

BeerSmith Help




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Welcome to the BeerSmith(TM) Help Page. This web oriented help system will help you enhance your brewing experience using BeerSmith.


BeerSmith™ Help

Select from the links below to get help on a particular topic:

Main Topics

-  [Using BeerSmith](#) - An online guide to using the program with examples.
-  [Menu Commands](#) - A complete list of menu commands.
-  [Technical Notes](#) - Detailed notes on calculations and methods used

Getting Help

The easiest way to get help is to click on the [Whats This?](#) help button (). This will display a small question mark next to the cursor. Next select any toolbar button, menu command or window to get detailed help.

Web Address

Web Site: <http://www.beersmith.com>

Electronic mail

Email: beersmith@beersmith.com

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Using BeerSmith



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Menu Commands



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Technical Notes



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Technical Notes

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Commands on the File Menu

The file menu has commands that create, import and export entire views as well as commands for printing.

- [New \(File\)](#)
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- [Import and Merge \(File\)](#)
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Edit Menu



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Commands on the Edit Menu

The edit menu contains commands that edit the currently selected item such as cut, copy, paste and delete. It also has undo/redo commands and the find command.

- [Undo \(Edit\)](#)
- [Redo \(Edit\)](#)
- [Cut \(Edit\)](#)
- [Copy \(Edit\)](#)
- [Paste \(Edit\)](#)
- [Duplicate \(Edit\)](#)
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View Menu



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Commands on the View Menu

The Views menu has commands that display various table views. It also has commands to customize current views.

- Imported Document (View)
- Recipes (View)
- Grains (View)
- Hops (View)
- Miscellaneous (View)
- Styles (View)
- Water (View)
- Yeast (View)
- Equipment (View)
- Inventory (View)
- Shopping List (View)
- Recycle Bin (View)
- Customize Columns (View)
- Preview Pane (View)
- Tips Pane (View)
- Preview Item in New Window (View)
- Preview Brewsheet (View)

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Commands on the Insert Menu

The Insert menu has commands for inserting each of the items used by BrewSmith.

-  [Recipe \(Insert\)](#)
-  [Grain & Extract \(Insert\)](#)
-  [Hops \(Insert\)](#)
-  [Miscellaneous \(Insert\)](#)
-  [Style \(Insert\)](#)
-  [Water \(Insert\)](#)
-  [Yeast \(Insert\)](#)
-  [Equipment \(Insert\)](#)
-  [Mash Profile \(Insert\)](#)
-  [Shopping Item \(Insert\)](#)
-  [Folder \(Insert\)](#)

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Commands on the Tools Menu

The tools menu contains a series of independent calculators that can be used to do quick calculations common in brewing. This menu also has tools for updating BeerSmith from the internet and the **Options** command which contains all preferences and options for the program.

- Water Profiler (Tools)
- Strike/Infusion (Tools)
- Decoction Volume (Tools)
- Boil Off (Tools)
- Hops Bitterness (Tools)
- Hops Age (Tools)
- Hydrometer Adjust (Tools)
- Alcohol-Attenuation (Tools)
- Carbonation (Tools)
- Dilution (Tools)
- Water Needed (Tools)
- Refractometer (Tools)
- Weight to Volume (Tools)
- Update BeerSmith from Internet (Tools)
- Options (Tools)

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Actions Menu

The actions menu contains commands that perform special operations on the currently selected items. Many of these operations can be performed only on certain types of items.

Many of these actions are displayed on the context bar when needed.

- [Add to Shopping List](#)
- [Scale Recipe](#)
- [Adjust Bitterness](#)
- [Adjust Color](#)
- [Adjust Gravity](#)
- [Convert Recipe Wizard](#)
- [Save as Default Recipe](#)
- [Save Selected Items](#)
- [Save Item as Web Page](#)
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- [Round-up Selected Amounts](#)
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Commands on the Units Menu

The units menu contains a series of unit converters. These allow you to enter a value in one unit system and convert that value to a new unit system.

- [Pressure Conversion](#)
- [Temperature Conversion](#)
- [Specific Gravity Conversion](#)
- [Volume Conversion](#)
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Commands on the Help Menu

The help menu lets you access the help system for BeerSmith.

-  [Help](#)
-  [Enter Registration Key](#)
-  [About](#)

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Other Commands

The following commands and dialogs may appear on the toolbar or in other locations not associated with a menu selection.

-  [Forward-Back View](#)
-  [Choose Dialog](#)

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Description

This command creates a new file of any type for exporting data. The new file will show up as an "Untitled" import/export file in the shortcut pane.

Use

- Select the **New** command from the **File** Menu
- Select the data type (Recipe, Grain, etc...) and click OK
- Copy** and **Paste** your data to the new "Untitled" file
- Use the **Export As** command on the **File** menu to save the data from "Untitled" to a file

Recover (File)

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Recently Used List (File)

Exit (File)

Description

This command is most often used for importing recipes from an file or email attachment. This command opens a file and places that file on the shortcut pane. You can then Copy that items to your own recipe or other databases for permanent use.

Use

-  Select the **Import** command on the **File** menu
-  Choose the file on your disk that you wish to import and click OK.
-  The newly opened file will be displayed on the shortcut pane, and opened in the main view pane
-  Use the **Copy** and **Paste** commands to move recipes and other imported data to your folders for permanent storage

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Description

This command appends the contents of a file to the current view. For example, appending a file containing recipes from within the "My Recipe" view adds those recipes to the permanent recipe list.

Use

- Select the desired view in the shortcut pane
- Choose the **Import Append** command from the **File** menu
- Select the file to import and click OK

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Description

Imports a file into the current view and attempts to merge the two files, updating duplicates where possible. The closest matching item with the same name is updated. If there is no matching item for an imported item, then the imported item is added to the view.

Note: In the case of new and old items with the same name (or style number for styles), the Merge command checks the modification date for both items and preserves the newer of the two. If an exact match cannot be found, the item with the same name and closest match is updated.

Use

-  Choose the view to which you want to import the new items.
-  Select the **Import and Merge** command on the **File** menu.
-  Pick the file to import and press OK.

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Export As (File)



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Description

Exports (Saves) all of the items in the current view to a separate file. Useful for backing up recipes or exchanging them with friends.

Use

- Select the desired view or folder in the shortcut pane
- Choose the Export As command on the File menu
- Type a file name and choose a location for saving the file
- Click OK to export the current view to the file

Dialog Description

- **Export Which Items** - Specifies which items are exported. May be either the items selected or all items in the current view.
- **Use the Following Format** - Allows you to use different file formats including BeerSmith file formats (.bsm), BeerXML, text and web or custom formats.
- **Export To** - Allows you to either save the items to a file or mail them to a friend. Select the **Browse** button if you wish to browse for a directory. Note that you must have a MAPI compatible mail program for the mailing option to work properly.

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Description

BeerSmith automatically saves backup copies of your old internal View tables each time you open BeerSmith. By default the last 5 copies of a table are saved. A new backup copy is created only when a table is modified in some way.

The **Recover** command lets you recover older Recipe, Ingredient and other copies tables from saved copies on disk. During the recovery process you will be asked if you want to save a backup copy of the table you are replacing. It is highly recommended that you do so!

NOTE - The **Recover** command completely replaces the selected table with the older version

NOTE - The **Recover** command cannot be undone, except by another **Recover** command. Please be sure you have the right version of the table before you press OK.

Use

- Select the **Recover Table** command on the **File** menu.
- Choose the table to recover. For example, choosing Recipes will replace your entire "My Recipes" table with the older version.
- Pick the date and time of the file you want to recover from in the list.
- Pressing **OK** will replace the entire table selected with the older version.
- Press **Cancel** to exit without changing any tables.

Recover (File)



You will be asked if you wish to make a backup copy of the table you are replacing. It is highly recommended you answer **Yes** at this point to save a backup copy before proceeding.

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Mail Current View (File)



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Description

Mails all of the items in the currently open view using your mail program.

Use

- Select the view or folder you wish to send in the shortcut pane
- Choose **Mail Current View** on the **File** menu
- The current view will be packaged as an email attachment as part of a new email
- Enter the email addressee, subject line and a short message before sending the mail message

Warning: Some email servers will truncate or remove very long email attachments - use the **Mail Selected Items** command on the **Action** menu to send only a few recipes at a time in separate emails if you want to keep your attachment size small.

Dialog Description

- **Export Which Items** - Specifies which items are exported. May be either the items selected or all items in the current view.
- **Use the Following Format** - Allows you to use different file formats including BeerSmith file formats (.bsm), BeerXML, text and web or custom formats.

Recover (File)



Export To - Allows you to either save the items to a file or mail them to a friend. Select the **Browse** button if you wish to browse for a directory. Note that you must have a MAPI compatible mail program for the mailing option to work properly.

NOTE: If you try to mail multiple items in Web (HTML) format, only the first item will be mailed.

NOTE: If you export multiple items to a web page, a separate page will be created for each, along with a web page with a table to index them. This is useful for posting tables of recipes to the web.

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Print (File)



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Description

Prints the currently selected item.

Use

- Select the item you wish to print
- Choose the **Print** command on the **File** menu
- Set number of copies, page range and printer as appropriate
- Click OK to begin printing

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Print Report (File)



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Description

Rather than printing the selected item, this command prints the entire table of items for table views such as "My Recipes", Hops, Grains & Extracts, etc...

Use

- Select the view to print from the Views menu or shortcut pane
- Choose the **Print Report** command on the **File** menu

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Print Preview (File)



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Description

Displays the currently selected item in a preview window in the same format as it would appear if printed to the printer.

Use

-  Select the item to be printed in the current view
-  Choose the **Print Preview** command on the **File** menu

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Description

A list of the most recently imported files appears at the bottom of the file menu. Selecting one of these files imports it as the current document on the shortcut pane.

Use

- Select the file name desired from the bottom of the **File** menu
- The file will be opened and displayed as the current view

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Exit (File)

Description

Exits the BeerSmith program and saves any unsaved items.

Use

-  Choose the **Exit** command from the **File** menu

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Undo (Edit)



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Description

Reverses or undoes the last action. Note that BeerSmith supports unlimited undo, so you can undo any series of edits or actions by repeatedly selecting this command.

Use

-  Select the **Undo** command from the **Edit** menu

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Redo (Edit)



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Description

Initiates a command that was previously undone. After selecting the Undo command to reverse an action or edit, you can select the redo command to reverse it again restoring the original action. Note that BeerSmith supports unlimited undo and redo, so you can redo a series of commands by using this command repeatedly.

Use

-  Select the **Redo** command from the **Edit** menu

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Properties (Edit)

Description

Cuts the currently selected items from the view and places them on the clipboard.

Use

-  Select the item(s) you wish to cut
-  Choose the **Cut** command on the **Edit** menu
-  Use the [Paste](#) command on the **Edit** menu to paste items placed on the clipboard into this or another view

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Copy (Edit)



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Find (Edit)

Properties (Edit)

Description

Makes a copy of the currently selected items and places them on the clipboard.

Use

-  Select the item(s) you wish to copy
-  Choose the **Copy** command on the **Edit** menu
-  Use the [Paste](#) command on the **Edit** menu to paste items placed on the clipboard into this or another view

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Properties (Edit)

Description

Pastes items previously placed on the clipboard using the [Cut](#) or [Copy](#) commands into the current view

Use

-  Select the view or folder in which you wish to place the items
-  Choose **Paste** on the **Edit** menu to paste items from the clipboard into the current view

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Description

Makes a copy of the currently selected items and places them in the current folder. Copies are renamed as "Copy of " followed by the name of the current item.

Use

-  Select the item(s) you wish to copy
-  Choose the **Duplicate** command on the **Edit** menu

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Delete (Edit)



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Description

Deletes the currently selected items, placing them in the Recycle Bin.

Use

-  Select the items you wish to delete
-  Choose the **Delete** command from the **Edit** menu

Note: If you use the delete command on items in the recycle bin, these items will be permanently deleted

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Rename (Edit)



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Description

Renames the currently selected item.

Use

- Select the item you wish to rename
- Choose the **Rename** command from the **Edit** menu
- Type in a new name for the item, and click OK

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Select All (Edit)



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Description

Selects all of the items in the current view

Use

- Choose the **Select All** command from the **Edit** menu

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Find (Edit)



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Delete (Edit)

Rename (Edit)

Select All (Edit)

Find (Edit)

Properties (Edit)

Description

If you are in Recipe view, a dialog is displayed to allow you to search for recipes by ingredients, lists of ingredients or the items currently in inventory.








For all views except recipe view, this command searches the current view for a given string of text, and displays all of the items that contain that text.

Use





- Select the view or folder you wish to search in the shortcut pane
- Choose the **Find** command on the **Edit** menu

Dialog Description (for Recipe Search)

- Ingredient List** - A list of ingredients to use for the search. These ingredients will be matched against recipes in the current view to find recipes that use these ingredients. Double clicking on an item will allow you to edit it and change the amount.
- Add Grain/Extract** - Adds a grain or extract to the ingredient list.
- Add Hops** - Adds hops to the ingredient list.
- Add Yeast** - Adds yeast to the ingredient list.
- Add Misc** - Adds a miscellaneous ingredient to the ingredient list.

-  **Add All Items in Inventory** - Adds all items from the main ingredient databases that have a positive inventory value to the ingredient search list.
-  **Delete** - Deletes the currently selected items (can be multiple items) from the ingredient list.
-  **Match Recipes that use ANY of these ingredients** - Selecting this option displays only recipes in the current view that have one or more ingredient in the ingredient search list.
-  **Match Recipes that use ONLY these ingredients** - Searches for recipes that can be brewed assuming you have ONLY the ingredients in the current ingredient list available. Useful for determining what recipes can be brewed with the stock on hand.
-  **Match amounts for each ingredient** - If checked, the total amount of each ingredient in the Ingredients list will be compared to the total amount of each ingredient needed in the recipes. If a recipe needs more than the amount displayed in the ingredient list, it will not be selected.
-  **Allow Unmatched Ingredients** - When used with the "Match Recipes Only" option, this feature allows you to find recipes that may not be an exact match. For example if the items in the ingredient list match all but one of the items needed for a recipe, the recipe will be found as long as the unmatched ingredient number is 1 or greater.
-  **Recipes List** - Displays the list of recipes that match the ingredient criteria from the current recipe view or folder. Double clicking on an item will bring it into the main view.

Dialog Description (all except Recipes)

-  **Find** - The text to search for. Type your text in here.
-  **Search all fields** - Check this box to search all fields in each item. If not checked, only the fields displayed as column headers will be searched.
-  **Match case** - Check this box to find an exact (case sensitive) match of the text. If unchecked, the text will be matched regardless of whether the letters are upper or lower case.
-  **Search Results** - Are displayed in the large window on the dialog. Double click on an item to open it.

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Properties (Edit)



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Undo (Edit)

Redo (Edit)

Cut (Edit)

Copy (Edit)

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Delete (Edit)

Rename (Edit)

Select All (Edit)

Find (Edit)

Properties (Edit)

Description

Edits the current item, displaying all of its properties for editing.

Use

- Select the item you wish to edit
- Choose the **Properties** command from the **Edit** menu

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Scratchpad (View)



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Mash (View)

Equipment (View)

Inventory (View)

Description

This view displays a scratch pad you can use to create and store collections of recipes. This view also shows the file you have imported using the **Import** command on the **File** menu. If you have not imported any files, the empty document "Scratch pad" is displayed. If you have imported files, the file name will appear in the shortcut view instead.

Use

- Choose the **Scratch Pad** command on the **View** menu

NOTE: You can also create empty files of other types using the [New](#) command on the **File** menu. So you can create a table of hops to export (for instance).

See the [Insert Commands](#) for a full list of fields associated with each table type.

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My Recipes (View)



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Mash (View)

Equipment (View)

Inventory (View)

Description

This view shows your private list of recipes and folders containing recipes. You can create or edit recipes from this view.

Use

- Choose the **Recipes** command on the **View** menu

See the [Insert Recipe](#) command for a description of all of the recipe fields available in this view.

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

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Grains & Extracts (View)



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[Mash \(View\)](#)

[Equipment \(View\)](#)

[Inventory \(View\)](#)

Description

This view shows the table of all grains, extracts, sugars and fermentable adjuncts used for brewing. You can add new grains or edit existing ones from this view.

Use

-  Choose the **Grains & Extract** command on the **View** menu

See the [Grain \(Insert\)](#) command for a description of fields used grain and extract items.

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

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Hops (View)



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Inventory (View)

Description

This view shows the table of all hops items. You can add or edit existing hops from this view.

Use

-  Choose the **Hops** command on the **View** menu

See the [Hops \(Insert\)](#) command for a complete list of fields available in this view.

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

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Miscellaneous (View)



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Description

This view shows the table of miscellaneous items used in brewing. These include finings, flavors, spices and other non-fermentable items. You can create or edit miscellaneous items from this view.

