Amphora Manual

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Introduction

What is Amphora?

Amphora is a powerful winery production application for tracking and managing the winemaking process. It is a process log with advanced data storage, management, and presentation capabilities. Amphora can track winery operations from the vineyard to the bottle. The software is sophisticated, yet simple to use, and has features that the most advanced winemaker will appreciate, such as user-defined database queries, reports, and charts. Amphora has been installed in more than 500 commercial wineries, vineyards, breweries, and cideries, in more than 30 countries around the world.

Amphora can be used as a traditional winemaking log where data is recorded and referred to at a later date. However, Amphora incorporates a complete relational database management system. Amphora can extract information from data in ways that are not possible with a paper or spreadsheet-based record-keeping system.

Amphora has a large number of features. These features are organized into separate, but linked, modules or views. Basic winemaking data such as measurements and additions are entered via the Batch Management view. Amphora includes several other views including Vineyard Management, Container Management, Task Management, Package Inventory Management, General Inventory Management, and Winery Management. Amphora makes it possible to manage the entire winemaking process, from vineyard to bottle. Some users take advantage of this broad scope, while others may use a smaller set of features.

Amphora is simple to use, but it helps to understand the basic concepts behind the program. Amphora divides winemaking into two broad areas: Process and Events. A **Process** occurs over a span of time. Processes include such items as fermentation and aging. An **Event** occurs during a **Process**, at a moment in time. Events include such items as measurements, additions, or tastings.

The winemaking process can be tracked in as much or as little detail as required. Amphora can track a large number of items, but everything is optional. Some users may take advantage of all the included modules, while others may use a subset of the available modules and associated features. The software is designed with flexibility in mind so that the program is useful for the widest range of winemakers and brewers.

Getting Started

Step 1: Database Setup

The initial step involves the decision on whether to use an embedded database or a cloud database. If there is a single user or multiple users on the same computer, an embedded database would be the preferable choice. An embedded database resides on the computer where Amphora is installed. It is very fast, as it does not require network connections.

If a single user requires access from multiple locations, or if multiple users require access to the same database from multiple locations, then a cloud database is required. Cloud databases are located on fermsoft servers. See the Database chapter for more details about database setup.

Step 2: Settings and Preferences

Before using Amphora, users may want to adjust some of the default settings. These include such items as default weight, volume, and temperature units. Some preferences such as measurement units will be an immediate concern, while others can be set at a later time as needed. Preferences can be changed at any time.

Automatic Preference Setting

The first time the program is started, your locale will be detected and basic default preferences are selected based on your locale. For example, metric or imperial units are selected, along with other locale-based settings such as time and date formats, and currency. The automatic preferences can be overridden using the **Preferences** dialog.

Manual Preference Setting

If you find that the default preferences are not correct for your use, they can be changed in the **Preferences** dialog at any time.

Step 3: Containers

Containers such as tanks and barrels can be set up in the Container Management view. You can set up all containers immediately after starting to use Amphora or you can enter them individually as needed.

Step 4: Vineyards and Blocks

Vineyards and blocks can be set up in the Vineyard Management view. You can set up your vineyards as well as other vineyards from which you receive fruit or juice. Setting up vineyards and blocks allows tracking of vineyard activities, as well as tracing of the wine back to its origin in the vineyard. The Batch Management and Vineyard Management views are linked in such a way that it is possible to trace a finished bottle of wine back to the physical conditions of the vineyard (such as weather), as well as human factors such as spray applications and harvest.

Step 5: Company Information and Contacts

Company information such as name and address can be recorded. Contact information can be entered for vendors and suppliers. This information can then appear on reports and invoices. Contact information can also be accessed in various program dialogs where appropriate.

Step 6: Creating a New Batch

Once the initial setup is complete, the next step is to start tracking winemaking activities. Winemaking processes and events are applied to a **Batch**. Creating a batch involves specifying general information such as variety and color. See Creating a New Batch for details regarding this initial step. Once the batch is created, processes and events are then entered.

Processes and events are entered by selecting the desired item (such as **Additions** or **Measurements**) from the left side of the screen while in the **Batch Management** view. Previous entries are shown in the main table. See Viewing and Editing Data for details on entering and editing data.

Amphora is simple to learn as all information is viewed and entered in the same way. All data is shown in the main table and manipulated using the same toolbar and menu items.

The best way to learn Amphora is to use it. You can create a "practice batch" and experiment with the program. After, you can delete the practice batch so that the data is not mixed with your "real" data.

Databases

Introduction

At the core of Amphora lies a complete relational database system. This is the main reason Amphora is superior to a paper or spreadsheet based record-keeping system. The various data tables and views are linked together in a way that allows the easy extraction of useful information.

Database Modes

Amphora supports three types of database connections:

- Embedded
- Cloud
- Server

Amphora allows the creation of one cloud database and unlimited embedded or server databases for each subscription.

Embedded Databases

An embedded database is a local database that resides with the application on the same computer. The main advantage of an embedded database is high-speed data access, as there is no network connections. The main disadvantage of an embedded database is that it only allows a single connection and cannot be accessed by multiple users simultaneously, or from different locations. An embedded database should be used where Amphora is installed on a single computer. Small wineries where data entry occurs on a single computer and remote access is not required, should use an embedded database. By default, Amphora uses an embedded database. This default database is created automatically and requires no additional setup by the user. Amphora also allows the creation of unlimited additional embedded databases.

Cloud Databases

Cloud databases allow multiple users to access the same database simultaneously, from multiple computers or locations. Cloud databases are also useful for small wineries where a single user may want to access the database from multiple locations. Unlike embedded databases, cloud databases are hosted and managed on fermsoft cloud servers.

Server Databases

Amphora supports connections to MySQL servers. Users with database expertise may wish to set up their own database server as an alternative to a fermsoft managed cloud database. While Amphora supports connections to MySQL servers, the setup and maintenance of these servers is the responsibility of the end user.

Creating and Using Embedded Databases

Creating a New Embedded Database

When the program starts for the first time, a database called *amphora_data* is created automatically. If this database is used, no extra setup is required. Data entry can proceed immediately.

To create additional embedded databases select **Data - New Embedded Database** from the program menu. A dialog will appear where the database name can be specified. Each database you create must have a unique name. The name can be anything you like, such as the name of your winery. After clicking **Create**, Amphora will create the new database. Amphora will offer the option to copy user preferences from the current database to the new database. The program will then need to be restarted to load the new database. Additional embedded databases are useful in cases where more than one winery is being managed on a single Amphora installation.
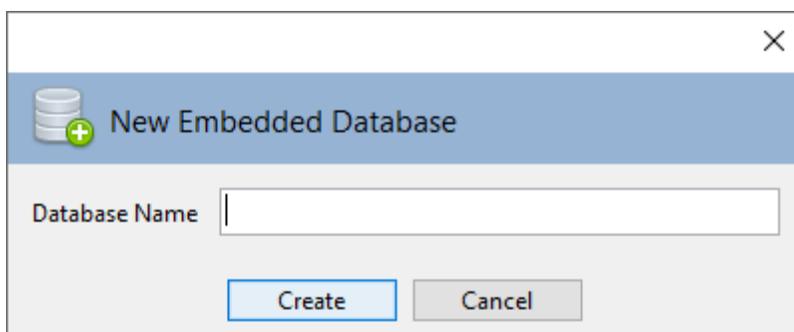
Figure 1: Creating a new embedded database.

Enabling User Authentication

As embedded databases normally have a single user, user authentication is disabled by default. However, users can be created by selecting **Embedded Users – New Embedded User** from the **Data** menu. A user and password are then entered. Go to Preferences and ensure **Enable User Login** is selected. The next time the program starts, a login dialog will be shown.

Deleting Embedded Users

Existing embedded database users can be deleted by selecting **Embedded Users – Delete Embedded User** from the **Data** menu.

Deleting Embedded Databases

Databases can be deleted by selecting **Embedded Databases - Delete Database** from the **Data** menu. A dialog will then ask for confirmation before the database is removed. This is not a normal operation as it will permanently delete all data. Data is only recoverable if a backup is available. The default *amphora_data* database cannot be deleted as the program needs this database to function.

Backing Up Embedded Databases

The program automatically backs up the database each time the program is closed. This backup file is

stored locally on your computer where documents are normally saved. The location of automatic backups can be changed by choosing **Data - Embedded Database Backup - Automatic Backup Folder…** from the **Data** menu.

Databases can also be manually backed up at any time. Select **Data - Embedded Database Backup - Backup Current Database...** to backup the current database. A dialog is shown where the location of the backup is selected. If the database has been previously backed up, the program will remember the location and initialize the file dialog to the correct folder. After choosing a backup location, click **Select** and the database is then backed up to the selected location.

To protect against data loss it is advisable to back up your data regularly and save it to external media such as a USB drive or cloud storage. If the default database is backed up, the resulting backup file is named *amphora_data.zip*. If you are backing up a custom database, the resulting backup file will have the same name as the database and will have the *.zip* file extension (eg. *my_winery.zip*).

When the software performs a manual backup, the database is compressed to **ZIP** format. This reduces the file size and makes it easier to store the backup on external media. If the backup is restored, the software will "unzip" the file before restoring the database. There is no need to use a third-party compression utility.

Restoring Embedded Databases

The database can be restored to its previous state by choosing **Data - Embedded Database Restore - Restore from Automatic Backup**. The database will then be restored using the automatic backup file from the last time Amphora was closed.

The database can also be restored to any previous state if a manual backup is available. To restore the database using a manual backup, choose **Data - Embedded Database Restore - Restore from Manual Backup**. A dialog is displayed where the backup file is selected. The program will remember the location of the last backup and initialize the file dialog to that folder. The default database backup file is named *amphora_data.zip*. If you have backed up custom databases, the backup file will have the same name as the database and will have the *.zip* extension (eg. *my_winery.zip*). The dialog will filter the file list to display ZIP files only. After selecting the database file, the program will restore the selected database. Amphora will then need to be restarted to load the restored database.

Creating and Using Cloud Databases

Creating a New Cloud Database

Unlike embedded databases, cloud databases are not created automatically. To create a cloud database select **Data - New Cloud Database** from the program menu. A dialog will appear where the name for the database is specified. The name can be anything you like, such as the name of your winery. However, it must be a single word with no spaces. A user name and password must also be entered. After clicking **Create**, Amphora will create the new cloud database. This operation may take a few minutes. The program will then need to be restarted to load the new database. After a cloud database has been created, **New Cloud Database** will no longer appear in the menu. It will be replaced by **Connect to Cloud Database**.
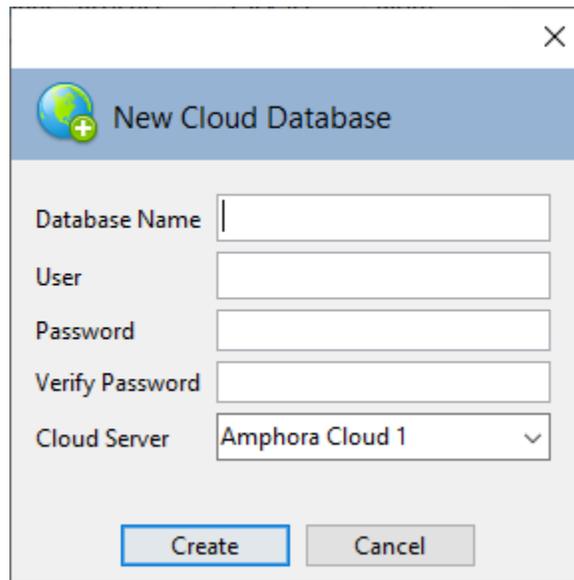
Figure 2: Creating a new cloud database.

Connecting Multiple Users to Cloud Database

Once a cloud database has been created, other users at different locations can then access the database. In the **Data** menu, go to **Connect to Cloud Database** to set up a new user account. The user will be presented with the same dialog as when creating the cloud database. The user would enter the same **Database Name** as originally entered when creating the database. They would then enter their personal user name and password. After clicking **Create**, a new user account will be added to the cloud database. The program will then need to be restarted to connect to the database.

Cloud Database Maintenance

Cloud databases are maintained and backed up by fermsoft. However, some of this functionality will be available to end-users in a future update.

Creating and Using Server Databases

Server databases are set up in the same way as cloud databases, except that it involves connecting to a MySQL database on your personal network, rather than connecting to a fermsoft cloud server.

Switching Between Databases

If you have created more than one database, Amphora will display a dialog at startup that allows the selection of the desired database. For example, you can switch between multiple embedded databases, or switch between the cloud database, and embedded databases.

Custom Database Queries

Creating Custom Queries

One of the most powerful features of Amphora is the ability to create customized database queries. Using queries, information can be extracted from the database in a nearly infinite number of ways. The extracted data can then be exported to spreadsheets where customized reports can be generated. This feature will mainly appeal to users who have some database knowledge. Most users will not need to use this feature, as the built-in reports are adequate for most purposes.

Queries are written using **Structured Query Language** (**SQL**). Writing basic queries using SQL is relatively simple, but more advanced queries may require some database expertise that is beyond the scope of this manual.

Editing, and Deleting Custom Queries

Creating, editing, and deleting queries is done in the same way as all other data. Click on the **New Record**, **Edit Record**, or **Delete Record** buttons above the table (see Program Overview). To edit or delete a query it is necessary to highlight the query in the table. The query text area has a built-in syntax highlighter for the display of the query.

Executing Custom Queries

To execute a custom query go to **Data - Custom Queries** in the program menu.

The main table will display a list of previously saved queries. If no custom queries have been created, the table will be empty. If you have saved queries then select the query that you wish to run and click the **Execute Query** button in the toolbar above the lower query text area. The main table will then display the results of the query.

Queries that have not been saved can also be executed. Type the query into the text area below the main table and click **Execute Query** button. The main table will then display the results of the query.

Database Structure

Before writing queries it is necessary to understand how the program data is organized. The data is organized into logical groups called tables. The list on the left side of the program (Batch Information, Additions, etc...) is a list of database tables relating to a particular batch. When these items are clicked, the contents of the database table are displayed in the main application table. Writing a database query involves specifying the table(s) that contain the data and specifying the table column(s) that you want to retrieve. When writing queries, the Amphora database schema will be needed as a reference.

Database Schema

The database schema reference is built into the program. Click the **Database Schema** button above the lower query entry area and the database schema will be shown in the upper table. All tables, columns, and data types will be displayed. This reference is always up to date, as the schema is obtained from the database in real-time.

Program Overview

Program Views / Modules

Amphora contains 7 major data views or modules:

	Batch Management
	Container Management
	General Inventory Management
	Package Inventory Management
	Task Management
	Vineyard Management
	Winery Management

Table 1: Major Views

The features of each of these views are detailed in the appropriate section of this manual. Most winemaking data is entered into the core **Batch Management** view. All winemakers will use this view. The other views are optional. Each view can be used independently, but the program provides integration between the views to provide sophisticated reporting and tracking. For example, one of the most powerful linkages is between the **Vineyard Management** and **Batch Management** views. This linkage provides the ability to trace a finished wine back to the vineyard. Other linkages exist and will be described in the appropriate section of this manual. These linkages are one of the primary reasons why Amphora is much more powerful than a paper or spreadsheet based record-keeping system.

