique identifier common across many file sharing networks and search engines so it is easy to find the exact same file.
- Keep the Metalink file format as simple as possible, while also storing information that may be useful for content distribution.

## 1.4 Possible Uses

Metalink was designed for describing the locations of large files that are multi-located (shared via many mirrors and with P2P) so all locations can be used. It is useful for communities or companies who distribute content over the Internet with multiple servers and methods. Possible uses include software distribution (Operating Systems, games, software updates, etc) and large video or audio file distribution (iTunes, DVDs, lossless audio, compressed audio). It is also useful for making the download process simpler, so the user does not need to select or decide which Operating System, language, or download location they require and also for downloading many related files with one click. Metalink clients also automate the checksum verification process and more links allows greater availability and redundancy.

## 2.0 Metalink Generation

Individual Metalinks can be created with the Metalink Generator at <http://www.metalinker.org/generator/>.

Command line tools are available in the form of [metalink tools](#). These tools generate the checksums on local files (or use previously created MD5SUM files) and import mirror lists. This is the easiest choice for generating a few metalinks occasionally.

For generating many Metalinks a few times a day, see RoPkg::Metalink and Simba. Metalinks can also be automatically generated with [Simba](#), the mirroring tool, and software available from <http://metalink.packages.ro/>. Simba can be used to generate up to date Metalinks of files on mirrors or just newly updated files.

Other standalone applications for generating Metalinks are needed for regular people. A JavaScript page that could be used locally to create metalinks would be good too.

## 2.1 Metalink Comment Text

This text can be inserted into a .metalink file, usually after <metalink> and before <files>. Some Metalink Generators automatically insert this into .metalinks.

```
<!--
```

```
  Metalink, an Open Standard, makes downloading easier by
  bundling the various ways (FTP/HTTP/P2P) to get files into
  one format for easier downloads, as well as bundling
  checksums to automatically verify completed downloads.
```

```
  Currently the following applications support this file:
```

- aria2 (Unix) [ <http://aria2.sourceforge.net/> ]
- GetRight 6 (Windows) [ <http://www.getright.com/> ]
- Speed Download (Mac) [ <http://www.yazsoft.com/> ]
- wxDownload Fast (All) [ <http://dfast.sourceforge.net/> ]

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For further information please visit <http://www.metalinker.org/>  
-->

### 3.0 Metalink Publishing

Currently, [OpenOffice.org](http://OpenOffice.org) uses Metalinks to distribute its free office suite. They are located on the [P2P Downloads](#) page. These are automatically generated by [Simba](#).

The following Linux and BSD distributions use Metalinks for their ISO downloads: Arch Linux, Berry Linux, BLAG Linux, DesktopBSD, PuppyLinux, redWall Firewall, StartCom Linux, and Ubuntu Christian Edition.

File Distribution sites like <http://www.download.com/>, <http://fileforum.betanews.com/>, <http://freshmeat.net/>, & other aggregating sites like <http://filemirrors.com/> could subscribe to an official syndicated feed (Atom or RSS) from software producers that alerts them to new releases of programs or files & the Metalink file that describes their locations.

### 3.1 Metalink MIME types

Sites that serve Metalinks need to add a MIME type for `.metalink` files of “`application/metalink+xml`” on their web servers.

If you use an older version of Apache, filenames like `filename.tar.gz.metalink` may give an error in browsers. You need to comment out these lines in `/etc/apache/http.conf`:

```
# AddEncoding x-compress Z
# AddEncoding x-gzip gz tgz
```

### 3.2 Backward compatibility

If clients support it, Metalink 3.0 is backward compatible with regular hyperlinks. This is done by adding `#!metalink3!http://www.example.com/file.ext.metalink` onto the end of a URL like so:

<http://www.example.com/file.ext#!metalink3!http://www.example.com/file.ext.metalink>


Clients that do not recognize Metalink 3.0 will drop what is after the first `#`. This backward compatibility is inspired by Gervase Markham’s [Link Fingerprints](#).

### 3.3 Download Layout Recommendations

Feel free to use the Metalink logo on your download page. We recommend using backward compatible links with maybe a direct link to the `.metalink` as well, so more people can learn about it.



### 3.3.1 OpenOffice.org Example



User:  Password: 
 |

Home
Download
Support
Contributing
Projects
My pages
About

Projects > **distribution**

**Project tools**

- Project home
- Membership
- Announcements
- Mailing lists
- Documents & files
- Version control - CVS
- Issue tracker


**Search**

This project

Advanced search

Google search

**How do I...** 

- Sitemap
- FAQ
- Get help?

## OpenOffice.org P2P Downloads









**[BitTorrent Links](#) - Magnet & MetaLinks**

**Download OpenOffice.org 2.0.3 using P2P Technology**


To download OpenOffice.org using magnet or metalinks, simply select your download from the table below.