Use

-  Select the **Miscellaneous** command on the **View** menu

See the [Miscellaneous \(Insert\)](#) command for a description of fields available in this view.

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

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Description

This view shows the table of standard beer styles. You can create new styles or edit existing ones from this view.

Use

-  Select the **Beer Styles** command from the **View** menu

See the [Styles \(Insert\)](#) command for a description of available beer style fields.

Shopping List (View)

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Water (View)



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Description

Displays the water profile table with a complete list of many of the world's most popular brewing water profiles.

Use

-  Choose the **Water** command from the **View** menu.

See the [Water \(Insert\)](#) command for a description of the fields available in this view.

Water (View)

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

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Yeast (View)



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Description

This command displays a list of all of the yeasts available for brewing. You can insert new yeasts or edit existing ones from this view

Use

-  Choose the **Yeast** command from the **View** menu.

See the [Yeast \(Insert\)](#) command for a description of the fields available in this view.

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

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Inventory (View)

Description

The Mash view contains a list of mash profiles you can use to brew beer from the grain. A mash profile is a series of steps used to break complex sugars in grains into fermentable sugars.

Over 80% of all grain brewers use a simple one stage infusion or single stage temperature mash, typically with either an insulated mash tun such as a water cooler or a mash tun over a heat source to maintain the mash step temperature. We recommend using a single infusion or single stage temperature mash if you are new to partial mash or all grain brewing.

Advanced brewers can customize and create their own brew profiles in the mash view.

Use

-  Select the **Mash** command from the **View** menu

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

[Tips Pane \(View\)](#)

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Equipment (View)



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Description

This view shows the table of equipment profiles used in brewing. Equipment profiles can be used to adjust recipes to your particular brewing setup. The data is used to calculate water needed, sparge water, and mash temperature adjustments within recipes.

If you do not use a listed equipment setup, we recommend creating your own equipment in the database with a unique name such as "Johns Equipment" and using that in your recipes.

Use

-  Select the **Equipment** command on the **View** menu

See the [Equipment \(Insert\)](#) menu for a description of the fields available in this view.

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

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Inventory (View)

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[Inventory \(View\)](#)

Description

This view shows the table of brewing ingredients that have a positive inventory. It can be useful for inventory management, particularly when you want an overview of all items in the current inventory.

Use

- Select the **Inventory** command on the **View** menu

[Shopping List \(View\)](#)

[Recycle Bin \(View\)](#)

[Customize Columns \(View\)](#)

[Preview Pane \(View\)](#)

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Shopping List (View)



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Description

This view shows your private shopping list. You can build a shopping list either by adding items from this view, or dragging items to the shopping list from other views. If you drag a recipe to the shopping list, all of its ingredients will be added to the list.

Use

-  Select the **Shopping List** command on the **View** menu


See the [Shopping Item \(Insert\)](#) command for a description of the fields available in this view.


Shopping List (View) 

Recycle Bin (View) 

Customize Columns (View) 

Preview Pane (View) 

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Recycle Bin (View)



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[Inventory \(View\)](#)

Description

The recycle bin is used to store items deleted from the other views. To restore items in the recycle bin back to their original location you can either drag them to the appropriate table or cut and paste them into the new location.

Once you empty or delete items from the recycle bin, they are permanently deleted.

Use

-  Select the **Recycle Bin** command on the **View** menu

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

Tips Pane (View)

Preview Item in New Window

Preview Brewsheet (View)

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Customize Columns (View)



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Shopping List (View)

Recycle Bin (View)

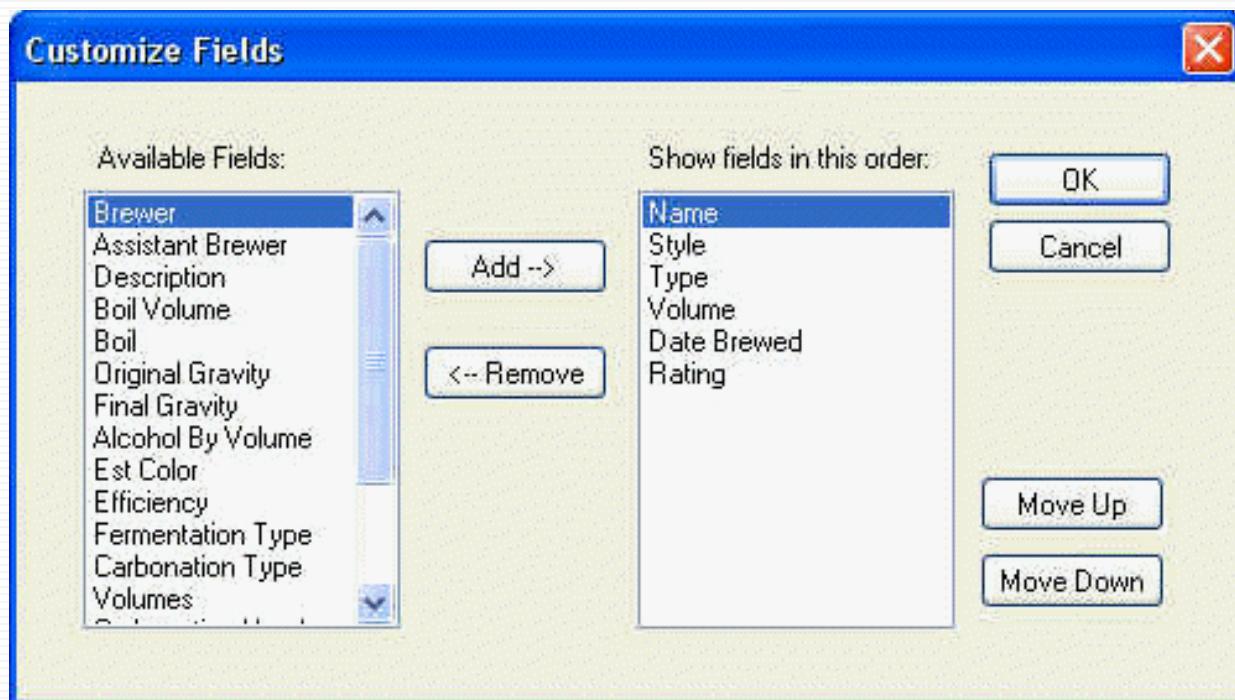
Description

Displays a dialog that allows you to choose the columns to be displayed for a given view and reorder them. You can also access this command by right-clicking the column headers in a table view.

Use

- Select the view you wish to customize in the shortcut pane
- Choose the **Customize Columns** command from the **View** menu
- Add or remove columns, and change their order as appropriate

Dialog Description



- **Available Fields** - Shows a list of unused fields for this view.

Customize Columns (View)

Preview Pane (View)

Tips Pane (View)

Preview Item in New Wir

Preview Brewsheet (View)

- **Show Fields** - The list of fields currently in use, show in order of display from left to right.
- **Add** - Moves the selected field from the available list to the list of fields shown.
- **Remove** - Button deletes the currently selected field from the shown list and moves it to the list of available fields.
- **Move Up** - Moves the selected item in the shown fields up one in the list.
- **Move Down** - Moves the selected item down in the shown fields list.

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Preview Pane (View)



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Description

This command shows or hides the preview pane below the main view. The preview pane shows the currently selected item from the main view in "preview mode" - as it would appear if printed. This lets you browse through recipes and other items without having to open each one.

Use

- Choose the **Preview Pane** command from the **View** menu to toggle the preview pane.
- It is displayed if there is a check next to this command on the view menu, and hidden if there is no check.

Preview Pane (View)

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

Tips Pane (View)

Preview Item in New Window

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Description

This command shows or hides the tips pane below the shortcut pane. The tips pane displays useful hints for using BrewSmith. Advanced users may choose to hide the pane to gain more screen space.

Use

- Choose the **Tips Pane** command from the **View** menu to toggle the tips pane.
- The tips pane is displayed if there is a check next to this command on the view menu, and hidden if there is no check.

Tips Pane (View)

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

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Preview Item in New Window

Preview Brewsheet (View)

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Preview Item in New Window



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Inventory (View)

Description

This command locks the currently selected item in a separate window in the current report format. This is very useful for doing side by side comparisons, or locking a piece of data in a window so you can use it for reference while working on another recipe or item.

Use

-  Choose the **Preview Item in New Window** command from the **View** menu.
-  A new window will show the currently selected item. It will stay in place until you close it or preview another item in this window.

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

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Preview Item in New Window

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Preview Brewsheet (View)



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Inventory (View)

Description

This command toggles the recipe preview window between displaying normal recipes and displaying detailed brewing instructions (called a brewsheet). Normal recipes are used in recipe formulation, but the brewsheet instructions are best for brewing.

Use

-  Choose the Preview Brewsheet command from the View menu to toggle the recipe preview display between normal and brewsheet mode.

Shopping List (View)

Recycle Bin (View)

Customize Columns (View)

Preview Pane (View)

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Preview Item in New Window

Preview Brewsheet (View)

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Recipe (Insert)



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Recipe (Insert)

Grain or Extract (Insert)

Hops (Insert)

Miscellaneous (Insert)

Style (Insert)

Water (Insert)

Yeast (Insert)

Equipment (Insert)

Mash Profile (Insert)

Shopping Item (Insert)

Folder (Insert)

Description

Creates a new recipe in the current folder.

Use

- Choose the **Recipe** command on the **Insert** menu







View Description

The recipe view is used for inserting and editing recipes.






- Name** - The name of the recipe
- Type** - Type of recipe - either Extract, Partial Mash or All Grain
- Date** - Date the recipe was brewed
- Style** - The beer style chosen from the style table. Use the **Choose** button to pick a style and the **Details** button to view details of the style. Style guidelines for the current style are shown in the Beer Profile section.
- Brewer** - The name of the brewer
- Assistant** - The name of the assistant brewer








- **Equipment** - Equipment used to brew this beer, chosen from the equipment table. Equipment parameters are used to calculate boil size, water needed, sparge water and mash temperature adjustments. Use the **Choose** button to select equipment and the **Details** button to edit equipment parameters for this recipe. Choosing new equipment will not change the ingredients. If you are converting a recipe from one set of equipment to another, use the **Scale Recipe** command on the **Actions** menu instead, as this command will scale ingredient amounts to the new equipment
- **Set Boil Volume Based on Equipment** - Adjusts the boil volume to the volume calculated from equipment and boil time settings if checked. If not checked, then you can edit the boil volume freely
- **Batch Size** - The finished batch volume - i.e. the amount of beer you hope to brew. Batch size is used in calculating most of the elements in the beer profile.
- **Boil Size** - The starting size of the boil. This parameter is used to calculate hops utilization, water needed and other parameters for the beer. For example small boil sizes often decrease hops utilization resulting in less bitterness than a full batch boil
- **Boil Time** - The total boil time in minutes
- **Brewhouse Efficiency Button** - Allows you to perform a detailed brewhouse efficiency calculation. See the [Efficiency Calculator](#) for additional details.
- **Brewhouse Efficiency** - A brewer dependent "gross brewhouse efficiency" parameter used in partial mash and all grain brewing. It represents the percentage of potential sugars extracted from the grains during the mash process plus accounts for losses during the process such as trub losses. Most all grain brewers achieve efficiencies in the range of 70-78%, but high gravity brews may result in much lower efficiencies in the 55-70% range.
- **Taste** - A short description of how the beer tasted including its appearance, aroma and flavor. This taste description is displayed in a hover window when browsing beer recipes to aid in selecting the correct recipe.
- **Taste Rating** - The judged taste rating of the beer, rated on a scale of 1-50. The 50 point scale is used widely in competition (see BJCP judging standards) worldwide as a total score for beer aroma, balance, taste, etc

Ingredients

-  **Ingredients** - A list of ingredients used to brew the beer. Includes the amount and a description of each ingredient. For grains and extracts, the percentage of the grain bill is displayed. For hops, the IBU bitterness contribution is displayed. You can add, modify and delete ingredients using the buttons in the ingredient box. You can modify any ingredient by double clicking on it.
-  **Add Grain/Extract, Add Hops, Add Yeast, Add Misc, Add Water** - Displays a dialog that lets you choose the item to add and amount to add to the ingredient list
-  **Increase Amount, Decrease Amount** - Increases or decreases the amount of the selected ingredients. The increment amount for each type can be set using the Units Setup tab of the **Options** command on the **Tools** menu
-  **Increase Time, Decrease Time** - Increases or decreases the time for selected hops. These commands only works with hops
-  **Delete** - Deletes the selected ingredient from the ingredients list
-  **Add Item to My Ingredients** - Adds the selected item to the main Grain, Hops, Yeast or Water table. Useful for importing new ingredients for permanent use when you receive a recipe from someone else. **NOTE:** To avoid duplication, the item will only be added if no item with the same name exists.





Beer Profile

-  **Original Gravity Estimate** - Estimated original gravity based on the current batch size, ingredients and mash efficiency (if mashing)
-  **Style OG** - Original gravity range from the style guide for the currently selected beer style
-  **Measured OG** - Put your measured actual original gravity in here. This measurement is used to calculate the actual alcohol by volume and the calories per glass
-  **Final Gravity Estimate** - The estimated final gravity based on the estimated original gravity and the average yeast attenuation for the yeast in the ingredients list.
-  **Style FG** - Final gravity range from the style guide for the currently selected beer style.





- 
Measured FG - The measured final gravity of the beer usually taken at when bottling. This measurement is used to calculate the actual ABV and calories.
- 
Estimated Color - A color estimate for the beer based on the color of the ingredients and batch size. Note that SRM is equivalent to Lovibond color points for most applications.
- 
Style Color - The color range for the selected target beer style.
- 
Color - A swatch showing the estimated beer color. See [Colors in BeerSmith](#) for a technical description of the limitations of estimating and displaying colors.
- 
Bitterness - An estimate of the beer bitterness in International Bitterness Units (IBUs). See [Estimating Bitterness in BeerSmith](#) for a technical discussion of beer bitterness measurements.
- 
Style IBU - The IBU range of the chosen beer style for this recipe. It provides a guideline to use when adjusting the bitterness for the beer.
- 
AAU's - Alpha Acid Units - The bitterness calculated in alpha acid units, which is simply the alpha percent of the hops times the hops weight in ounces divided by the volume in gallons. AAUs are not as accurate as IBUs. For a full discussion see the [Estimating Bitterness](#) technical note.

NOTE: The style color, original gravity and bitterness will be bolded if the estimates for the recipe are not within the style guide range for this beer style.



Alcohol

- 
Alcohol by Volume Estimate - An estimate of the alcohol by volume of the finished beer based on the estimated original and final gravities.
- 
Style ABV - Range of alcohol by volumes recommended for the selected beer style.
- 
Actual ABV - Actual alcohol by volume calculated from the measured original gravity and measured final gravity.
- 
Calories - Calories calculated from the measured original and final gravities. If your batch units are set to English units the number of calories per (US) pint is displayed. If your batch volume is set to metric measurements the number of calories per liter is displayed.




Mash Profile

-  **Name** - The name of the mash profile used to brew this beer. Mash profiles may be selected from the table of mash profiles using the **Choose** button and edited using the **Details** button. See [Inserting Mash Profiles](#) for a description of the fields in a mash profile.
-  **Adjust Temp for Equipment** - When checked, the mash tun parameters from the equipment database are used to adjust mash infusion temperatures and decoction amounts to compensate for heating the mash tun. If not checked, the mash tun is ignored and only the grain and water temperatures are used for calculating infusion and decoction amounts.
-  **Mash Profile** - Displays the steps in the current mash profile. You can double click on any step to modify it.
-  **Add, Delete, Up, Down** - Adds mash steps, deletes the selected one, or moves the selected step up or down in the mash profile list. See [Adding Mash Steps](#) for a description of mash steps.

Fermentation

-  **Type** - The number of stages in the fermentation - BeerSmith supports one, two and three stage fermentations.
-  **Days, Temperature** - Fields for entering the length of time in each fermentation stage and the temperature for fermentation. Data may be entered for the primary, secondary or tertiary depending on fermentation type.

Carbonation

-  **Carbonation** - The target carbonation (in volumes of CO2) for this beer recipe.
-  **Style Volumes** - The recommended carbonation for the selected beer style. Note that many English beers are traditionally served with low carbonation, which US consumers would perceive as "flat." A carbonation of 2.0 volumes or higher is recommended for US brewers regardless of style.
-  **Type** - The method used to carbonate the beer. May be corn sugar, dried malt extract or forced CO2 if kegging the beer.

- **Beer Temp** - The temperature of the beer. For bottled beers, this is the temperature at bottling (usually room temperature). For kegged beers, this is the temperature at which the beer will be force carbonated, which may be either room temperature or refrigerator temperature depending on your keg setup.
- **Sugar Weight** - The weight of corn sugar or dry malt extract to use when bottling the beer to achieve the target carbonation. We strongly recommend weighing the sugar or extract as the volume of sugars/DMEs vary with type.
- **CO2 Pressure** - If carbonating with forced CO2, this is the pressure setting needed to achieve the desired carbonation level at the entered beer temperature.
- **Used** - Space for recording the actual carbonation amount used if different from the recommended amount.

