



Introduction to Virthos

System Requirements • Installation • Getting Started

Version 2.0

Revised December 1, 2006

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Virthos Systems GmbH

Contrescarpe 8c

28203 Bremen

Germany

Email: info@virthos.net

www.virthos.net

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Welcome to Virthos

Virthos is a software product that simplifies the development of web applications. For any kind of web page, from a guestbook to an online store, from simple text files to a comprehensive workflow and collaboration management system, Virthos makes it easy to develop applications without any previous knowledge of programming or databases.

Its principal use is for what is *commonly* referred to as “web content management”—the management of text and media content for the Internet. Its goal is to enable staff with no knowledge of HTML or website design to manage web pages in order to reduce costs and to ensure that content can easily be kept up-to-date.

Virthos is installed on your current web server, and allows your server to run a variety of applications. It does this in the same way that a PC operating system allows a variety of word processing and graphics programs to be run concurrently. Just as the OS provides a common platform for all the applications software on your PC, Virthos acts as independent platform for web applications of all sorts.

Virthos comes in two Versions:

- **Virthos Basic** is our entry-level product, designed for uncomplicated sites that require content management and that run simple web applications. Virthos Basic functions without a MySQL database connection, and thus provides less functionality and fewer features than the Pro version.
- **Virthos Pro** is Virthos Basic's big brother. Thanks to its underlying MySQL database, it supports websites with a large number of pages, which can be simultaneously edited by multiple users. It contains additional features that make it possible to support more demanding web applications.

Where installation and operation are concerned, there are but few differences between the two versions. Unless specified otherwise in this manual, all provisions apply to both Virthos Basic and Virthos Pro.

What's New in Version 2.0

For those readers who are already familiar with Virthos, we present a short description of the new features in Version 2.0.

User Interface

The completely revamped user interface is the most significant distinction between this version and its predecessors. It uses an unobtrusive shade of gray to make it easy to distinguish the interface from the pages being worked on. Icons simplify navigation, and uniform typography in all templates and menus make getting around easier.

Rapid Navigation

When you start Virthos Manager, all pages are immediately loaded into the navigation tree. Whenever branches are expanded or collapsed, the display is now updated instantaneously. The sitemap is rebuilt to show the revised hierarchy when pages are deleted, moved or renamed.

Clipboard

The new Clipboard facilitates moving and copying of pages, as well as the introduction of links. The needed tools are made available in both Preview and Structured view, so that you can work either on the current page alone, or all its subordinate pages at the same time.

About This Manual

This manual is intended to let you start using Virthos quickly, and to give you a short overview of how it works. There are several other sources that can provide you with additional information.

- *Virthos User Guide*
The comprehensive guide to all aspects of Virthos. It is intended for webmasters, web designers, and authors.
- *VirthosTalk Reference Guide*
The detailed guide to all placeholders and directives available for creating Virthos Templates.
- *Online Resources*
The Virthos website (www.virthos.net) provides additional sources of information and sample files for downloading.

Virthos Basic / Virthos Pro

Virthos is available in two versions: Virthos Basic and Virthos Pro. This manual applies to both versions. Any material that pertains to only one or the other version will be clearly indicated.

Font Usage

Several different types of text are used in this manual in an effort to make clear how certain expressions are used.

- **Bold type** is used to indicate steps to be carried out in order to accomplish a task.
- **Monospace type** is used for text to be entered on the keyboard.
- *Italics* are used for text that appears on the screen, such as the names of files and directories
- the names of buttons that can be clicked appear in [square brackets].

Representation of Images

Illustrations of web pages and entry forms in this manual are as they appear in the Safari web browser on a Mac OS X system. If you use another browser or operating system, you may see a slightly different representation. In any case, the descriptions are still valid.

Please note!

A box such as this one indicates important instructions that should not be overlooked. ¶

Installation Requirements

Web Server Requirements

Virthos Pro runs as a so-called PHP script on the web server—the computer that serves the HTML pages for a website. It does not matter if you are running the web server yourself, or if it is located on space made available to you on your provider's computer. The important thing is that server meets the following requirements:

- Support for PHP 4.1 or a higher version
- Access to a MySQL database (not applicable to Virthos Basic)
- Access to the file system (by FTP or other means) with the capability of modifying permissions
- About 2 MB of available memory

Virthos does not require any special PHP libraries. Any standard PHP installation is sufficient. Even the so-called “safe mode” that some providers activate in their hosting environments does not affect Virthos' functionality.

Workstation Requirements

Since Virthos has no effect on the HTML code of existing websites, there are no special requirements for the workstation that accesses Virthos pages from the web server. This means that even older web browsers can be used, as long as the pages themselves do not make any special demands. If a user has disabled cookies or JavaScript, this will not affect the way that Virthos works.

There are only two minor requirements for the web browser on the computer on which content for Virthos is edited:

- Frames must be supported
- JavaScript 1.3 must be supported

Virthos has been successfully tested with the following browsers: Internet Explorer 5.5/6.0, Firefox 1.x (Windows and Mac OS), and Safari 1.3/2.0.

Installing and Uninstalling Virthos

To use Virthos, you first need to create some directories on your web server and copy some files that are specific to Virthos. Permissions for these directories and files must be set to specific values, and for the Pro version, the MySQL access information must be entered in the configuration file. All this can be done using the Online Installation Program found at www.virthos.net, or manually.

Any pages or PHP scripts that are already on the web server will not be affected by the installation of Virthos Pro. There is absolutely no interaction between the content and functionality made available through Virthos and the existing website. If desired, the Virthos installation can also be easily backed out.

Please note!

Virthos Pro will create some new tables in the MySQL database, and if tables with the same names already exist, their contents will most likely be deleted. In order to prevent something like this from happening—and to make it possible to run several copies of Virthos on the same machine—Virthos lets you specify various prefixes of your own choosing. Normally, each MySQL table that Virthos installs carries the prefix “vt2_”. If your database already contains tables starting with this character string, you should specify a different string when configuring Virthos. ¶

Using the Online Installation Program

The quickest way to install Virthos on a web server is to use the Online Installation Program. There are just a few requirements for using it.