Sub Views / Modules

Amphora also includes two sub modules that can be opened within a major module:

	Batch Log View
	Calendar View

Table 2: Sub Views

Selecting a View

A view can be selected by choosing the desired view from the **View** menu, or by selecting the view from the vertical bar on the left edge of the window. The name of the currently active view is displayed above the left vertical bar.
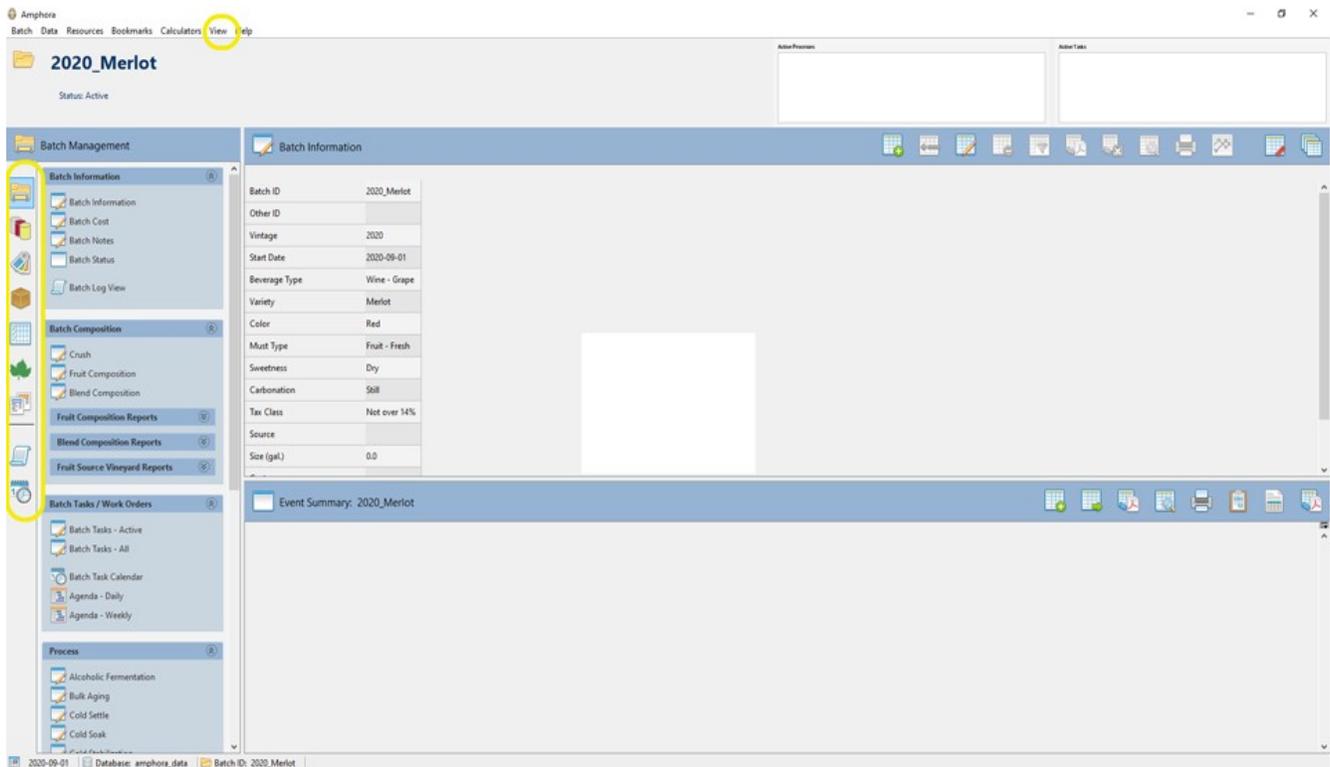
Figure 3: Selecting a view.

Viewing and Editing Data

Main Table

Regardless of the selected view, program data is displayed in the main table that occupies most of the program window. To populate the main table, click the desired data item from the task pane on the left side of the window.

Most data records that appear in the main table can be edited or deleted, and new records can be added to the table. Data is added or edited by clicking the buttons in the toolbar above the main table. Alternately, a right mouse click on the table will cause a context menu to appear that provides functions for inserting, editing, and deleting data. The data editing functions are common throughout the program, and work the same, regardless of the selected view or table.

While most data is editable, some data tables are automatically generated from existing data, and are not editable. The icons associated with each table indicate whether the data is editable or not.

Indicates an editable data table

Indicates a read-only data table

For example, Measurements is an editable item. Measurements can be added, edited, or deleted. On the other hand, **Measurement Reports** are non-editable. These provide more concise views of the measurement data. The actual measurements contained in these views are edited in the Measurements section.

Main Table Toolbar and Context Menu

Creating New Records

New records are inserted into the table by clicking the **New Record** button above the main table or by selecting **New Record** from the context menu after right mouse clicking. This triggers a dialog in which new data can be entered. The type of dialog displayed is dependent on the data that is currently contained in the main table. For example, if the table currently contains fermentation data, the fermentation dialog will appear when the **New Record** button is clicked. After entering data into the dialog, click **Save** to save the data, or **Cancel** to close the dialog without saving.

Creating New Records from a Record Copy

New records can also be created as copies of existing records. For example, you may want to create a new record that will be nearly identical to an existing record. Highlight the table row to copy and click the **New Record From Copy** button above the main table, or select **New Record From Copy** from the context menu after right mouse clicking. The resulting dialog will be automatically populated with

the data from the selected table row. Make any necessary changes in the dialog and click **Save** to save it as a new record. Creating new records from copies can save time when new records are similar to existing records.

Editing and Viewing Existing Records

Existing records can be edited or viewed in a dialog by clicking the **Edit / View Selected Record** button above the main table, by selecting **Edit / View Selected Record** from the context menu after right mouse clicking, or by double-clicking a table row. This triggers a dialog in which existing data can be edited or viewed. The dialog will be populated with the data contained in the selected table row. It is necessary to select a table row before clicking **Edit / View Selected Record**. After editing the data, click **Save** to save the changes, or **Cancel** to close the dialog without saving.

Deleting Selected Records

Records can be deleted by clicking the **Delete Selected Records** button above the main table or by selecting **Delete Selected Records** from the context menu after right mouse clicking. Clicking this button will permanently delete the selected table row(s). It is necessary to select one or more table rows before clicking **Delete Selected Records**. Any number of rows can be deleted in a single operation. Multiple individual rows can be selected by holding down the **Ctrl** key (**command** key on macOS), while clicking each row that you want to delete. A continuous range of rows can be selected by clicking a row and then holding the **Shift** key down while clicking a second row. All rows between the two selections will be highlighted and will become eligible for deletion.

A confirmation dialog will be displayed to prevent accidental deletion of data. After confirming the delete operation, the data will be permanently removed from the database.

Generating Reports

Most data tables have an associated report that can be viewed, saved, or printed. Reports are previewed by clicking the **Report Preview** button from the table toolbar or by selecting the **Report Preview** item from the context menu after right mouse clicking in the table. Reports are generated in PDF format. This format allows easy viewing, printing, and saving of reports.

Exporting to Excel

Table data can be exported to a native Excel file by clicking the **Excel Export** button above the main table or by selecting the **Excel Export** item from the context menu after right mouse clicking in the table. After clicking the button, a file chooser will be displayed allowing the selection of file name and location. Excel can then be used for custom reports or analysis.

Generating Charts

Charts are generated by clicking the **Chart** button in the table toolbar or by selecting the **Chart** item from the context menu after right mouse clicking in the table. If a chart does not exist for a particular table, the button will be disabled.

Filtering Records

Some data tables provide the ability to filter the table data. For example, the Vineyard Management view provides the ability to filter data by vintage, vineyard, or block. This button will be disabled if filtering is not available for a particular table.

Searching Table Records

The main table has integrated search functionality. Click the **Find in Table** button in the table toolbar or select the **Find in Table** item from the context menu after right mouse clicking in the table. A search toolbar will then appear at the top of the table.

Printing Reports

Reports can be printed using the functions in the **Report Preview** described above. However, if desired, reports can be sent directly to the printer, bypassing the report preview, using the **Print Report** button above the main table, or by selecting the **Print Report** item from the context menu after right mouse clicking in the table.

Bookmarking a Table

Frequently used tables can be bookmarked for quick access. Click the **Bookmark Table** button or select the **Bookmark Table** item from the context menu after right mouse clicking in the table. This will bookmark the currently active table. Bookmarks are then available in the **Bookmarks** menu, where they are organized by **View**. To remove a bookmark, click the bookmark button for a table that is already bookmarked.

Recently Viewed Tables

The program maintains a list of recently viewed tables during the current session. To quickly return to a previously viewed table, select the table from the drop-down list after clicking the **Recently Viewed Tables** button. The list is cleared when exiting the program.

Exporting to Tab Separated Format

As previously mentioned, the program can export data to Excel. However, some users may prefer alternate spreadsheets that do not support Excel (*xls*) format.

To transfer table data to a spreadsheet that does not support *xls* format, select the table rows to be exported, or click **Select All Rows** from the context menu after right mouse clicking in the table. Then select **Copy Selected Rows** from the context menu. Open a spreadsheet and click paste. The data will be pasted into the spreadsheet. The table headers will be transferred as well. The data is formatted in a "tab-separated format" that most spreadsheets should understand.

Reports

Reports are generated by clicking the **Report Preview** button in the toolbar above the main table. Reports are generated in Portable Document Format (PDF). While the data in the table is useful, the reporting mechanism processes the table data and applies grouping and summarization where appropriate.

Internal Report Viewer

Amphora includes an internal viewer for viewing PDF documents. The viewer includes functions for saving and printing the report. The internal viewer is the default PDF viewer.

External Report Viewer

If preferable, an external PDF viewer such as Adobe Reader can be used in place of the internal viewer. The default report viewer can be selected in the program Preferences. Go to *Preferences – Defaults – Miscellaneous Defaults – PDF Viewer*. If **Internal** is selected, the program will display reports with the included PDF viewer. If **External** is selected, the program will display reports with the default PDF viewer on your system (usually Adobe Reader).

Charts

As previously mentioned, charts are generated by clicking the chart button in the toolbar above the main table The chart button is only enabled for tables that have an associated chart.

The style of chart generated is dependent on the data in the table. Amphora can generate line, bar, and pie charts. Bar and pie charts can be viewed in 2D or 3D. This preference, along with others can be selected in the Preferences dialog.

Chart Tooltips

Hovering the mouse over a data point on a line chart will trigger a tooltip that shows the data for that point. Bar charts and pie charts also show tooltips when the mouse is hovered over a particular section.

Zooming Charts

It is possible to zoom to a specific part of the chart by selecting the desired area with the mouse. There are also zoom menu items in the context menu after right-clicking on the chart.

Slicing Pie Charts

Pie charts can be "sliced" to emphasize a particular section before saving or printing. To do this, double-click on the desired pie section. The section will be removed from the main chart. Double-click again to put the pie back together. Multiple sections can be sliced by double-clicking on each section. This feature only works with 2D pie charts.

Rotating Pie Charts

Pie charts can be rotated before saving or printing if you prefer a different orientation. To rotate a pie chart, drag the mouse across the chart screen. Dragging the mouse to the right will rotate the chart clockwise. Dragging the mouse to the left will rotate the chart counter-clockwise.

Customizing Charts

Charts can be customized before saving or printing by right-clicking on the chart and selecting **Properties...** or by clicking the **Chart Properties** button from the chart toolbar. A wide range of customizations is available. Customizations include label text, fonts, colors, tick marks, and others. The exact customizations available depend on the type of chart displayed. These customizations are on a per-chart basis and are not saved.

General chart preferences can be saved in Preferences. These general preferences are saved and are applied to every chart that is generated.

Saving Charts as Images

Charts can be saved as an image in PNG (Portable Network Graphic) format. To save a chart, right-click on the chart and choose **Save as...** or click the **Save Chart as Image** button from the chart toolbar. Select the location to save the file, name the file, and choose PNG as the file type. Then click

Save. The resulting image files can be viewed in any graphics program or can be embedded in other documents.

Saving Charts as PDF Documents

Charts can be saved as a PDF document, viewable with Adobe Reader or other PDF viewer. To save the chart as PDF, click the **Save Chart as PDF** button from the chart toolbar. Enter a file name and click **Save**.

Printing Charts

Charts can be printed by right-clicking on the chart and selecting **Print...** or by clicking the **Print Chart** button from the chart toolbar.

Resources

Most data is viewed by selecting the appropriate item from the left task pane. However, some data does not apply to a single view and is shared between views. This data is accessed from the **Resources** menu. Except for **Company Information**, resources are added and edited like all other data, by using the buttons above the main table.

Contacts

The **Contacts** table is intended to track supplier or customer information. Address and contact information is integrated throughout the program such as in the **General Inventory Management** and **Vineyard Management** views. The contact data is used to populate various fields in data entry dialogs. Contact data is widely linked throughout the program, providing traceability to winery inputs and outputs.

In addition, contact data is used when generating invoices. To take advantage of auto-generated invoices, the contact **Name** and **Address** must be included.

Figure 4: Creating a new contact.

 Company Information

Company Information is a special contact record that contains the name and address of your business. This information can optionally appear on reports. This data is also used when generating invoices. A company logo can also be specified in this dialog. This logo can optionally appear on purchase orders and sales invoices.

Figure 5: Entering company information.