Age

- **Age for** - The number of weeks to age the beer before it is ready to consume.
- **Store at** - The temperature used to store the beer

- **Notes** - Space for additional notes on the beer, ingredients or brewing process used.

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Grain or Extract (Insert)



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Inserts a new Grain, Sugar, Extract or fermentable Adjunct into the current table of grains.

Use

- Choose the **Grain or Extract** command from the **Insert** menu

Dialog Description

- Name** - Name of the item.
- Origin** - Country or region of origin for the item.
- Supplier** - Company that makes or distributes the item.
- Type** - Indicates the type of fermentable ingredient. May be Grain, Extract, Sugar, Adjunct or Dry Extract. Certain fields in the dialog may be enabled or disabled depending on the type.
- Color** - The color of the item in SRM (or EBC if set). **Note:** The widely used Lovibond (L) color scale is equivalent to SRM color for brewing purposes.
- Inventory** - Your personal inventory of this ingredient.
- Amount** - Only shown from within a recipe - the amount of this ingredient used in the recipe.
- Potential** - The potential yield of the ingredient, expressed in current specific gravity units. **Note** - This field is equivalent to the **Dry Yield** field -- editing one field will also change the value of the other. Values for either the potential or dry yield can be found in grain data sheets. A potential of 1.046 is the maximum (equivalent to 100% yield)

-  **Dry Yield Fine Grain** - Equivalent to the **Potential** field, but expressed as a percentage of total weight converted. **Note** - This field is tied to the **Potential** field such that editing one will also change the other (they are equivalent).
-  **Coarse/Fine Difference** - For grains, the difference between the coarse mill yield and a fine powder milling of the grain. This number is typically small (< 3%) and can be found on the grain data sheet.
-  **Moisture** - The average moisture content of the grain, expressed as a percent of weight.
-  **Diastatic Power** - A measure of how much starch converting enzyme is in the grain. A higher number (common in pale malts) indicates the presence of more enzymes for starch conversion. This is usually not a factor unless you are brewing beer with a large percentage of unmalted adjuncts such as unmalted wheat.
-  **Must Mash** - Checked for grains that must be mashed (i.e. they cannot be used for steeping in Extract recipes)
-  **Add After Boil** - Check this box for fermentable adjuncts such as Honey and Fruits that are generally added to the fermenter and not included in the boil. BeerSmith will adjust the boil gravity (used in hop calculations) to exclude items that have this box checked.
-  **Notes** - Notes on the grain and its use.
-  **Hop Alpha** - For hopped extracts, the equivalent alpha percentage of the hops. This number is used to calculate the bitterness contribution of the hopped extract.
-  **Equivalent Hops in Extract** - This section, used only for hopped extracts, allows you to insert the "equivalent" hops that is included in the extract. This "equivalent" is used to calculate the bitterness contribution of the extract.
-  **Hop Weight** - The equivalent hop weight used for hopped extract to calculate bitterness.
-  **Boil Time** - An equivalent boil time used in creation of the hopped extract. 60 minutes is a good default value if the actual value is not known.
-  **Per Extract Weight** - Used to scale bitterness based on the hops weight. For example, if the equivalent hops is 1 oz of 4% alpha hops per 3.3 lb can of extract, the entry here would be 3.3 lb.



When converting to Extract recipes, replace grain with this item - When the convert tool is used for converting All Grain or Partial mash recipes to extract recipes , the extract or specialty ingredient that appears in this field will be used as a substitute for this ingredient. Note that this field appears ONLY for grains that are must mash grains, since the others can be steeped. The name in this field must EXACTLY match the name of the substitute grain from the database, or the grain will not be substituted properly. This gives the end user a degree of control over the grain to extract conversion process.

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Hops (Insert)



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Description


Displays the hops dialog to insert a new hops entry in the current table.

Use


- Choose the **Hops** command on the **Insert** menu

Dialog Description


- Name** - The name of the hops.
- Origin** - The country or region of origin.
- Type** - The primary use for this hops. May be Bittering, Aroma or Both
- Form** - The physical form of the hops -- either Pellet, Leaf or Plug
- Alpha** - The alpha acid percentage of weight for the hops. Alpha acid content is the primary measure of hop bitterness, and this percentage is used to calculate bitterness for all beer recipes.
- Beta** - Percent by weight of beta acids. Beta acids are another group of acids that contributes only a small amount to overall bitterness, and are not isomerized by boiling as alpha acids are.
- Inventory** - Amount of hops in your personal inventory.
- Weight** - (Only within Recipes) The amount of hops in the recipe.
- Boil Time** - (Only within Recipes) The amount of time in minutes to boil this hops.

 **Hops Use** - (Only within Recipes) Determines how the hops is used in the recipe. Values include:

1. **Boil** - Hops is boiled in the main boiler
2. **Dry Hop** - Hops is added "dry" to the fermenter (usually the secondary) to add aroma to the beer.
3. **Mash Hop** - Hops is added to the mash tun. This adds a lot of aroma to the beer, but only a small amount of bitterness.
4. **First Wort Hop** - Hops is added to the boiler as the first runnings are drawn from the lauter tun, and left during the boil. This added "steeping time" adds some bitterness and aroma to the finished beer.
5. **Aroma (Steep) Hops** - Hops that are steeped in the wort at the completion of the boil for aroma purposes only. Steeped aroma hops add no bitterness.

 **Dry Hop Time** - (Only within recipes when **Hops Use** is Dry Hop) - the number of days the dry hops is left in the fermenter.

 **Notes** - Notes on the hops, substitutes, and uses for the hops.

 **Hop Stability Index (HSI)** - Storage factor indicating the percent of alpha acids lost in a six month period. Used when calculating alpha for old hops.

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Miscellaneous (Insert)



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Description

Displays the dialog to insert a new miscellaneous brewing ingredient to the current table. Miscellaneous items include finings, spices, flavorings and other non-fermentable additions used to brew beer.

Use

- Choose the **Miscellaneous** command from the **Insert** menu

Dialog Description

- Name** - The name of the item.
- Type** - The type of ingredient. May be Spice, Fining, Herb, Flavor, Water Agent or Other.
- Use For** - Short description of what the ingredient is used for.
- Amount** - The recommended amount of the ingredient to use.
- Amount Units** - Choose the units appropriate for the type of ingredient here.
- For a Batch Of** - Specify the batch size for the amount listed above. This size is used to scale the amount added to the appropriate batch size when brewing a recipe.
- Inventory** - Your personal inventory.
- Use In** - The stage of brewing where one adds this ingredient. May be Boil, Mash, Primary, Secondary or Bottling
- Time** - The recommended time to use the beer. Usually this is in minutes for the boil or mash, or expressed in days for ingredients used in fermentation.
- Notes** - Notes on the item.

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Style (Insert)



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Displays the Style dialog for adding a new beer style to the style table.

Use

- Choose the **Style** command from the **Insert** menu

Dialog Description

- Style** - The name of the style
- Number** - The category number. If you are creating your own style, we strongly recommend assigning a new (unused) category number to avoid accidental overwrite during data updates.
- Category** - The category this style falls under.
- Type** - The beer style type - may be Ale, Lager, Mixed, Mead, Cider, Wheat
- Original Gravity** - The range of original (starting) gravities for this beer style.
- Final Gravity** - The range of final gravities for this style.
- Bitterness** - The range of bitterness appropriate for this beer style, expressed in International Bitterness Units (IBUs)
- Carbonation** - The carbonation range appropriate to this style.
Note - Non UK drinkers may not be accustomed to the low carbonation used in many English beers. We recommend using a carbonation of at least 2.2 volumes if you are not familiar with low carbonation English beer.
- Color** - The color range appropriate to the beer style.
- Alcohol by Volume** - The percent alcohol by volume appropriate for this beer style.

-  **Description** - A description of the beer style and its origin.
 -  **Profile** - Description of the flavor and aroma profile for this beer.
 -  **Ingredients** - List of ingredients appropriate for brewing this beer style.
 -  **Examples** - Some commercial examples of this beer style.
- Note** - Commercial beer names are the trademark of their respective breweries, and their use here is used to indicate overall style profile and not an endorsement of BeerSmith or the actual beer ingredients or profile used.

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Water (Insert)



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Description

Displays the Water Profile dialog to insert a new water profile into the current table.

Use

- Select the **Water** command on the **Insert** menu.

Dialog Description

- Name** - The name of the water profile.
- PH** - The PH level of the water.
- Calcium (Ca)** - The calcium content in parts per million.
- Magnesium (Mg)** - The magnesium content in parts per million.
- Sodium (Na)** - The sodium content in parts per million.
- Sulfate (SO4)** - The sulfate content in parts per million.
- Chloride (Cl)** - The chloride content in parts per million.
- Bicarbonate (HCO3)** - The bicarbonate content in parts per million.
- Notes** - Notes on the water profile.

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Yeast (Insert)



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Description








Displays the yeast dialog to add a new yeast item to the current table.

Use

- Choose the **Yeast** command from the **View** menu.

Dialog Description

- Name** - The name of the yeast.
- Laboratory** - The lab or producer of the yeast.
- Product ID** - The product number or identifier associated with this yeast.
- Type** - The type of yeast strain. May be Ale, Lager, Wine, Champagne or Wheat yeast.
- Form** - The form of the yeast - may be Liquid, Dry, Slant or Culture
- Flocculation** - The ability of the yeast to clump and drop to the bottom of the fermenter at the end of fermentation, leaving clear beer. High flocculation yeasts will generally clear more quickly and leave less yeast taste. Low flocculation yeasts will generally clear slowly and leave more yeasty taste in the beer.
- Package Size** - The size of a package of yeast.
- Amount** - Amount of yeast for a given recipe, as measured in packages.
- Inventory** - Your current inventory on hand of this yeast, measured in packages.
- Average Attenuation** - The percent of sugars the yeast consume (apparent attenuation). Usually in the range of 65-85% for most brewers yeast. Can be calculated from

-  **Use Starter** - Check to use a starter in the recipe. If checked a reminder will be added to the recipe brewsheet to create the starter two days before brewing.
-  **Add to Secondary** - Some yeast strains are used in the secondary after the primary fermentation has completed. Checking this box allows you to add this yeast to the secondary.
-  **Times Cultured** - For cultured yeasts, you can use this field to record the number of times this yeast has been reused as a cultured. Many brewers reuse their yeast by creating cultures from one batch to another. This field records the number of times this has been done for this yeast.
-  **Maximum Times Cultured** - The recommended number of times this yeast can be reused before a new culture is required.
-  **Last Cultured** - You can record the last time this yeast was cultured if you store yeast cultures in a refrigerator, for example. Yeast cultures have a limited lifespan, even in a refrigerator.
-  **Best For** - The type of beer this strain of yeast is primarily used for.
-  **Notes** - Notes on the flavor, profile and characteristics of the yeast.

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Equipment (Insert)



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Description

Displays the equipment dialog to add a new equipment profile to the current table. Equipment profiles are used to calculate water needed, boil volume and final volume for a recipe as well as temperature adjustments for mashing.

Use

- Select the Equipment command on the Insert menu.

Dialog Description

- Name** - The name of the equipment profile.
- Mash Tun Volume** - The total capacity of the mash tun.
- Mash Tun Specific Heat** - The specific heat of the mash tun which depends on the material the mash tun is made of. This number is used in calculating strike water temperature and decoction amounts for mashing.
- Lauter Tun Deadspace** - The amount of deadspace in the lauter tun, usually below the lautering screen. Represents the amount of water that will be lost when lautering grains.
- Top Up Water for Kettle** - The amount of water you intend to add to the boil kettle before boiling to achieve the full boil volume.
- Calculate Boil Volume Automatically** - If checked, the boil volume is calculated using the estimated boil off, trub/chiller losses, cooling loss, top-up water and final target volumes. If unchecked, you can enter your own boil volume.
- Boil Volume** - The volume of wort at the start of the boil.

- **Boil Time** - The intended amount of time to boil the wort. This is used to calculate the amount of water boiled off.
- **Evaporation Rate** - The percentage of wort boiled off per hour while boiling.
- **Boil Off** - The calculated amount of water evaporated during the boil based on the evaporation rate and calculated boil volume. This number is used to calculate the starting boil volume.
- **Losses to Trub and Chiller** - The amount of trub left in the bottom of the boiler after the clear wort has been siphoned into the fermenter. Also may include losses to the wort chiller if a counterflow chiller is used.
- **Cooling Loss Pct** - The percentage of cooling loss due to shrinkage as it cools. *The default value of 4% is suitable for most brewers.*
- **Cooling Loss Vol** - The wort volume shrinks by a small amount (around 4 %) as it cools from boiling to room temperature. This is the calculated amount of loss.
- **Top Up Water** - The amount of water added to the wort after the boil has completed to bring it up to the target volume. For brewers doing partial batch boils, this can be a large number.
- **Final Volume** - The batch size or amount of wort intended to go into the fermenter at the end of brewing.
- **Large Batch Size Utilization** - Hop utilization factor adjustable for batch size. For small batches (20 gallons or less) the correct value is 100%. For large microbrewery or brewery size batches much larger hop utilization is possible and the value is usually much larger than 100%.
- **Notes** - Description and notes for this brewing setup.

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Mash Profile (Insert)



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Description

Displays the Mash Profile dialog to add a new Mash Profile to the current table. Mash profiles define a set of steps used to convert the sugars in grains into a fermentable form.







See Also: [Using Mash Profiles](#)

Use

- Select the **Mash Profile** command from the **Insert** menu.

Dialog Description

- Name** - The name of the mash profile.
- Grain Weight** - The total amount of grain to be used in this mash profile. When the mash profile is applied to a recipe, this number will be replaced by the total grain weight in the recipe, and the water in the profile will be scaled to match the water/grain ratio used in each step.
- Grain Temperature** - The starting temperature of the grain. This is usually room temperature but may be lower if brewing in cold weather.
- Tun Temperature** - The starting temperature of the mash tun. This is usually room temperature but may be lower if brewing in cold weather.
- Mash Steps** - A list of the steps in the mash profile. You can add, delete or reorder the steps using the buttons below. See [Adding Mash Steps](#) for a description of the fields in the mash step dialog. Double click on a mash step to edit it.

-  **Add** - Adds a new step to the mash profile. See [Adding Mash Steps](#) for more information.
-  **Delete, Move Up, Move Down** - Deletes or reorders the currently selected mash step.
-  **Mash PH** - Space to record the PH of the mash.
-  **Sparge Water Temperature** - The temperature of the sparge water used to lauter the grains.
-  **Batch Sparge with...** - If checked, then water amounts will be calculated for batch sparging. If the mash tun is too small to receive all of the water in a single batch, then multiple rounds of batch sparging will appear on the brew sheet. One may also limit the amount of water per batch by setting a percentage less than 100% in the box. This percentage is a percent of the available mash volume that will be used for batch sparging.
-  **Notes** - Description and notes on this mash profile.

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Description

Displays a dialog to add a new shopping item to the current shopping list.

Note - You can also add items including entire recipes by dragging them to the shopping list from other views.

Use

- Choose the **Shopping Item** command on the **Insert** menu.

Dialog Description

- Name** - The name of the item.
- Type** - The type of item. May be generic or any of the ingredient types.
- Purchase** - The quantity to purchase.
- Purchase Units** - Units used to measure the quantity of purchase.
- Choose Grain/Extract, Choose Hops, Choose Yeast, Choose Misc** - Allows you to select items from the ingredient database to add to the shopping list.
- Inventory** - For items added from your ingredients tables or a recipe, this field shows the current inventory on hand.
- Notes** - Notes about the item.

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Description

Inserts a new folder in the current recipe view.

Note - In recipe views, you can create folders to organize your recipes. To move recipes into a folder, you can either drag and drop them or cut and paste them.

Use

-  Choose the **Folder** command on the **Insert** menu.

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Water Profiler (Tools)



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Description

A calculator used to determine water additives needed to duplicate a particular water profile.

Use

-  Select the **Water Profiler** command on the **Tools** menu.
-  Choose the starting (base) water profile by selecting the **Choose Base** button.
-  If desired, choose a target profile using the **Choose Target** button
-  Adjust the amounts of **Additions** to minimize the differences.
-  If desired, you can save the totals using the **Save Totals** button.

View Description

-  **Batch Size** - The batch size in gallons
-  **Choose Base** - Button displays a list of water profiles to choose from. Choose your starting water profile as the base profile.
-  **Base** - This row displays the name and mineral profile of the starting water profile.
-  **Additions** - Enter the amount of each water agent to add to the profile. As you adjust the amounts, the appropriate columns in the water profile and totals will be updated to reflect the current profile.
-  **Profile** - Shows the water profile for the base water, each addition, the totals, target water and difference. All minerals are displayed in parts per million.