- The web server on which you install Virthos must have a public IP address, either numeric, like 192.32.226.11, or a symbolic one, like ftp.mysite.com
- The web server must be accessible by FTP. This means that it cannot be behind a firewall that blocks FTP access.
- You must be able to sign on to FTP with a password that allows you to write to the web server's hard drive.

If you meet all these requirements, then you can use the Online Installation Program, available at

`www.virthos.net/services/installer`

Just follow the instructions on the screen. If your installation is successful, you will see a message to that effect in your browser window. Close the window, and continue as detailed under “Testing Your Installation.”

Since there are many different types of servers, and it is impossible to test with all of them, there is a chance that the online installation may encounter some difficulties. In that case, one or more warning messages will appear in your browser window at the end of the installation. You may then perform a manual installation, as described in the next section.

Please note!

The FTP and MySQL access information that you provide during the online installation process are retained only for the duration of the installation process and are deleted immediately afterward. There is the hypothetical possibility that unauthorized persons may intercept this information while it is being transmitted. To provide greater security, you may want to change these passwords after concluding the installation. ¶

Manual Installation

To install Virthos on a web server manually, proceed as follows:

1. Copy the Virthos installation package to your hard drive.

You may either copy the installation package from the Virthos CD or download it (“Downloads” area on www.virthos.net). If you download the package, it will come as a compressed Zip file, which you must first unzip. This will create a directory named *virthos* on your hard drive, containing the file *virthos.php* and four subdirectories named *config*, *data*, *system* and *templates*.

2. Next, customize the configuration file.

Open the *config.php* file, which can be found in the *config* subdirectory of the *virthos* directory, with a text editor. This file contains a series of basic settings that Virthos requires. The meaning of the particular settings is thoroughly documented within the file. For security reasons, it is advisable to change the default master password to a new one. In addition, for the Pro version, it is essential to enter the MySQL access data. The following chart will help you determine the correct values:

<code>mysqlServer</code>	Address of the MySQL server. In many cases, especially when a test environment has been set up on your own computer, it is sufficient to enter <code>localhost</code> or <code>127.0.0.1</code> —which has the same meaning.
<code>mysqlDatabase</code>	Name of the MySQL database. You may obtain this name from your hosting provider or administrator when you request or create a new database. If you are working in a local test environment and have the authority to create a new database, you can enter any name here—Virthos will create the database automatically the first time that you invoke it.
<code>mysqlUser</code>	User name used by Virthos to connect to the MySQL server. You may also obtain this name from your provider or administrator. In a local test environment, you can enter <code>root</code> .
<code>mysqlPassword</code>	Password for the user name. You will also obtain this from your provider or administrator. In a local test environment, you need to enter the root password that you used when installing the MySQL server.

`mysqlTablePrefix` Prefix for the names of the tables that Virthos will be creating in the database. This prefix comes into play only if the database is also used by other Virthos installations or other PHP scripts. In this case, you must enter a prefix that has not yet been used anywhere else.

3. Now, connect to your web server.

The procedure depends on where your web server is located.

- If you want to install Virthos in a test environment on your own PC, you only need to find the web server's root directory on your hard drive—that is, the directory in which the start page (usually `index.html` or `default.html`) is located.
- If the web server is located in a local area network, connect to the network location as you normally would. Please be sure that you have the correct access rights for creating directories on the web server, copying files, and releasing pages.
- If your web server is hosted remotely, use an FTP program to establish the connection. In this case, too, please make sure that you log in with a name that gives you the necessary rights.

4. Copy the Virthos directory to your web server.

Copy the *virthos* directory with all of its contents (see Step 1) to the root directory of the web server—the one in which the start page (usually *index.html* or *default.html*) is located. You can also copy Virthos into any subdirectory of the root directory.

5. Verify and correct the permissions of the directories and files that you have copied.

The files and directories that you copy to the web server automatically acquire certain permissions. What these are depends on how you have connected to the web server and what operating system it is running on. On Unix systems especially (including Linux and Mac OS X), if you have not set the permissions correctly, Virthos' functionality can be adversely affected. Therefore, please be sure that:

- All files and directories that you copy must be readable by all users. This corresponds to the Unix command `chmod` with a value of `744`.
- The file *virthos.php*, as well as any directories you create must be readable and executable for all users (`chmod 755`). This is not required for all servers, but it cannot hurt, in any case.
- The *data* directory and all the files and subdirectories contained within it must be alterable and executable for all users (`chmod 777`).

This ends the manual installation process. To determine whether you have done everything correctly, please follow the instructions under “Testing the Installation”.

Please note!

If PHP is installed on the web server as a CGI module (and not as an integrated server module), you must use a text editor to add a line at the beginning of the *virthos.php* file with the address of the PHP interpreter, for example: `#!/usr/local/bin/php`. If this provision applies to you, you must ask your provider or consult the documentation for your version of PHP to find out exactly how to construct this line.

Please take care in particular to code line breaks in the PHP file correctly. Most web servers prefer that line breaks be coded for Unix files. Therefore, if you code the line in Windows or Mac OS Classic, you should use a text editor that allows you to specify Unix line breaks. Another option is to use an FTP program that allows you to convert line breaks while uploading a file.

Many web servers are configured so that all PHP scripts must be located in a specified directory, such as */cgi-bin/*, which may not contain any image files or other resources. If this applies to you, you must alter Virthos' default directory structure. This process is explained in the Virthos User Manual. ¶

Concluding and Testing the Installation

To conclude the installation and determine if you have successfully installed Virthos, proceed as follows:

1. Execute the Virthos script in your browser.

Enter the following address:

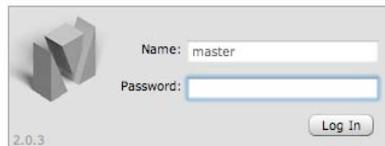
```
http://www.myserver.com/virthos/virthos.php
```

Replace `www.myserver.com` with the address of your web server (for local access, use `127.0.0.1` or `localhost`). If you did not install Virthos in your web server's root directory, after the server address, include the path to the installation directory.