 Web Resources

The **Web Resources** table is intended to store web sites that may be referred to during the winemaking process. Additional information about the resource can be included. A button is available to open the resource in an external web browser.
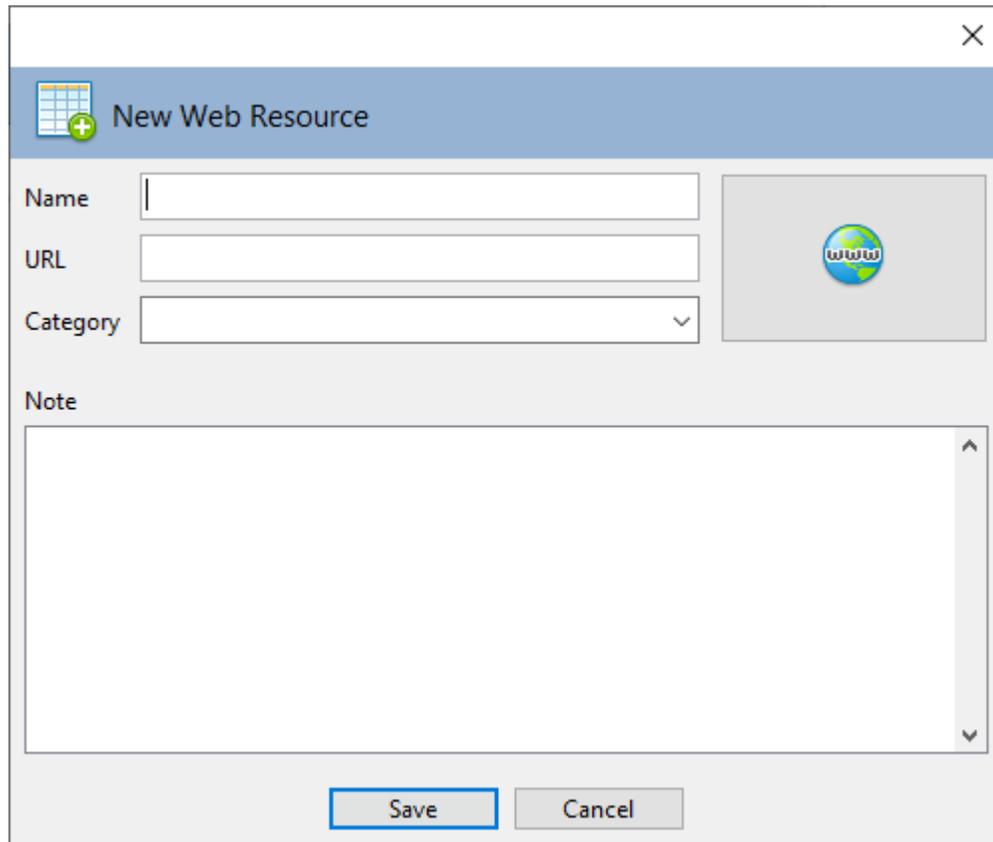
Figure 6: Adding a new web resource.

Documents

The documents table stores the names and location of document files stored on your local computer. Documents are organized by view, for easy access. Documents can be accessed from the main **Documents** table. Alternately, documents are automatically added to the **Documents** section of the left task pane for each major view.

Figure 7: Adding a new document.

Program Preferences

Default settings are set by clicking **Preferences** in the application menu. Default settings can then be selected for such items as temperature, batch size, charts, and maps, and others. After selecting the desired preferences, click **Save** and the settings will be saved. Preferences would normally be set just once when you begin to use the software, however, they can be changed at any time.
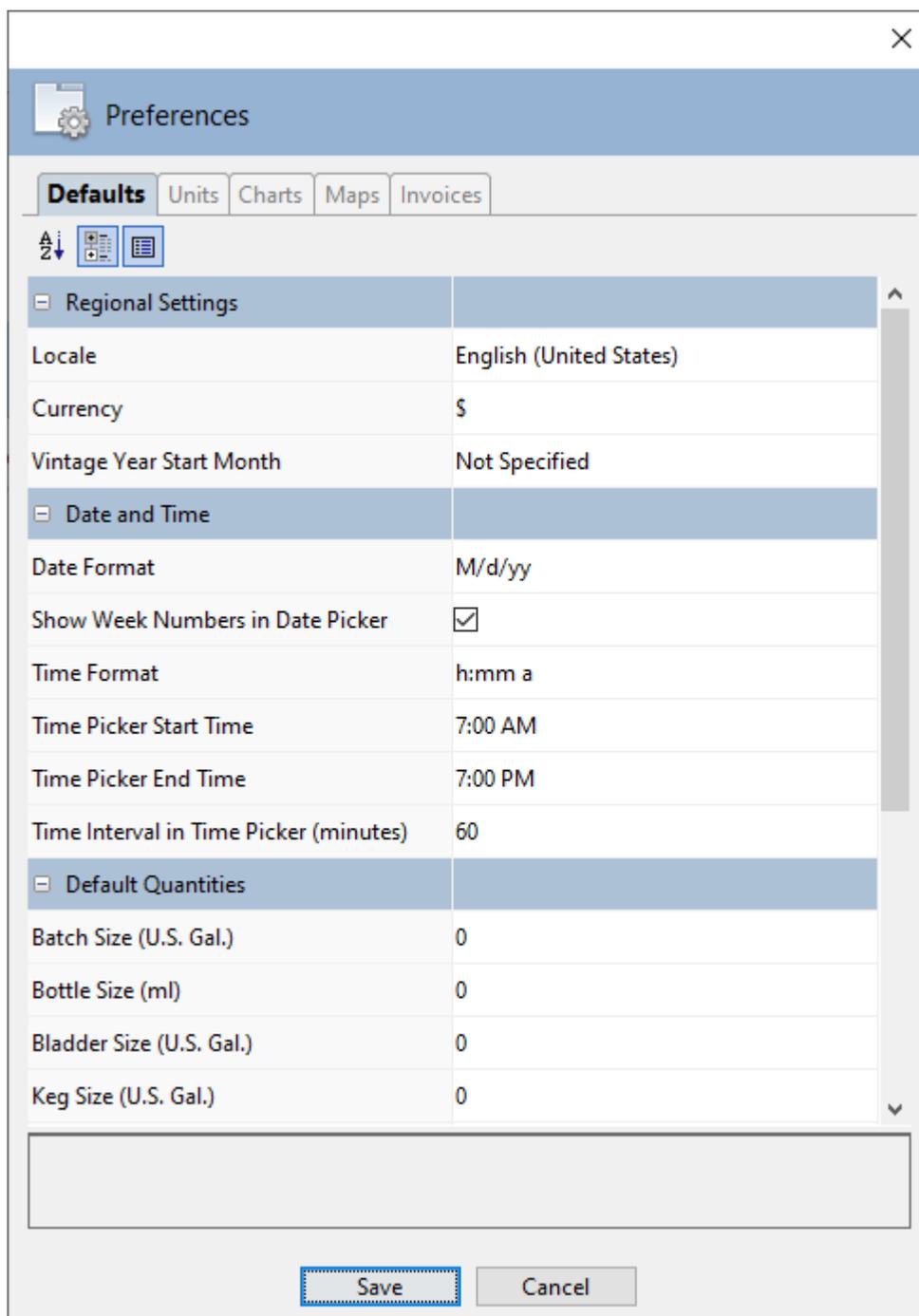
Figure 8: Preferences dialog

Container Management

Introduction

Container Management is a major view/module included with Amphora. Amphora can track tanks, barrels, carboys, or other containers. Basic information about containers, such as type and capacity is held in the **Container Inventory**. The inventory of containers can be viewed by selecting the **Container Management** view and clicking **Container Inventory** from the left task pane. One of the first tasks when beginning to use Amphora is to add containers to the container inventory. After a container is added to the **Container Inventory** it will be listed in the container drop-down fields and lists throughout the program, making data entry faster and less prone to error.

Creating and Editing Containers

After opening the **Container Management** view and selecting **Container Inventory**, new containers can be created by clicking the **New Record** button above the table or by selecting **New Record** from the context menu after right-clicking the table. The **Name** field is a required field and must uniquely identify the container. Optional container details can also be entered. While these details are optional, it is best to enter as much information as possible. This makes it possible for Amphora to extract data for report creation. The **Age** field is automatically calculated, based on the **Manufacture Date**. Container details for existing records can be edited by clicking the **Edit Record** button above the table or by selecting **Edit Record** from the context menu after right-clicking the table. Large numbers of identical containers can be created using Container Templates.

Figure 9: Creating a new container.

Container Templates

If you have a small number of containers, they can be created one at a time as described above. However, Amphora can instantly create any number of containers using the container template feature. For example, it is possible to create 500 identical barrels in the same time it takes to create a single barrel. Templates can save considerable data entry time if you have large numbers of identical containers.

Creating and Editing Container Templates

A container template defines the attributes of a container. To create a new template, click on **Container Templates** from the left task pane, while in **Container Management** view. The table will show a list of templates that have already been created, if any. Click the **New Record** button to create a new template. Existing templates can be edited or deleted. The template dialog will appear where the details are entered. The template dialog is nearly identical to the container dialog. The main difference is that you need to provide a template name rather than a container name. For example, you might create a template for barrels with a 225 liter capacity. The template might be named "B*arrel_225L*". Other details such as toast level can also be included in the template name. The template name can be anything you like, but each template must have a unique name. Then the other attributes of the container are entered, such as type and capacity. After all the details are entered, click **Save** and the template will be saved. The template can now be used to create new containers.

Figure 10: New Container Template Dialog

Using Templates to Create New Containers

Once a template has been created, it can be used to create new containers. To create new containers from a template, open the template by double-clicking the template in the table or click the **Edit Record** button above the table to open the template dialog. Then click the **Create New Containers from Template** button at the bottom of the dialog.

Creating new containers from a template involves specifying how the new containers should be named, and how many containers to create. The template will name the new containers based on a root name and a numeric suffix such as "Container001". The root name can be anything you like. The

suffix is specified by entering the starting value for numbering and the number of digits to include in the name. Specifying the number of digits allows zeros to be used as placeholders. This process is best illustrated with some examples.

Creating a Single Container from a Template

The simplest case is to create a single container from a template. To do this the **Container Name (Root)** is entered. Click **Create** and a new container will be created with the specified name and the attributes specified in the associated template.

If you enter a container name that already exists, the program will ask if you want to overwrite the existing container. If you choose "Yes", the attributes of the existing container will be modified to reflect the template. If you choose "No", the new container will not be created, and the existing container will be left as is.
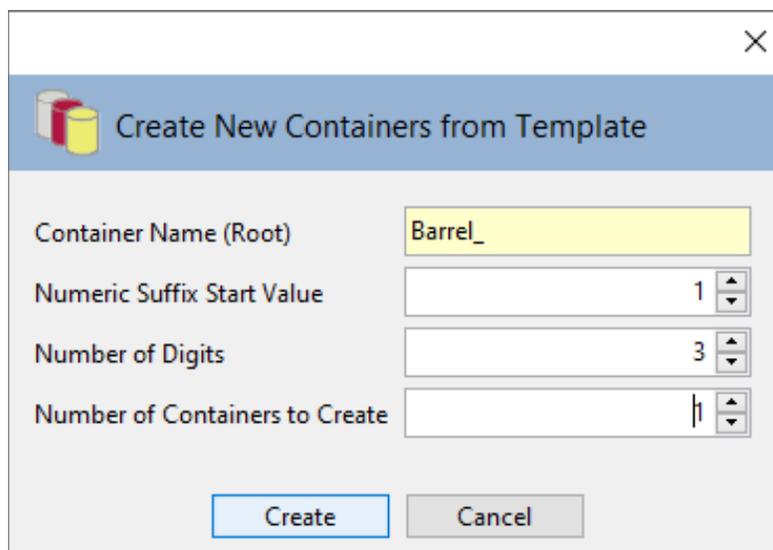
Figure 11: Creating a single container (Barrel_001) from a template.

Creating Multiple Containers from a Template

Creating a single container from a template can be useful as only the container name is specified. All other details are copied from the template. This can save some time, however, the real power of templates is when it is necessary to create multiple containers. For example, using templates, it is possible to create any number of containers with just a couple of clicks of the mouse.

For example, you may wish to create 10 barrels, named "B*arrel_001*" to "B*arrel_010*". To do this you would enter "B*arrel_*" as the **Container Name (Root)**, "*1*" as the **Numeric Suffix Start Value**, "*3*" as the **Number of Digits**, and "*10*" as **Number of Containers to Create**.
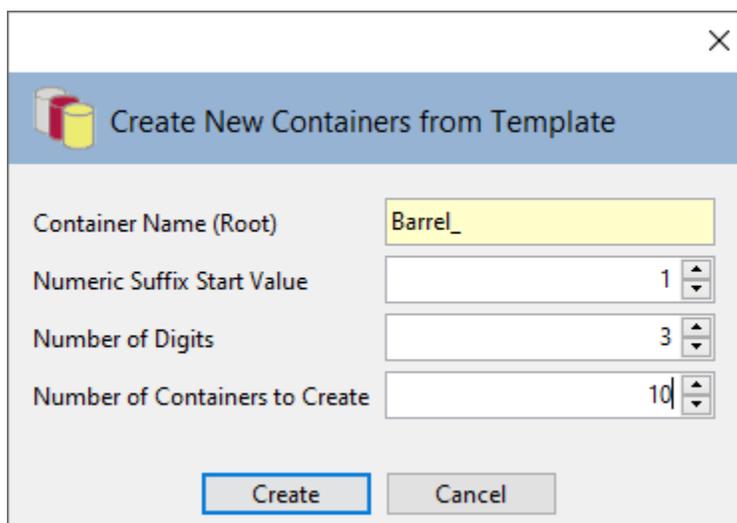
Figure 12: Creating multiple containers from a template.

It is also possible to start the numbering at a different point. For example, you may have already created barrels 001 to 010 and now you wish to create B*arrel_011* to B*arrel_020*. To do this you specify "*11*" as the **Numeric Suffix Start Value**.

If a template has already been used to create new containers, the suffix settings will be saved and populated the next time the template is used. For example, if you previously used a template to create B*arrel_011* to B*arrel_020,* the program will remember these settings and the start value will be automatically populated as "21". The **Number of Digits** is also saved and will be automatically populated. These automatic settings can be edited if necessary,

The **Number of Digits** is an optional setting. It can be used to ensure container names are all the same size and thus look nicer on reports. This setting will add leading zeros to the container names where necessary. For example, if "*0*" was specified as **Number of Digits**, the above containers would be named "B*arrel_1*" to "B*arrel_10*". Alternately, if "*6*" was specified, the containers would be named "B*arrel_000001*" to "B*arrel_000010*".

After clicking **Create**, the software will create 10 containers with the attributes specified in the associated template. The new containers are added to the **Container Inventory**. It is possible to create any number of containers using the template mechanism. However, the software only allows the creation of 1000 containers at a time. This prevents the accidental creation of millions of unwanted containers. You can still create more than 1000 containers if desired, it will just require more than one step. Using templates can save data entry time and minimize data entry errors.

Editing Existing Containers Using Templates

The container template mechanism can also be used to edit the containers that were previously created using that template. For example, you may have created 100 containers using a template. Perhaps you accidentally entered "Medium" as the toast level, when it should be "Medium Plus". It is not necessary to manually edit each container. To correct this error, open the template and change the toast field to the correct value. After clicking **Save**, the program will change this value for all 100 containers that are linked to this template.

The **Containers** tab in the **Container Templates** dialog contains a list of all containers that were

created using that template. It also has a **Add Containers to Template** button. This button makes it easy to add existing containers to the template. Select the containers to be added to the template. The attributes of the added containers will then be changed to match the attributes of the template.

Container Inventory Reports

The **Container Inventory Reports** section allows the container inventory to be viewed by their attributes. For example, you may wish to view the container inventory grouped by location. Reports are then formatted according to the selected attribute.

Container Tasks and Maintenance

Amphora can track container tasks or maintenance activities such as cleaning and repair. Container maintenance can be viewed by selecting **Container Maintenance** from the **Container Management** view.