Refractometer (Tools)

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- **Save Totals** - This button lets you save the total water profile as a new entry in the water table.
- **Choose Target** - Button displays a list of water profiles to choose from. The totals are compared with the target profile to determine the difference row.
- **Target** - Row displays the water profile of the target water.
- **Difference** - Computes the difference between the total profile and the target profile. If targeting a particular water profile you should try to minimize the difference.
- **Clear Fields** - This button resets the fields in the dialog.

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Strike/Infusion Temp(Tools)



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Description

A calculator to determine the appropriate strike or infusion water temperature. In infusion mashing, a fixed amount of heated water is added to the mash to raise the temperature to the desired target temperature. For a given target temperature, this calculator determines the correct temperature of the water to infuse.

Use

- Select the **Strike/Infusion Temperature** command on the **Tools** menu.
- Enter the target temperature and other parameters needed for the calculation.
- Read the Infusion Water Temperature from the bottom of the view.

View Description

- **Calculation** - The type of calculation to perform. For the initial (first) infusion, called a strike, select *Initial Strike*. If this is a subsequent infusion step, select *Infusion Step*.
- **Target Step Temperature** - The desired strike or step temperature.
- **Water to Add** - The amount of heated water to add (infuse) to the mash to raise the temperature of the mash.
- **Starting Water Volume** - The amount of water already in the mash -- note that this is assumed to be zero for an Initial Strike calculation.
- **Weight of Grain** - The total amount of grain in the mash at this stage.

Refractometer (Tools)

Weight to Volume (Tools)

Internet Update (Tools)

Options (Tools)

- **Initial Grain Temperature -** (For an initial strike only) This is the temperature of the grain and mash tun before adding the infusion water.
- **Initial Mash Temperature -** (For an infusion step calculation only) This is the temperature of the mash before the new heated water is added (infused)
- **Mash Tun Weight -** The weight of the mash tun that needs to be heated. If non-zero, the infusion temperature is adjusted upward to compensate for the thermal mass of the mash tun.
- **Infusion Water Temperature -** The calculated temperature of the water to add (infuse) to achieve the desired target step temperature.
- **Water/Grain Ratio -** The total amount of water AFTER the infusion, divided by the total amount of grain. Represents the ratio as it would be after the infusion water has been added.
- **Error - Strike temperature above boiling! Add more water! -** If you see this message displayed, then the calculated water temperature is above the boiling point of water. More infusion water will be needed to reach the target temperature. Increase the amount in the **Water to Add** field.

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Decoction Volume (Tools)



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Description

Displays a calculator for determining the decoction volume. The decoction volume is the amount of mash the brewer needs to draw off and boil to achieve the target step temperature for a mash step.

Use

-  Select the **Decoction Volume** command on the **Tools** menu.
-  Enter the target temperature and other parameters required.
-  Read the decoction volume from the display at the bottom of the view.

View Description

-  **Target Temperature** - The target temperature for the mash step.
-  **Starting Water Volume** - The total amount of water in the mash at this step.
-  **Weight of Grain** - The total amount of grain in the mash at this step.
-  **Starting Mash Temperature** - The temperature of the mash before the decoction. Usually this is the temperature of the mash from the previous step.
-  **Mash Tun Weight** - If non-zero, the calculator will attempt to adjust the decoction volume to account for the thermal mass of the mash tun. Leave as zero if you wish to ignore the mash tun temperature adjustment.
-  **Mash Volume to Decoct** - The amount of mash you will need to draw off and bring to a boil to hit the target temperature.

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Water/Grain Ratio - Simply the amount of water divided by the total weight of grain. Used to gauge the thickness of the mash. For decoction mashing, a thin (high water to grain ratio) mash is the norm.

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Description

Calculator to determine the volume boiled off for a given evaporation rate over a given amount of time.

Use

- Choose the **Boil Off** command on the **Tools** menu.
- Enter the starting volume, evaporation rate and boil time.
- Read the calculated volume boiled off and final volume from fields at the bottom of the view.

View Description

- Starting Volume** - The pre-boil volume.
- Evaporation Rate** - The percent of water that will boil off per hour.
- Boil Time** - The amount of time to boil in minutes.
- Volume Boiled Off** - The calculated amount of water boiled off.
- Final Volume** - The final volume, which is simply the starting volume minus the amount boiled off.

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Description




A calculator used to determine the bitterness of up to three hop additions in International Bitterness Units.

Use

-  Choose the **Hops Bitterness** command on the **Tools** menu.
-  Set the final volume, boil volume and estimated final gravity for the beer.
-  Add first, second and third hops with appropriate amounts and boil times.
-  View the calculated IBUs and AAUs for each hop addition as well as the total at the top.
-  Modify the calculation with selections from the Hop Adjustments section at the bottom of this view.

View Description

Volume and Gravity of Wort

-  **Batch Size** - The final batch size or finished volume for this batch.
-  **Boil Volume** - The amount of wort being boiled. For extract brewers this is often smaller than the total batch size.
-  **Estimated Original Gravity** - An estimate of the original gravity for the beer. This number is used to estimate the gravity of the boil which has a significant effect on hops utilization in the boil.

First Hop, Second Hop, Third Hop

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- **Hops** - The name of the hops.
- **Weight** - The amount of hops to add.
- **Pick Hops** - Button displays the table of hops to choose from. Selecting a hops in this list will insert the profile of this hops into the hops dialog.
- **Alpha** - The percentage of alpha acids in the hops. High alpha hops impart more bitterness to the beer.
- **Boil Time** - The amount of time to boil this particular hops.
- **International Bitterness Units (IBU)** - The primary measure of overall beer bitterness. At the top of the screen the total bitterness is displayed. The IBU contribution for each hops is also displayed. IBUs are calculated using the bitterness formula displayed in the Hop Adjustments section.
- **Alpha Acid Units (AAU)** - A simpler and less accurate measure of bitterness than IBUs. Defined as the number of ounces of hops times the alpha content divided by the volume of wort produced.

Hop Adjustments

- **Formula for Bitterness** - The formula to use in calculating the IBU values. See [Bitterness in BeerSmith](#) for a technical discussion of the various formulas.
- **Adjust First Wort Hops** - Flag that applies the First Wort Hop adjustment to the first hops used. First Wort hopping is a method where hops are added to the boiler with first runnings from the lauter tun. The additional steeping time increases bitterness and aroma slightly.
- **Hops Type** - Applies the appropriate hops type adjustment to the IBU calculation.

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Description

A tool to calculate the effects of age on stored hops. The alpha acids that provide the bulk of the bitterness and aroma in hops are volatile and will oxidize over time. This tool calculates the degradation in percent alpha acid over time.

Use

-  Select the **Hop Age** command on the **Tools** menu.
-  Choose a hops or fill in the hop parameters.
-  Fill in the storage conditions and time.
-  Read the adjusted alpha value from the bottom of the view.

View Description

-  **Name** - The name of the hops.
-  **Alpha** - The starting alpha acid of the hops.
-  **Choose Hops** - This button displays a list of available hops, and lets you choose one.
-  **HSI** - Hops Storage Index - The percent of alpha acids lost in 6 months.
-  **Age** - The age of the hops in months.
-  **Temperature** - The storage temperature. Storing hops at low temperature preserves it longer.
-  **Stored in** - The container used to store the hops. Airtight or vacuum sealed containers help slow hop degradation.
-  **Adjusted Alpha** - The adjusted alpha acid percentage for the aged hops.

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Description

A calculator to determine hydrometer adjustments based on temperature. When you take a hydrometer reading at a temperature different than the calibration temperature small errors are introduced. While the error is small at room temperature, it can be large at high brewing temperatures or low fermenting temperatures.

Use

- Select the **Hydrometer Adjust** command on the **Tools** menu.
- Enter the measured specific gravity and temperature.
- If needed, enter your hydrometer calibration temperature.
- Read the corrected specific gravity.

View Description

- **Measured Specific Gravity** - The specific gravity measured by the hydrometer.
- **Temperature** - The temperature that the measurement was taken at. In most cases this is the temperature of the wort.
- **Corrected Specific Gravity** - The adjusted specific gravity, with a correction made for temperature.
- **Calibration Temperature** - The calibration temperature of the hydrometer. This is the temperature at which the hydrometer requires zero adjustment. The instructions with your hydrometer list the calibration temperature. Most common beer hydrometers are calibrated to 60 degrees F or 15C. Some laboratory hydrometers are calibrated to 68F.

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Description %

This calculator uses the original and final gravity of the beer to calculate alcohol percentages, attenuation and calories per glass of beer.

Use

- Select the **Alcohol and Attenuation** command on the **Tools** menu.
- Enter the starting (original) gravity of the wort and the final gravity of the finished beer.
- Read the alcohol percentages, attenuation and calories calculated for this beer.

View Description

- **Starting Gravity** - The original gravity of the wort, measured with a hydrometer usually as the beer is being moved from the brew pot to the fermenter.
- **Final Gravity** - The final gravity of the finished beer, measured at bottling.
- **Percent Alcohol by Volume** - The percent of alcohol content in the beer on a per-volume basis.
- **Percent Alcohol by Weight** - The percent of alcohol content in the beer measured on a per-unit weight basis.
- **Apparent Attenuation** - Attenuation is a measure of how much of the sugar was fermented by the yeast. Apparent attenuation is the unadjusted percent of sugars fermented by the yeast. For beer brewing, apparent attenuation is much more commonly used than real attenuation. It is defined as:

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$$\text{Appt_Attenuation} = (\text{OG-FG})/\text{OG} * 100$$

where OG, FG are in points.

- **Real Attenuation** - The real attenuation is how much sugars were really fermented by the yeast. Because alcohol is lighter in specific gravity than water, an adjustment must be made for the alcohol content when assessing the actual percentages of sugar fermented. The real attenuation will always be a lower number than the apparent attenuation.
- **Total Calories** - The total estimated calories for either a US pint of beer or a liter of beer depending on whether your batch settings are English or Metric units.
- **Cals from Alcohol** - The number of calories due to alcohol for either a US pint or liter of beer (depending on whether your batch settings are metric or English). The remainder of the calories (i.e. Total minus alcohol calories) come from the carbohydrates and unfermented sugars in the beer.

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Description

A calculator to determine the amount of priming sugar or CO2 pressure needed to carbonate beer to a given level.

Use

-  Choose the **Carbonation** command on the **Tools** menu.
-  Enter the desired carbonation level, temperature while carbonating, and volume of beer to carbonate.
-  Read the carbonation pressure for forces carbonation, or the weight of sugar to add when priming the beer to achieve the desired carbonation level.

View Description

-  **Volumes of CO2 Desired** - The desired level of carbonation. One volume of CO2 is defined as 1 liter of CO2 dissolved into 1 liter of beer. Most beers use between 2.0 and 3.0 volumes for carbonation. Carbonation levels below 2.0 are used only in traditional English draft beers.
-  **Beer Temperature** - For forced (Kegged) carbonation, this is the temperature at which the keg will be carbonated. For bottled beer, this is the temperature of the beer when it is primed and bottled (not the storage temperature).
-  **Beer Volume** - The amount of beer to carbonate.
-  **CO2 Carbonation Pressure** - The amount of keg pressure required, over an extended period (usually 2 days) to achieve the desired carbonation level.

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- **Weight of Corn Sugar** - If bottling with corn sugar, this is the amount of corn sugar to add to the batch to achieve the desired carbonation level.
- **Dried Malt Extract** - The equivalent weight of dried malt extract required to achieve the desired carbonation level. **Note** - Dried malt extract (DME) yields vary substantially between manufacturers, which can cause variation in your carbonation level. This calculation is based on an "average" DME yield -- your actual results may vary.

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Description

A calculator to determine the final gravity achieved by diluting wort with water or wort.

Use

-  Select the **Dilution** command on the **Tools** menu.
-  Enter the starting volume, specific gravity, and amount of water or wort to use when diluting.
-  Read the total volume and final specific gravity from the bottom of the view.

View Description

-  **Starting Wort Volume** - The amount of wort or beer that will be diluted.
-  **Wort Specific Gravity** - The specific gravity of the wort or beer that is going to be diluted.
-  **Dilute With** - You can choose to dilute with water or wort. If you dilute with wort, you will be asked the wort's specific gravity.
-  **Volume to Add** - The amount of water or wort to add when diluting.
-  **Specific Gravity** - The specific gravity of the wort addition, if diluting with wort.
-  **Total Volume** - The total volume of the new mixture.
-  **Final Specific Gravity** - The calculated specific gravity of the mixture.

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Description

This calculator helps to calculate the starting boil volume, sparge water needed and total water needed to brew a batch of beer.

Use

- Select the **Water Needed** command on the **Tools** menu.
- Choose the brew type, and enter the volumes appropriate to your equipment and batch size.
- View the boil volume, grain absorption, sparge water needed, cooling losses and total water needed for brewing your beer.

View Description

- Brew Type** - The method used to brew this beer. If the brew is an extract recipe, the mash options will be grayed out since there will be no mash steps.
- Mash Water Volume** - The total amount of water to add to the mash during mashing.
- Total Grain Weight** - The amount of grain used in the mash.
- Grain Absorption** - The calculated amount of water absorbed by the grain during the mash.
- Lauter Tun Deadspace** - Deadspace in the lauter tun or mash equipment. This amount of wort is lost in the lauter dun during lautering.
- Top Up Water for Kettle** - Particularly for partial mashes, some water is often added to the wort after lautering to achieve the desired boil volume.

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- **Sparge Water** - The calculated amount of sparge water needed to laut the grains and achieve the desired boil volume.
- **Boil Volume** - The calculated boil volume based on the final volume, top-up water and losses to cooling, trub and evaporation during the boil.
- **Boil Time** - The amount of time in minutes to boil the wort. This is used in calculating the boil-off.
- **Evaporation Rate** - The percent of water boiled off per hour. Usually this parameter is in the range of 5-15% depending on your equipment.
- **Boil Off** - The calculated amount of water that evaporates during the boil.
- **Losses to Trub and Chiller** - A number that compensates for losses in moving from boiler to fermenter. When siphoning wort from the boiler to the fermenter, some trub or sediment is typically left in the boiler. In addition, the wort chiller (particularly counter flow chillers) or siphon equipment may have some deadspace that reduces finished volume.
- **Cooling Losses** - The water volume will shrink by a small percentage (about 4%) as it cools from boiling to room temperature.
- **Top Up Water** - Amount of water added to the fermenter to achieve the desired final volume. For extract and partial mash brewers that do partial-batch boils, this number is the amount of water to add after cooling the wort to achieve the full batch size.
- **Desired Final Volume** - The batch size, expressed as the total amount of wort to go into the fermenter.
- **Total Water Needed** - The total amount of water needed to brew this beer. Includes all top-ups, losses, sparge water, etc... This number is useful if you wish to prepare or treat the water all at once with water treatments, for example.

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Description

Displays the refractometer tool which can be used for three things:

- Calculating the specific gravity of unfermented wort from a refractometer reading.
- Calculating the gravity of wort while it is fermenting from the original gravity and a current refractometer reading.
- Calculate the original gravity, alcohol and other parameters from the final gravity and a final hydrometer reading.

Use

- Select the **Refractometer Tool** tab on the **Tools** menu.
- Set the refractometer calibrations if you have not already done so.
- Select the type of calculation you want.
- Enter the refractometer reading and hydrometer or starting gravity if applicable.

Dialog Description

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- **Calculation** - The type of calculation to perform:
 - **Unfermented Wort Gravity** - Calculates the gravity of unfermented wort from a refractometer reading.
 - **Fermenting Wort Gravity** - Calculates the gravity of partially fermented beer from the current refractometer reading and the original gravity of the wort.
 - **Finished Beer ABV/OG** - Calculates the original gravity, alcohol content and other parameters from a final refractometer reading and final hydrometer reading.

- **Refractometer Reading** - A current reading taken of the beer or wort with your refractometer.
- **Hydrometer Reading** - The current reading of the finished beer taken with a hydrometer. This is used only when calculating Finished Beer ABV/OG.
- **Original Gravity** - The original gravity of the unfermented wort. Required when calculating the gravity of wort while it is fermenting.
- **Corrected Gravity** - The corrected gravity of the unfermented wort or wort that is fermenting.
- **Calibrate Refractometer Settings** - Press this button to bring up the [calibration dialog](#). You need to calibrate your refractometer before using it by following the directions in this dialog.
- **Percent Alcohol by Volume** - The percent of alcohol content in the beer on a per-volume basis.
- **Percent Alcohol by Weight** - The percent of alcohol content in the beer measured on a per-unit weight basis.
- **Apparent Attenuation** - Attenuation is a measure of how much of the sugar was fermented by the yeast. Apparent attenuation is the unadjusted percent of sugars fermented by the yeast. For beer brewing, apparent attenuation is much more commonly used than real attenuation. It is defined as:

$$\text{Appt_Attenuation} = (\text{OG} - \text{FG}) / \text{OG} * 100$$

where OG, FG are in points.

