RAPTORMED

User's Manual

Version 3.12.2
July 17, 2016

Introduction

RaptorMed is a patient management software package originally designed for the unique needs of birds of prey. It was created and developed by Dr. Dave Scott and the staff at the Carolina Raptor Center in Charlotte, NC in 2009. It has since been expanded to handle any type of wildlife of zoo patient including aquatics.

It is very easy to use, requires very little in the way of computing resources and has a very long list of useful functions and features that are designed to improve staff efficiency and the quality of care. In addition, because there is powerful database running behind-the-scenes, the data that is collected in the system is now completely searchable. With **RaptorMed**, you can "go paperless" as there is no need for traditional paper records anymore.

Here is just a short sample of the many things that **RaptorMed** does:

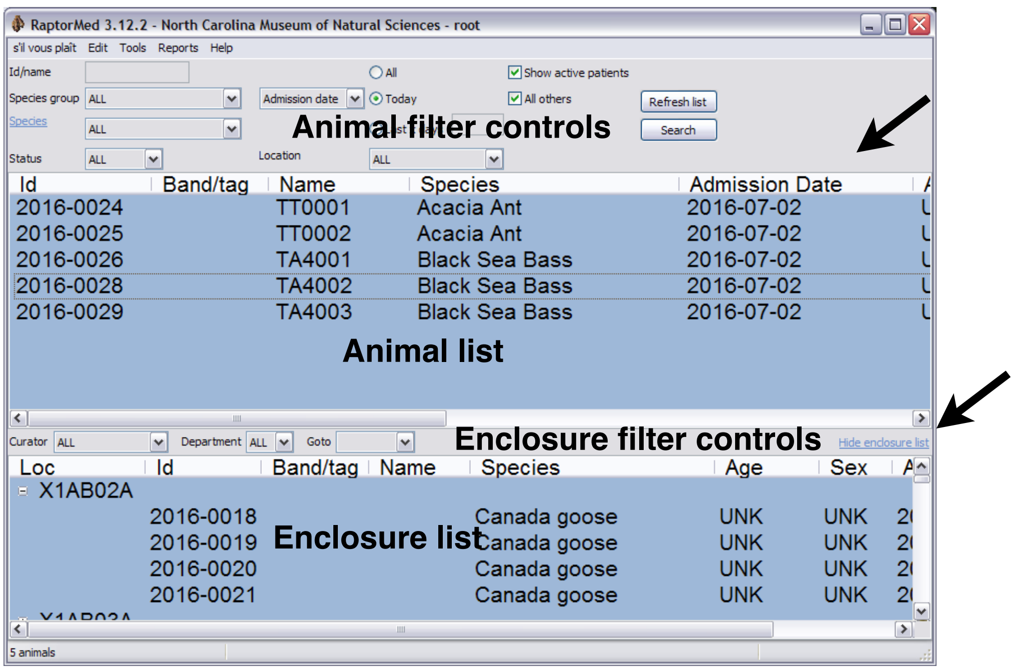
- Track daily treatments and feedings
- Schedule medications and procedures
- Auto-calculate drug dosages
- Track the exact location of every animal
- Track each patient's problem list
- Track weight and growth curves
- Monitor physical therapy and feather check results
- Store all imagery files and lab results
- Generate all sorts of historical statistics
- Estimate the cost of care for a patient
- Produce all federal and state reports automatically
- Produce Bandit reports automatically
- Manage volunteers
- Track inventory

Chapter 1

The main screen

Besides the main menu, the main screen is divided into four areas:

- The filter controls that determine which animals are displayed in the animal list.
- The animal list
- Filter controls that determine which enclosures are display in the enclosure list.
- The enclosure list. The enclosure list can be hidden and restored by pressing the **Hide enclosure list** and **Show enclosure list** links (arrows).



Displaying certain animals with the filter controls

The filter bar allows the patient list to be filtered by various attributes including:

- **Id/name** - This allows a single animal to be found either by id number or by name. If entered, all other attributes are ignored and only the specified animal will be listed.
- **Species group** - The represent broad categories of species. They can be user-defined and can be, for example, avian, avian:raptor, avian:songbird, mammal, mammal:rodent, etc.