Please help to spread OpenOffice.org by leaving your client open after the download is complete. This will ensure good download speeds for others.

For a complete list of OpenOffice.org-related Metalinks, please visit [this site](#). For more information on Metalink technology, please visit <http://www.metalinker.org/>.


| Platform        | Language     | Magnet   | MetaLink   |
|-----------------|--------------|--|--|
| Windows         | English (en) |  <a href="#">download</a> |  <a href="#">download</a> |
| Linux (x86)     | English (en) |  <a href="#">download</a> |  <a href="#">download</a> |
| Solaris (Sparc) | English (en) |  <a href="#">download</a> |  <a href="#">download</a> |
| Solaris (x86)   | English (en) |  <a href="#">download</a> |  <a href="#">download</a> |

[Information on the OpenOffice.org P2P Project](#)

** Magnet Links**

Magnet Links can be used in all good file-sharing programs. Some suitable clients are:

- [Shareaza \(Windows\)](#)
- [LimeWire \(Cross-Platform\)](#)
- [Morpheus \(Windows\)](#)
- [MLDonkey \(Cross-Platform\)](#)

** MetaLinks**

MetaLinks are an emerging format that offer the advantages of p2p combined with traditional downloads. Some suitable clients are:

- [GetRight \(Windows\)](#)
- [wxDownload Fast \(Cross-Platform\)](#)
- [aria2 \(Linux/Unix\)](#)

### 3.3.2 redWall Firewall Example

The screenshot shows the redWall Firewall website. At the top, there is a navigation menu with links for Home, About, Features, Download, Support, Contact Us, News, and Links. Below the navigation is a dark blue banner with the redWall Firewall logo, SourceForge.net, and Mantis bug tracking system logos. A 'NEWSFLASH' box on the right of the banner states: 'The latest redWall Firewall Version is 2.2.2'. The main content area is titled 'Download' and features a 'Stable releases' section. This section contains text explaining the release cycle: 'This is the latest stable Version of the redWall Firewall CD. All bug fixes and enhancements will be first released as a release candidate and moved to a stable release once the release candidate for a particular version is stable enough. Therefore release candidate and stable Versions can be considered to be "stable". Do note that a stable release may still contain bugs, which have been fixed in a release candidate Version ! So make sure, you keep an eye on the current changelog'. Below this, it mentions that the public PGP key can be downloaded from 'this server' or looked up at 'pgp.mit.edu'. A 'metalink' section follows, with a 'Primary' subsection listing 'Sourceforge Mirrors' and a link to 'redwall-2.2.2 .iso ( PGP MD5 archive)'. A 'Secondary' subsection is also present. On the right side, there is a 'CURRENT VERSIONS' sidebar with a list of versions: 'Stable 2.2.2', 'Release Candidate 2.2.3-rc1', and 'Snapshots'. A 'Browse' link is provided. Below the versions, there is a 'MetaLinks' section with the MetaLinks logo and text explaining that MetaLinks are an emerging format that offer the advantages of p2p combined with traditional downloads. Some suitable clients are listed: 'GetRight (Windows)' and 'wxDownload Fast'.



### 3.3.3 DesktopBSD Example

For almost all PCs. The CD installation only contains a basic set of applications (see the release notes for differences).

Size: **686 MB**  
MD5 checksum: 7ff251224798fc8b3996d37f5f1c5f25

**PC (x86) - Language Packages CD**  
This CD is optional. You only need it together with the CD version to install additional language packages (the DVD versions include these language packages).

Size: **162 MB**  
MD5 checksum: e89fb6d1747ef1d3d35315077d0bea07

**64-bit PC (AMD64) - DVD**  
For 64-bit computers based on the AMD64 or EM64T architecture (Athlon64, Opteron, EM64T Xeon). Please read the release notes for differences to the x86 version.

Size: **1287 MB**  
MD5 checksum: 91fb6bb6917c6b0005636d20575848b6

Download from:

Only display links

**BitTorrent**  
**Note:** BitTorrent you need a BitTorrent or **Azureus**.  
Our tracker also

**metalink**  
By downloading file, **metalink** m the power of metalink, you need **a metalink-capable downloader**.

Germany - Bummi-Net (HTTP)  
Germany - Plus.line  
Greece - National Technical Univ. of Athens  
Italy - Fastbull  
Japan - AllBSD  
Norway - Netrunner  
Switzerland - Genotec  
Switzerland - SolNet  
Taiwan - Providence University Taichung  
USA - Indiana University  
USA, Wisconsin - TDS Internet Services

ing BitTorrent,  
**.com client**

e description  
ble. To utilize