- **Real Attenuation** - The real attenuation is how much sugars were really fermented by the yeast. Because alcohol is lighter in specific gravity than water, an adjustment must be made for the alcohol content when assessing the actual percentages of sugar fermented. The real attenuation will always be a lower number than the apparent attenuation.
- **Total Calories per 12 oz** - The total estimated calories for a 12 oz (0.35 L) glass of beer.

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Description

This calculator allows you to accurately calculate the volume of your beer by weighing your empty and full containers. It is very useful for measuring the amount of beer remaining in a keg, carboy or other closed container, particularly if you do not have another means of viewing the volume level.

Use

- Select the **Weight to Volume** command on the **Tools** menu
- Enter the **Full Container Weight** and **Empty Container Weight**.
- If known, enter the specific gravity of the beer or wort in the container. If not known, a value of 1.000 (that of water) will get you reasonably close.
- Read the **Estimated Volume** as calculated for the given empty and full weights.

View Description

- **Full Container Weight** - The weight of the container at the current time including the beer or wort (even if not completely full).
- **Empty Container Weight** - The empty weight of the container, as measured before filling.

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- **Specific Gravity** - The specific gravity of the beer or wort, if known. If you have the actual specific gravity it can increase the accuracy of the calculation. If you do not, you can use 1.000 (that of water) or guess a reasonable beer gravity value and still get a fairly accurate volume estimate.
- **Estimated Volume** - The estimated volume of beer or wort in the container, as calculated from the weights given.

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Description

Downloads and installs the latest database and program updates for BeerSmith from the internet. You can control which items are downloaded using the **Auto Update** tab of the **Options** command on the **Tools** menu.

Note: If the BeerSmith program is updated, the new version will not install fully until the next time you open BeerSmith.

Use

- Make sure you are connected to the internet.
- Select the **Update BeerSmith from Internet** command on the **Tools** menu.
- Press the **Start** button. For large updates, download progress will be displayed in the dialog. After all items have been downloaded, they will automatically install. If the BeerSmith program is updated it will not be installed until you close and start BeerSmith again.

Note: For data table updates, BeerSmith does a [File Merge](#) of the new items into the existing table. If you have modified standard table items and not given them a new name, it is possible for updates to overwrite some of your data. To avoid this, please give your own copies of data unique names. In all cases, the merge attempts to maintain your existing inventory and hop alpha values.

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Description









Displays a multi-page dialog with various options and preferences for BeerSmith.


Use


-  Select the **Options** command from the **Tools** menu.
-  Select the desired page (see below) and options to set.
-  Press OK to save your selections.


Dialog Description

The following pages are available on the options dialog. Select the link below to display details on a particular options page.

-  [Brewing](#) - Default brewing equipment, type and batch size.
-  [Units](#) - Unit settings used throughout.
-  [Bitterness](#) - Settings related to hop bitterness calculations.
-  [Address](#) - Brewer address parameters used only for printing competition forms for recipes.
-  [Auto Update](#) - Controls internet update of the BeerSmith program and data tables.
-  [Refractometer](#) - Displays refractometer calibration options.
-  [Reports](#) - Allows you to add your own report templates for custom reports.
-  [Advanced](#) - Advanced constants and settings.

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Save as Default (Actions

Save Selected (Actions)

Save as Web (Actions)



Mail Selected (Actions)

Add to Inventory (Action:

Description

Adds the selected items to your shopping list. If any of the selected items is a recipe, then all of the ingredients in the recipe are added to the shopping list.

Use

-  Select the items you want to add to the shopping list.
-  Choose the **Add to Shopping List** command on the **Actions** menu.

Add Shopping (Actions)

Remove from Inventory

Round Up (Actions)

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Adjust Color

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Scale Recipe (Actions)



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Description



Scales the currently selected recipe to new size, boil volume or equipment settings. The process used to scale the recipe is intelligent, in that it adjusts hops to maintain the original IBU profile as well as scaling other ingredients to match the desired batch size.

Use

- Select the recipe you want to scale.
- Choose the **Scale Recipe** command on the **Actions** menu.
- Whenever possible, change the equipment settings to match your target equipment.
- Adjust the batch size and boil size as needed.
- Press OK to scale the recipe ingredients to the new sizes and equipment.

Dialog Description

New Batch Size

- **Equipment** - The new equipment settings for the recipe. Set the equipment to a new size using the Choose button.
- **Choose** - Displays the equipment database and lets you choose the new equipment settings.
- **Details** - Edits equipment settings for this particular recipe only.
- **Fix Boil Volume Based on Equipment** - Uses the boil volume calculated from equipment settings if checked.
- **Batch Size** - The new batch size for the beer.
- **Boil Volume** - The new boil volume.

Old Batch Size



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-  **Batch Size** - The old batch size.
-  **Boil Volume** - The old boil volume.

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Adjust Bitterness (Actions)



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Description




When editing a recipe view, this tool lets you adjust the bitterness of your recipe to match a desired International Bitterness Units (IBU) level.

The algorithm used adjusts the amounts of all of the contributing bitterness hops in the recipe to achieve the desired IBU bitterness level.

Use

-  Open the recipe you want to edit.
-  Select the **Adjust Bitterness** command on the **Tools** menu.
-  Enter the desired IBU bitterness level and press OK.

Dialog Description

-  **New Bitterness (IBU)** - Enter the desired bitterness level in IBUs here.
-  **Old Bitterness (IBU)** - Displays the old bitterness units in IBUs.
-  **Style Guideline** - Shows the IBU range for the beer style of the current recipe.

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Description

Adjusts the specific gravity of the open recipe to match the target value. All grains, sugars, extracts and fermentable adjuncts are adjusted to achieve the target gravity.

Note: BeerSmith maintains the hop bitterness (total IBU) constant while scaling the gravity. However, since hop utilization varies with the specific gravity of the boil, in some cases hop amounts must be slightly adjusted to maintain constant IBU. In some cases this may result in the hop weights changing by a small amount to compensate for the change in the specific gravity of the boil.


Use


- Open the recipe you wish to edit.
- Select the **Adjust Gravity** command on the **Actions** menu.
- Enter the new target original gravity for the beer in the dialog.
- Press **OK**, and the specific gravity will be adjusted.


Dialog Description

- **Target Original Gravity** - The new desired original gravity for the beer.
- **Old Original Gravity** - The previous original gravity - currently set for this recipe.
- **Style Guideline** - The original gravity range for the current style for this recipe.

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Description

Performs recipe conversions from one type of recipe to another. For example, you can convert an all-grain recipe to an extract recipe.

Warning - Due to differences between brewing processes, converting a recipe from one brewing type to another will not always preserve the character of the beer. While BeerSmith attempts to balance the original color, bitterness and gravity, many ingredients have no simple equivalent across brewing systems.

Use

-  Select or open the recipe you wish to convert.
-  Choose the **Convert Recipe Wizard** command from the **Actions** menu.
-  Select the new type of recipe and new equipment settings if appropriate. Note that often when converting from all grain to extract or back you may want to alter the equipment to reflect different boil volumes.
-  If items are found that cannot be converted, they will appear with an exclamation point next to the items once the conversion is complete.

Dialog Description

-  **Convert Recipe to Type** - The new desired type for this recipe.

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- **Equipment** - The equipment settings to use with the converted recipe. Note that in many cases (extract to all grain and back) you will want to change the equipment settings to reflect different boil sizes.
- **New Brewhouse Efficiency** - When converting to partial mash or all grain, you can specify the brewhouse efficiency to use for the new recipe here.
- **Allow automatic conversion of grains that must be mashed-** When converting from an all grain to extract recipe, you have the option of allowing BeerSmith to convert some specialty grains automatically. While this is not a perfect process, it can help ease the conversion. Note that not all grains have substitutes, so in some cases you will still need to manually convert items. Items that could not be converted will have a red exclamation point next to them in the main display.
- **Old Recipe Type** - The previous brewing type for this recipe.

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Description

Copies the currently selected recipes to the a file called *Brew Log* in your **My Recipes** folder.

The brew log is used to save copies of your recipes as you brew them. It is intended as an archive of recipes saved in the same form that you brewed them.

After brewing and tasting a beer you can save the recipe to your brew log for future reference. This allows you to continue to refine the original recipe, while retaining a copy of the recipe as brewed in your brew log.

Note: You can set the name of the **Brew Log** folder using the **Advanced** tab of the [Options command](#) on the **Tools** menu.

Use

-  Select the recipe(s) you want copied.
-  Choose the **Copy to Brew Log** command on the **Actions** menu.
-  Copies of the selected recipes will be added to a file called **Brew Log** under your **My Recipes** view.

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Description

Saves the current recipe as the default recipe. The default recipe is used as a template for all new recipes.

This function is useful for saving commonly used settings such as mash profiles, equipment settings and fermentation and carbonation settings that you use often from batch to batch.

Note - This command also changes the brewing defaults in the **Brewing** tab of the **Options** command on the **Tools** menu.

Use

-  Create a new recipe using the **Recipe** command on the **Insert** menu.
-  Adjust the fields in this new recipe to your preferred settings, mash profile, equipment settings, etc...
-  Choose the **Save as Default Recipe** command on the **Actions** menu.
-  Close and delete the sample recipe.
-  The next time you create a new recipe, all of the settings you saved will appear in the newly created recipe.

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Description

Saves (exports) a copy of the selected items to a file.

Use

- Select the items to export.
- Choose the **Save Selected Items** command on the **Actions** menu.
- Enter a file name and location for saving the file. Press OK to export the items to a file.

Dialog Description

- **Export Which Items** - Specifies which items are exported. May be either the items selected or all items in the current view.
- **Use the Following Format** - Allows you to use different file formats including BeerSmith file formats (.bsm), BeerXML, text and web or custom formats.
- **Export To** - Allows you to either save the items to a file or mail them to a friend. Select the **Browse** button if you wish to browse for a directory. Note that you must have a MAPI compatible mail program for the mailing option to work properly.

NOTE: If you try to mail multiple items in Web (HTML) format, only the first item will be mailed.

NOTE: If you export multiple items to a web page, a separate page will be created for each, along with a web page with a table to index

them. This is useful for posting tables of recipes to the web.

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Description

Saves (exports) a copy of the selected items to a web page.

Use

-  Select the items to export.
-  Choose the **Save Selected Items** command on the **Actions** menu.
-  Enter a file name and location for saving the file. Press OK to export the items to a file.

Dialog Description

-  **Export Which Items** - Specifies which items are exported. May be either the items selected or all items in the current view.
-  **Use the Following Format** - Allows you to use different file formats including BeerSmith file formats (.bsm), BeerXML, text and web or custom formats.
-  **Export To** - Allows you to either save the items to a file or mail them to a friend. Select the **Browse** button if you wish to browse for a directory. Note that you must have a MAPI compatible mail program for the mailing option to work properly.

NOTE: If you try to mail multiple items in Web (HTML) format, only the first item will be mailed.

NOTE: If you export multiple items to a web page, a separate page will be created for each, along with a web page with a table to index

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Description

Saves the selected items as an email attachment and opens the email message to be sent.



Note - This command uses the default Windows mail settings -- you must have a Windows compatible mail program configured in Windows to use this feature.

Warning - Many email service providers limit the size of attachments that may be sent on their system. If you are mailing large items such as recipes you may need to limit the number sent in each attachment to avoid service provider limitations.

Use

-  Select the items you want to mail.
-  Choose the **Mail Selected Items** command on the **Actions** menu.
-  The items will be attached to a new email message. Enter the subject and *To* addresses for the email, and then send it.

Dialog Description

-  **Export Which Items** - Specifies which items are exported. May be either the items selected or all items in the current view.
-  **Use the Following Format** - Allows you to use different file formats including BeerSmith file formats (.bsm), BeerXML, text and web or custom formats.

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Export To - Allows you to either save the items to a file or mail them to a friend. Select the **Browse** button if you wish to browse for a directory. Note that you must have a MAPI compatible mail program for the mailing option to work properly.

NOTE: If you try to mail multiple items in Web (HTML) format, only the first item will be mailed.

NOTE: If you export multiple items to a web page, a separate page will be created for each, along with a web page with a table to index them. This is useful for posting tables of recipes to the web.

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Add to Inventory (Action:

Description

Adds the items on the shopping list to your personal inventory.

Note - Only items in the shopping list whose name matches an item in the respective table will be updated.

Use

-  Select the **Shopping List** command on the **View** menu.
-  Choose the **Add to Inventory** command on the **Actions** menu.
-  Matching items from the shopping list will be added to the inventory for each respective table.

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Description

Removes the ingredients for a selected recipe from the inventory. This command is intended to be used after brewing to update your personal inventory for ingredients used.

Note - Only items whose name matches ingredients in the recipe will be updated.

Use

-  Open the recipe you have brewed.
-  Select the **Remove from Inventory** command from the **Actions** menu.
-  The inventory of all matching items in the ingredients list will be updated to reflect their use.

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Description


Rounds the amounts of the selected items displayed in a shopping list to the next whole purchase amounts.


For grains and hops, the purchase amounts in the [Units](#) page of the **Options** dialog on the **Tools** menu are used.

For yeasts and miscellaneous items, the amount is rounded up the the nearest whole number.

Use


- Choose [Shopping List](#) on the **View** menu.
- Select the items on the shopping list that you want rounded up.
- Choose the **Round Up Amount** command on the **Actions** menu.

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Description

Empties the shopping list, deleting all items in it.

Use

- Select the **Shopping List** command on the **View** menu to display the shopping list.
- Choose the **Empty Shopping List** command on the **Actions** menu to clear the list.

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Description

Empties the recycle bin.

The recycle bin contains a repository of all of the deleted items and needs to be periodically emptied.

Use

- Choose the **Empty Recycle Bin** command on the **Actions** menu to empty the bin.

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[Add to Inventory \(Action\)](#)

Description


Adjusts the darker grains in a recipe to achieve the desired color for the beer. Color can only be adjusted within a certain range depending on the color of ingredients available.


Note: Since BeerSmith changes the proportion of light and dark colored ingredients when adjusting color, it is possible to significantly change the character of the beer using this tool. It is recommended that large color changes be made by adjusting the actual ingredient list to add a lighter or darker colored ingredient first. This tool should only be used to make small color adjustments.


Use

-  Open the recipe you wish to edit.
-  Select the **Adjust Color** command on the **Actions** menu.
-  Enter the new target color for the beer in the dialog. The color must be within the color range shown. If the color range is insufficient, consider adjusting the ingredients to add more or fewer dark colored grains to the recipe.
-  Press **OK**, and the color will be adjusted.

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Pressure (Units)



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Description

Displays a pressure unit converter that allows you to convert between PSI and KPA.

Use

- Select the **Pressure Conversion** command from the **Units** menu.
- Enter the amount you want converted in the appropriate units. As you type, the amount will be converted and displayed in all of the other unit fields.

View Description

- **Lbs per Square Inch** - The pressure in english pounds per square inch.
- **Kilopascals** - The pressure in kilopascals (metric).

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Temperature (Units)



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Description

Displays a temperature unit converter that allows you to convert between Celsius and Fahrenheit.

Use

- Select the **Temperature Conversion** command from the **Units** menu.
- Enter the amount you want converted in the appropriate units. As you type, the amount will be converted and displayed in all of the other unit fields.

View Description

- **Degrees Fahrenheit** - The temperature in (english) degrees Fahrenheit.
- **Celsius** - The temperature in degrees Celsius (metric).

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Specific Gravity (Units)



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Description ⓘ

Displays a view to convert between standard specific gravity units and degrees Plato.

Use

- Select the **Specific Gravity Conversion** command from the **Units** menu.
- Enter the amount you want converted in the appropriate units. As you type, the amount will be converted and displayed in all of the other unit fields.

View Description

- **Specific Gravity** - The gravity as measured relative to the density of water (unitless). Water has a specific gravity of 1.000, and most beers have a starting gravity in the range of 1.025-1.100.
- **Degrees Plato** - Specific gravity measured in degrees Plato. Plato is defined as the number of grams of sugar per 100 grams of solution. Plato is used widely in Europe and is based on corrections to the older Balling scale. Balling and Plato are close but not exactly equivalent due to differences in calibration temperature. The difference between the two is about 0.05% weight/weight, however, so in most practical situations Plato is equivalent to Balling.

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[Volume \(Units\)](#)

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Description









Displays a view to convert between various volume unit measures.

Use

-  Select the **Volume Unit Conversion** command from the **Units** menu.
-  Enter the amount you want converted in the appropriate units. As you type, the amount will be converted and displayed in all of the other unit fields.