- **Species -** You can choose a species from the list or press the **Species** link to use the **Species Lookup Tool**. This displays the each species with it's abbreviation, common name, scientific name and species group. You can sort by any column by clicking on the column heading. Select a species and press the **Ok** button or simply double-click on one.
- **Status/Disposition**
- **Admission date** or **Final date** - Select **All**, **Today**, or specify the number of days in the past.
- **Location** - Choose to view animals in only one specific location or all locations.
- **Spill** - If this feature is enabled, you can filter by the oil spill event that this animal is associated with. Spill events are tracked with the Spill manager.
- **Active patient status** - View only active and/or inactive patients. An active patient is defined as one that has the Active patient checkbox checked. This is typically used to flag patients that are acutely injured and still in need of more hands-on attention.

The patient status codes are:

DOA - dead on arrival
EOA - euthanized on arrival
D24 - died in the first 24 hours
E24 - euthanized in the first 24 hours
D - died after 24 hours
E - euthanized after 24 hours
Reh - currently in rehab
R - released
PR - permanent resident
T - transferred
ESC - escaped
COA - client-owned animal

Once the desired search parameters are entered, press the **Search** button and the patient list will be filled appropriately.

For day-to-day use, it is usually best to display patients of all species and status equal to **Reh or PR**. This will display all active patients.

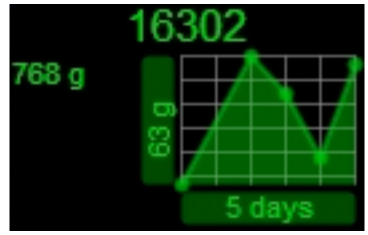
The **Refresh** button is used to refresh the patient list from the database. This should be used if certain changes are made at another computer. For instance, if a new patient is added or moved to a new location on another computer, the data needs to be refreshed from the database before it will display properly.

The animal list
The patient list displays all patients that match the currently applied filter parameters described above. The list is sortable by clicking on each column. The patient id, species, location and various other important data fields are displayed for each patient. The **Special** column displays abbreviations for some of the more important check box attributes that can be selected for each patient. Specifically,

- **RWF** - Release where found
- **NOT RWF** - NOT release where found
- **FS** - Feed separately
- **NR** - Non-releasable
- **LPT** - Live prey test required
- **SWF** - Staff will feed
- **Gr** - Group of animals

Click **here** for more information on the check box attributes.

To access an animal record, simply double-click on it.



Shift-right click on a patient on the main screen to get a quick "Snapshot" that displays the weight profile as well as the last weight and date and any of the ***Special*** *attributes listed to the left.*

The following commands are available from by right-clicking on an entry in this list:

- Edit treatment plan
- Add new record entry
- Edit patient info
- Show reminders - All upcoming reminders will be displayed in a popup window.
- Paperwork - **RaptorMed** can do all sorts of paperwork for you automatically. This includes sending various notifications to your US FWS agent or creating a non-releasability letter.
- Maintenance
    - Delete this patient - Although this should not need to be done often, this command allows you to remove a patient from the system. This is typically only needed if a patient was added accidentally.
    - Clear this patient's treatment plan - This is only needed if there is a problem with this animal's treatment plan that is causing the program to malfunction. This should rarely, if ever be needed.
    - Unlock this patient's chart - This allows a previously locked chart to be unlocked and therefore be edited again.
    - Split group - see Spitting Groups for more information.
- Assign to team (if **Teams** are enabled on your system)
- Show species info page - An informational page on the web will be displayed for this patient's species. Note that these information pages need to be configured for each species. See Species for more information.
- Cage cards and printouts - There are several choices here to allow various patient cage cards and daily log sheets to be printed.
- Goto location - this will automatically scroll the Enclosure list to the location that currently contains this animal.

The enclosure filters

You can specify that only enclosures for a specific curator/aquarist or department (if enabled) can be displayed. The filter control area also has a **Goto** field that can be used to scroll the Enclosure list directly to a specific location. This is helpful in instances where you have many enclosure or enclosures with many animals.

The enclosure/location list

The enclosure\location list displays each enclosure or location. Each location has an expandable/collapsable list itemizing each animal in that location. You can access the enclosure's log or an animal's chart by double-clicking on the appropriate item in the list.

