# Using HHP Files

This document describes the format and structure of the HHP file, the backbone of every compiled help file. For the purposes of illustration, I used the Lingo Script HHP file as the sample HHP file.

# Introduction

Within the Conversa Documentation department, we use Adobe FrameMaker to store the source text of the vast majority of the documentation we create. When we compose a new help system, we write the text in FrameMaker. This method of information storage allows us to create multiple forms of output when we package our documentation with a specific product. We can make PDF files, printed manuals, Web-based help, and compiled help files.

For most Conversa software applications, we create compiled help files (commonly called "CHMs") to be included within the applications themselves. These CHM files represent the result of a multi-step translation process, a process that I am not going to describe here. This document is primarily intended to explain the discrepancies between the HHP file and the settings displayed within the Microsoft HTML Help Workshop graphical interface, and to describe how to manually edit the HHP file in order to create the CHM file you really want.

# Viewing the HHP file within HTML Help Workshop

The HTML Help Workshop application is powerful in some respects but it can be extremely awkward to use. One of the most annoying aspects of this application is the way in which the interface is constructed.

When you open an HHP file in HTML Help Workshop, the bulk of the contents of the HHP file are shown within the **Project** pane located in the left column of the inter-

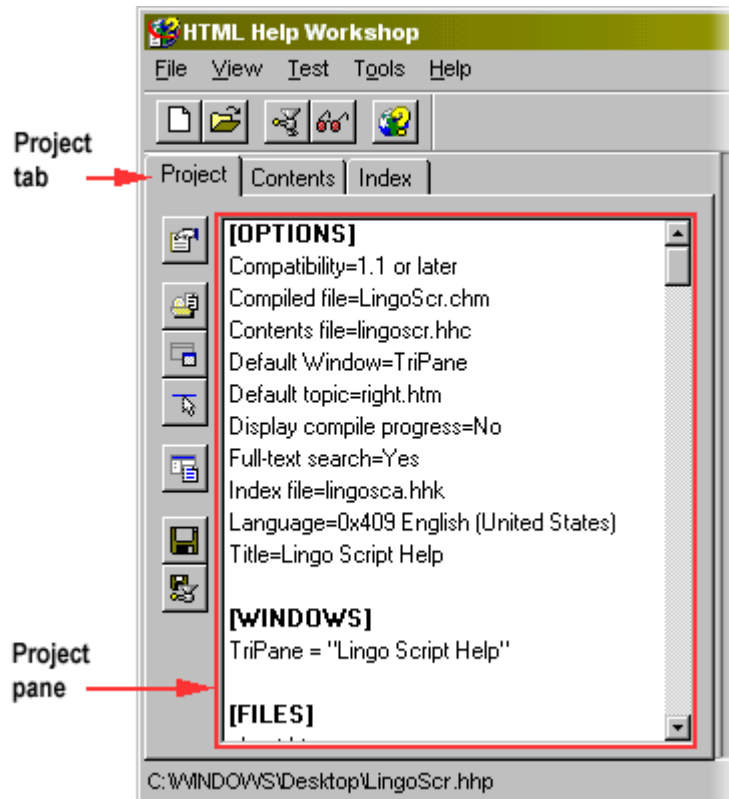face.  Figure 1.1 (shown below) shows the HTML Help Workshop interface.



**Figure 1.1**     *HTML Help Workshop GUI with **Project** pane high-lighted*

There are several buttons to the left of the **Project** pane (visible in Figure 1.1).  Some of these buttons link to dialog boxes that control specific preferences within the HHP file.  These buttons change depending on which tab you select from the menu above the pane (**Project**, **Contents**,