View Description






US Measures

-  **Fluid Ounces** - Fluid (US) ounces.
-  **Cups** - Fluid cups. One cup is 8 ounces.
-  **12 Oz Bottles** - The volume measured in 12 ounce bottles. Useful at bottling time.
-  **Pints** - US Pints. One pint is 16 ounces or two cups.
-  **22 Oz Bottles** - The volume measured in 22 oz bottles. Useful for bottling.
-  **Quarts** - US quarts. One quart is 2 pints or 32 ounces.
-  **Gallons** - US gallons. One gallon is 4 US quarts.
-  **Barrels** - US barrels. One barrel is 31.5 gallons US (two US kegs), which is smaller than the English Barrel which is 36 Imperial gallons (43.2 US gallons).

Metric Volume

-  **Milliliters** - Metric milliliters.
-  **Liters** - Metric liters.

UK (Imperial) Volumes

-  **Fluid Ounces** - Ounces -- equivalent to the US measure in ounces.
-  **Pints** - Imperial pints - equal to 20 ounces.
-  **Quarts** - Imperial quarts - equal to 2 Imperial Pints or 40 ounces.
-  **Gallons** - Imperial gallons - Equal to 4 Imperial quarts or 1.2 US gallons.
-  **Barrels** - English barrel. Equivalent to 36 Imperial gallons (43.2 US gallons).

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Weight (Units)



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[Volume \(Units\)](#)

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Description

Displays a conversion tool for converting from one weight unit system to another.

Use

-  Select the **Weight Conversion** command from the **Units** menu.
-  Enter the amount you want converted in the appropriate units. As you type, the amount will be converted and displayed in all of the other unit fields.

View Description

-  **Ounces** - The weight in English (dry) ounces.
-  **Pounds** - The weight in pounds. One pound is 16 ounces.
-  **Grams** - The weight in metric grams.
-  **Kilograms** - The weight in metric kilograms. One kg is equivalent to 1000 grams.

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Help (Help)



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Description

Displays the main help window. From here you can navigate the help system to display topics of interest.

Use

- Select the **Help** command on the **Help** menu, or press the F1 or Help button in any dialog or view.
- The help system is web based. You can navigate it as you would any web page by clicking on underlined items.

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What's This? Help



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Description

Puts the program into a help mode that displays help on the next button, menu command or item you click on.

Use

-  Select the **What's This?** command from the **Help** menu.
-  The cursor will change into a pointer with a question mark next to it.
-  Click on a menu item, button or shortcut to get detailed help for that item.

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Registration Key (Help)



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Description

Displays a dialog where you can view or enter your registration key to register your copy of BeerSmith.

When you purchase a copy of BeerSmith, you will receive a receipt with the registration key on it. If you purchased the CD version the registration key will be on the CD or CD sleeve.

Keep your registration key in a safe place in case you upgrade your computer and need to reinstall BeerSmith.

Note: The registration key should be used to install only one copy of BeerSmith on one computer, per the licensing agreement. The key is used to verify your copy of BeerSmith for upgrades.

DO NOT SHARE your registration key with anyone. Attempting to upgrade BeerSmith using the same key from two different computers is a violation of your license agreement and may result in deactivation of your key or an inability to upgrade your program and data.

Trial Mode

If you have not purchased a copy, BeerSmith will run in a fully functional demonstration mode for 21 days. After 21 days the demonstration will end, and BeerSmith will run in a limited function mode. In limited function mode, you cannot create new recipes, print items, export or mail items. In addition you can't copy and paste recipes.




After a total trial period of 45 days, BeerSmith will be disabled

completely.

Please contact us if you have problems with your trial or trial limitations.

The dialog displays the number of days used in the trial. Go to <http://www.beersmith.com> to purchase a copy and get a valid registration key.

Use

-  Choose the **Enter Registration Key** command on the help menu.
-  Enter your registration key exactly as it appears on your receipt or CD sleeve. Note that you should enter four letters/digits in each box. Only the numbers 0-9 and letters A-F are used. You do not need to enter the dashes between groups of numbers.
-  Press OK. If you enter a valid key you will receive a message congratulating you and your copy will be fully registered.

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About (Help)



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Help (Help)

What's This? Help

Registration Key (Help)

About (Help)

Description

Displays the current version, build number, copyright information, legal notices and acknowledgements for the BeerSmith program.

Use this command to see which version of BeerSmith you are running.

Use

- Select the **About** command on the **Help** menu.

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Forward-Back View



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Forward-Back View

Choose Dialog



Description

These two buttons navigate forward and back through the list of previously visited views.

Clicking the back button moves to the last view visited.

Clicking the forward view moves to the next view.

Use

-  Click on the **Back** button to move back.
-  Click on the **Forward** button to move forward.

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Choose Dialog



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Forward-Back View

Choose Dialog

Description

This dialog lets you choose from a list of items in a table. It is used to add ingredients, select beer styles and select equipment.

Options specific to a particular dialog are listed below.

Use

- ✚ This dialog is displayed when adding new ingredients to a recipe using the **Add** button. It is also displayed when you press the **Choose** button for equipment and beer styles.

Dialog Description

- ✚ **List of Items** - A list of items to choose from. Click on an item to select it.
- ✚ **New Button** - Press the **New** button to add a new item. Items are added to the permanent table in most cases.
- ✚ **Edit Button** - Press the **Edit** button to edit the selected item in the permanent table. **Note** - Changes made while editing will be reflected in the permanent tables.
- ✚ **Only Show Items In Stock** - Shows only items that are in your personal inventory.

Specific Options

Choose Grain (Recipe)

- ✚ **Weight** - Enter the amount of grain to add to a recipe.

- ✚ **Filter List** - Allows you to filter the displayed list of items to display only grains and sugars, or only extracts.

Choose Hops (Recipe, Hops Tools)

- ✚ **Weight** - The amount of hops to add to the recipe.
- ✚ **Alpha** - The alpha of the hops. Enter a value here to change the default hops alpha for the selected hops in your ingredient list. **Note** - Changing the alpha here does not affect the main database hops entry, but only the hops being added as ingredients.
- ✚ **Boil Time** - The number of minutes to boil the hops.
- ✚ **Use** - The usage for the hops. See the [Insert Hops](#) command for a full explanation of hop usage options.
- ✚ **Dry Hops Days** - Enabled only if the hops usage is dry hops, but allows you to specify the number of days to keep the dry hops in the fermenter.

Choose Water (Recipe)

- ✚ **Volume** - The amount of water to add to the recipe.

Choose Yeast (Recipe)

- ✚ **Amount** - The number of packages of yeast to add to the recipe.
- ✚ **Pkg/Starter Size** - The size of the package or starter if a starter is used.
- ✚ **Use Starter** - Notes that a separate starter was used and displays the starter size when the yeast is listed in the ingredients list.

Choose Miscellaneous (Recipe)

- ✚ **Amount** - The amount of this item to add.

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Beer Color



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Beer Color

Estimating Bitterness

Mashing

Description

This technical note details the formula used to estimate color and the limitations of approximating beer colors on your computer.

Color Units

BeerSmith allows you to use either Standard Reference Method (SRM) color measurement or European Brewing Convention (EBC) color measurement. SRM (Lovibond) is used widely in the United States, but EBC is gaining in popularity in Europe. You can select either in the Units tab of the **Options** command on the **Tools** menu.

BeerSmith uses the new formula for converting colors:

$$\text{EBC} = 1.97 \text{ SRM}$$

What about Lovibond?

Lovibond (L) color is an older color measurement system, which for all practical purposes is identical to SRM for the average brewer. For example a 40L crystal malt should be entered simply as 40 SRM color.

Estimating Color

BeerSmith uses the equation by Dan A. Morey to estimate beer color, which is a power equation fit to earlier more limited beer color estimating equations. It holds for beer colors with SRM < 50.

The equation is:

$$\text{SRM color} = 1.4922 * (\text{MCU} ** 0.6859)$$

where

$$\text{MCU} = (\text{SRM_color} * \text{Grain_weight_lbs}) / \text{Volume_gallons}$$

Reference: [Brewing Techniques Magazine](#)

Color Display Limitations

In recipe view and in the preview pane, BeerSmith attempts to generate the approximate color of the beer. Note, however, that the SRM/EBC color number is insufficient to determine the actual color. For example, a beer with an SRM color of 5 brewed with a high proportion of Munich malt will have a decidedly red tint to it, while a beer brewed with pale and crystal malts with a 5 SRM color will appear straw colored.

In addition, computer displays and printers all have their own color limitations that prevent an exact match in all cases.

The color displayed in BeerSmith is meant to approximate, as closely as possible, most beer formulations. To compare the colors of beer and recipe, put your beer in a tall glass against a white surface and hold it about arms length away. Given the limitations inherent in estimating color, you may be surprised how close the estimate is to the actual beer.

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Estimating Bitterness



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Description

A technical discussion of bitterness units, formulas for estimating bitterness, and bitterness adjustments associated with various hop uses supported in BeerSmith.

Bitterness Units

The International Bitterness Unit (IBU) [Also called EBU] is the standard for measuring the bitterness contribution of various hop additions to beer. An IBU is defined as 1 mg of iso-alpha-acid per liter of solution. Several methods (listed below) based on the boil time, amount added, alpha acid of the hops, volume of the beer and gravity of the wort attempt to estimate the total bitterness contributed to the beer.

While IBUs provide the most reliable measurement of total bitterness, they are obviously only part of the hops flavor profile. Different hop varieties impart slightly different flavor and aroma profiles to the beer.

Two other commonly used measures are Alpha Acid Units (AAU) and Home Bitterness Units (HBU). These measures take into account only the alpha acid and amount of hops added and are considered inferior to IBUs because they do not account for boil time. The formula for each is:

$$\text{HBU} = \text{Alpha_acid_hops_pct} * \text{Weight_oz}$$




$$\text{AAU} = \frac{\text{Alpha_acid_hops_pct} * \text{Weight_oz}}{\text{Volume_gals}}$$

In both instances, only hops boiled for 15 minutes or more is included in the calculation. BeerSmith calculates total AAUs for a recipe for compatibility, but we recommend using IBUs in recipe formulation wherever possible.

Bitterness Formulas

There are three popular formulas for calculating IBU bitterness. These are Rager, Tinseth and Garetz, with each named after the last name of the formula's author. Each formula calculates detailed hop utilization based on boil time, volumes, wort gravity, alpha acid, etc.

The formulas and tables used to calculate utilization are quite long, but a full discussion can be found at the following web locations/references:

-  [Norm Pyle's Hops FAQ](#)
-  [Glenn Tinseth's Hop Page](#)
-  Rager, Jackie. "Calculating Hop Bitterness in Beer," Zymurgy Special Issue 1990 (Vol 13, No. 4), pp. 53-54


Rager's method is the oldest, and generally results in the highest utilization numbers. Garetz's formula takes into account more factors and results in slightly lower overall utilization, but no utilization for very small boil times.

Glenn Tinseth's method is considered by many to be the most accurate, and is in fact the default method used in BrewSmith.

BeerSmith allows any of the three methods to be used when calculating bitterness. You can set the method to be used for calculating the bitterness of recipes on the Bitterness tab of the **Options** command under the **Tools** menu.

Bitterness Adjustments

Additional adjustments are available depending on the type of hops (plug, whole, pellet) and the use of the hops. All can be adjusted from the Bitterness tab of the **Options** command on the **Tools** menu.

- 
First Wort Hop - Refers to the practice of putting hops in as the first wort is beginning to drain from the lauter tun into the boiler when mashing grains. This method is reported to have a positive effect on hop aroma in the finished beer and also adds slightly to hops utilization due to the additional steeping time. The default setting is a 10% addition to bitterness.
- 
Mash Hop Adjustment - Refers to the practice of adding hops directly to the mash tun during mashing. Reported to add substantial positive hop aroma to the beer, but only adds slightly to bitterness. The default adjustment calculates mash hops as having 80% less utilization (-80%) than boiling hops the equivalent time.
- 
Leaf and Plug Hop Adjustments - The BeerSmith hop database uses pellet hops as the default since that is the type most used by homebrewers. Leaf and Plug hops generally have lower hop alpha utilization than pellet hops. The default adjustment is an 8% loss (-8%) for plug hops and a 10% loss (-10%) for whole leaf hops.
- 
Large Batch Utilization - Very large scale breweries (batch size > 20 gallons) achieve much higher hop utilization rates due to large batch sizes. Microbreweries of several hundred gallons can achieve 300% or more utilization over a home brewer, for example. The default utilization is 100%, which is suitable for batch sizes of less than 20 gallons.

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Mashing

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Description

This article describes the basic formulas and concepts used for mash calculations in BeerSmith.

See [Using Mash Profiles](#) for a description of mashing and the use of mash profiles in BeerSmith

Thermal Equilibrium

All of the mashing calculations in BeerSmith use the simple concept of thermal equilibrium derived from the first law of thermodynamics.

-  **M** = mass of an object
-  **C** = Specific heat of the object (a constant for a given material)
-  **T** = Temperature of object
-  **Q** = Heat Energy

Basically the amount of heat in the finished system has to be equal to the heats added to the system. All of the heat in the system must balance. Heat energy (Q) is calculated simply as:

$$Q = M * C * T$$

And by the first law of thermodynamics, the total heat in the starting and finishing systems must be equal to total heat added to the system.

So for example if we look at a simple infusion we must have...

$$Q1 + Q2 = QF$$

Where Q1 is the original heat energy, Q2 the amount of energy infused and QF the final heat energy in the combined equilibrium system.

This can be rewritten as:

$$M1 * C1 * T1 + M2 * C2 * T2 = (M1 * C1 + M2 * C2) * TF$$

Where M1, C1 and T1 correspond to a starting temperature and M2, C2, T2 correspond to the addition of some water or mash. The final equilibrium temperature for the overall mixture will be TF.

By manipulating the above equation we can calculate the final temperature, amount of water to add or any of the other variables. In fact, all of the infusion calculations can be done using variations of this simple equation.

The equation is simplified if we are working with water, for example, since the heat capacity of water (in metric units) is 1.

One can also compute the effects of adding grain to the mash since the specific heat of grain is approximately 0.38 -- additional factors merely add to the overall equation per their mass, specific heat and temperature.

Mash Tun Adjustments

The mash tun heat energy absorbed can also be calculated if we know the mass of the mash tun and the heat capacity of it. This is why the [equipment dialog](#) includes parameters for these values.

An additional adjustment is made for the total volume of the mash tun. This became necessary after one of our beta testers made a 5 gallon batch of beer in a 15 gallon, 32 lb mash tun! Obviously the 5 gallon mash did not heat the whole mash tun so the calculated numbers were off. BeerSmith therefore now uses the equipment mash tun capacity to adjust for the volume of the mash to calculate the approximately percent of the mash tun used for smaller volume mashes.

Decoction

Decoction still uses to conservation of energy equation from above to calculate the amount of energy that must be added to the system. From that value, one can derive the mass of the mash that needs to be boiled using the combined mash-grist heat energy. Finally, one needs to know the density of the mash (which can be calculated from the density of grain and density of water) to calculate the volume of mash to be decocted.

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Installation

This page will guide you through the setup and installation of BeerSmith.







Installing from a CD-ROM

- Insert the CDROM into your drive.
- The Setup program should start automatically. If it does not, open the CDROM drive and double click on the program **setup.exe** to run it.
- Follow instructions in the Setup program (below).

Installing from the Internet

- Download the zipped archive file, usually named **beersmith.zip** by clicking on the web site link. You can download the latest version from www.beersmith.com.
- Save it to a temporary location on your hard drive.
- Unzip the file to a temporary directory using a file zip utility such as WinZip.
- Run the file **setup.exe** from the temporary directory where you just placed the unzipped files.
- Follow instructions shown in the Setup program

Dialog Description

-  **Install To** - The location to install BeerSmith to. **Note** - If you do not have administrator privileges to install programs, we recommend installing BeerSmith to a local directory in your personal file system.
-  **Create Desktop Icon** - If checked, a shortcut to BeerSmith will be installed on your desktop.
-  **Run BeerSmith when done** - Starts the BeerSmith program for the first time once the installation is complete.
-  **View License** - Allows you to view the BeerSmith license agreement.
-  **OK** - Press this button to install BeerSmith to the directory shown.
-  **Cancel** - Cancels the installation.

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Setup Wizard



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Description

The Setup Wizard starts automatically when you run BeerSmith for the first time. It allows you to configure units and basic preferences for using BeerSmith.

The Setup wizard is only three pages long, so please take the time to set these basic options.

Note - You can change these settings at any time using the [Options command](#) on the **Tools** menu.

Use

- Read the introductory page and press the **Next** button.
- Edit the **Units Page** to set your preferred brewing units. In most cases you can press one of the **Set Units To...** buttons at the bottom of the dialog to set all of the units at once. See the [Units Options Page](#) for a detailed description.
- Edit the **Brewing Options** page to set your basic brewing preferences. These preferences are used as the default in creating new recipes. It is critical that you set your brewing equipment by pressing the **Choose** button, and also that you enter your preferred **Brewing Type**. See the [Brewing Options Page](#) for more details.
- Press the **Finish** button to close the wizard and start using BeerSmith.