The following commands are available from by right-clicking on an entry in this list:

- Record group treatment
- Enclosure log
- Show census - Displays a small popup the summarizes that different species in the enclosure. This is particularly useful for aquariums.
- Update census
- Delete last group entry - Deletes the last entry made for each patient in the specified enclosure. This can be used in case a group entry was made incorrectly or accidentally.
- Edit group treatment
- Show weight trends
- Add reminder
- Cleaning and watering - This command allows you to record various cleaning/maintenance actions for location/enclosure. This data is displayed on the Enclosure cleaning and maintenance report.
- Edit cage/location properties
- Cage summary - This report concisely summarizes all animals in the specified enclosure. It includes the id, band information, species, age, days in rehab, and whether the animal is marked as **Release Where Found**. It also includes a list of problems. This report can be printed and is handy when going to a specific enclosure to evaluate animals for release.
- Group operations
- Assign to team (if **Teams** are enabled on your system)
- Habitat census report (if enabled)

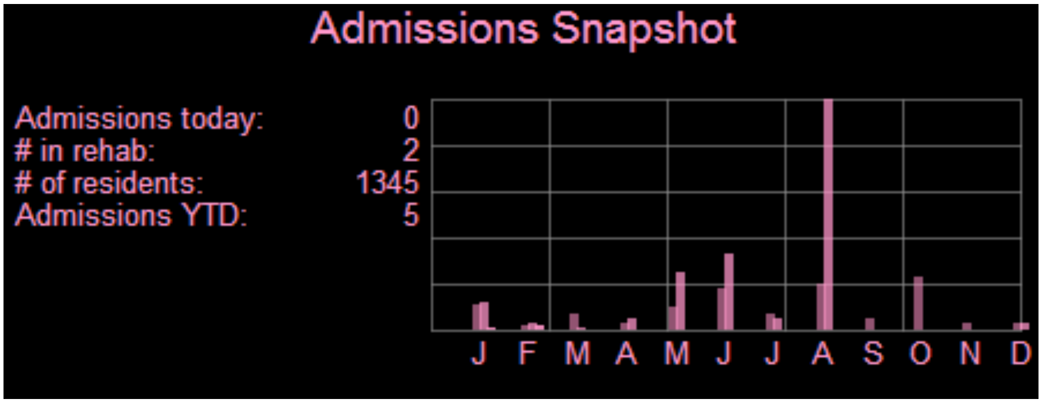
General Workflow

----

1. Add a patient
2. Setup treatment plan
3. Print treatments sheets
4. Do your treatments
5. Record your treatments
6. And start all over again

The Summary Snapshot

Pressing **CTL-S** on the main screen will produce the Summary Snapshot screen. It shows admissions data and will graph monthly admissions for the last thee years. Each month in the chart is composed of three shaded bars. The left-most represents 2 year ago, the center one represents last year and the right-most bar is for the current year. Click outside the Snapshot scree to dismiss it.