Container Status

While the **Container Inventory** tracks the fixed aspects of containers, **Container Status** provides the ability to track dynamic aspects, such as container content throughout the winemaking process. **Container Status** can be viewed by selecting **Container Status** from the **Container Management** view.

The container status table shows each container, along with the **current quantity** of wine in the container, the **Batch ID** of that wine, and the **winemaking process** (eg. fermentation, aging).

Container Status is a read-only table and cannot be edited. Amphora inspects your data and determines the container status. Whenever data is entered which affects the container status, Amphora will automatically adjust the status. Specifically, creating and editing Processes, or racking entries will trigger the program to adjust the container status.

There are two distinct container status tables – **active** and **all**. Clicking **Container Status – Active** will only show containers that are not empty. Clicking **Container Status – All** will show all containers in inventory. Double-clicking an entry in the container status table will open the associated batch and process.

The graphics in the **Container Status** table are color-coded. A colored container graphic indicates that the container is not empty, while the gray graphic indicates the container is empty. The color of the graphic is determined by the color specified in Batch Information.

How Container Status Works

Amphora generates the **Container Status** by searching all process records (cold soak, alcoholic fermentation, malolactic fermentation, cold stabilization, bulk aging, sur lie aging, and custom processes). The program then determines the container status using the following rules:

1. Containers that are not currently used in any batch are classified as **Empty**.

2. Containers that are used in a batch but where **Quantity=0** are classified as **Empty**.

3. If the **Process** is ongoing (ie. the **End Date** has not been specified or the **End Date** is in the future) and the **Quantity** is not zero, the program will record the associated **Batch ID**, **Quantity**, and **Process** and add the record to the container status.

Container Maps

Amphora provides the ability to create user-defined interactive maps of tanks, barrels, or other containers. The map is linked to the database so that information regarding each container can be easily accessed. The map provides an interactive, visual representation of the winery. It is not necessary to use the map feature, but it provides a visual way to enter data that some users may prefer.

Creating a New Map

An unlimited number of maps can be created. For example, a map might be created for each container room, or a separate map might be created for different sections of a room if there are many containers. To create a new map select **New Container Map** while in the **Container Management** view.

A dialog will appear where the **Map Name** is entered. You can enter anything you like but each map must have a unique name. After clicking **Create**, a blank map view will open.

Closing a Map

Maps are closed by clicking the red X in the toolbar above the map.

Renaming a Map

A map can be renamed by clicking the **Rename Map** button in the toolbar above the map or by selecting the **Rename Map** item from the context menu after right clicking on an empty portion of the map.

Loading Existing Maps

Maps that have been previously created can be loaded by selecting the **Map Name** from the left side of the screen under **Container Maps**.

Adding and Deleting Containers from Map

After entering the **Map Name**, a blank map will be shown. The toolbar above the map contains functions that apply to the entire map, such as creating new maps, deleting maps, and zoom operations. The toolbar on the left side of the map contains functions that apply to individual containers that have been added to the map, such as viewing reports and charts for a particular container on the map. To add a container to the map, click the **Add Container to Map** button in the left toolbar. Multiple containers can be added to the map in a single operation.

A square graphic will appear on the map, representing each added container. The graphic can be moved or resized to represent the layout of the winery. This procedure is then repeated for each container that you wish to add to the map.

To remove a container from the map, click the **Delete Selected Containers from Map** button from the left toolbar or select it from the pop-up menu after right-clicking the graphic. Deleting a container from the map only removes it from the map, the container will remain in Container Inventory. Each graphic displays the **Container Name**, **Batch ID**, and **Current Quantity** of the container. Additional

information about the container is displayed as a tooltip when the mouse is hovered above the graphic.

Each graphic is color-coded depending on its contents. The color represents the color of the wine. If no wine color has been specified in <u>Batch Information</u>, the graphic will be gray in color. Empty containers are colored white. The color that is used to represent the wine color can be changed in the program <u>Preferences</u>.

Moving and Resizing Container Graphics

Each graphic can be moved and resized to represent the actual layout of the winery. Multiple containers can be moved together by selecting more than one container at a time. Once the container position is finalized, the graphic can be locked by selecting the **Lock Position and Size of Selected Containers** button from the left toolbar or selecting this option from the context menu while right-clicking the container graphic. When locked, the graphic cannot be moved or resized. This is useful to prevent accidentally moving the graphic when clicking on the map. The graphic can be unlocked by selecting the **Unlock Position and Size of Selected Containers** button. Multiple containers can be locked or unlocked in a single operation.

Viewing and Editing Container Data

Basic information such as container attributes and contents can be viewed in a tooltip by moving the mouse above the map graphic. Attributes of the container itself can be edited by double-clicking the container graphic. This will trigger the **Container Inventory** dialog where container attributes can be edited.

Other, more detailed information can be entered via the **Events** menu item, after right-clicking the container graphic to display the pop-up menu or selecting **Create an Event for Selected Container** from the left toolbar. Events such as **Measurements** and **Additions** can be entered for individual containers. It is possible to enter and edit most winemaking data via the container map. Those who prefer a visual representation of the winery may prefer to enter data via the map rather than via the data tables. Entering data via the container map is also useful as data can be entered for different batches without opening those batches. The container map allows the winemaker to work on more than one batch in a single screen.

Viewing Container Charts

Measurement charts for individual containers can be viewed via the **Charts** menu item, after right-clicking the container graphic to display the pop-up menu or selecting **View Charts for Selected Container** from the left toolbar.

Opening Associated Batch

The batch associated with a selected container can be opened by clicking the **Open Batch Associated with Selected Container** button in the left toolbar or by selecting the **Open Batch Associated with Selected Container** item from the context menu after right clicking on a container graphic.

Adding and Removing Borders

Borders can be added to container graphics to indicate such items as container type or status. To add

a border to a selected container graphic, click the **Add/Remove Border to Selected Container** button in the left toolbar or by selecting the **Add/Remove Border Selected Container** item from the context menu after right-clicking on a container graphic.

Changing Border Color

To change the border color of a selected container graphic, click the **Change Border Color of Selected Container** button in the left toolbar or by selecting the **Change Border Color of Selected Container** item from the context menu after right-clicking on a container graphic.

Deleting Maps

A map can be permanently deleted by clicking the **Delete Map** button in the toolbar above the map or by clicking the **Delete Map** item from the context menu after right-clicking on an empty portion of the map.

Printing Maps

A map can be printed by clicking the **Print Map** button in the toolbar above the map or by clicking the **Print Map** item from the context menu after right-clicking on an empty portion of the map. This print feature provides very basic print capabilities. It may be preferable to save the map as an image file and print the map using the print features of a graphics program.

Saving Maps as Images

Maps can be saved as image files in **PNG** (Portable Network Graphic) format. Click the **Save Map as Image** button in the toolbar above the map or click the **Save Map as Image** item from the context menu after right-clicking on an empty portion of the map. A save dialog will appear where you can specify the file name and location. The resulting image can then be manipulated in a graphics program or embedded in other documents such as a word-processing document.

Zooming Maps

A map can be zoomed by clicking the **Zoom In** or **Zoom Out** buttons in the toolbar above the map or by selecting the **Zoom In** or **Zoom Out** items from the context menu after right-clicking on an empty portion of the map.

Adding and Removing Background Images

A background image can be added to the map by clicking the **Add Background Image to Map** button in the toolbar above the map or by selecting the **Add background Image to Map** item from the context menu after right clicking on an empty portion of the map. A background image can be removed by selecting the **Remove Background Image from Map** item.

Map Preferences

Map preferences can be changed by clicking the **Map Preferences** button in the toolbar above the map or by selecting the **Map Preferences** item from the context menu after right-clicking on an empty portion of the map. The **Map Preferences** are also accessible from the main Preferences item in the program toolbar and menu. The **Map Preferences** include such attributes as grid type and colors.

Vineyard Management

Introduction

Amphora includes vineyard management features that allow tracking of vineyard activities. The **Vineyard Management** view is also used to track fruit, juice, or bulk wine that has been received into the winery. All vineyard data is entered in the **Vineyard Management** view. Before tracking these activities it is necessary to set up the vineyards and associated vineyard blocks. The first step is to create a vineyard. Entries can be created for your own vineyards, as well as for other vineyards from which fruit or juice is received.

Vineyards

Creating New Vineyards

Click the **Vineyards** item from the **Vineyard Management** view and click the **New Record** button in the toolbar above the table to launch the **Vineyard** dialog. The **Vineyard** name is the only required field. Other general information, such as the region, appellation, and grower can optionally be entered. Each vineyard must have a unique name. More detailed vineyard information is entered in the **Vineyard Block** dialog.

The **Contact Information** button beside the vineyard name and grower can be used to enter the address and other contact information.

Editing and Deleting Vineyards

Vineyards can be edited or deleted by clicking the **Edit Record** or the **Delete Record** button in the toolbar above the table. When a vineyard is deleted, all data associated with that vineyard such as blocks and events will also be deleted. Because of this, deleting a vineyard would not be a normal operation. The software will provide a warning before a vineyard is deleted.

The **Blocks** tab in the vineyard dialog shows a list of all blocks that belong to the vineyard.
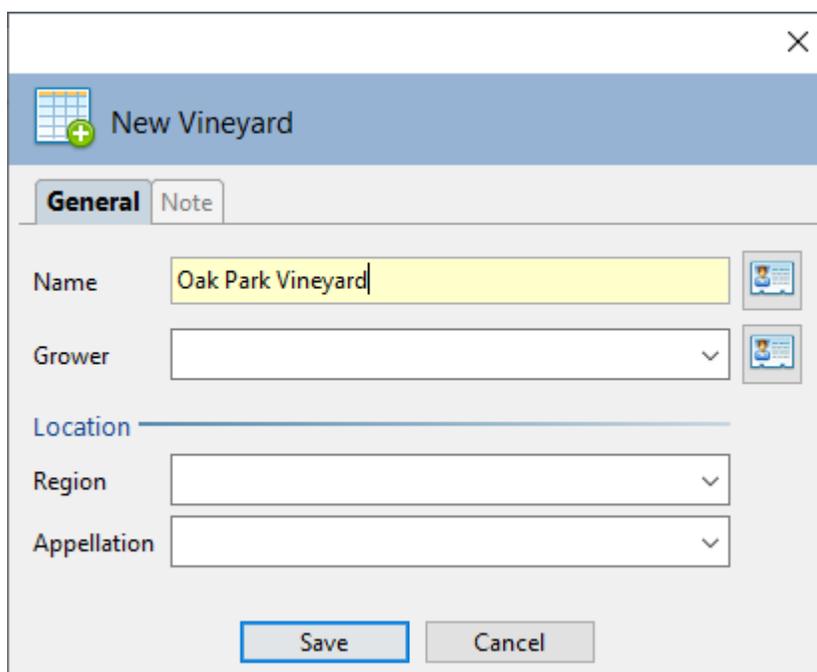
Figure 13: Creating a new vineyard.

Vineyard Blocks

All vineyard activities are associated with vineyard blocks. Each vineyard must contain at least one block. If your vineyard is not divided into blocks then you can create a single block that represents the entire vineyard. Before entering blocks, ensure that the vineyard information has been set up (see above).

Creating and Editing Vineyard Blocks

Click the **Vineyard Blocks** item from **Vineyard Management** view and click the **New Record** button in the toolbar above the table to launch the **Vineyard Block** dialog. The **Block** name is the only required field. Other information about the block such as area and spacing can also be entered. Repeat this procedure and create a record for each block in your vineyard(s).

The **Vineyard** drop-down box is populated with all previously entered vineyards. Additional vineyard information is displayed as a tooltip when the mouse is hovered over each vineyard.

The **Parent Block** is an optional field that can be used if your vineyard has a "block in block" structure. For example, a vineyard might be divided into several major blocks. These major blocks might then be sub-divided into smaller minor blocks. If your vineyard has this structure, the name of the enclosing block can be specified in this field.

The **Vine Density** is automatically calculated based on the **Area** and **Vine Number**. However, this number can be manually edited if required.

Vineyard blocks can be edited or deleted in the same manner as other table data. Once your vineyards and blocks have been set up, data such as weather, samples, harvest, and other events

can be recorded.

Figure 14: Creating a new vineyard block.

Vineyard Events

Vineyard events are divided into several categories, including samples, spray, and stages. The generic **Vineyard Events** table is used as a generic entry dialog where any event can be entered. The vineyard events dialog allows tracking of any vineyard activities. This dialog was designed to be generic so that each user can customize the events and event types. The program will then remember the events and add them to the drop-down box.

For example, you may decide to specify an **Event Type** called Applications and the **Event** might be specified as a pesticide. Another event in the Applications category might be fertilizer. You can specify any event types and events that you wish. These items will then be available from the drop-down boxes the next time an event is entered. This way each winemaker can create a personalized list of events.

By default, vineyard events are filtered by vintage. Events for the current vintage are shown in the table. However, vineyard events can be filtered by vineyard, block, or vintage by clicking the **Filter Records** button in the toolbar above the table or by selecting the **Filter Records** item after right clicking in the table. Such filters can be applied to other events such as samples or fruit received.
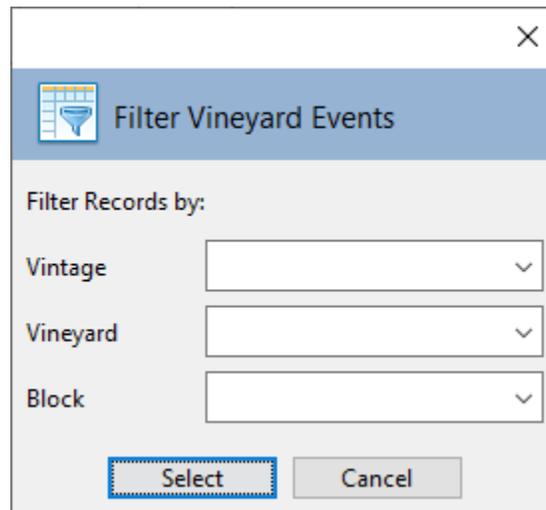
Figure 15: Filtering vineyard events.

Adding New Vineyard Events

Click the **Vineyard Events** item from the **Vineyard Management** view and click the **New Record** button in the toolbar above the table to launch the **Vineyard Event** dialog. The vineyard and block can be specified along with the event. The vineyard and block drop-down fields are automatically populated with any vineyards and blocks that have been entered. Additional information about the vineyard and block are available as tooltips when the mouse is hovered above each item in the drop-down box.

Figure 16: Vineyard Event Dialog

Adding Events to Multiple Blocks

It is possible to apply an event to more than one block with a single entry. For example, you may wish to apply pesticide to every block in the vineyard. First, select the desired vineyard from the drop-down box. Then click the **Select Multiple Blocks** button beside the **Block** field.