and **Index** are the three available tabs).  Figure 1.2 (shown below) lists the buttons that are available when the **Project** tab is selected.
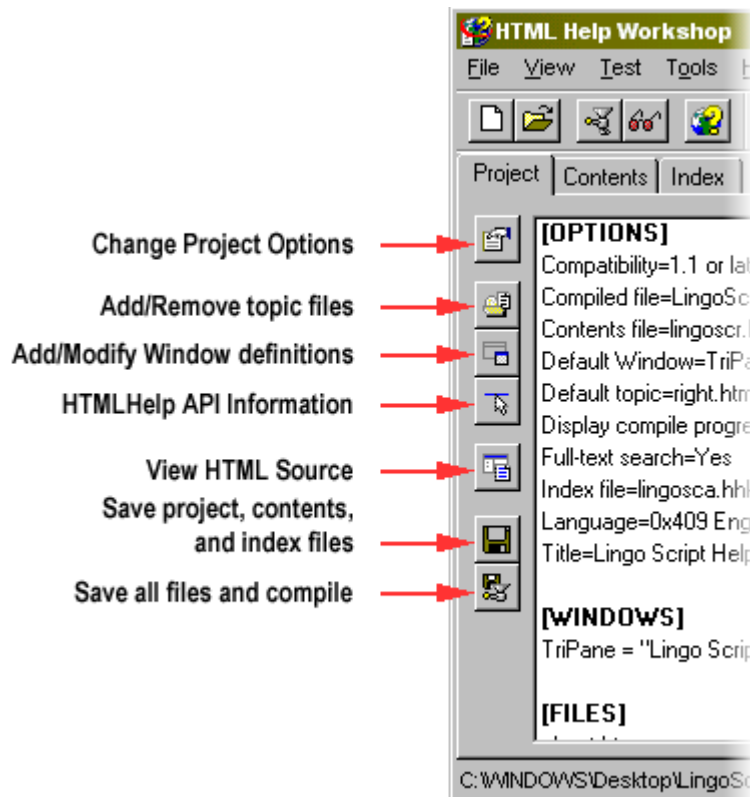


***Figure 1.2***       *Names of buttons within the **Project** tab*

Each of these buttons links to a different dialog box; some of these dialog boxes change the contents of the HHP file.

## Change Project Options

Click this button to access the **Options** dialog box. This dialog box contains four separate tabs, each of which define different information contained within the **Options** category of the HHP file.

## Add/Remove topic files

When you click this button, you get a list of files (in a dialog box named **Topic Files**) currently being included in the CHM file. Within the **Topic Files** dialog box, you can add or remove files from the list of files to be included in the CHM file.

## Add/Modify Window definitions

Click this button to access the **Window Types** dialog box. All of the CHM window definitions are contained within **Window Types**. This dialog box contains seven separate tabs; unfortunately, the information contained within each tab does not necessarily reflect the contents of the HHP file.

## HTMLHelp API Information

Within the **HtmlHelp API information** dialog box, you specify which files to include within the **Map**, **Alias**, and **Text Popups** categories of the HHP file.

## View HTML source

Select an HTML file within the **Project** pane and click **View HTML source** to view the source code of the selected HTML file.

## Save project, contents, and index files

Click this button to save your changes without compiling a CHM file. This function is particularly useful when you are changing the values within the **Window Types** dialog box and you want to verify the changes without compiling a CHM file.

## Save all files and compile

When you click this button, you save all of your changes and create a CHM file based on the settings specified within the HHP file.

# Examining the structure of the HHP file

When you convert information from HTML format into a CHM file, you use an HHP file to define the discrete parameters of the conversion process. The HHP file contains all of the preferences you set within the Microsoft HTML Help Workshop interface. HHP files resemble INI (Configuration Settings) files: Each file type is comprised of a list of categories in brackets. Each category is followed by the settings for that category.

Within an HHP file, there are seven different categories:

- `Options` - general information including the operating language and default display information. These options are not generally visible to the end user but are visible to the person working with the HHP file within HTML Help Workshop. The names of the table of contents and index files are defined here.

- `Windows` - information specific to the CHM window and its format.

- `Files` - a list of files to be included within the CHM (not including the table of contents of index files).

- `Alias` - contains a link to a separate file that defines the relationship between actual file names and the names specified within HTML Help Workshop.

- `Map` - contains a link to a separate file that defines the information mapping within the CHM file.

- `Text Popups` - contains a link to the files that contain popup help information.

- Infotypes - contains the names of information types and categories as described within the contents (HHC) file; this tag is optional and will be empty if you do not have information types within your CHM file.

The entries under each of these categories define how the resulting CHM will look and what information it will contain.