Please note!

If the web server is located on your own computer, you cannot simply open the file `virthos.php` in your browser, which would be the equivalent of entering an address beginning with `file://`. You must access the web server using `http://`, as described above. ¶

If your installation was successful, after entering the correct address in your browser, you will see Virthos' Login window:



If you see an error message instead of, or in addition to, the Login window, please verify that:

- you have entered the correct address
- you have made sure that all the permissions are correct
- your web server meets all the requirements
- If you have installed the Pro Version: Is the MySQL access information in the `config.php` file correct?

Please correct any mistakes and try again. If after reviewing everything you still have problems, please contact Virthos Customer Service. You can get more information on the Virthos website (www.virthos.net) in the "Support" area.

2. Enter the master password.

The first time Virthos runs, it must perform some basic operations—for example, in the Pro version, it must set up the MySQL database. For security reasons, only the master user can do this. Enter the master password that is stored in the *config.php* file. If you used the Online Installation Program, the master password is the same as the FTP password that you used during the installation. If you installed Virthos manually and did not change anything, the password would be *demo*.

3. Click the [Login] button.

If the installation was successful, you should see the Virthos License Agreement on your screen within a few seconds. Then go on to the next step.

If you see an error message instead of the License Agreement, please verify that:

- the MySQL access information in the *config.php* configuration file (in the *config* directory) is correct
- there are not already tables belonging to another Virthos installation with the same prefix in the database.
- the MySQL user you have specified has the right to create new database tables.

If necessary, correct any entries you have made in the configuration file, and make sure that MySQL server complies with all requirements. Then start over at Step 1.

4. Declare your acceptance of the License Agreement.

Please read this agreement carefully. If you cannot agree to any of the terms, you cannot use Virthos. Otherwise, click the button that signifies your acceptance of the terms of the Agreement, and then [Continue].

After you accept the Agreement, you will see Virthos Manager in your browser window. Close this window for now. Continue as detailed in the chapter “Getting Started”.

Uninstalling

If you should decide not to use Virthos anymore, just delete all the directories and files from your web server. Any pages on your website that were not created by Virthos or linked to a Virthos page will continue to display as usual.

Please note!

When you uninstall Virthos, any content that you have created with Virthos and all templates in the templates directory will be deleted. To be safe, make backup copies of all files before uninstalling Virthos. ¶

To remove Virthos from your web server, proceed as follows:

1. Drop any mySQL database tables that you no longer need.

The following applies only to Virthos Pro: Point your web browser to the *virthos.php* file with the *dbdestroy* command:

```
http://.../virthos.php?dbdestroy
```

Enter the master password in the window that appears and click [Drop Database]. This will cause any tables created by Virthos at installation time and afterwards to be dropped from the mySQL database.

2. Delete the installation directory.

The *virthos* directory created at installation time and all its subdirectories and files can be deleted. If you use FTP to access the web server, be sure to log in with the same user name that you used at installation time, in order to ensure that you will have the needed permissions for deleting data.

This ends the uninstall process.

Getting Started

Before you jump in and try Virthos for yourself, we'd like to suggest that you try a few things to get an idea of how it works. The following provides a systematic introduction that should be taken step by step. There is one thing you can be sure of: the time you spend to go through it now will be paid back many times later, because you will understand how everything fits together, and know where to look up what you need to know.

Accessing Web Pages

The core of Virthos' functionality lies in a file by the name of *virthos.php*, usually found in the *virthos* directory on the web server. This is a so-called PHP script—meaning a computer program that is executed on the server and that can create web pages according to preset rules. The PHP script that you invoke determines what kind of web page will be delivered to the browser. Here are a few examples to make this clear:

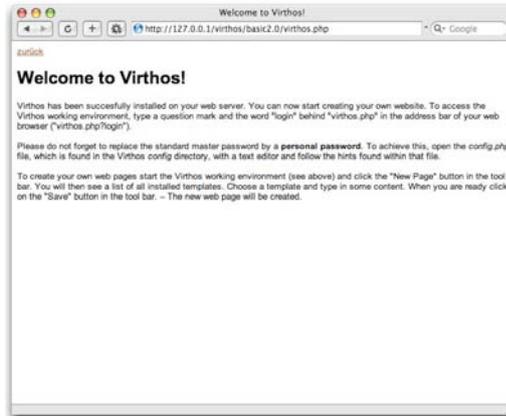
- 1. Invoke Virthos in your browser.**

You have probably already done this after you finished installing Virthos to see if everything worked. Please do it again now. Enter the following address:

```
http://www.myserver.com/virthos/virthos.php
```

In place of `www.myserver.com`, substitute the URL of your web server. If you used a different installation directory, then enter the appropriate path. (We won't mention this any more from now on.)

If you entered the address correctly, you will shortly see Virthos' Welcome page:



As long as you do not change anything, simply invoking *virthos.php* will always result in the display of the same Welcome page. You can also try some different variations...

2. Invoke Virthos with the *about* command.

Enter the following address:

`http://www.myserver.com/virthos/virthos.php?about`

In this example, we have just added a question mark and the word *about*. This will result in the following display in your browser.



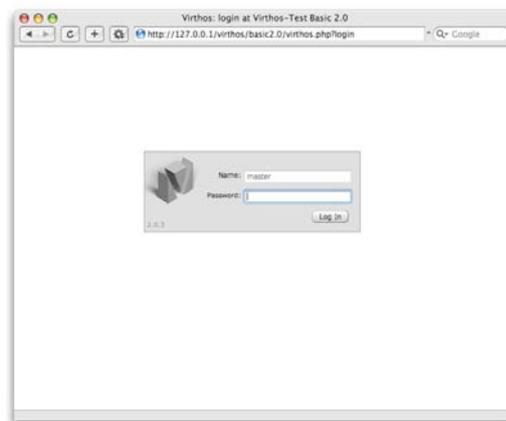
Entering the *about* command will give you some information about the current Virthos installation, most notably the version number. You will also find a link to the website of Virthos Systems GmbH, where you will find more information, updates, and technical support.