A dialog will be shown that contains all of the blocks that belong to the selected vineyard. Select each block for which the event will be applied. Amphora will then generate an event entry for each selected block. This multiple block entry dialog is included in several dialogs in the Vineyard Management view.
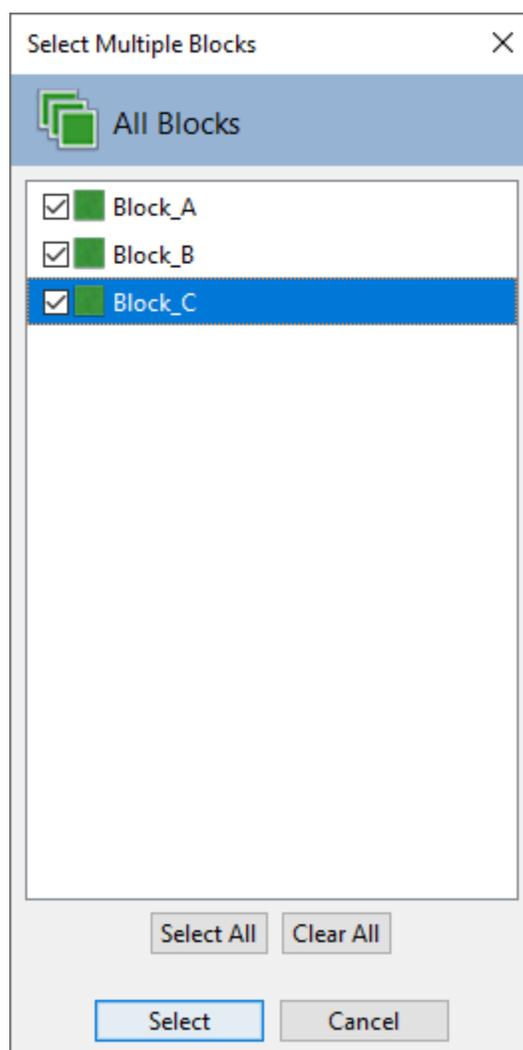
Figure 17: Selecting multiple blocks.

Vineyard Samples

The vineyard samples feature allows tracking of sugar, TA, and pH in the vineyard. This data can be charted and used as an aid in deciding harvest date.

By default, vineyard samples are filtered by vintage. Samples for the current vintage are shown in the table. However, samples can be filtered by vineyard, block, or vintage by clicking the **Filter Records** button in the toolbar above the table or by selecting the **Filter Records** item after right clicking in the table.

Adding New Vineyard Samples

Click the **Vineyard Samples** item from **Vineyard Management View** and click the **New Record** button in the toolbar above the table to launch the **Vineyard Sample** dialog. Information such as vintage, vineyard, and block is entered to identify the time and location of the sample. A **Sample ID**

can be entered to uniquely identify the particular sample. Then the actual sample measurements are entered.

Figure 18: Adding a vineyard sample record.

Vineyard Stages

The vineyard stages feature allows tracking of the major stages of the vineyard, including fruit set, veraison, and harvest.

By default, vineyard stages are filtered by vintage. Stages for the current vintage are shown in the table. However, vineyard stages can be filtered by vineyard, block, or vintage by clicking the **Filter Records** button in the toolbar above the table or by selecting the **Filter Records** item after right clicking in the table.

Adding New Vineyard Stages

Click the **Vineyard Stages** item from **Vineyard Management View** and click the **New Record** button from the toolbar above the table to launch the **Vineyard Stage** dialog. The stage can be selected from the drop-down list or the stage can be manually typed in. The **Select Multiple Blocks** button can be

used to enter the stage for multiple blocks.

Figure 19: Vineyard Stage Dialog

Spray Diary

Chemicals

Adding Spray Diary Records

Figure 21: Creating a spray diary entry.

Vineyard Weather

Figure 22: Vineyard weather dialog

Fruit Received

The **Fruit Received** feature allows tracking of harvested or received fruit or juice, along with associated data such as sugar, TA, pH, and cost. This module can be used to track fruit harvested from your vineyard or fruit or juice received from others. These fruit units can later be linked to individual wine batches (via the Crush or Fruit Composition dialog). This feature makes it possible to trace a finished wine back to the original fruit from which it was made. A finished wine can not only be traced back to the attributes of the fruit received, but can also be traced back to the physical attributes of the vineyard block from which the fruit came, such as weather, soil, spray applications, and any other data that has been entered for the originating block(s).

Adding New Fruit Units

Click the **Fruit Received** item from the **Vineyard Management View** and click the **New Record** button from the toolbar above the table to launch the Fruit Received dialog. The details of the fruit that was received into the winery can then be entered. The **Fruit ID** is the only required field and it must be unique. The **Fruit ID** can be anything you like, but it might be useful to identify the vintage and vineyard within the **Fruit ID** so that it can easily be identified. Other details can also be recorded.

The Vineyard and Block drop-down fields will display a tooltip to provide additional information when the mouse is hovered above each item.

The drop-down fields are also dynamic. For example, if you select a grower, the vineyard drop-down will be re-populated with vineyards that belong to that grower. Once a vineyard has been selected, the block drop-down will be populated with blocks that belong to the selected vineyard. And when a block has been selected, the variety field will be set to the associated variety.

The total cost field is calculated based on the unit cost and quantity when the field receives the focus. This amount can be edited if necessary.

The **Contact Information** button can be used to enter or view contact information for the vineyard or grower.

By default, fruit received records are filtered by vintage. Fruit received records for the current vintage are shown in the table. However, fruit received records can be filtered by vineyard, block, or vintage by clicking the **Filter Records** button in the toolbar above the table or by selecting the **Filter Records** item after right clicking in the table.

Linking Fruit Units to Wine Batches

Once the fruit received record has been entered, these fruit units can then be added to a wine batch. This provides a linkage between **Batch Management** and **Vineyard Management** This way you will always know the origin from which each batch is composed. If you are making wine from fresh grapes, the fruit units can be added via the Crush Dialog. If grapes are not being crushed, such as when making wine from juice, the fruit units can be entered in the Fruit Composition table in the **Batch Management** view.

Linking **Fruit Received** to wine batches opens up many information possibilities. For example, any batch of wine can be linked not only to the fruit source, but also to the physical attributes of the vineyard such as weather or spray applications.

Figure 23: Fruit Received Dialog

Fruit Sales

Figure 24: Fruit Sales Dialog

Vineyard Maps

The software includes a vineyard mapping feature that provides a visual representation of the vineyard. Data such as events and samples can then be entered via the map. The vineyard mapping feature works the same as the **Container Maps** feature except that vineyard blocks are added to the map rather than containers. See Container Maps for details.

General Inventory Management

Introduction

General Inventory is intended to track non-wine inventory. The general inventory stores the Inventory ID, name, quantity, and purchase information such as vendor and price. The General Inventory dialog is linked with the **Contacts** table for easy lookup of supplier contact details. A button is also provided for recording purchases of the inventory item. When the **Purchase** button is clicked, the **New Purchase** dialog will appear and will be populated with the corresponding details of the inventory item. Amphora also compares the quantity on hand to the re-order level. When the quantity on hand falls below the re-order level, the inventory item will be flagged.

Figure 25: General Inventory Dialog

Purchases

Tracking Purchases

The **Purchases** module tracks purchases of inventory items. Select the **Item** from the drop-down box. The dialog will then be populated with the data contained in the **General Inventory**. The fields can then be edited if necessary. Then click **Add Item** to add the item to the purchase list. This procedure is then repeated for each item that you wish to purchase from the selected vendor.

If you wish to generate a purchase order (in Adobe PDF format), ensure that the **Create P.O.** box is checked. After clicking **OK**, the software will generate a purchase record for each item in the **Added Items** list. If you have chosen to create a purchase order, the software will also prompt for a location to save the purchase order file. See the following section for additional details regarding purchase orders.

If **Increase Inventory** is checked, the program will increase the inventory by the amount of the purchase.

Creating Purchase Orders

Amphora can easily generate purchase orders in Adobe PDF format. When recording a purchase, ensure that **Create P.O.** is checked. The program will prompt for a location to save the purchase order file. The file name will default to Purchase**######**, where **######** is the purchase order number. This name can be changed if desired. The resulting file can then be viewed or printed from Adobe Reader or other PDF viewer.

When creating a purchase order the program obtains the data from several sources. The primary data such as item, quantity, and cost are obtained from the associated purchase record. The **Vendor** details such as address is obtained from the **Contacts** table. The **Ship To** information is obtained from the **Winery Information** in the **Data** menu.

Figure 26: General Inventory Purchases Dialog

Package Inventory Management

Introduction

Amphora can track bottle inventory. You can manually add or edit inventory by adding or editing records after choosing Package **Inventory** from the **Inventory Management v**iew. Also, inventory records can be created via the **Bottling** dialog.

Package Sales

The Sales Dialog

Tracking Sales

The **Bottle Sales** module tracks sales from bottle inventory. Enter the details of the sale. Then click **Add Item** to add the item to the sale list. This procedure is then repeated for each item that you wish to sell to the selected buyer.

If you wish to generate a sales invoice (in Adobe PDF format), ensure that the **Create Invoice** box is checked. After clicking **OK**, the software will generate a sales record for each item in the **Added Items** list. If you have chosen to create a sales invoice, the software will also prompt for a location to save the sales invoice file. See the following section for additional details regarding sales invoices.

If **Reduce Inventory** is checked, the program will decrease the bottle inventory by the amount of the sale.

Creating Sales Invoices

Amphora can easily generate sales invoices in Adobe PDF format. When recording a sale, ensure that **Create Invoice** is checked. The program will prompt for a location to save the sales invoice file. The file name will default to Sale**######**, where **######** is the sales invoice number. This name can be changed if desired. The resulting file can then be viewed or printed from Adobe Reader or other PDF viewer.

When creating a sales invoice the program obtains the data from several sources. The primary data such as item, quantity, and cost is obtained from the associated sales record. The **Buyer** details such as address are obtained from the **Contacts** table. The **Vendor** information is obtained from the **Winery Information** in the **Data** menu.

Bottle Transfers

The **Bottle Transfer** feature is an automated method to record transfers of your Bottle Inventory from one location to another. Inventory location changes could be recorded by manually editing the associated inventory entries. However, the Bottle Transfer feature automatically creates a record of the transfer and updates the associated inventory records.

Task Management

Batch Management

Introduction

Amphora organizes winemaking operations into batches. Each batch represents an identifiable unit of wine. Each batch is further subdivided into one or more containers.

Creating a New Batch

There are several ways to create a new batch:

- Click the **New Batch** item in the **Batch** menu.

- Use the keyboard shortcut **Ctrl N** (⌘ **N** on Mac)

Each of these methods will open a dialog in which general batch information can be entered. The **Batch ID** field is the only required field. The **Batch ID** can be any sequence of alphanumeric characters, but each batch must have a unique **Batch ID**. It is recommended that a descriptive name be used so that the batch can be easily identified. For example, *Chardonnay2020* might make be an appropriate **Batch ID**. All other fields are optional. Click **Save** to save the new batch. Additional batch information can be entered in other specialized dialogs described elsewhere in this manual.

Most of the fields in the **Batch Information** dialog are self-explanatory. Many are drop-down boxes that provide a list of choices. However, all fields (including the drop-down boxes) are editable. Anything can be entered, even if it does not appear in the drop-down list. If a new item is added to the drop-down list, the program will save it to the list, and it will be available the next time the **Batch Information** dialog is opened.

All fields are optional (except for **Batch ID**). However, it is best to enter as much information as possible. The other fields are widely used throughout the program, especially for reporting purposes. For example, if *Variety* is specified, reports will be able to break down various operations by variety.

While most of the fields are self-explanatory, some notes have been added below:

Other ID

This is an optional field. Some winemakers wish to supply a secondary identifier to their batches.

Size

If your batch has a fixed initial size, it can be entered in the **Size** field. However, wine quantity throughout the winemaking process is better managed through the use of containers.

Source

If your batch materials were purchased from a single source (such as grapes purchased from a single vineyard) you can enter the name of the source in the **Source** field. Additional source information such as address and phone number can be entered via the Contacts dialog (**Resources – Contacts**) or by clicking the button beside the source field.

If your batch material is from multiple sources, the source data is better managed in the Fruit Received section of the Vineyard Management view. When your batch is composed of multiple sources, these

sources are shown in the **Fruit Composition** table. These sources can be entered via the Fruit Composition table or the Crush dialog.

Recipe Name

Some winemakers, especially those making country wines follow recipes. The recipe name can be specified in the **Recipe** field. This field may not apply to many winemakers. This field is used to enter the name of the recipe. The next time the Batch Information dialog is opened, a recipe tab will be added to the dialog where the recipe details can be entered and saved.

Customer

Active

A batch can be designated as *Active* or *Inactive*. When a new batch is created it is designated as *Active*. When all operations on a batch are complete, it can be designated as *Inactive*. When a batch is designated as inactive, it will no longer appear in the batch drop-down fields throughout the program.

Figure 27: Creating a new batch.

Opening an Existing Batch

Opening an existing batch makes that batch data available for viewing or editing. Only one batch can be open at the same time. There are several ways to open an existing batch:

- Click the **Open Batch** item in the **Batch** menu.

- Select the **Batch ID** from the **Recent Batches** list in the Batch menu. The recent batch list contains the 10 most recently opened batches.

- Use the keyboard shortcut **Ctrl O** (⌘ **O** on Mac).

- Select **Active Batches** in the **Batch** menu. A list of active batches will be shown in the main table. Select a batch by highlighting a table row. Double click the table row to open the selected batch. The **Open Batch** button in the table row will also open the selected batch. Or right mouse click on the selected row to get the context menu.

- Select **All Batches** in the **Batch** menu. A list of all batches will be shown in the main table. Select a batch by highlighting a table row. Double click the table row to open the selected batch. The **Open Batch** button in the table row will also open the selected batch. Or right mouse click on the selected row to get the context menu.

- Select the **Open Batch Associated with Selected Container** item in a Container Map.

- The most recent batch can be opened automatically when the program starts. This option can be turned on or off in Program Preferences, under *Defaults – Miscellaneous Defaults*.

Deleting a Batch

A batch can be removed from the database using the following methods:

- Select the **Delete Batch** item from the **Batch** menu. This will delete the current open batch.

- Select **Active Batches** in the **Batch** menu. A list of active batches will be shown in the main table. Select a batch by highlighting a table row. Right mouse click on the selected row to get the context menu. Click the **Delete Batch** item.

- Select **All Batches** in the **Batch** menu. A list of all batches will be shown in the main table. Select a batch by highlighting a table row. Right mouse click on the selected row to get the context menu. Click the Delete Batch item.