# Sample HHP File

The best way to understand how a CHM is built is to look at an HHP file and to read a description of its contents. The following HHP file is taken from the Lingo Script documentation; I added the bold information for the purposes of clarity:

```
[OPTIONS]
Compatibility=1.1 or later
Compiled file=LingoScr.chm
Contents file=lingoscr.hhc
Default Window=TriPane
Default topic=right.htm
Display compile progress=No
Full-text search=Yes
Index file=lingosca.hhk
Language=0x409 English (United States)
Title=Lingo Script Help

[WINDOWS]
TriPane="Lingo Script Help","lingo-
scr.hhc","lin-
```

```
gosca.hhk","right.htm",,,,,,0x43520,,0x
2026,[50,50,750,550],,,,,,,,0

[FILES]
about.htm
about2.htm
...(I have removed most of these file
names for brevity)
reserved.htm
right.htm

[ALIAS]
#include taliases.h

[MAP]
#include LingoScr.h

[TEXT POPUPS]
whatisthis.h
whatisthis.txt

[INFOTYPES]
```

The discrete elements of this file are described in detail in the following section.

# Editing the HHP file manually

If some aspect of the CHM files you create looks wrong, the cause of the problem could be a setting within the HHP file. The HTML Help Workshop interface does not always accurately reflect the contents of the HHP file; that's why I wrote this document.

## Options

The `Options` category of the HHP file specifies the name of table of contents and index files, the name of the file that will be initially displayed within the CHM, and other general CHM file parameters.

The following code is taken from the Lingo Script HHP file:

```
[OPTIONS]
Compatibility=1.1 or later
Compiled file=LingoScr.chm
Contents file=lingoscr.hhc
Default Window=TriPane
Default topic=right.htm
Display compile progress=No
Full-text search=Yes
Index file=lingosca.hhk
Language=0x409 English (United States)
Title=Lingo Script Help
```

You can change all of these parameters if you click **Change Project Options** within the **Project** tab.

The remainder of this section examines each parameter within the `Options` category separately. Each parameter is listed as a heading followed by a description of its purpose and possible values.

## Compatibility

This parameter refers to the resulting format of the CHM file. The HTML Help Workshop help contains the following explanation for this parameter:

"Setting the version to 1.0 creates a site map rather than a binary version of the index when the project file is compiled. It also disables the merge feature. If more than one compiled help file is referenced, indexes, Keyword links (KLinks), Associative links (ALinks), and full-text search lists are not merged."

You can change the value of this parameter within the **Compiler** tab of the **Options** dialog box (look for the **Compatibility** list).

## Compiled file

This parameter defines the name of the completed CHM file. To change this parameter, select the **Files** tab of the **Options** dialog box and specify the file name in the **Compiled file** box.

## Contents file

This parameter does not show up in the HTML Help Workshop interface, yet it is specified within the HHP file. This discrepancy occurs because you can either enter the name of a contents (HHC) file in HTML Help Workshop or you can create an HHC file automatically when you compile the CHM file. You should not need to alter this parameter within HTML Help Workshop, but if you want

to change this parameter then select the **Files** tab of the **Options** dialog box (look for the **Contents file** box).

`Default Window`
This parameter defines the window type that will occur within the CHM file.  The default window type is TriPane; you should not change this parameter (there are no other standard window types available).

`Default topic`
This parameter defines the name of the file that will be displayed when you open the CHM file for the first time. The value of this parameter will be equal to the first file name by default; in the **Default file:** box within the **Options** dialog box, type the file name of the topic you want to appear when you open the CHM file.

The `Default topic` parameter is misleading because you must also specify the name of the default topic within the **Files** tab of the **Window Types** dialog box.  In addition, you must verify that the file you want to set as the default topic is being included during the CHM build process.  Click **Add/Remove topic files** and look for the file name of the default topic.  If you do not see the file name listed, click **Add…** and select the file that corresponds to the default topic.

`Display compile process`
This parameter determines the level of detail to display within HTML Help Workshop when you compile a CHM file.  This parameter is equal to `No` by default; to view extended information about the compilation process, select the **Progress** check box within the **Compiler** tab of the **Options** dialog box.

`Full-text search`

This parameter determines whether full-text search information will be compiled during the creation of the CHM file. This parameter is equal to `Yes` be default; to change this value to `No`, clear the **Compile full-text search information** check box within the **Compiler** tab of the **Options** dialog box. You should preserve the default setting for this check box if you want to include the capacity to search for information within your CHM file (I don't know why you wouldn't want this feature enabled).