2. Invoke Virthos with the *login* command.

By now, you probably already know what to do. Enter the following address:

```
http://www.myserver.com/virthos/virthos.php?login
```

In this example, `about` has been replaced by `login`. This will result in the following display in your browser.



This is Virthos' Login window, which lets you access Virthos Manager, the central tool for managing a website with Virthos. More about this in the next section.

Starting and Stopping Virthos Manager

In the last section, you learned how to access specific web pages by including additional information in the URL when you call Virthos. We gave you only a few simple examples. In theory, by furnishing even more information, you could also add new content to Virthos, make changes to websites, and do much more. However, this would not be as easy as it sounds, because it would require you to type addresses like this:

```
http://www.myserver.com/virthos/virthos.php?-pg=113&-met=view
      &-ses=256&-cod=2794e3c4e2&-act=create&-tem-
      plate=news
```

This command would create a new web page based on the *news.html* template, subordinate to page 113 in the Virthos hierarchy. Fortunately, you will not need to type strings like this, because Virthos Manager provides an environment in which the same results are obtained by simple mouse clicks. For security reasons, this area is only available to users who have logged on to Virthos with a special password.

- 1. Enter the URL of the Virthos login page.**

If you would like to review how to do this, please go back to the last section.

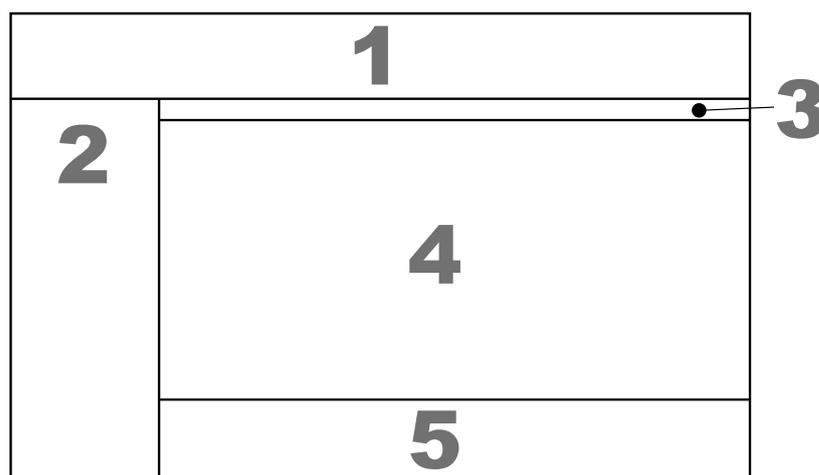
- 2. Enter your user name and password.**

In Virthos Basic, the user name is set to *master*; whereas in the Pro version, you can decide on your own user name. However, if you have not yet selected your own user name, you must use the user name *master*.

Enter the password included in the *config.php* configuration file as your password. If you used the Online Installation Program, this would be the same password that you used for FTP access to the web server. If you installed Virthos manually and did not change anything, the password would be *demo*. For security reasons, the password is not shown when you enter it. You will see a period in place of each character you enter instead.

- 3. Click [Log in] or press the return key.**

If you enter the name and password (case-sensitive) correctly, you will see Virthos Manager in your browser window. This may take several seconds.

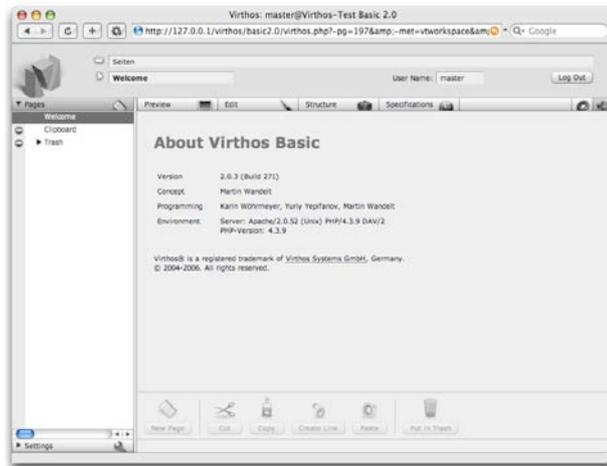


Virthos Manager is divided into five regions:

- | | |
|------------------|---|
| 1 Header Area | This shows the name of the currently selected page (bold), a list of parent pages (path), the user name that you used to log in, and a button for logging out. In the Pro version, you will also see a language selection menu. |
| 2 Navigation Bar | This displays a tree view of the pages managed by Virthos. The currently selected page is shown in a darker color. By clicking the gray triangle, you can change the view to include or exclude subordinate pages. At the very bottom are buttons to take you to User Administration and System Settings. |
| 3 Mode Selector | This lets you choose between the various modes. Also, on the right side of the screen, you can invoke a list of additional functions or show information about the current version of the Virthos application. |
| 4 Content Area | Depending on the mode that you are working in, you will see either the actual page content or a form created by Virthos for editing the current page or changing its properties. |
| 5 Tool Bar | This shows a variety of available tools depending on what is currently in the Content Area. |

4. In the Mode Selector, click the Virthos logo at the right.

This will display the same page that you saw before by entering the “about” command.



To see the Welcome page again, click [Preview] on the Mode Selector (at the far left). We will discuss the purpose of the remaining buttons and how to use the Navigation Bar later.

5. In the Status Area, click [Log Out].

Logging off means that you are ending your session and leaving Virthos Manager. Virthos asks for a confirmation to ensure that you really want to log off:



6. Click [OK].

Virthos Manager closes, and you again see the Login page in your browser window.

Please note!