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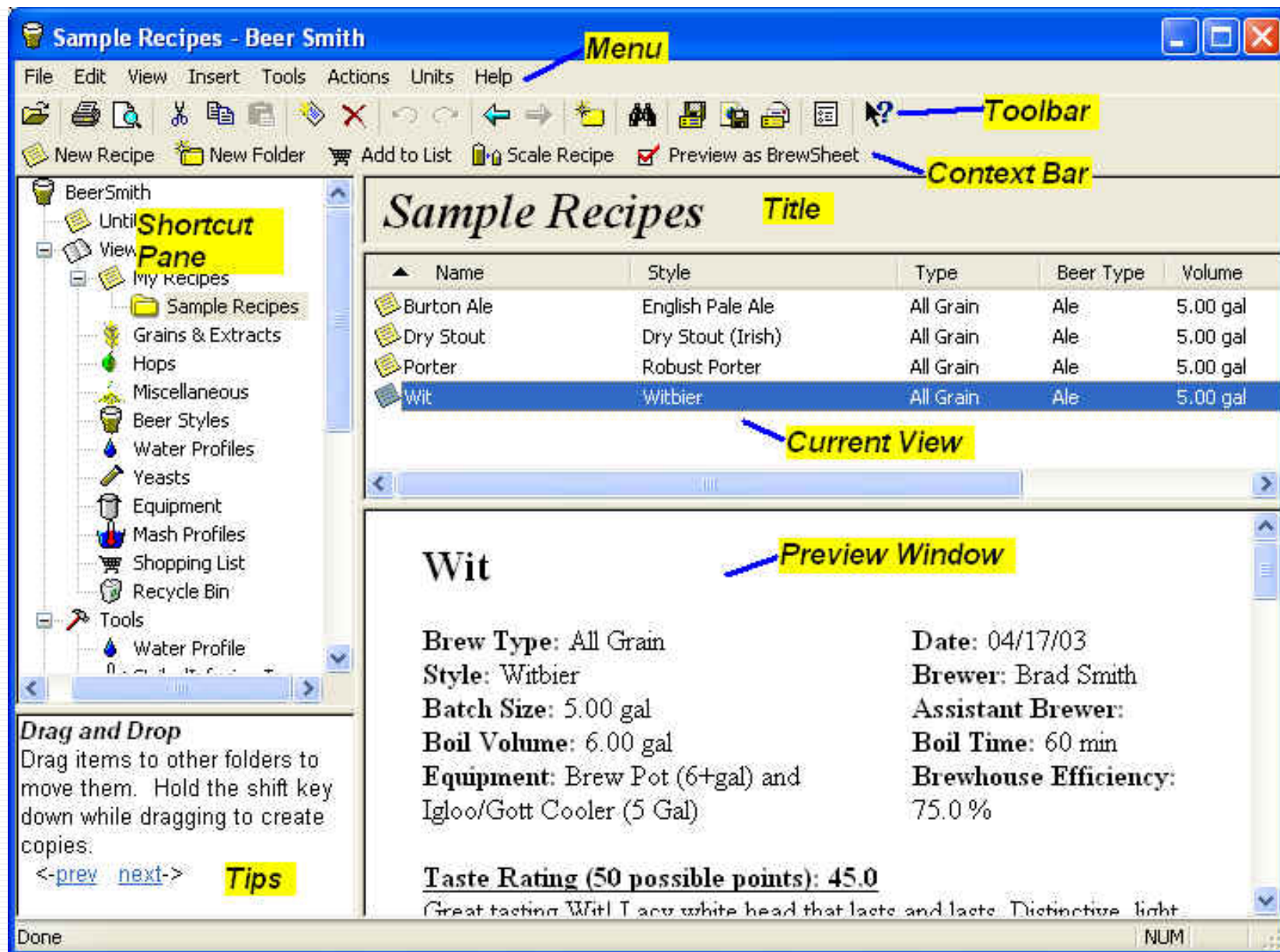
[Maintaining Inventory](#)

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Description







The goal of BeerSmith design was to make the absolutely finest user interface of any beer program in the world.

This topic will walk you through the basic navigation features of BeerSmith. BeerSmith uses a multi-paned window structure to make all of the most commonly used features only one click away.




Basic Elements

- Menu - A standard windows menu (File, Edit, View, etc...).
- Toolbar - A steady toolbar shown just below the menu with familiar icons such as print, cut, copy, paste, undo, previous and next.

-  **Context Bar** - A second toolbar with labeled buttons shown below the main toolbar, the context bar displays different commands depending upon the current view.
-  **Title Pane** - Displays the title of the current view.
-  **Shortcut Pane** - Shows a list of shortcuts to available views and folders. Clicking on any of the views or folders opens that view in the current view pane.
-  **Current View Pane** - Displays the current tool or view. This is the primary work area.
-  **Preview Pane** - When active, displays a print preview of the currently selected item. In this example, the recipe for a Wit beer is previewed in this pane. You can turn off the preview pane using the [Preview Pane](#) command on the **View** menu.
-  **Tips Pane** - Shows hints and tips for using BeerSmith. You can turn off the Tips pane using the [Tips Pane](#) command on the **View** menu.



Getting Help

Click on the **Help Mode** icon () to place BeerSmith in help mode. A question mark will be displayed next to the mouse cursor. Now click on any menu item, shortcut or toolbar button to get specific help on that item. Amazing isn't it?

Navigation

Navigating the views in BeerSmith is as simple as clicking on the items shown in the Shortcut Pane. For example clicking on the **Hops** item will display a list of the hops ingredient table. Using tools is equally as easy - click the **Water Profile** shortcut under the **Tools** item to open the water profile tool.

Moving Back or Next

You can navigate previous views as if they were a web page. Click on the Back or Next button (, ) on the toolbar to move back to the last view visited or forward to the next one.


Hover Hints

Click on the **Hops** view again to display the table of hops items. Hold the cursor in one place over one of the hops items, and a small yellow window will appear showing a description of the item. This neat little trick lets you browse items without clicking on them.

Previewing Items

Click on any of the hops items to select it and a complete detailed view of the hops item will be displayed in the preview pane. This instant preview mode lets you browse items in detail without having to open them.

Editing Items

Double click on any item to open it for editing. Press **OK** to save your edited changes or **Cancel** to cancel them. Note you can undo any edit or sequence of edits using the Undo Command ().

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Editing Items



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Editing Items

All of the main table views and folders support easy editing, including cut, copy, and paste functions. To edit an item from any of the table views, simply double click on the item.

Note - All of the editing functions can be undone using the [Undo Command](#) (↶). on the **Edit** menu.

Selecting Multiple Items

If you hold down the Shift or Control key while selecting items, you can select more than one item to perform an operation on. Holding the shift key selects a range of items, while holding down the Control key lets you select multiple individual items.

Cut, Copy, Paste of Items

You can cut, copy or paste items to the clipboard by selecting the items and then selecting the [Cut](#) (✂), [Copy](#) (📄) or [Paste](#) (📋) commands on the **Edit** menu.

Deleting Items

You can delete the selected items by choosing the [Delete](#) (✖) command from the **Edit** menu. Deleted items are placed in the [Recycle Bin](#).

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Tools and Converters

Tools - The BeerSmith tools are a set of simple calculators designed for standalone use. These calculators perform quick single-function brewing calculations. **Note** - The tools are **not** integrated with the recipe view. Amounts used in the tools do not apply to recipes.

You can access tools from the [Tools menu](#) or from the **Tools** section of the Shortcut pane.

Unit Converters - Unit converters allow you to quickly convert from one set of units to another.

You can access unit converters from the [Units menu](#) or the **Units** section of the Shortcut pane.

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Entering a Recipe



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Description

This section will walk you through creation of a simple extract recipe. We recommend printing a copy of this help file and walking through each step as written.

Our recipe is for a simple 5 gallon batch of Pale ale with the following ingredients:

- 6.6 lb of Pale Extract
- 1 lb of Caramel/Crystal Malt (10 L)
- 2.5 oz of Cascade Hops
- 1 oz Goldings, B.C. [Dry Hop 3 days]
- 1 pkg of Wyeast British Ale Yeast

Use

1. Select the [Recipes View](#) from the **View** menu.
2. Pick the **New Recipe** button on the context bar. This will display a new empty recipe.
3. Enter *Pale Ale* in the **Name** field. This is the name of our recipe.
4. Select *Extract* as the **Recipe Type**. This creates an extract recipe, and will disable the mashing fields.
5. Select *American Pale Ale* as the beer style by pressing the **Choose** button next to the **Style** field. This will display a list of beer styles to choose from. Select the *American Pale Ale* style.
6. Type your name in the **Brewer** field if it is not already there.
7. Select the **Choose** button next to the **Equipment** field to choose the equipment. In this case, we are going to use a 3 gallon brew pot, so select *Brew Pot (3 Gallon)* from the

- equipment list.
8. Check that the batch size is 5 gallons and the boil volume is 2.43 gallons.
9. Click on the **Add Grain/Extract** button next to the ingredients list. Select *Pale Liquid Extract* as the ingredient to add and type in 6.6 lbs as the weight to add.
10. Click the **Add Grain/Extract** button again, and add 1 lb of Caramel/Crystal malt (10L)
11. Click on the **Add Hops** button to bring up the hops list. Choose *Cascade* as the hops to add and set the amount to 2.5 oz. Boil it for 60 minutes.
12. Choose the **Add Hops** button again, and this time select *Goldings, B.C.* as the hop type. Enter 1 oz as the amount and then select *Dry Hop* in the **Use** drop down. Leave the dry hop time at 3 days (the default). This yeast is dry hop yeast to be added to the fermenter for aroma purposes.
13. Click on the **Add Yeast** button and select the *Wyeast British Ale Yeast (#1098)*. Press OK to add it to your ingredients.
14. The ingredients list should now read the same as the list in the Description section above. You can adjust the amount for an item by double clicking on the item or clicking the **Increase Amount** or **Decrease Amount** buttons.
15. Look at the beer profile box below the Ingredients list. It will show how close the beer we have designed comes to the *American Pale Ale* beer style we selected. If you change the ingredients, the profile is automatically recalculated with estimated gravities, color and bitterness. In this case, we have a beer that appears to be appropriate to the style.
16. If we were to brew this beer, we could enter the actual starting gravities in the **Measured OG** and **Measured FG** fields to calculate alcohol by volume and calories.
17. Use the default values for a two stage fermentation, aging, and carbonation. Note that BeerSmith calculates how much corn sugar to add at bottling.
18. Press OK to save the beer. Note that *Pale Ale* is now in the recipe list as a new item.
19. Click on the recipe you just created, and look at the Preview pane. It will show the recipe as it would appear if printed.
20. Click on the [Preview as Brewsheet](#) button. Notice how the preview window now shows a brewsheet of detailed instructions for making our beer. Note how each ingredient is added at the appropriate time and place, water amounts are calculated for the equipment, and each step is listed with a checkbox next to

it.

21. Click the **Print** command on the **File** menu to print the detailed brewsheet. You now have exact instructions for brewing this new recipe.

Note - There is no need to save your recipe. All recipes and other items entered in any of the main table views are saved automatically as you work with BeerSmith. If you close BeerSmith now and reopen it, you will see your new Pale Ale recipe in exactly the same folder.

Congratulations! You have entered and printed your first recipe.

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Description

In addition to the [My Recipe view](#) we used to create a new recipe in our last item, BeerSmith maintains a number of tables for storing the ingredients, equipment, beer styles, and other items.

Each of these tables can be viewed, sorted and freely edited. While all of the basic ingredients you might ever need are already part of the BeerSmith program, you may on occasion need to add your own ingredients or customize some of the existing ingredients to suit your own brewing needs.

Tables Available

A complete list of the table views is available in the [View menu](#) documentation.

Sorting Tables

You can sort a table using any field by simply clicking on the field heading at the top of the view. Clicking on a field a second time will reverse the sort order.

Adding and Removing Fields

You can add or remove fields from a table view using the [Customize Columns](#) command on the **View** menu. This command displays a list of current and available fields and let you add or remove columns.

Editing Items

As described in the [Editing Items](#) section you can edit an item by double clicking it. You can also cut, copy, paste, or delete a set of items by first selecting them and then picking the appropriate operation from the [Edit Menu](#).

Printing a Table Report

The [Print Report](#) command on the **File** menu prints the entire table out rather than the currently selected item. Use this command to print a listing of all hops, for example.

Searching a Table

You can search a table using the [Find command](#) on the **Edit** menu. The find command performs a simple text search on either the visible fields or entire item.

Saving Table Items

The [Export As](#) command on the **File** menu saves the entire current view to a location you provide.

The [Save Selected Items](#) command on the **Actions** menu lets you save the set of currently selected items to a separate file either for backup or sharing with friends.

Mailing Table Items

The [Mail Current View](#) command on the **File** menu mails the entire table contents as an attachment to a mail message.

A second command to [Mail Selected Items](#) on the **Actions** menu mails only the items that are currently selected as an attachment.

Recipe Folders

For recipe views only, you can create folders using the [Folder](#)

(Insert) command to organize your recipes. You can also drag and drop recipes into folders to organize them.

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Creating Shopping List



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Description

This set of instructions helps you create and use the shopping list features of BeerSmith.

Have you ever forgot an important ingredient for your favorite recipe at the beer store? The shopping list feature for BeerSmith helps build a shopping list directly from your recipes with a single click of a button.

The Shopping List View

You can view your shopping list by selecting the Shopping List from the shortcut window or the [Shopping List](#) command on the **View** menu.

To add items to your shopping list, just click on the [New Item](#) button and fill out the dialog describing your item.

Adding Ingredients from Other Views

You can also add items to your shopping list from other views. For example if you go to the [Hops View](#), it has a command [Add to List](#) on the context bar that adds the currently selected items to the shopping list.

Note that you can also drag and drop items directly to the shopping list. For example if you drag a hops item from the [Hops View](#) to the **Shopping List** view in the Shortcut pane, it will be added to the list.

Adding an Entire Recipe

The same process used above can be used to add an entire recipe to the shopping list. For example you can use the [Add to List](#) button to add a recipe to the shopping list. In the case of a recipe, however, all of the items are added to the shopping list.

If you add multiple recipes to the shopping list, you will see that the quantities for identical items are actually added together to build the total list.

Drag and drop also works with recipes. You can drag a recipe from the [Recipes view](#) and drop it on the **Shopping List** shortcut to add its ingredients.

Undoing Added Items

The [Undo](#) command works with items added to the shopping list, so you can remove them using the **Undo** command on the **View** menu.

Printing the Shopping List

Select the [Print List](#) command on the context bar while in [Shopping List View](#) to print a copy of the shopping list.

Emptying the Shopping List

Select the [Empty Shopping List](#) command on the **Actions** menu to empty your shopping list.

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Maintaining Inventory



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Description

BeerSmith has outstanding features that make it easy to build and maintain an inventory of your brewing ingredients.

Adding Your Initial Inventory

You can set the inventory for any existing ingredient by going to the view for that ingredient and editing each item to set the inventory.

For example, suppose you have 3 ounces of *Galena* hops you wish to put in your inventory. Simply go to [Hops View](#) and edit the entry for *Galena*. Enter 3 ounces in the **Inventory** field.

Adding from the Shopping List

You can also add a list of items to inventory from the shopping list. Use the [Add to Inventory](#) command on the **Actions** menu while in shopping list view to add the entire list of items to your inventory.

Note: Only items from the shopping list that have corresponding items with the same name in the main ingredient views will be added. Others will be ignored.

Removing Brewed Ingredients

After brewing, you can also remove all of the ingredients used for a recipe from your inventory with a single button. Select the recipe and use the **Remove from Inventory** command on the **Actions** menu to remove all of the ingredients in the recipe from your inventory.

Note: Only items from the recipe that have corresponding items with the same name in the main ingredient view tables will be updated. Other items will be ignored.

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Updating BeerSmith



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Description

You can update your BeerSmith program and all of the data files directly over the internet from within BeerSmith.

This lets you keep all of your brewing data up to date.

Updating will not modify your inventory or alpha acid values, but may modify other fields for updated items with the same name.

Options are available to manually or automatically update your files.

Choosing What to Update

You can control which tables you want updated as well as how to update using the **Auto Update** tab on the [Options](#) command of the **Tools** menu.

Automatic mode checks every 10 days for new updates and downloads them automatically. New updates are also installed automatically. Recommended only if you have a broadband always-on internet connection.

Semi-Automatic mode checks files and downloads them in the background, but prompts you before installing them. Recommended only if you have a broadband always-on internet connection.

Manual mode checks only when you run the [Update BeerSmith from Internet](#) command from the **Tools** menu. This is recommended if you have a dial up connection.