`Index file`
This parameter contains the name of the index file to be included in the CHM file. This file name should appear by default; you should not have to change this name. However, if you want to change the name, select the **Files** tab within the **Options** dialog box and specify the index file name in the **Index** file box.

`Language`
This parameter uses a hexadecimal number (referred to as an "identified" within HTML Help Workshop) to determine which language the CHM file should use. The value is `0x409 English (United States)` by default. To change this value, select the **General** tab within the **Options** dialog box and select the language you want to use from the **Language** list.

`Title`
This parameter contains the name of the CHM file, a name that you must specify yourself. However, this name is only used within the HTML Help Workshop application; you will not see this name within the CHM file. To change this value, select the **General** tab within the **Options** dialog box and type the title you want in the **Title** box.

# Windows

The `Windows` category is the most complex aspect of the HHP file. All of the parameter values associated with the `Windows` category control some aspect of the way the CHM file will be displayed.

The following code is taken from the Lingo Script HHP file; the values listed within this code are specific to the Lingo Script documentation project and should not be cut and pasted into other HHP files. I added line breaks to make the code more readable; in an actual HHP file, all of the following information would be contained on one line. Note the large number of lines that contain only a comma. In this document, I refer to this phenomenon as an "empty" parameter.

```
[WINDOWS]
TriPane=
"Lingo Script Help",
"lingoscr.hhc",
"lingosca.hhk",
"right.htm",
,
,
,
,
,
0x43520,
,
0x2026,
[50,50,750,550],
,
,
```

```
,
,
,
,
0
```

The following code contains descriptive names for the parameters rather than actual values; the information within curly brackets, including the curly brackets themselves, is replaced with actual values in an HHP file (I inserted line breaks for formatting purposes only):

```
[WINDOWS]
{Window type (TriPane is the typical
value)}=
"{title bar text}",
"{contents file name}",
"{index file name}",
"{default topic file name}",
"{home topic file name}",
"{Jump1 file name}",
"{Jump1 button text}",
"{Jump2 file name}",
"{Jump2 button text}",
{CHM window size value},
{Navigation pane width value},
{Button Types value},
[{CHM window location (left)},
{CHM window location (top)},
{CHM window width},
{CHM window height}],
{Window style properties value},
{Window extended style properties
value},
```

```
(empty),
{Open CHM with navigation pane closed},
{CHM default tab value},
(empty),
0
```

The remainder of this section examines each parameter within the `Windows` category separately. Each parameter is listed as a heading followed by a description of its purpose and possible values. Some of these parameters are optional; however, the syntax of the `Windows` category cannot change. In other words, if you remove one parameter, you must preserve the space that parameter would occupy. Therefore, even if you do not include values for every parameter you should leave the commas in place. All of the procedures listed within the parameter descriptions refer to the **Window Types** dialog box unless otherwise specified.

`Window type`
This parameter controls the type of window the CHM file will use. The typical value of this parameter is `TriPane`.

To change the value of this parameter, select the **General** tab. You can either add a new window type or select from a list of predefined types.

`title bar text`
This parameter defines the text that will appear in the title bar of the CHM file. The default value of this parameter is the file name of the CHM; therefore, you should change the value of this parameter to be more descriptive.

To change the value of this parameter, select the **General** tab and type the title of the CHM file in the **Title bar text** box.

`contents file name`
This parameter determines which file the CHM will use as the table of contents.  HTML Help Workshop should set the value of this parameter automatically.

To change the value of this parameter, select the **Files** tab and type the name of the contents file in the **TOC** box.

`index file name`
This parameter determines which file the CHM will use as the index.  HTML Help Workshop should set the value of this parameter automatically.

To change the value of this parameter, select the **Files** tab and type the name of the index file in the **Index** box.

`default topic file name`
This parameter determines which topic the CHM will display when you open the CHM file for the first time.  If you change the value of this parameter, you must also change the value of the `Default topic` parameter within the `Options` category; the values of these parameters must be the same.

To change the value of this parameter, select the **Files** tab and type the name of the default topic file in the **Default** box.

`home topic file name`
This parameter determines which topic the CHM will display when you click the **Home** button within the CHM interface.  You do not need to specify a value for this

parameter if you exclude the **Home** button from your CHM file.