If you do not log off as just described, but just close your browser window in Virthos Manager, someone could just come along and press the *Back* button to return to it, without being asked for a password. By logging off as described, you will prevent this from happening. ¶

If you forget to log off, or if you stop using Virthos Manager for a while, it will automatically log you off one hour after your last access. When you subsequently restart Virthos Manager, you will again be asked for your password. If one hour seems like too much time or not enough, you can change this interval in your System Settings. More information on this topic can be found in the Virthos User Manual.

Changing the Master Password

The master password allows unlimited access to all Virthos content, and should therefore be closely safeguarded. It should be at least 8 characters long, and include uppercase and lowercase letters, as well as numerals and punctuation marks. If you have already created a password that meets these requirements, you can skip the rest of this section. Otherwise, you should follow these directions carefully to prevent unauthorized persons from accessing your Virthos system. Please proceed as follows:

1. Find the Virthos configuration file.

The master password, along with some other System Settings, is stored in a file named *config.php*, located in the Virthos *config* subdirectory. This is a simple text file that can be opened and edited with any text editor.

If you are running Virthos in a test environment on your own computer, you will find the configuration file in that subdirectory on your own web server, and you can edit it there directly. If you installed Virthos on an external web server, you will need to download the configuration file using an FTP program.

2. Open the configuration file with a text editor.

Be sure to use an editor designed for HTML or PHP files that will not introduce any invisible formatting characters into the text.

3. Find the line to be modified.

Every line in the configuration file that does not begin with a semicolon contains a particular system setting. Look for a line beginning with `masterPassword =`.

4. Change the password to whatever you wish.

Overtyping the password with another one that meets the requirements given above.

5. Close and save the configuration file.

Use the text editor's Save command and close the file. If you installed Virthos on a remote web server, use your FTP program to upload the file and replace the configuration file located there.

Editing Content

Once you have learned the basics of how Virthos works, you can start using it to make content changes on your website. We will start with some minor modifications to the text on the Welcome page.

1. Start Virthos Manager in your browser.

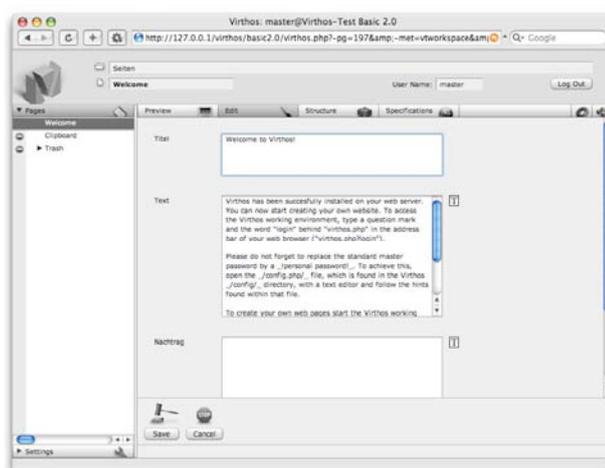
This process is described in the previous section. Be sure to use the password that you set in the last section.

2. Navigate to the Welcome page.

If you do not see the Welcome page displayed automatically, click on *Welcome* in the Navigation Bar on the left. The Welcome page will appear in the Virthos Manager Content Area.

3. Select Editing Mode.

In the Mode Selector, click [Edit]. You will then see an editing form in the Content Area.



This form consists of three input fields—*Title*, *Body* and *Addendum*. The *Addendum* field will be empty. The two other fields contain the contents of the Welcome page.

4. Modify the title.

Overtyping the current text in the *Title* field with something else. For example, you might key in: **Welcome to my home page!**

5. Save your changes.

In the Tool Bar, click [Save]. In a few seconds, you will see the Welcome page displayed again with the new text.

6. Now change the body text of the Welcome page.

Click [Edit] again, overwrite the text currently in the *Body* field and click [Save].

You will see the modified Welcome page appear in the Content Area. If you don't like the result, click [Edit] again and make some more modifications.

Creating New Pages

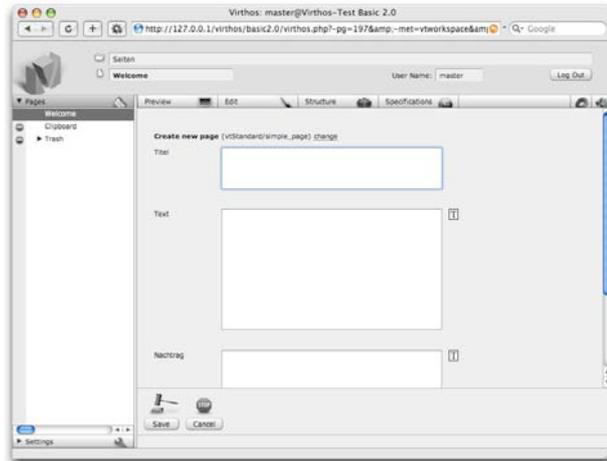
It is just as easy to create new pages with Virthos as it is to change their contents. Every page in Virthos must be based on a template that was previously created with an HTML editor or a web design application. For example, the Welcome page used as an example in the previous section is based on the *simple_page.html* template, which is part of the Virthos package. We will now show you how to create more pages based on *simple_page*. (Later on, we will cover how you can create your own templates.)

1. **Enter the URL of the Welcome page in Virthos Manager.**
2. **In the Tool Bar, click [New Page].**
You will see a list of the available templates:



The list will include all templates created by Virthos. Since you haven't yet created any templates on your own, the list currently shows only the *simple_page* template that we just discussed.

3. **Click on *simple_page* in the list.**
In a short time, you will see the form for creating a new page based on the *simple_page* template:



This form looks exactly like the one that you saw when editing the Welcome page, except that the three text boxes do not yet have any contents.

4. Place some content on the form.

Enter the following text in the fields:

Title: **Legal**

Body: **We will soon make available some legal information about our company.**

Addendum: You can leave this field empty.

5. Submit the form for processing.

In the Tool Bar, click [Save]. In a few seconds, you will see the page you have just created in the Content Area.



It will also appear in the Navigation Bar on the left.