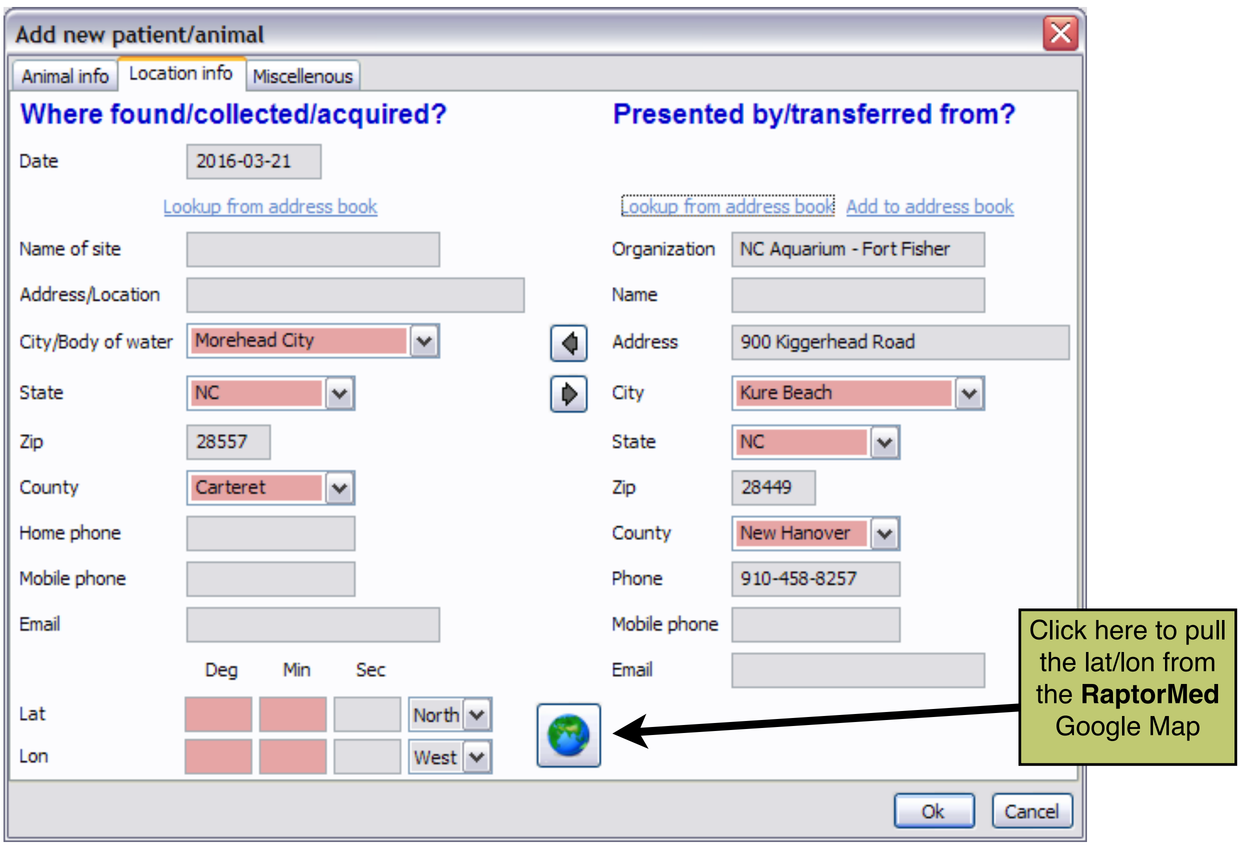


Adding a new patient/animal

To add a new patient, select **Edit ▶ Add new patient** from the main menu.

The **New patient** form has three tabs.

- Tab 1 - **Animal Information:** id, species, age, etc.
- Tab 2 - **Location Information:** where the animal was found, collected and/or transferred from.
- Tab 3 - **Miscellaneous information:** a short history, any donation information, etc.



Animal Information

The next patient **Id** is automatically selected. Although possible, you should almost never have a need to change this id. You can choose a species from the list or press the **Lookup** link to use the **Species Lookup Tool**. This displays the each species with it's abbreviation, common name, scientific name and species group. You can sort by any column by clicking on the column heading. Select a species and press the **Ok** button or simply double-click on one.

The **Admission date** and **Species** are mandatory. The species can be chosen from the abbreviation list or you can press the **Lookup** link to choose the species by their common names. The **Date of Birth (DOB)**, **Age** and **Sex** can be specified at this time.

Location information

Although many of these fields are optional, enter as much as possible as some of it may be required for various state and federal reports. There are fields to enter information about where and when the animal was found. In addition, you can enter information (the **Presented by/transferred from** fields) about where this animal may have been transferred from (i.e. another rehab organization). Information for either address (where found and presented by) can be retrieved from the **Address Book** by pressing the **Lookup from address book** links. You can save the information in the **Presented by/transferred from** fields as a new contact by pressing the **Add to address book** link.

If configured properly, the system will automatically fill in the county and zip code when you choose a city from the pre-filled list or when you manually type in a value. This applies to all forms that allow you to enter city as part of an address or location.

You can copy contact/address information from the **Where found** fields to/from the **Presented by** fields by pressing the **left** and **right arrow** buttons.

Click here for more information on the **Address Book**.

You can specify the exact location for where the patient was found by manually entering the coordinates in the **Lat/Lon** fields. You can also pull the exact coordinates from the **RaptorMed Google Map**. To do this, load the Google Map into your browser. Find the location on the map and left-click on the location. Now, back in **RaptorMed**, press the **Google Map** button and the coordinate fields will be filled in automatically for you. Click here for more information on the **RaptorMed Google Map**.

If enabled, you can select an **oil spill event** that this animal is associated with. Once you select a spill, all the **Found Location** fields, including the latitude and longitude, will be automatically filled in. Spill events are tracked using the **Spill Manager**.

Miscellaneous information

Additional information that can be entered in this section includes a short history, the name of the person who transported, who admitted the animal, details about when the animal was captured, the cause of injury and if any donation was made at the time of admission.

The **cause of injury** and information about any donation made at the time of the admission can be recorded. The **initials/name** of the person admitting the animal can also be entered. The actual time of day that the patient was admitted is automatically stored and is displayed in the **Patient Info** window.