The delete function should only be used if you are certain that the batch data is no longer required. This function will permanently remove all data associated with the batch. Once deleted, a batch can only be restored from a database backup, if one exists. A warning will be displayed asking for confirmation before the batch is deleted.
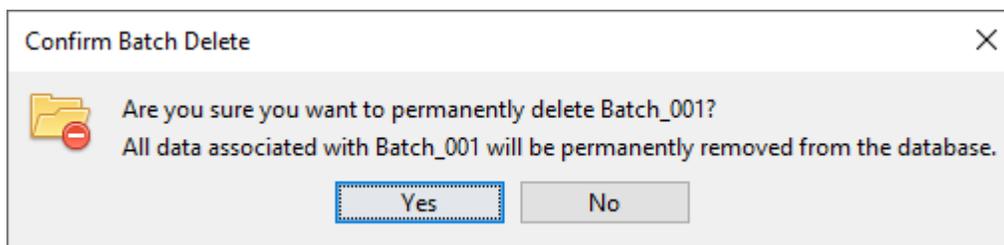
All Batches and Active Batches

Selecting **All Batches** from the **Batch** menu will display a list of all batches that have been entered into the software, along with its basic attributes. This table also contains an **Active** checkbox that indicates whether the batch is active or not. The batch can be set to **Inactive** by removing the checkmark from the box. When a batch is set to inactive, it will no longer appear in drop-down lists throughout the program, making data entry easier. Once a batch has been bottled and no more work will be done on that batch, it is recommended to set it to **Inactive** status. This does not remove the batch from the database. A batch can be set back to active status by checking the box in the **All Batches** table.

Selecting **Active Batches** from the **Batch** menu will display a list of all *Active Batches*. The batch can be set to **Inactive** by removing the checkmark from the box.

A batch can also bet set to active or inactive by clicking the **Active** field in the **Batch Information** dialog.

Batch Information

The **Batch Information** dialog is used to enter basic information about the batch, such as start date, variety, and vintage. See Creating a New Batch for information regarding this dialog.

Batch Cost

The **Batch Cost** dialog provides the ability to track ongoing costs associated with the batch. Cost items can be entered directly, or in some cases, the software can generate cost records automatically. For example, when linking a Fruit Composition record to a batch, a cost record can be automatically generated. Cost records can be automatically generated in other dialogs, such as Additions and Bottling, where links to **General Inventory** exist.

Figure 28: New batch cost entry.

The cost dialog is linked with General Inventory so that items from General Inventory can be easily added as cost items. Click the **Select Item from General Inventory** button beside the **Inventory ID** field to access **General Inventory**. When an item is selected from the inventory, the software will automatically populate the cost fields if those fields are available in the inventory record. This allows cost records to be created quickly and accurately. The cost dialog is also linked with Contacts. This allows contact information to be viewed when the **Vendor** field has been filled.

Batch Notes

The **Batch Notes** table is used to record miscellaneous notes about the batch that do not fit into other categories. Most dialogs have a **Note** field that is used to record additional information. For example, fermentation notes are best recorded in the fermentation dialog. However, the **Batch Notes** table can be used to record general information about the batch.
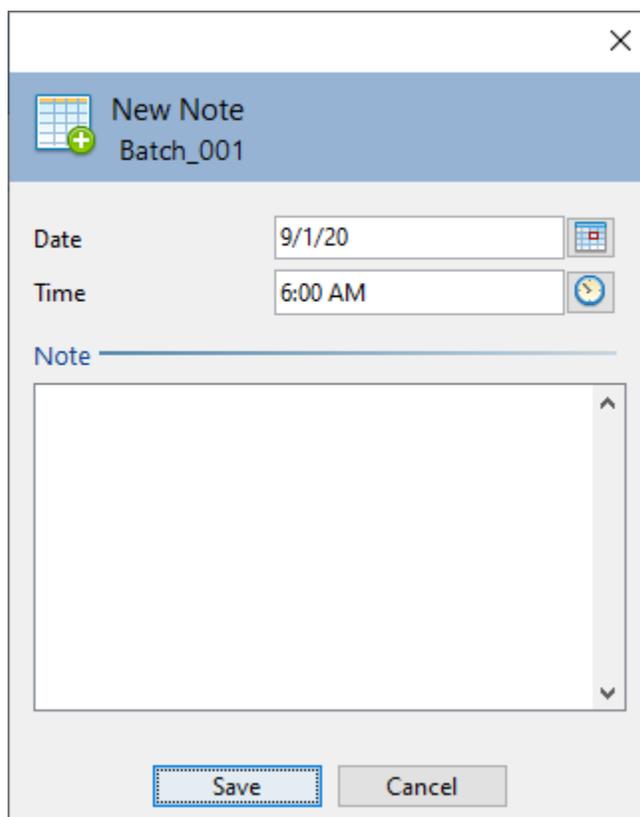
Figure 29: Creating a batch note.

Batch Status

Batch Status shows all of the containers that have been linked with the batch (via a process record such as fermentation), along with the quantity of wine in each container and the current process. This provides a concise overview of each container that has been linked to the batch. **Batch Status** shows the current status of the batch, showing active processes and non-empty containers. Only active processes are shown. For example, the fermentation process will be shown in the Batch Status table when it is active. Once it is complete, it will no longer be shown in the Batch Status table. The Batch Status table is a read-only table that is generated automatically by the software.

Batch Log View

The **Batch Log View** integrates all of your batch data into a single screen. This provides an overview of the entire batch, without the need to look at individual tables.

Switching Batches in the Batch Log View

The **Batch ID** drop-down field in the toolbar provides the ability to quickly load other batches into the view without opening the batch in the program itself.

Sorting the Batch Log

By default, the Batch Log is sorted by Date/Time. However, it is possible to sort the log by container by selecting **Container** from the Sort by field in the toolbar.

Exporting the Batch Log

The toolbar in the viewer screen provides several options to export the batch log into other useful formats:

- XLS (Excel)

  Clicking **Create Excel Batch Log** will generate a single Excel file containing all of your batch data. A separate Excel sheet will be generated for each table in your batch log. Excel can then be used for custom analysis and reports.

- PDF

  Clicking **Create PDF Batch Log** will generate a PDF file containing all of your batch data. The PDF file can be viewed with Adobe Reader or other PDF viewer. This export option is useful for creating a permanent, portable record of your batch.

- HTML

  Clicking **Create HTML Batch Log** will generate an HTML file containing all of your batch data. HTML files are viewed in web browsers.

The Batch Log can be printed using the print functionality of the export program (ie. Adobe Reader, Excel, etc..).

Viewing Batch Charts

Measurement charts for the batch can be viewed by selecting the **Batch Charts** tab in the **Batch Log View**. Click the **Select Charts to Include** button in the toolbar to specify what charts to display. Click the **Select Containers to Include** button to specify what container should be graphed. Charts can be saved as a PDF document by clicking the **Save as PDF Document** button in the toolbar.

Closing the Batch Log View

The Batch Log View is closed by clicking the red X in the toolbar.

Batch Composition

Batch Composition allows tracking of batch components such as fruit sources and blend components. This feature provides a linkage between the Vineyard Management view and the **Batch Management** view. This feature is extremely powerful as it links the batch to vineyard events, activities, and physical conditions such as weather.

Crush

After entering the initial batch information in the Batch Information dialog, the usual next step for wines made from fresh grapes would be to enter a crush record via the **Crush Dialog.** The crush dialog is one of two ways in which Fruit Received is linked to a batch. The other method is via the Fruit Composition dialog. Linking a batch to fruit sources enables the wine to be traced back to the vineyard. The batch is then linked to vineyard data such as samples, weather, or spray applications. This linkage is extremely powerful as it makes it possible to link a finished bottle of wine back to the physical and human events that occurred in the vineyard.

Figure 30: Creating a crush entry.

To start, enter the **Date**. Next, enter the **Fruit Units**. These are the fruit units that have been received into the winery and have been previously entered in the Fruit Received dialog. If you are crushing a single fruit unit, then it can be selected from the drop-down box. If your batch is composed of multiple fruit units, click the button beside the drop-down box and select all of the fruit units that are to be crushed.
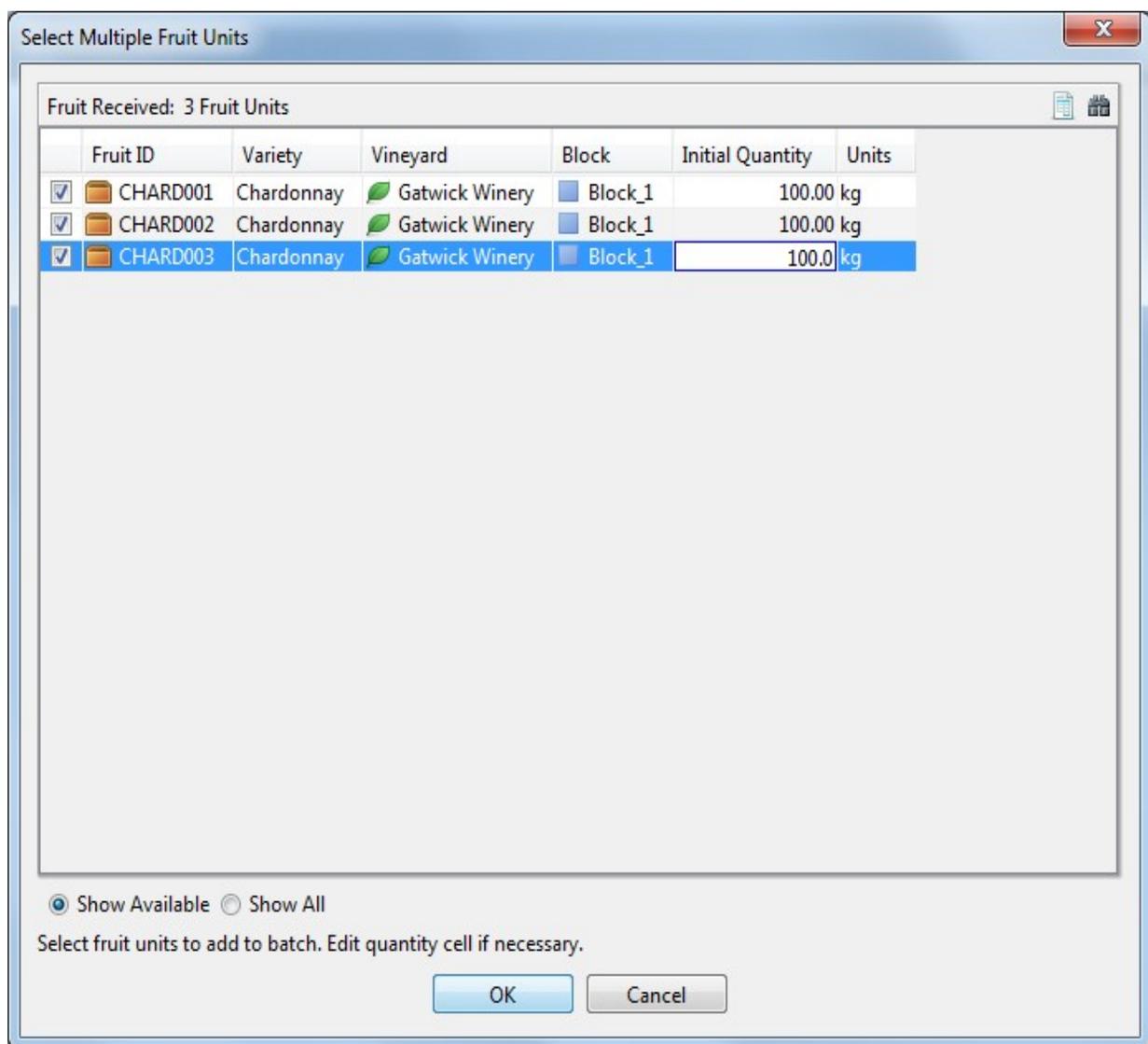
Selecting Multiple Fruit Units

When selecting multiple fruit units, you can choose to view all units or available units. Available units are units that have not already been added to a batch. These items are differentiated by their icons. Fruit units that have already been linked to a batch are gray in color:

> This fruit unit has already been linked to a batch and the total quantity has been used.

> This fruit unit has not been linked to a batch or there is remaining unused quantity.

After entering the fruit source(s), the **Fruit Quantity** field will be populated with the sum of the weights of the selected fruit units. However, this field can be manually edited if required.

It is possible to add part of a single fruit unit to the crush. For example, you may have a single delivery of fruit that you want to divide between multiple batches. To do this, select the desired fruit unit from the drop-down box. The **Fruit Quantity** field will be populated with the total weight of the fruit unit. If

you do not wish to apply the total fruit quantity to the batch, then edit the **Fruit Quantity**. If the quantity being crushed is less than the total quantity of the fruit unit, then the remaining quantity of the fruit unit will remain available to add to other batches.

If **Add Fruit to Batch Cost** is checked, the cost of the fruit sources will be added to the itemized cost of the batch (**Batch Cost** in the **Batch Management** view). The program will look up the pricing information from Fruit Received and then add the cost to the batch.

The **Fruit Sources** tab displays a non-editable list of the fruit sources that are associated with this crush record.

The **Fruit Sources** table in the **Batch Management** view shows all of the fruit units that have been added to the batch, either via the **Crush Dialog** or directly to the Fruit Composition table.

As can be seen, the crush dialog is very simple, yet it is also quite powerful, as it automatically acquires data from the **Fruit Received** module and will add records to the **Batch Cost**. It also provides a mechanism to link vineyard data with batch data, allowing a wine to be traced back to the vineyard.

Fruit Composition

The **Fruit Composition** dialog can also be used to link fruit units to a batch and enable tracing the wine back to the vineyard. If you are making wine from fresh fruit, it is preferable to use the Crush Dialog for this purpose. However, the **Fruit Source** dialog is also provided so that fruit units that have been previously crushed (such as a receival of fresh juice or bulk wine) can be linked to a batch. The actual fruit units are added in the Fruit Received Dialog. The **Fruit Composition** dialog is used to link the fruit unit(s) to the batch. By doing this, the fruit from which the batch is composed can be traced back to its origin in the vineyard.

To add a fruit unit to a batch, select the **Fruit Composition** item from the **Batch Management** view and select the desired fruit unit from the list after clicking the **New Record** button from the toolbar above the table.

When selecting multiple fruit units, you can choose to view all units or available units. Available units are units that have not already been added to a batch. These items can also be easily differentiated by their icons. Fruit units that have already been linked to a batch are gray in color.

This fruit unit has already been linked to a batch and the total quantity has been used.

This fruit unit has not been linked to a batch or there is remaining unused quantity.

If **Add Fruit to Batch Cost** is checked, the cost of the fruit sources will be added to the itemized cost of the batch (**Batch Cost** in the **Batch Management** view).

Fruit sources can be edited or deleted like other table data. Also, if the fruit sources are entered in the Crush Dialog, they will be added to the **Fruit Sources** table where they can be edited if necessary.