6. Return to the Welcome page.

There are three ways to get back to the Welcome page.

- Click the “Back” hyperlink above the title “Legal”.
- Click “Welcome” in the Navigation Bar.
- In the Status Area, within the path, click *Welcome*.

You will again see the Welcome page, which will now display a link to the newly created “Legal” page below the text area. This happens because the *simple_page* template is designed to automatically show all subordinate pages that are based on it. Try creating another page using the procedure we have outlined.

Designing Your Own Templates

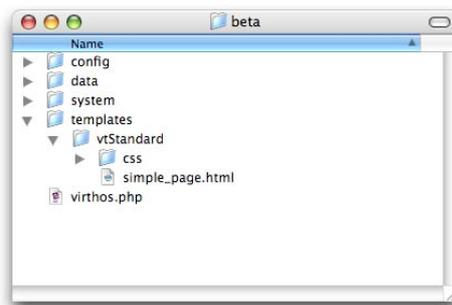
As we mentioned in the last section, each page in Virthos is based on a template. The real effort needed to shape your website using Virthos is in developing and designing these templates. However, if you have already gone through the process of fashioning your own HTML pages (which we will now assume), building a new template becomes a simple matter.

Please note!

The follow description assumes that you have installed your web server and Virthos on your own computer, and that you can access the Virthos directory directly. Should this not be the case, then you will have to complete these steps using a local copy of the Virthos directory and later synchronize them with the web server on which Virthos is installed.

1. Open the templates directory.

All the templates are located in the *templates* directory, which is in the Virthos root directory—that is, the directory in which the *virthos.php* file is also located. When you open the directory, you should see a list of its contents. On a Mac OS X system, this could look like this:



The *templates* directory is where all the templates that are available to Virthos are stored. Templates are normally not placed directly in the *templates* directory, but rather in subdirectories, which are commonly known as “packages”. Each package may consist of any number of templates and also its associated images, JavaScript files, style descriptions, etc.

After your installation, the *templates* directory at first contains only one package named *vtStandard* containing the *simple_page.html* template, which you used in the previous section. The package also holds the CSS style sheet file used by the template.

2. Create a new subdirectory in the *templates* directory.

Name the new directory *first_test*. You can choose almost any name for a template package, but it cannot contain any accented characters, spaces, punctuation marks or special characters (except for hyphens and underscores).

3. Copy the contents of the *vtStandard* directory into the new subdirectory.

To keep things simple, we will not be building any new templates from the ground up. We will just modify an already existing template. In order to save the existing file *simple_page.html* as it is, we will be working with a copy, located in the new *first_test* package.

4. Rename the copy to *testpage.html*.

You can also choose almost any name for a template, but here, too, the limitation applies that it cannot contain any accented characters, spaces, punctuation or special characters (except for hyphens and underscores).

5. Open the *testpage.html* file with a text editor or HTML editor.

It does not matter what kind of software you use—Virthos templates can be created and edited with any program that offers full support for HTML. Since these programs can differ greatly, the following descriptions apply to a simple HTML editor.

The source code of *testpage.html* looks like this:

```

1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
2 <html>
3 <head>
4 <title>{{vtName}}</title>
5 <link rel="stylesheet" type="text/css" href="css/
  styles.css">
6 </head>
7 <body>
8 <p><a href="{{vtLink:..}}">back</a></p>
9 <h1>{{Title}}</h1>
10 <p>{{Body}}</p>
11 <ul>
12 <!--{{vtLoop}}-->
13 <li><a href="{{vtLink}}">{{vtName}}</a></li>
14 <!--{{vtEndLoop}}-->
15 </ul>
16 <p>{{Addendum}}</p>
17 </body>
18 </html>

```

As you can see, a Virthos template consists of standard HTML code, enhanced with some special elements. You can recognize these special elements by the double braces, as for example in line 4: `{{vtName}}`. This kind of element is called a **placeholder**. Other elements are embedded in HTML comments, as for example in line 11: `<!--{{vtLoop}}-->`. These are known as **directives**.

Braces have no special meaning in HTML—they are treated by both the web server and the browser as ordinary text. However, when these braces are doubled, they play a special role in Virthos. They make it possible to include database contents in a web page, repeat portions of a web page any number of times, and under some conditions, to activate or hide portions of a page.

The placeholders and directives understood by Virthos comprise a separate language known as **VirthosTalk**, which extends the capabilities of HTML and similar descriptive languages. The available placeholders and directives are thoroughly documented in the VirthosTalk Reference, which can be downloaded from the Virthos website. But don't panic: When starting out, you need only a handful of language elements that you will quickly learn.

At this point, we do not want to bother you with details of VirthosTalk, but we would like to just mention some of the distinctive features of the *simple_page* template.

- The `{{Title}}` (line 8), `{{Body}}` (Line 9) and `{{Addendum}}` (Line 15) placeholders are so-called user placeholders. This means that they can be named anything that the web designer wishes. They could just as well have been called *Headline*, *Content1* and *Content2*. User placeholders are used to define the editable areas of a template.
- The block from line 11 to line 13 (`{{vtLoop}}...{{vtEndLoop}}`) defines an area that is repeated multiple times—namely once for each page that is subordinate to the current page. (Subordinate pages are called *subpages* in Virthos.) This loop is the reason why a link from the Welcome page to the Legal page that you created was automatically displayed.
- The `{{vtLink}}` and `{{vtName}}` placeholders are predefined placeholders, distinguished by the fact that they begin with “vt”. The expression `{{vtLink}}` creates a URL pointing to the current page, identified by `{{vtName}}`. The term “current page” normally refers to the page currently appearing in the web browser, but inside a `vtLoop` block, each individual subpage becomes, in turn, the current page.