Record information about any **donations** including the amount, type (check, credit card, cash) and details such as the check or credit card number. The data in this field is **NOT** encrypted so you should not record the ***entire*** credit card number here.

If enabled on your system, you can also record information about how the animal was collected. This is useful when collecting aquatic animals for an aquarium. Press the **Collection details** link and a form will appear that allows you to specify random details about the collection, the method used (i.e. dipnet, hook and line, etc) as well as the depth and water temperature.

The **Release where found** check box can be selected to indicate that this patient is supposed to be released where it was found or if the finders indicated interest in being involved with the release.

When the **Ok** button is pressed, the new patient is added.

At this point, the patient is in the system, but the following needs to be done in order to complete the entry:

- The physical exam findings and problem list **should** be entered.
- The patient's location/enclosure **must** be specified.
- The treatment plan **must** be specified.

All live animals must have a valid location and treatment plan specified.

Viewing the patient chart

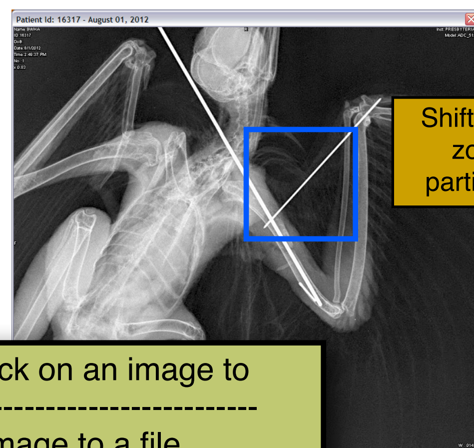
The patient chart is accessible by double-clicking on the animal in either the patient list or the enclosure/cage list. The chart is divided into three sections:

- The **Patient Summary** - This section displays a patient overview and includes things such as the admission date, species, the age, and the number of days in rehab. It also shows the problem list, where the patient was found and any other special notes.
- The **Action Bar** - This section has a series of links to various functions that allow you to edit the patient's information or treatments as well as manage the problem list, add reminders and also to add new record entries.
- The **Medical Record Entries** - This section has each record entry listed with the most recent at the top. Each entry includes the date and time it was made, the initials of the

person making the entry as well as the patient's location when the entry was made. Each entry also displays the patient's weight, body condition score and food leftovers if specified, in addition to the actual text of the entry. The system can be configured to show only the most recent entries. For example, it may only display the last 12 months of entries by default. To see the entire set of entries if they are not already displayed, scroll to the bottom of the chart and press the **Display entire record** link.

This will either be the organization's logo or the optional image that was declared to be an ID photo

- Any attachments such as image files or other documents, as well as any lab results are embedded directly in the entry. To view an image or any other attachment, just single-click on it. If it is an image file, it will be opened in a separate viewer window. If it is another type of file such as a Word document, it will be opened in the appropriate application, assuming the application is installed on the computer.



Shift left-click to zoom on a particular area.

Right click on an image to

- Export the image to a file
- Change the image type and description.
- Delete the image

The Action Bar

The **Action Bar** has the following choices that allow you to make record entries, view data and charts, and setup treatments.

Patient info

This function allows the patient's basic information to be modified. Click here for more information.

New entry
This function allows you to add a new entry to the medical record. Click here for more information.

Treatment plan
This function allows you to modify this patients individual treatment plan. Click here for more information.

Problems
This function allows you to manage a patient's problem list. Problems can be added and removed. An initial date and end date can be specified and each problem can be marked as pending or resolved. Click here for more information.

Historical data
This function allows you to view and graph many types of data including imagery, weight profiles and laboratory test results. Click here for more information.

Finder/Collection info
View/edit the information about where this animal found or collected. A form similar to the New patient form will appear with fields for entering information about where the animal was found and/or about where it may have been transferred from.

Add reminder
This function allows you to set reminders for this patient. Click here for more information.

View reminders
This function allows you to view all existing reminders for this patient. Click here for more information.

Samples
This function allows you to view all samples stored for this patient. Click here for more information.

Export
This function allows you to export a patient's record. All lab results or exported automatically. Images can also be optionally exported. The export can use one of two formats:

- HTML - this produces a web page that can be viewed or emailed.
- XML - this produces a file that can be later loaded into another RaptorMed database. This is very useful when transferring an animal to another facility. See the Import animal record command for more information.

You will be prompted to select a location on the computer into which to save the export.