To change the value of this parameter, select the **Files** tab and type the name of the home topic file in the **Home** box.

`Jump1 file name`
This parameter determines which topic the CHM will display when you select the first **Jump** button within the CHM interface.  You do not need to specify a value for this parameter if you exclude the **Jump1** button from your CHM file (the actual name of the **Jump1** button depends on the value you specify for the `Jump1 button text` parameter).

To change the value of this parameter, select the **Files** tab and type the name of the first jump topic file in the **Jump 1** box.

`Jump1 button text`
This parameter defines the text that will appear on the first **Jump** button within the CHM interface.  You do not need to specify a value for this parameter if you exclude the **Jump1** button from your CHM file.
To change the value of this parameter, select the **Buttons** tab and then select the **Jump 1** check box.  Type the name of the button in the **Jump 1 text** box.

`Jump2 file name`
This parameter determines which topic the CHM will display when you select the first **Jump** button within the CHM interface.  You do not need to specify a value for this parameter if you exclude the **Jump2** button from your CHM file (the actual name of the **Jump2** button depends on the value you specify for the `Jump2 button text` parameter).

To change the value of this parameter, select the **Files** tab and type the name of the first jump topic file in the **Jump 2** box.

`Jump2 button text`
This parameter defines the text that will appear on the second **Jump** button within the CHM interface.  You do not need to specify a value for this parameter if you exclude the **Jump2** button from your CHM file.
To change the value of this parameter, select the **Buttons** tab and then select the **Jump 2** check box.  Type the name of the button in the **Jump 2 text** box.

`CHM window size value`
This parameter defines how the CHM window will behave.  This parameter uses a hexidecimal number to define the window size properties.  The default value of this parameter is `0x3520`; this value preserves the predefined CHM window size even if the user resizes the window (the predefined window size is used every time the CHM file is opened).

The value of this parameter is not represented accurately within the HTML Help Workshop interface.  For example, to preserve the window size that the user specifies, you must select the **Save user defined window position after first** check box within the **Position** tab.  Selecting this check box changes the value of the `CHM window size value` parameter to `0x43520`.  However, this check box will not reflect the value listed in the HHP file; the check box will always be cleared when you switch to the **Position** tab.

There are other possible values for this parameter; however, the only two values we need to use at this point are the two values listed in this section.

```
Navigation pane width value
```
This parameter sets the width of the **Navigation** pane within the CHM file. You do not need to specify a value for this parameter.

To set a value for this parameter, select the **Navigation Pane** tab and type a number in the **Navigation pane width** box.

```
Button Types value
```
This parameter defines the buttons that will be present in the CHM interface. This parameter uses a hexidecimal number to define the button types.

For example, the Lingo Script HHP file uses the number `0x2026` to define which buttons are included in the resulting CHM file. This value corresponds to the **Hide/Show**, **Back**, **Refresh**, and **Print** buttons; no other buttons are included in the Lingo Script CHM file when the value `0x2026` is specified.

To choose which buttons that you want to display in your CHM file, select the **Buttons** tab and then select the check boxes that correspond to the buttons you want to include.

```
CHM window location (left)
```

This parameter is the first value within a string of four numbers contained within brackets.

This parameter specifies the pixel location of the left border of the CHM window. For example, if this parameter is equal to `0`, the left border of the CHM window will be

located along the left edge of your screen. If the value is 50, the CHM window will be located 50 pixels to the right of the left edge of the screen.

To change the value of this parameter, select the **Position** tab and type a numeric value in the **Left** box.

`CHM window location (top)`

This parameter is the second value within a string of four numbers contained within brackets.

This parameter specifies the pixel location of the top CHM window border. For example, if this parameter is equal to `0`, the CHM window will be located along the top edge of your screen. If the value is 50, the CHM window will be located 50 pixels below the top edge of the screen.

To change the value of this parameter, select the **Position** tab and type a numeric value in the **Top** box.

`CHM window width`

This parameter is the third value within a string of four numbers contained within brackets.

This parameter specifies the pixel width of the CHM file. For example, if this parameter is equal to `800`, the CHM window will be 800 pixels wide.

To change the value of this parameter, select the **Position** tab and type a numeric value in the **Width** box.