6. Modify the content of the template.

After line 16, add the following line to the HTML code:

```
<p>see also <a href="{{Reference}}">{{Reference}}</a></p>
```

7. Save the modified file.

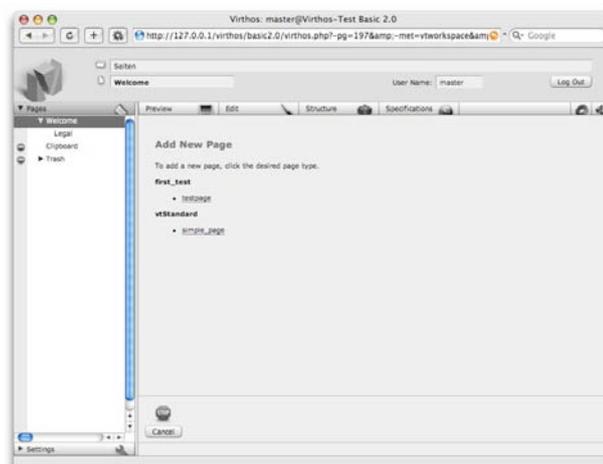
8. Start Virthos Manager, and navigate to the Welcome page.

9. In the Tool Bar, click [New Page].

Since the Welcome page belongs to the *vtStandard* package, at first only the templates of this package are listed.

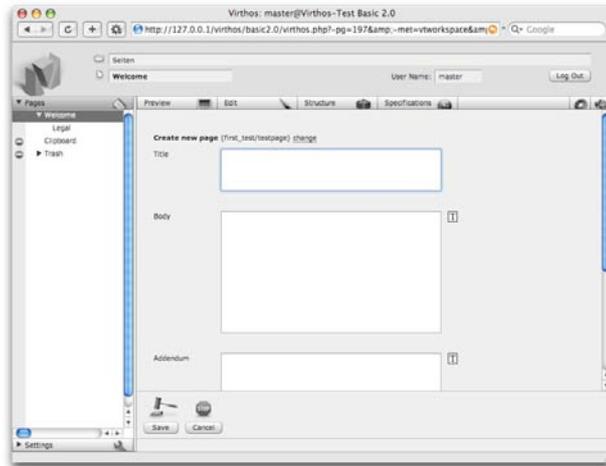
10. Click “Show all packages”.

You will then see a list of all the templates available in Virthos, including the *testpage.html* template that you have just created.



11. Click testpage in the list.

You will see the entry form for the *testpage.html* template.



The form looks very similar to the one in the previous section, which you used to create a new *simple_page*. In addition to the three usual text boxes, *Title*, *Body* and *Addendum*, there is now a fourth field called *Reference*. This was automatically added by Virthos because you added a new *Reference* placeholder to the original template.

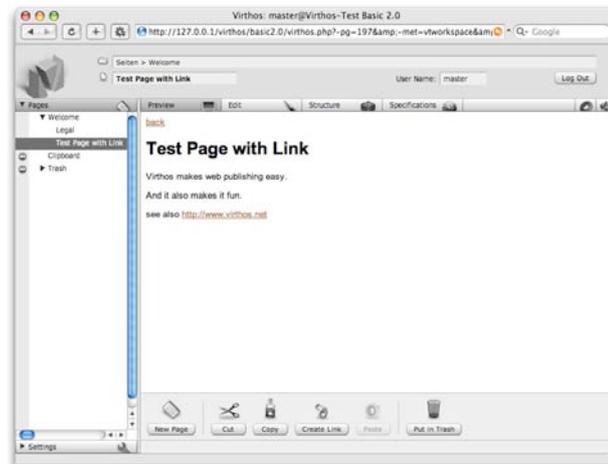
12. Fill out the form.

Right now, you should be concerned only with understanding the basic way in which Virthos works; so it does not really matter what you enter on the form. Here is a suggestion:

Title: Test Page with Link
Body: Virthos makes web publishing easy.
Addendum: And it also makes it fun.
Reference: <http://www.virthos.net>

13. In the Tool Bar, click [Save].

A new page is created and displayed in the Content Area:



Notice how the new *Reference* placeholder is used in two ways: It appears as visible text, and also as the (not visible) target of the hyperlink. Take a look at the source code, too.

14. Click the “Back” hyperlink above the title.

You again see the Welcome page.

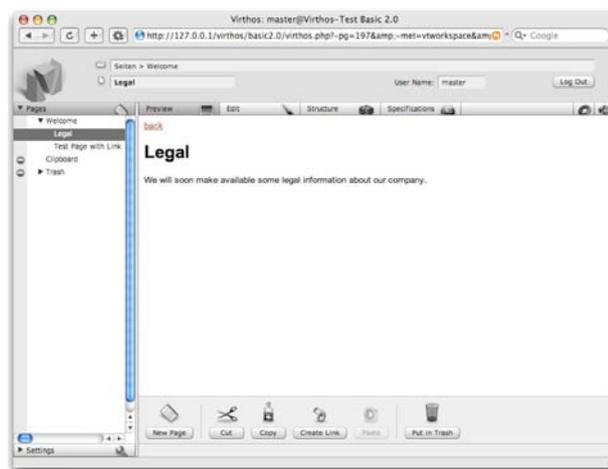
As we have mentioned before, the *simple_page* template contains a `vtLoop` loop, which is used to build a list of all subpages. This is why the “Test Page with Link” is now listed.

Deleting Pages

Especially at the beginning of the process of creating your presence on the Web, you may find yourself putting together many pages that in the end you will decide not to use. That's why Virthos makes it easy to dispose of pages that you no longer need. Take the "Legal" page that we created in the last section.

1. Use Virthos Manager to open the "Legal" page.

If you haven't yet started Virthos Manager, log on to Virthos. On the Welcome page, click the "Legal" item. The page is displayed.



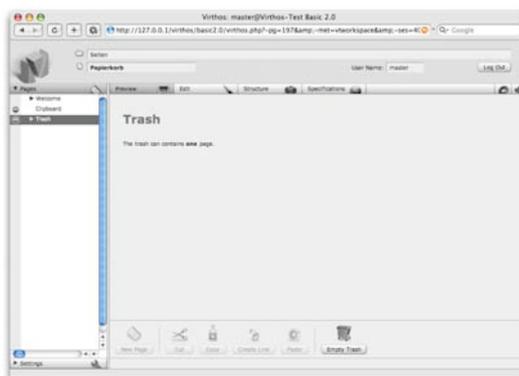
2. In the Tool Bar, click [Put in Trash].