Blend Composition

If the current batch is a blend, the **Blend Composition** table will show a list of the batch components that make up the blend. In addition to the **Batch ID**, the table will show the variety, quantity, and percentage of each component. If your wine is a blend of two or more batches you can manually enter the blend components here. Alternately, if the Racking feature is used to rack wine between batches,

the program will create the blend records.
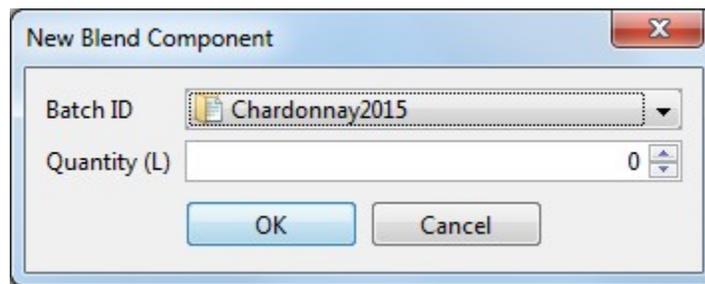
Blending Batches

Fruit Source Sample History

The **Fruit Source Sample History** shows the **Vineyard Samples** for the fruit units that have been linked to the batch (via Crush or Fruit Composition). This allows the development of sugar, TA, and pH in the vineyard to be linked with the finished wine. The actual samples are entered in Vineyard Samples in the Vineyard Management view.

Fruit Source Spray History

The **Fruit Source Spray History** shows the spray applications that were applied to the fruit that has been linked to the batch. This provides a linkage between the Spray Diary in the Vineyard Management view and the **Batch Management** view.

Fruit Source Weather History

The **Fruit Source Weather History** shows the weather conditions that occurred in the vineyard from which the fruit came. This provides a linkage between the Vineyard Weather in the Vineyard Management view and the **Batch Management** view.

Batch Tasks / Work Orders

Batch Tasks allows tracking of tasks that are associated with the batch. When this item is clicked, active tasks that have been linked to the current batch will be displayed in the table. Tasks can be edited and added to the table. These tasks can also be entered and viewed in the **Task Management** view. See Task Management for additional details regarding task management.

Batch Processes

A **Process** is a winery operation that spans a length of time, such as fermentation or aging. After creating a new batch, creating a process record is a usual first step. Amphora includes seven pre-defined processes:

- Cold Settle
- Cold Soak
- Alcoholic Fermentation
- Malolactic Fermentation
- Cold Stabilization
- Sur Lie Aging
- Bulk Aging

Also, custom processes can be created if required. All processes have the following required attributes:

- Start Date
- Container
- Current Quantity

The required attributes allow tracking of wine quantity over time. Some processes, such as fermentation may have other attributes as well. Processes provide the mechanism where a **Container** becomes linked to a **Batch**. A batch may include any number of concurrent or sequential processes in any number of containers. After entering general Batch Information, a process would then be created so that winemaking events can then be recorded for the batch.

Starting a Process

To start a process, a new process record is created. A **Start Date**, **Container**, and **Current Quantity** are specified. Other optional attributes may be specified depending on the process. Once the record is saved, the process becomes active and the selected container becomes " *full* ". Processes may also be started automatically, such as when racking wine to a new process.

Ending a Process

A process can be terminated manually or automatically by the program. A process ends when the **End Date** is specified, and the **End Date** is not in the future. A container is designated as "*Empty*" when the **Current Quantity** is set to zero.

If the Racking feature is used, the software will automatically change the **End Date** and **Current Quantity** for the affected process record. If the racking feature is not used, the process can be ended

manually by editing the process and changing the **End Date** and **Current Quantity** as necessary.

Standard Processes

Standard Processes are those processes that contain a minimal number of attributes. These attributes include the three required attributes and a minimal set of optional attributes. The standard processes include Bulk Aging, Cold Settle, Cold Soak, Cold Stabilization, and Sur Lie Aging.
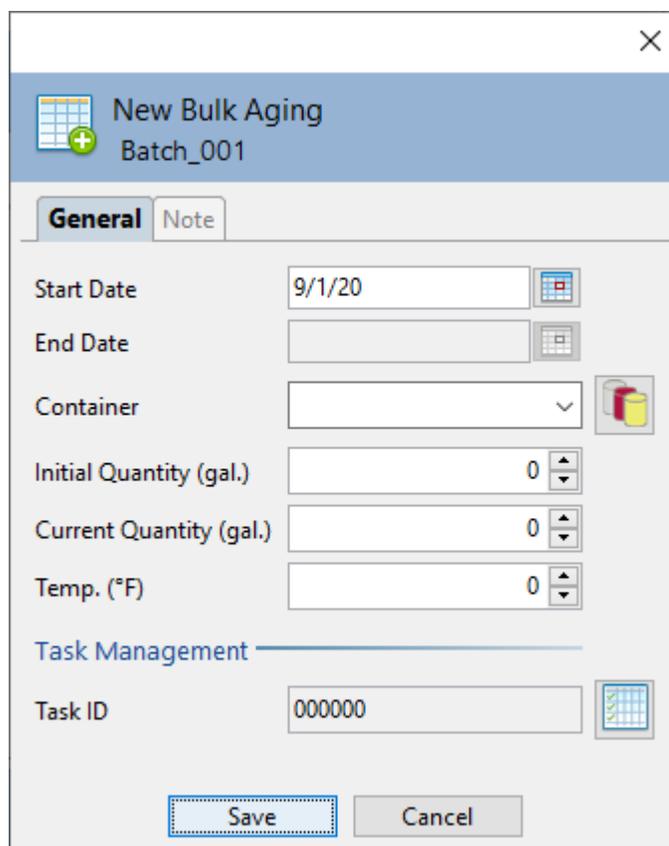
Figure 31: Creating a new standard process.

Fermentation Processes

Most process dialogs are similar in that they only define the minimum attributes for a process. However, the fermentation dialogs (both Alcoholic and Malolactic) include additional data fields due to the additional complexity of these particular processes. In particular, these dialogs provide linkages to General Inventory to record the addition of yeast or malolactic culture. The fermentation dialog will automatically update General Inventory, Batch Cost, and Additions with the information contained from the relevant **General Inventory** entries.

Figure 32: Creating a new fermentation process.

Custom Processes

The program also includes a feature where custom processes can be created, if you use a process in your winery that is not included in the program. A custom process has the same attributes as the standard processes, except that the name of the process can be defined. To create a custom process click **Add / Edit Custom Processes** from the left task pane while in **Batch Management** view. A dialog will appear where the name of the process is entered. The name of the process can be edited at any time, using the same dialog. Once created, custom processes are added to the task pane, along with existing processes. Custom processes are used in the same way as built-in processes such as fermentation and aging.
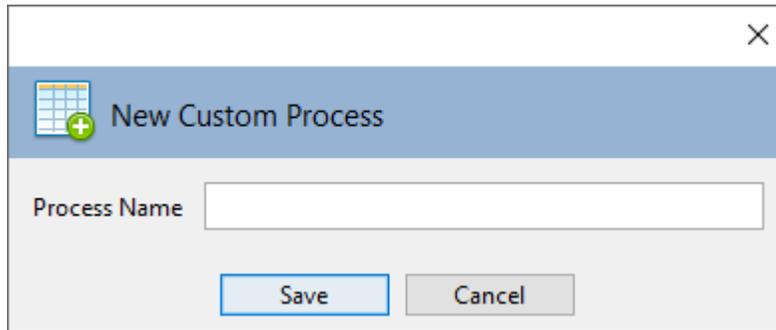
Figure 33: Creating a new custom process.

Process Summary

The **Process Summary** table shows all processes that have taken place for the current batch. A batch can have any number of concurrent or sequential processes. The process summary lists each process that has been added to the batch, along with the associated container, quantity, start date, and end date. It also calculates the **Process Length** in days. If the process is active, the process length is the number of days between the current date and the process **Start Date**. If the process is inactive, the process length is the number of days between the **Start Date** and **End Date**. Double-clicking on a row in the process summary table will cause the program to display that process.

Batch Events

Events are activities such as additions or measurements that occur during a [Process](). Normally an event occurs at a moment in time rather than over a period of time. All events have the following required attributes:

- Date
- Time
- Container
- Process

The associated Batch ID is also linked to the event behind the scene. For example, this makes it possible to view all measurements that were taken during fermentation. All event dialogs allow the event to be linked to a single container or multiple containers. See [Selecting Containers]() for details. Additional fields are provided, depending on the event. The various event types in Amphora are described below.

Addition

The additions dialog allows tracking of the various additions to the wine. This could include such items as yeast, oak chips, sugar, sulfite, and others. The additions dialog is linked to the [General Inventory](). This allows the addition to be associated with a specific **Inventory ID**. This in turn allows the addition to be traced back to the associated supplier information that is contained in the **General Inventory** view.

Figure 34: Creating a new addition.

Amelioration

Bottle

Once the wine is ready for bottling, a bottling record can be entered in the **Bottle Dialog**. The **Date** and **Container(s)** that were bottled is entered, along with various attributes of the finished wine and bottle type.

A **Wine Name** can be entered if the name of the finished wine will differ from the **Batch ID**. This field is intended to refer to the name under which the finished wine will be marketed or presented. This name will appear on sales invoices. A single batch can have several wine names. For example, this makes it possible to bottle part of your batch under one name and another part under a different name (eg. reserve wine).

By default, the **Quantity** field is specified as the number of bottles. However, the units can be changed to cases. This preference is set in the Preferences Dialog.

If you have an image file of your bottle label, it can be specified by clicking the **Get Label** button. The label image can then be viewed from within Amphora.

Figure 36: Creating a new bottling record.

Adding Bottles to Inventory

When entering a bottling record, the bottles can automatically be entered into your bottle inventory. Ensure that **Add to Inventory** is checked. An optional inventory location can also be specified. The location can be anything you like, such as a room or a cellar location. The resulting bottles will then be added to the Bottle Inventory.

Reducing General Inventory Items

The bottling dialog can also reduce your general inventory levels for bottles, closures, capsules, and labels. To do this you need to specify the **Inventory ID** for each of these items in the bottling dialog. Ensure that **Reduce General Inventory** is checked before closing the bottling dialog. The program will then adjust your general inventory according to the bottle quantity.

Adding Items to Batch Cost

In addition to reducing your general inventory, the bottling dialog can add the cost of bottles, closures, capsules, and closures to your batch cost. To do this you need to specify the **Inventory ID** for each of these items. Ensure that **Add Items to Batch Cost** is checked before closing the bottling dialog. The software will look up the cost data from the General Inventory and insert the appropriate records into the Batch Cost table.

Cap Management

The **Cap Management** dialog is a simple dialog that allows tracking of cap management activities such as pumping over. It also provides a field where the cap temperature can be monitored. A chart is available to plot the cap temperature.

Figure 37: Creating a new cap management record.

Chaptalization

The **Chaptalization** dialog allows tracking of sugar additions to the wine. Measurements of the starting sugar, ending sugar, and sugar added can be specified. The chaptalization dialog is also linked with General Inventory and Batch Cost. If your sugar has been added to the General Inventory, the chaptalization entry can reduce the sugar inventory and add the sugar cost to batch cost. There is also an option to add the chaptalization record to the Additions table.

Figure 38: Creating a new chaptalization record.

Filter

The filter dialog is a simple dialog to record a filter event. Like all events, the date, container, and process are specified. Specific attributes of the filter event can also be specified. The filter dialog is linked with General Inventory and Batch Cost. If the **Inventory ID** is specified, the software can reduce the inventory for the filter pad/cartridge and add the cost to the **Batch Cost**. Ensure that **Reduce Inventory** and/or **Add to Batch Cost** are checked to enable this feature.

Measurement

The measurements dialog is used to enter the large number of measurements that can be taken during the winemaking process. The **Date**, **Time**, and **Container** can be specified, along with the measurements. The **Process** (eg. Alcoholic Fermentation) can also be specified. For example, this

allows measurements taken during fermentation to be separated from those taken during other processes. A **Lab Reference** field is also provided so that the measurement record can be linked with a laboratory analysis if desired. If Load Previous Measurements is checked, the software will look up the most recent measurements for the selected container. These measurements will then be populated in the associated field. This allows easy entry for measurements that have not changed since the last measurement.

Figure 40: Creating a new measurement.

Custom Measurements

Amphora provides pre-defined fields for the more common measurements. However, Amphora also provides 10 special custom fields that can be used to enter any possible measurement. By default, these fields are named "*Custom 1 .. Custom 10*". However, these names can be changed to anything you like. Click the **Customize Labels** button and enter a new name for the labels. These labels will also appear in the table header when viewing the measurements table.

Amphora includes fields for a large number of measurements. However, many winemakers will not use all these fields and the main table can become cluttered with unused fields. It is possible to remove unused fields from the table. See the entry regarding **Hiding Columns** in Table Customization.

Press

The Press Dialog is used to record the quantity of wine that was pressed. If desired, the quantities of **free run** and **press run** can be specified separately. The **Total Quantity** is populated with the sum of the press and free run quantities but can be edited if desired.

The **Yield** is calculated, based on the **Total Quantity** pressed and the fruit weight (as entered in the crush dialog). This number can also be edited if required.

Figure 41: Entering a new press event.

Racking

Amphora includes an automated racking feature. The racking feature is optional, the quantity of each container can be manually specified in each process. However, the racking feature provides an automated method to transfer wine between containers, and it also provides a record of racking operations.

To enter a racking event, the containers involved are specified, along with the quantity to rack. Amphora will take care of the details and update the affected records. The dialog also displays the capacity and existing quantity of the container that is receiving the wine. If the quantity being racked is greater than the capacity of the receiving container, the capacity field will be colored red.

If you are not racking the entire contents of a container, ensure that the **Mark Container as Empty** item is not checked. If this item is checked, Amphora will designate the source container as empty after the racking operation. This feature is useful if you want to ensure that the container is recorded as empty, regardless of the quantity that was racked from the container. Even if **Mark Container as Empty** is not checked, the container will be designated as empty if the quantity racked is equal to the existing wine quantity prior to the racking.

After saving the racking entry, the software will update the relevant records. The quantities of each container will be adjusted. Also, the program will create new records if necessary. For example, if a container was racked into multiple smaller containers, the program will create new records for each container. Also, if the racking involves a process change such as a move to the aging process, from fermentation, the program will create a new record in the aging table. For the program to do this, the process must be specified in the racking dialog. The process defaults to the current process.

Racking Between Single Containers

Racking between 2 containers is the simplest case. Each container is selected from the drop-down fields.

Racking From a Single Larger Container to Multiple Smaller Containers

In this situation, the wine is transferred from a single large container such as a fermentation tank to multiple smaller containers such as barrels. The single large container is specified in the container drop-down field in the **Rack From** section of the dialog. Then the smaller containers are selected by clicking the button beside the container drop-down in the **Rack To** section. This will open a dialog where multiple containers can be selected. To select a container, check the box on the left side of the window. The **Quantity** will default to the capacity of the container. However, the quantity of each container can be edited if necessary. After selecting the desired containers, click **OK** to close the window. When the **OK** button on the racking dialog is clicked, the software will generate an entry for each selected container.