NOTE: The value of this parameter will be different depending on whether you view the value within the HTML Help Workshop interface or within the HHP file itself. The value shown in the HTML Help Workshop inter-

face represents the actual width of the CHM window. The value shown in the HHP file represents the pixel location of the right border of the CHM window. Therefore, the value of this parameter within the HHP file will be the same as the sum of the values in the **Width** and **Left** boxes within the HTML Help Workshop interface.

```
CHM window height
```

This parameter is the fourth value within a string of four numbers contained within brackets.

This parameter specifies the pixel width of the CHM file. For example, if this parameter is equal to `600`, the CHM window will be 600 pixels tall.

To change the value of this parameter, select the **Position** tab and type a numeric value in the **Height** box.

**NOTE:** The value of this parameter will be different depending on whether you view the value within the HTML Help Workshop interface or within the HHP file itself. The value shown in the HTML Help Workshop interface represents the actual height of the CHM window. The value shown in the HHP file represents the pixel location of the bottom border of the CHM window. Therefore, the value of this parameter within the HHP file will be the same as the sum of the values in the **Height** and **Top** boxes within the HTML Help Workshop interface.

```
Window style properties value
```

This parameter defines the window styles that will be applied to the CHM file. This parameter uses a hexidecimal number to define the window style types.

To apply different CHM window styles, select the **Styles** tab and then select the check boxes that represent the styles you want to include.

`Window extended style properties value`
This parameter defines the extended window styles that will be applied to the CHM file. This parameter uses a hexidecimal number to define the extended window style types.

To apply different extended CHM window styles, select the **Extended Styles** tab and then select the check boxes that represent the extended styles you want to include.

`Open CHM with navigation pane closed`
This parameter determines whether the navigation pane will be closed when you open the CHM file. The value of this parameter is either empty if the navigation pane will be open when the CHM file is opened, or equal to `1` if the navigation pane will be closed when the CHM file is opened.

To force the navigation pane to be closed when the CHM file is opened, select the **Navigation Pane** tab and then select the **Open with navigation pane closed** check box.

`CHM default tab value`
This parameter determines which tab will be selected when you open the CHM file. This parameter can be equal to one of four values:

> - `empty` - **Contents** is the default tab (default value)

- 1 - **Favorites** is the default tab
- 2 - **Index** is the default tab
- 3 - **Search** is the default tab

To change the value of this parameter, select the **Navigation Pane** tab and then select a tab type from the **Default tab** list.

# Files

Every file to be incorporated into the CHM is listed within the Files category.  Each file is listed on a separate line under the [Files] entry of the HHP file.  If a file is missing from the CHM file, you should check this category and see whether the file is listed.  You should not have to make other modifications to this information.

# Alias

The file listed within the Alias category is a header file containing "alias" information.  You should not have to alter the file name(s) associated with this parameter.

To specify a different header file, click **HTMLHelp API information** and select the **Alias** tab.  Due to a bug in the HTML Help Workshop interface, you might not be able to edit a header file from within the program itself.  You can open header files using Microsoft Notepad; however, you should not need to edit the header file at all.

# Map

The file listed within the `Map` category is a header file containing topic and title mapping information. You should not have to alter the file name(s) associated with this parameter.

To specify a different header file, click **HTMLHelp API information** and select the **Map** tab. You should not edit the contents of this header file; the HTML Help Workshop application will edit the file as necessary.

# Text Popups

The files listed within the `Text Popups` category are a header file and a corresponding text file that provide the information needed if you are using context-sensitive help within an application. If you are not including context-sensitive help as part of your product documentation, then you do not need to specify a value for this parameter.

This parameter might have file names specified regardless of the presence of context-sensitive help. The files themselves are either empty or non-existent and will not affect the resulting CHM file.

To specify different file names, or to remove the file names from this parameter completely, click **HTMLHelp API information** and select the **Text Pop-ups** tab.

# Infotypes

This category is optional and will appear as an empty tag within the HHP file if you do not define any information

types.  Although the `Infotypes` category is visible within the HHP file, you will not see it listed within the HTML Help Workshop interface unless the parameter contains a value.  If this category contains no parameters, you can remove it from the HHP file; however, it will not affect the CHM file if you leave the category tag in place.

To learn more about information types and categories, search for the word "categories" within the HTML Help Workshop help file.