To make sure that is really what you want to do, you will be asked to confirm your choice.



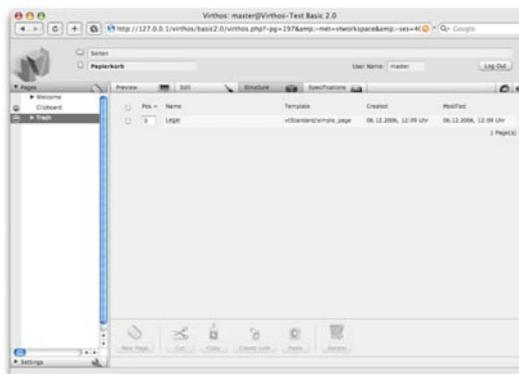
Virthos uses a "trash can" icon, just like many operating systems, to let you dispose of pages that you no longer want. This is a kind of "trial deletion". If you later decide that you really do still need the page, you can get it back from the trash can.

3. **Click [OK].**
The “Legal” page is moved to the trash can, and you again see the Welcome page. The link to “Legal” disappears, because it is no longer a subpage of the Welcome page.
4. **Click “Trash” in the Navigation pane on the left.**
The Trash page is displayed.



In Preview Mode, you only see how many pages are in the trash, but not which ones. To find out, go to the next step.

5. **In the Mode Selector, click [Structured].**
You will see the contents of the trash can listed:



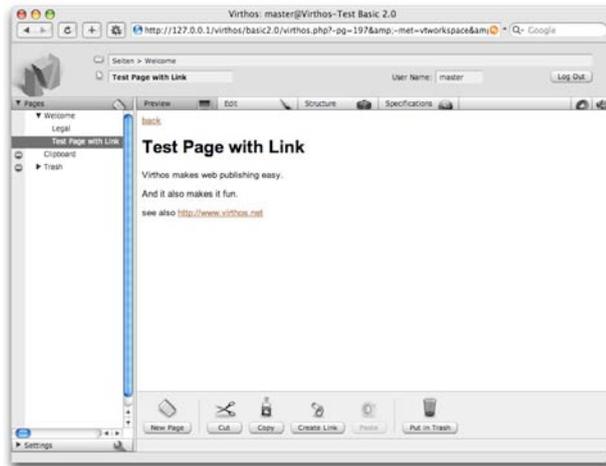
The so-called “Structured view” shows all the pages that are subordinate to the currently selected page. It will tell you which template each page is based on, when it was created, and when it was last modified. This is true not only for the trash can, but also for every other page that you create in Virthos.

6. **Finally, open the Preview again.**
Click [Preview] in the Mode Selector.

Moving Pages

In the previous section, you saw how you can put pages in the trash. Now you will see how you can move any page anywhere within the Virthos hierarchy—and also how you can return a page in the Trash to its original location.

1. Use Virthos Manager to bring up the “Test Page with Link” that you created in the second-to-last section.



2. In the Tool Bar, click [Cut].
To make sure that is really what you want to do, you will be asked to confirm your intention.

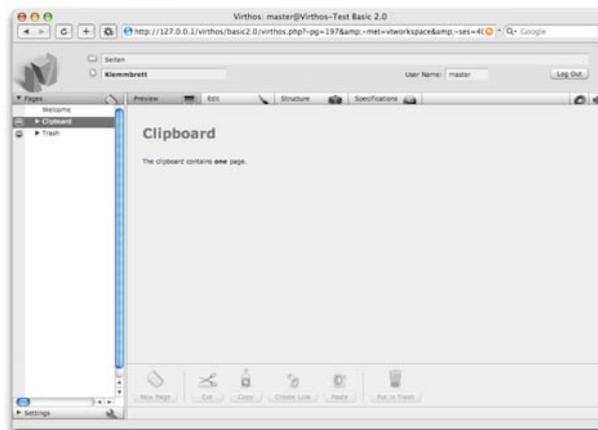


3. Click [OK].
The “Test Page with Link” will be removed from its current position, and you will see the parent page—in this case, the Welcome page.

When you “cut” the page, it will be placed on the Clipboard, which is shown above the Trash can in the Navigation pane. The Clipboard is a kind of universal temporary storage, used not only for moving pages, but also for making copies and links.

4. Bring up the Clipboard.

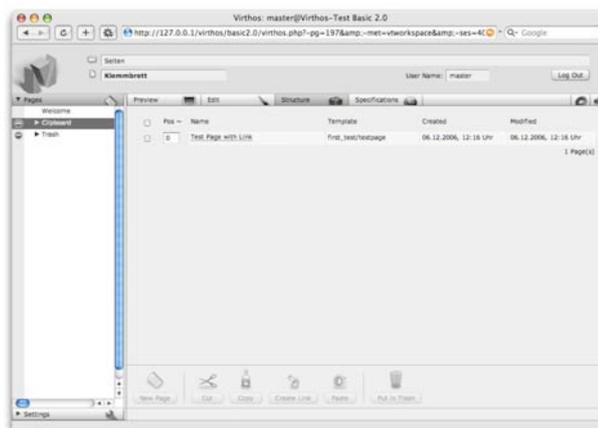
Click “Clipboard” in the Navigation Bar. The Clipboard is displayed.



Just as in the case of the Trash and every other page, you can also see which pages are subordinate to the Clipboard by selecting the Structured view.

5. In the Mode Selector, click [Structure].

The Structured view of the Clipboard is displayed.



6. Go back to the Preview.

In the Mode Selector, click [Preview]. The Clipboard is again displayed.

7. Bring up the Welcome page again.

The page that was cut shall now be inserted.

8. In the Tool Bar, click [Paste].

The “Test Page with Link” that you previously cut is restored to its original position. The Clipboard is then empty.

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