Racking From Multiple Smaller Containers to a Single Larger Container

In this situation, the wine is transferred from multiple smaller containers such as barrels to a single large container such as a tank. The smaller containers are selected by clicking the button beside the container drop-down in the **Rack From** section. This will open a dialog where multiple containers can be selected. To select a container, check the box on the left side of the window. The **Quantity** will default to the current wine quantity of the container. However, the quantity of each container can be edited if necessary. After selecting the desired containers, click **OK** to close the window. Then the single large container is specified in the container drop-down field in the **Rack To** section of the dialog. When the **OK** button on the racking dialog is clicked, the software will generate an entry for each selected container.
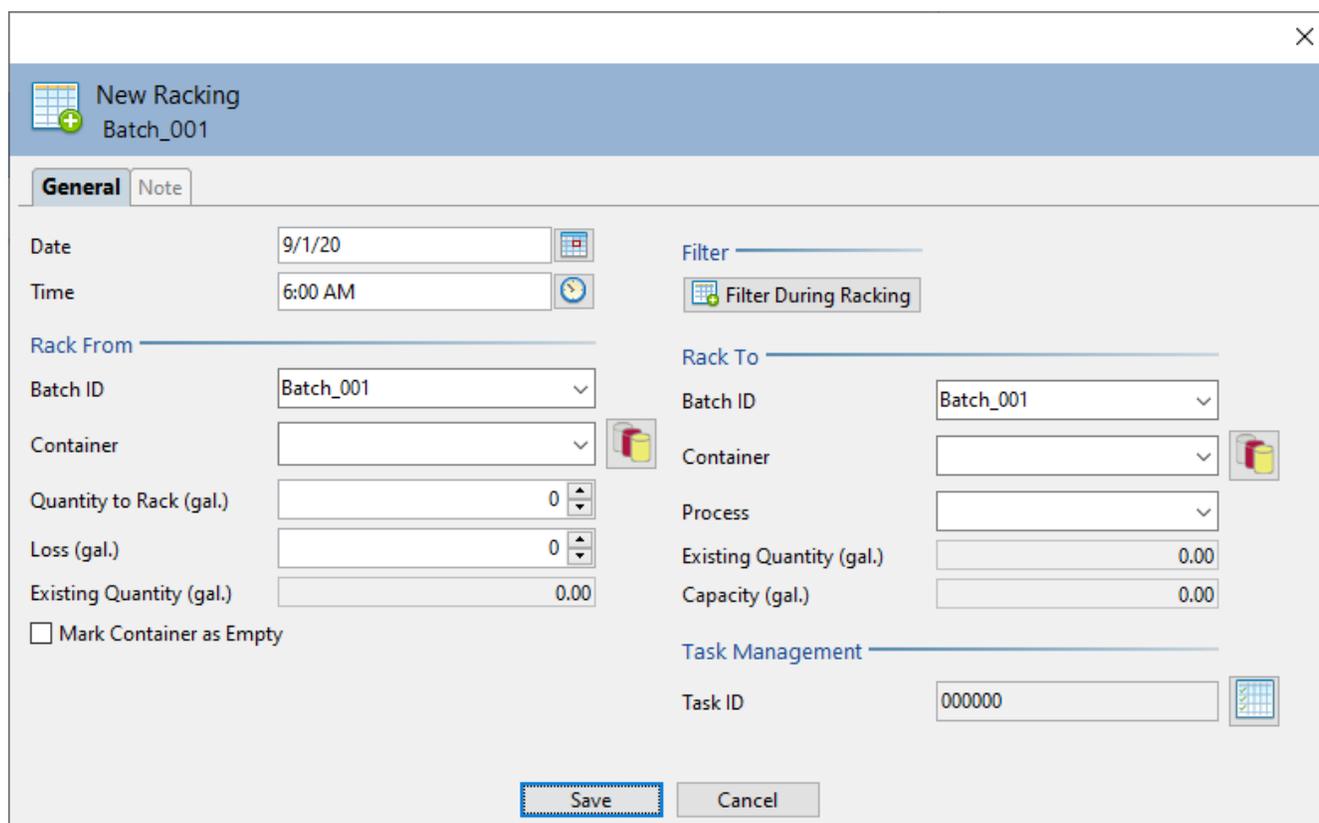
Figure 42: Entering a new racking event.

Blending Wine

The racking feature can be used to blend wine between different batches. Entering a blend is the same as a regular racking except that different Batch IDs will be specified in the **Rack From** and **Rack To** sections. The software will also track the composition of the blend. This is visible in the Blend Composition table is the **Batch Management** view.

When creating a blend it is often useful to create a new batch to represent the blend. This way the data for the blend can be kept separate from the data associated with the blend components. To do

this, create a batch in the usual way. After the batch (blend) has been created, the racking dialog can be used to transfer wine to the new blend. The **Blend Composition** table for the blended batch will show the batches that were used to create the blend, along with the relative proportions.

Tasting

The **Tastings** dialog is a very simple dialog intended for recording tasting notes. Like the other event dialogs, the container and process can be recorded along with the note.
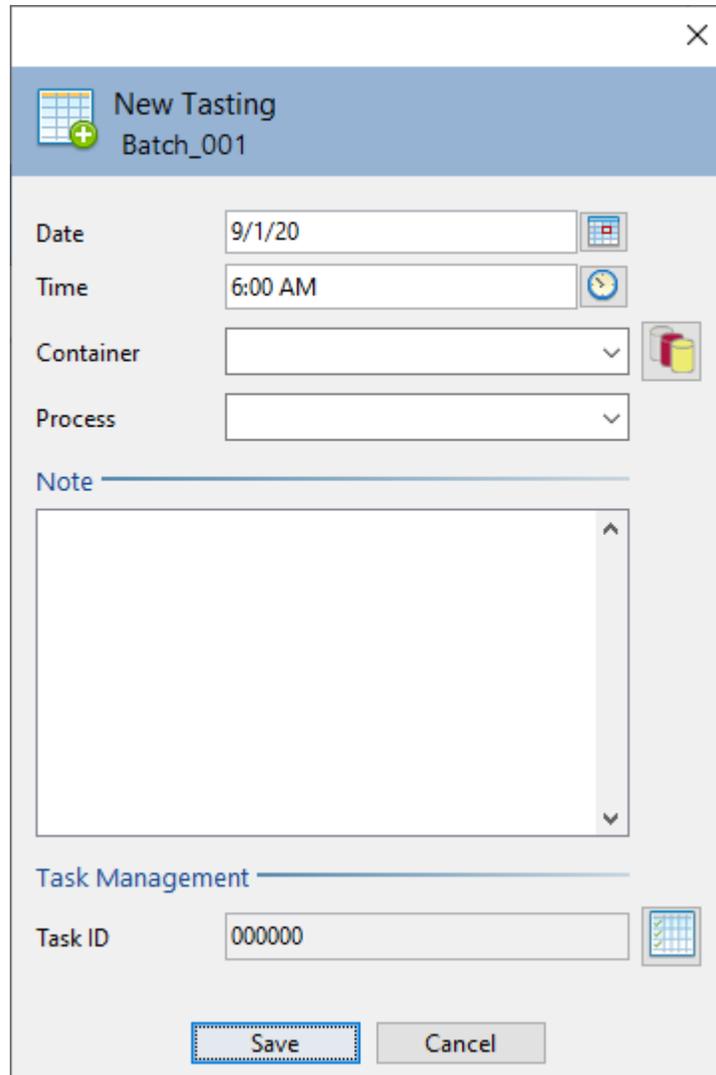
Figure 43: Entering a new tasting event.

Top Up

The top up dialog allows tracking of the topping up process. The container to be topped up is specified, along with the container of the source and the top up quantity. If desired, the program will adjust the container quantities in the associated process records. If **Increase Top Up Container**

Quantity is checked, the program will increase the quantity by the amount of the top up. If **Decrease Source Container Quantity** is checked, the program will decrease the source quantity by the amount of the top up.

Figure 44: Entering a new top up event.

Event Summary

The **Event Summary** is a non-editable table that provides an overview of all events such as additions and measurements, that have been applied to the batch. The table shows the date, process, container, and a description of the event.

Event Reports

Addition Reports

Measurement Reports

All measurements are entered and edited via the measurements dialog and can be viewed in the main table. However, it is possible to have more concise views of the measurement data. **Measurement Reports** are non-editable views of measurements, broken down by categories such as Acid or SO2. Charts are created and displayed in the lower half of the window. If necessary, each half of the screen can be resized with the mouse.

The embedded charts can be customized, saved, or printed just like the other charts by using the toolbar above the chart, or by right-clicking the chart and selecting the appropriate item from the context menu. See the Charts entry for details. Charts can also be generated in the normal way by clicking the chart item in the table toolbar if an independent chart window is desired.

Selecting Data by Container

By default, the chart is created using data for all containers listed in the table. If more than one container is listed in the table, a chart can be created using the data for a single container. Select the desired container from the drop-down on the toolbar above the chart. A new chart will be generated using the data for the single selected container.

Fermentation Detail

The **Fermentation Detail** view provides a view of sugar and temperature during fermentation. Unlike the other measurement details, fermentation detail only displays measurements that were taken during fermentation. For this feature to work, the **Process** field in the Measurements Dialog must be defined as **Alcoholic Fermentation** when entering measurements during the fermentation process.

Selecting Containers

When entering processes and events, containers (such as tanks or barrels) can be specified. A process or event can be linked to a single container or multiple containers. Specifying containers in the various process and event dialogs provides the linkage between the Batch Management view and the Container Management view.

Selecting a Single Container

Events such as measurements or additions are linked to containers by selecting the container from the drop-down box in the various dialogs. The name of the container can also be manually typed into the text field portion of the drop-down box. However, it is recommended to select the container from the drop-down list. If the container is manually typed in, and a typographical error is made, the process or event will be applied to the incorrect container. If you wish to apply a process or event to a single container, select it from the drop-down box.

Selecting a Container for a Process

When entering processes such as fermentation or aging, all containers in the Container Inventory are included in the drop-down. Once a container is specified in a process, that container is linked to the batch. Each batch can be composed of any number of containers. If you select a container that is already being used, a warning dialog will appear asking for confirmation that the container choice is correct. A container must be linked to a **Process** before events can be linked to the container.

Selecting a Container for an Event

When entering events such as additions or measurements, the container drop-down is filtered so that it only shows the containers that have been linked to the batch via a process record (see above). For example, if your batch includes a single fermentation tank, then the container drop-down in the various event dialogs will include that tank only. If the batch includes multiple containers, then all those containers will be added to the drop-down. This makes it easy to select the desired container without the need to scroll through the entire container inventory.

Linking Containers to a Batch

Containers are linked to a batch as described in the **Selecting Containers for a Process** section above. Containers are linked to a batch by creating a process record that specifies that container. For example, if you create a fermentation record and specify *Tank_01* in that record, then *Tank_01* is linked to that batch. This linkage is dynamic. If the process record is deleted, the container is no longer linked to that batch. Also, if the container becomes empty, it is longer linked to that batch and becomes available for use in another batch. The linkages between containers and batches can be seen in Container Status.

Selecting Multiple Containers

Multiple containers can be specified in processes and events by clicking the multiple container button in the various dialogs. Select each container that you want to add to the process or event. Amphora will then generate a record for each selected container. This makes it easy to quickly generate

identical records for several containers.

Selecting Multiple Containers for Processes

A process such as aging can be linked to multiple containers at the same time. For example, you may want to start an aging process for 10 barrels that are in the same batch. To do this, click the multiple containers button beside the container drop-down. A dialog will be displayed that shows a list of available containers. By default, the list shows empty containers since a process would normally be started in an empty container. However, you can see all containers in the inventory by selecting **Show All**. Selecting **Show This Batch** shows all containers that are currently linked to the active batch.

Selecting Multiple Containers for Events

It is possible to apply an event to multiple containers at the same time. For example, you may wish to make an addition to several containers at the same time. To do this, click the multiple containers button beside the container drop-down. A dialog will be displayed that shows a list of available containers. By default, the list shows those containers that have been linked to the batch via a process dialog. However, you can see all containers in the inventory by selecting **Show All**.

Selecting Container Groups

It is also possible to select multiple containers by choosing container groups (containers can be assigned to groups in Container Inventory). For example, you may wish to make an addition to all containers in one or more groups, or start a process for an entire container group. To do this, click the multiple containers button beside the container field and choose the **Container Groups** tab. Select each group that you wish to add to the process or event. After clicking **OK**, the software will generate a record for every container in the selected group(s). Groups can be expanded to show the containers that belong to that group. You can expand all groups to show individual containers by clicking the "+" button. All groups are collapsed by clicking the "-" button. The groups feature makes it easy to create records for large numbers of containers with a single entry. Containers that are listed under the **Ungrouped Containers** node have not been assigned to any group in the container inventory.

Containers in Use

The program will display a warning message if a selected container is already in use. For example, you might enter a fermentation record and choose *Tank_01*. After clicking **OK**, the program will search the database to check if *Tank_01* is already in use. If *Tank_01* is currently in use, a warning message will be displayed. The message will also indicate the batch of wine that is already in the container. This warning helps to prevent data entry errors.

Additional Container Information

Additional information about the containers can be seen when selecting containers. The container graphics are color-coded so that empty containers can be easily distinguished from containers that contain wine. Yellow graphics indicate containers that contain wine, while gray graphics indicate empty containers.

This container contains wine.

This container is empty.

Additional information for each container is displayed as a tooltip when the container is selected in the list or the container drop-down boxes. Container tooltips are also displayed in the main table when the mouse is moved over the container field.

Winery Management

Introduction

Winery Management includes non-editable data views that apply to the entire winemaking operation, rather than to a specific batch. This includes such items as Inventory and Production. Winery Reports are accessed by selecting Winery Report View. Charts are created and displayed in the lower half of the window. If necessary, each half of the screen can be resized with the mouse.

The embedded charts can be customized, saved, or printed just like the other charts by using the toolbar above the chart, or by right-clicking the chart and selecting the appropriate item from the context menu. See the Charts entry for details. Charts can also be generated in the normal way by clicking the chart item in the table toolbar if an independent chart window is desired.

Winery reports are very powerful as they can extract data from different batches and create meaningful information that is difficult to obtain from paper-based records. Winery reports take advantage of the relational database management system that lies at the core of Amphora.

Active Processes

The **Active Processes** tables show all ongoing processes for the winery. There is a table for each available process. The table lists each batch, container, start date, quantity, and the process length in days.

Inventory (Bulk Wine)

The **Bulk Wine Inventory** tables show the quantity of wine currently in bulk containers. Various tables show the bulk wine according to various attributes, such as batch, variety, process, and others.

Inventory (Bottled Wine)

The **Bottled Wine Inventory** is similar to the bulk wine inventory except that it shows wine in bottles rather than bulk containers.

Production (Bottled Wine)

The **Production** tables show the winery production, as measured by bottles produced. Like the inventory tables, it is broken down by batch, variety, and other attributes.

Costs

The **Cost** tables show the total costs associated with the winery operation. These tables provide a date selector so that costs can be viewed in total, by vintage, or by a user-defined date range.