Manually Updating

You can manually update BeerSmith at any time by running the [Update BeerSmith from Internet](#) command on the **Tools** menu. Connect to the internet before running this command.

This will open a progress dialog. Press the start button to begin downloading.

Progress on each file will be shown. If there are any new files to install, the program will show them as they are downloaded. Once complete, press OK to install any updated downloads, or cancel if there are no files to download.

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Using Mash Profiles



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Description

Mashing is a process wherein sugars in barley and other grains are converted from a complex form to a simple form that can be fermented by yeast. Mashing is done by heating a water-grain mixture to a certain temperature and holding it for a period of time. Enzymes native to barley grain are activated at specific temperatures to complete the sugar conversion.

Mashing is used only in Partial or All Grain brewing schedules. Mashing is not required for extract brewing because the syrup extract is derived from grains that have already been mashed and converted.

Steeping (the use of specialty grains in extract brewing) is not the same as mashing. While steeping can extract flavors from many grains, it is not very efficient at extracting sugars from the grains. Typical efficiencies for steeping is only in the 15% range (by weight) while mashing produces sugar extraction efficiencies in the 65-77% range.

BeerSmith supports advanced mashing profiles including any combination of infusion, temperature or decoction mashing.

The Mash Step

The mashing process is usually divided into steps. A step consists of holding the grain-water mixture at a fixed temperature for a period of time. In BeerSmith you can easily add and define a series of mash steps to create a mash profile.

The simplest, and most widely used mash process is a single step

infusion mash. It can be used with any modern well-modified grain that has less than 50% adjuncts. Here a measured quantity of hot water is added to achieve a mash temperature of between 152-158 F. This temperature is held for 40-90 minutes to convert the sugars.

Steps Supported

BeerSmith fully supports the following types of mash steps:

Infusion - In an infusion step, a measured amount of hot water is added to raise the temperature of the mash to the desired temperature. The step temperature is then maintained either with heat or by using some kind of insulating container (such as a large insulated water cooler or picnic cooler). For mash steps, BeerSmith calculates the amount of water to add based on the amount of grain, starting temperature, target step temperature and if desired the mash tun thermal characteristics.

Temperature - In a temperature mash step, direct heat from a stove or burner is applied to the mash to raise and maintain the desired temperature. For this type of step, BeerSmith also provides a rise time parameter to measure how fast to heat the mash.

Decoction Mashing - A German method wherein a portion of the mash is removed and boiled in a separate container. The boiling mash is then added back to raise the temperature of the overall mash to the desired step temperature. Decoction mashes are often done at higher water/grain ratios than infusion mashes. For Decoction mashes, BeerSmith computes the volume of the mash that needs to be decocted and boiled to hit the target temperature.



















Mash Profiles

BeerSmith uses the concept of a mash profile to apply a series of mashing steps to your brewing recipe. The idea behind a mash profile is to define, in a generic way, the mash steps. When a mash profile is applied to an actual recipe all of the water volumes are scaled according to the total grain in the recipe to maintain a constant water to grist ratio. This lets you create a mash profile that can be used across a wide variety of recipe sizes without having to manually alter the profile for each recipe change.

A table of mash profiles are stored in the [Mash Profiles View](#) on the **View** menu. The best place to create a new profile is from this view.

Creating a Mash Profile

Follow these steps to create a simple two step infusion mash. The first step will be at 118 F for 20 minutes, and the second step at 154 F. For our main infusion step, we will target a water to grain ratio of 1.5 which is a very normal value for conversion in an infusion mash. Since we also have the protein rest we will add 7 quarts for the first step and 8 quarts for the second which totals 15 quarts for our 10 lb batch or 1.5 qts/lb.

-  Choose [Mash Profiles](#) from the **View** menu.
-  Click on the [New Mash Profile](#) button to create a new profile.
-  Give the profile a name such as *My Two Stage Infusion*
-  Press the **Add** button in the Mash steps box to add a new step.
-  Give the step a name such as *Protein Rest*.
-  Leave the **Typeset** to infusion.
-  Set the **Water to Add** to 7 quarts of water.
-  Set the **Step Temperature** to 118 F.
-  Set the **Step Time** to 20 minutes.
-  Press **OK** and the first step will be added.
-  Click the **Add** button in the Mash steps box to add a second step.
-  Give it the name *Main Mash*.
-  Leave it as an infusion type.
-  Set **Water to Add** to 8 quarts.
-  Set the **Step Temperature** to 154 F.
-  Leave the time at 40 minutes.
-  Press **OK** to save your second step.
-  Press **OK** to save your new mash profile.

The mash profile should now appear in the main mash profile list. You can now apply this mash profile to any recipe by simply opening the recipe and choosing this mash profile. When you apply the profile to the recipe all of the quantities and amounts will be adjusted to maintain the water to grain ratios you described.

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Brewing Options



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Description



Options page that controls the brewing defaults used in creating new recipes.

Use

- Select the **Brewing** tab in the options dialog.

Dialog Description

- **Brewer's Name** - Name used as the default in creating new recipes.
- **Brew Type** - The type of brew you most often create. May be Extract, Partial Mash or All Grain.
- **Equipment** - Lists the current equipment settings. It is important that you customize this setting to your particular equipment as these settings are used to calculate boil volume, water needed and other important recipe values.
- **Choose** - Displays the table of available brewing equipment. Select the one closest to your actual brewing equipment and then adjust the settings using the **Details** button.
- **Details** - Displays the details of the current equipment settings so you can adjust them.
- **Fix Boil Volume Based on Equipment** - If checked, calculates the boil volume based on the current equipment settings.
- **Batch Size** - The batch size for brewing, defined as the amount of wort going into the primary fermenter.

-  **Boil Volume** - The volume of wort you start the boil with. If the **Fix Boil Volume** flag above is checked, the boil volume will be grayed out and automatically calculated based on equipment settings.
-  **Brewhouse Efficiency** - For partial mash and all grain brewing only. The efficiency is the amount of potential sugars extracted from grains in the mashing process. For most home brewers this is a value in the range of 70-78%.

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Description

The units page of the options dialog lets you set the display units used throughout BeerSmith tools and views to show all units.









Note: Units are used only in the display and entry of recipes and other data. Items are automatically converted to these units when displayed. The underlying items do not change as units are altered.

Use

- Select the **Units** tab on the **Options** dialog.
- Use the drop down list boxes to change individual units.
- Use the **Set units to...** buttons at the bottom of the dialog to change all of the units at once to US English, Metric, or Imperial measures.

Dialog Description

- Batch Size** - The units used to measure a batch of beer or other large volume.
- Grain/Extract** - Units used to measure and display grains, sugars and extracts.
- Hops** - Units used to measure hops or other small quantity weights.
- Yeast** - Units used in measuring yeast starters.
- Mash Volumes** - Units used for measuring mash volumes and water to grain ratios.
- Temperature** - Units for measuring temperature.
- Pressure** - Units used to measure CO2 carbonation pressures for kegging.

-  **Specific Gravity** - Units used to measure specific gravity. The most common is the SG scale (1.000 is water).
-  **Color Units** - Units used to measure grain and beer color. May be SRM (Lovibond) or EBC. See the [technical note on color](#) for more information.
-  **Ingredient Increments** - Displayed next to a measure such as Batch Size. These are the increments used to increment or decrement the size of ingredients in recipe view when the **Increase Amount** and **Decrement Amount** buttons are pressed.
-  **Boil Time Increment** - The number of minutes to add or subtract from the boil time when hop times are adjusted in the ingredients list of the recipe view.
-  **For English Units, display grains using both pounds and ounces (i.e. 2 lb 3oz)** - If checked and the grain units are pounds, this option enables display in pounds and ounces - so that 2.5 lbs will now be displayed as 2 lbs 8 oz for display purposes.
-  **Set Units to English (US)** - Changes all of the unit settings to match United States English measures.
-  **Set Units to Metric** - Changes all of the unit settings to metric measures.
-  **Set Units to English (Imperial)** - Changes all of the unit settings to Imperial English (i.e. Imperial gallons, Imperial quarts).

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Description

Displays the bitterness options page, from which options for calculating bitterness can be set. These settings affect the calculation of International Bitterness Units in recipes.





See the [Hops Technical Page](#) for a more detailed description of hop calculations and settings.

Use

- Select the **Bitterness** page of the **Options** command on the **Tools** menu.
- Adjust hop calculation settings as desired.
- Press OK to save the new settings.

Dialog Description

- Formula for Bitterness** - The formula to use when calculating international bitterness units for recipes. See the [bitterness technical page](#) for a description of the three bitterness formulas. We recommend using Tinseth for most applications.
- First Wort Hop Adjustment** - The percent increase or decrease in hop utilization when using hops as a first wort hop while lautering and boiling. The recommended value is 10% (an increase).

-  **Mash Hop Adjustment** - The bitterness adjustment used when steeping hops in the mash tun during the mash (instead of boiling). Generally this results in great aroma but little bitterness. The recommended adjustment is -80% versus boiling.
-  **Leaf Hop Adjustment** - BeerSmith uses pellet hops as the default. This value represents the increase or loss in utilization when using leaf hops. The recommended value is -10% (loss versus pellet hops).
-  **Plug Hop Adjustment** - The increase or loss in utilization when using plug form hops. The recommended value is -8%.
-  **Apply hop type adjustments to hops used in recipes** - When checked, the hop adjustments for plug and leaf hops are applied to recipes using those types.

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Description

Dialog for entering your address. The address is used only for printing competition forms for your recipes.

Note - To protect your privacy, your address is not included in recipe files. It is stored only as an option on your local machine for printing purposes.

Use

- Select the **Address** page of the **Options** dialog.
- Enter your name and address for printing competition forms.

Dialog Description

- Brewer's Name** - Your name.
- Address** - Your mailing address.
- Organization** - The name of the brewing club or organization you belong to.
- Phone** - Your phone number.
- Email Address** - Your email address.
- Web Site** - Your web site.

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Description

Controls the options for updating the BeerSmith program and brewing tables over the internet. BeerSmith lets you manually or automatically download and update your program and data over your internet connection.

Note - The table selections are also used for manual updates. Only the selected items will be updated when an update check is done over the internet.


Use

- Select the **Auto Update** page on the **Options** dialog (**Tools** menu).
- Choose the update method and which tables you want update.



Dialog Description

Update Method

- Manual** - Never automatically updates BeerSmith or its data. Only updates the selected items when the **Update BeerSmith from Internet** command is run from the **Tools** menu by the user.
- Semi-Automatic** - BeerSmith will download new updates in the background, but will prompt the user before installing any updates.

-  **Fully Automatic** - BeerSmith will automatically download updates in the background over the internet and also automatically install those updates as they become available.

Update These Items

-  **BeerSmith Program** - Updates the BeerSmith program and help files as new versions are available.
-  **Other Selections** - Updates the corresponding table in BeerSmith automatically as they become available. If any item is not checked, then that table will not be updated from the internet.

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Refractometer Options



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Description

Displays options for calibrating your refractometer. The refractometer calibrations are used for all calculations in the [refractometer tool](#). The calibration generally needs only be performed once, but try to take as accurate a reading as possible.

Use

- Select the **Refractometer** tab on the **Options** dialog.
- Follow instructions to set the refractometer calibration as needed.

Dialog Description

- **Refractometer Units** - Refractometer measurements may be in Brix or RI units. Most common brewing refractometers measure in Brix.
- **Distilled Water Reading** - Get some distilled water and take a reading using your refractometer. If you have an adjustable refractometer, then adjust your refractometer so it reads zero when measuring distilled water over several samples and enter zero here. If you cannot adjust your refractometer then enter the distilled water reading here.
- **Refractometer Reading** - Start with a sample of unfermented degassed beer wort and take several separate readings with your refractometer. Average the values together and enter the reading here. Try to be as accurate as possible as small errors can significantly affect subsequent refractometer readings.

- **Hydrometer Reading** - Using the same sample of unfermented wort, take several readings with a high quality hydrometer as accurately as you can. Use the hydrometer tool to adjust for temperature if the reading is taken at a temperature other than your hydrometer calibration temperature. Average the readings together and enter the number here as accurately as you can.
- **Brix Correction Factor** - A correction factor for wort based on the two readings taken above. The default setting of 1.040 is a good starting point until you can get a more accurate reading.

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Description

Displays a dialog showing a list of all custom report templates for use in BeerSmith. You can create your own custom report templates by copying any of the existing templates and then modifying the copied template.

System templates normally reside in the "C:\Program Files\BeerSmith\templates" directory.

NOTE: DO NOT directly modify any of the system report templates directly - please make a copy and modify the copy. Modifying any of the system provided report templates can cause incompatibilities and problems when using BeerSmith alone or with other programs.

To add your own report template you must first create a template file (see below). Once added, the template will appear in the report selection list for appropriate views, just like the system provided reports.

BeerSmith uses a simple template system that allows you to insert fields anywhere in an XML, HTML or TXT document that will be replaced by the actual data. BeerSmith supports nearly all of the [BeerXML](#) data tags, plus additional tags. All tags should be inserted as "\$TAG_NAME". Here is a simple hops template in text:

Sample Hops Template (Text):

```
Name: $NAME  
Origin: $ORIGIN  
Type: $TYPE
```

Form: \$FORM

Alpha: \$ALPHA %

Beta: \$BETA %

Hop Stability Index: \$HSI%





Inventory: \$INVENTORY

Notes: \$NOTES

Use

-  Select the **Reports** tab on the **Options** dialog.
-  Add or remove templates as desired.

Dialog Description

-  **Report List** - A list of installed custom templates. The name of the template and data type it is associated with (such as hops, recipe, etc) is shown in the list box.
-  **Add** - Adds a template. Note that the template must be stored on your hard drive and must have an "xml", "txt" or "htm" extension.
-  **Edit** - Edits the template selected.
-  **Delete** - Deletes the template selected.

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Description



Displays advanced constants and options used in brewing calculations.

Use

- Select the **Advanced** tab on the **Options** dialog.
- Adjust parameters as needed.

Dialog Description

- **Grain/Malt Specific Heat** - The specific heat of grains/malts. This number is used to calculate mash infusion temperatures, decoction volumes and other mash parameters. The recommended value is 0.38 -- but some sources quote values between 0.36 and 0.40
- **Volume for 1 Kg of Grain** - The volume occupied by one kilogram of grain in liters. This constant is used to determine the mash thickness in decoction calculations. It is also used for temperature adjustment in other calculations to determine how much of a mash tun is occupied when adjusting for mash tun specific heat, and also for determining the volume required to mash a given amount of grain. The recommended value is 0.652 liters per kg of grain.

-  **Brew Log Name** - The name of the folder under the **My Recipes** folder that is used for storing your brew log. Selected recipes are copied to the brew log when the [Copy to Brew Log](#) command is selected on the **Actions** menu. The default name is "**Brew Log**" but you can customize the name to suit your preferences.
-  **Confirm Changes Before Closing a Recipe** - If a recipe is opened for editing and then closed without using the **OK** or **Cancel** buttons, this option specifies that the user should be prompted to confirm the changes before they are saved. You will be asked to save any changes before the recipe is closed out. If this button is not checked, all changes are saved automatically when the recipe is closed.

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Mash Step (Add)



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Description

Displays a dialog to add a mash step to a mash profile.

Use

- Select the **Add** button from the Mash Profile dialog

Dialog Description






- Name** - The name of the step.
- Type** - Type of step -- may be one of

Infusion - Hot water is added at the beginning of the step to raise the temperature of the mash to the step temperature.

Decoction - A portion of the mash is removed and brought to a boil separately. The hot mash is then added back to the original mash to raise the temperature to the step temperature.

Temperature - The mash temperature is raised by applying external heat. Water may also be added as needed.

- Water to Add** - The amount of water to add. This is available only for infusion and temperature steps, since decoction adds no water. Note that you may alternately enter the water to grain ratio as opposed to the amount of water by checking the radio button next to water to grain ratio.

-  **Water/Grain Ratio** - The ratio of water to grain for this step. Note that the desired water to grain ratio is maintained when this mash profile is applied to an actual recipe. For infusion steps you can enter the desired ratio here if the water to grain ratio button is checked. If you enter a water to grain ratio that is smaller than the starting water/grain ratio for this step an error message will be displayed.
-  **Step Temperature** - The target temperature to maintain during this step.
-  **Infusion Water Temp** - The calculated temperature of water to add to achieve the desired step temperature. Note that it will display "None" if there is no water added, and an error message will be displayed if the calculated temperature would be above boiling. In this case more infusion water will be needed to achieve an infusion temperature below the boiling point of the water.
-  **Step Time** - The time in minutes to hold the mash at the step temperature.
-  **Rise Time** - The amount of time to take in raising the temperature of the mash. For infusion steps this is typically only a few minutes, but for temperature mashes it can take some time to fully heat the mash.

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