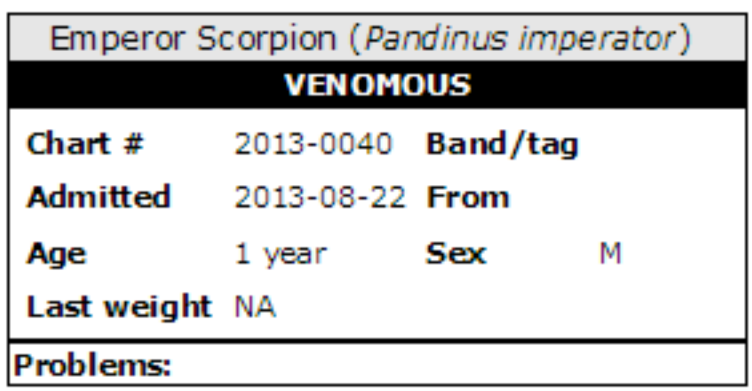
- If you elected to export the images/attachments then a folder named after the animal's Id will be created in the specified location and the medical record and all attachments will be copied there.
- If you elected to **not** export the images/attachments, then a single file will be created in the location specified.

Invoice
This function allows you to generate an invoice for client-owned animals. You will be prompted for a date range and all procedures recorded in the Procedure log will be tallied to generate the invoice.

Cost estimator
This function creates a estimate summarizing the cost of care that this patient has received. Click here for more information.

Search
This function allows you to search for any word or phrase in the entire chart. After entering the search text, any matching text will be highlighted and visible as you scroll down in the chart. There are **Find/Next** buttons that you can press to advance to the next occurrence of the search text.

Print cage card
This function allows you print a card suitable for hanging on the patient's kennel or enclosure. The format, layout and information that is printed on the cage card is completely customizable. Contact customer support for assistance.



Print cage sheet
This function prints a full-page cage sheet which has space for daily entries.

Summary
The function allows for a patient overview or summary to be recorded. This is a quick place to become familiar with familiar with a patient's history. Of course,

this summary is only as good as how well it is kept up-to-date. This summary may also be printed on some reports, depending on your configuration.

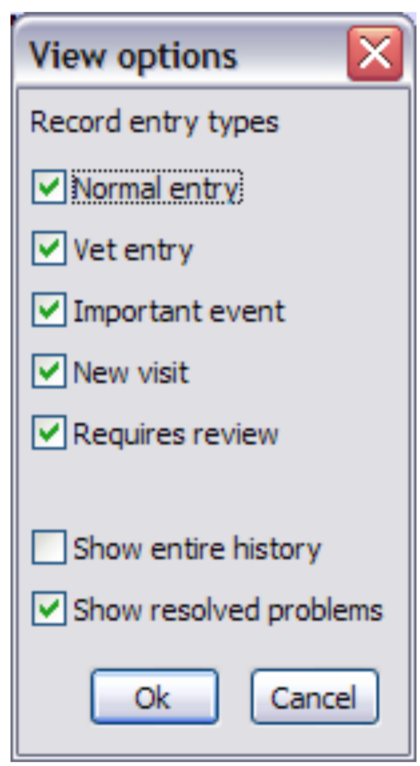
Program log
This function allows you to record and track program usage for an animal.

Print Rx
This function, if enabled, this will print a prescription sheet for the specified patient. Only prescriptions that have an Until date in the future will be printed.

Print Lab Request
This function, if enabled, this will print a lab test request form for the specified patient.

Vet/special entries
This function will list all the record entries that are marked as either **Special** or **Veterinary** entries. You can double-click on any entry in the list to go directly to that entry. For some clients, this function will list all entries that are marked as **New visits**.

View options
This function allows you to filter which type entries are viewed. For instance, you can view only the **Veterinary** entries or only the **Important events**.



- **Normal entries** are for everyday records.
- **Vet entries** are typically used by veterinary staff to record important medical information.
- **Important events** are used to record information about important events.
- **New visits** are used in clinical situations for a new patient visit. These are typically used for client-owned animals that live offsite with an owner or caretaker are visiting the clinic for an appointment.
- **Requires review** is for an entry that is made that requires review and approval before the entry is considered finalized. RaptorMed allows for user logins that can only make entries that require review and also user logins that have the ability to review and approve entries made by other users. See **User Manager** for more information.
- **User-defined entry types** - The system also

allows for entry types that are user defined. Please contact customer service for more information.

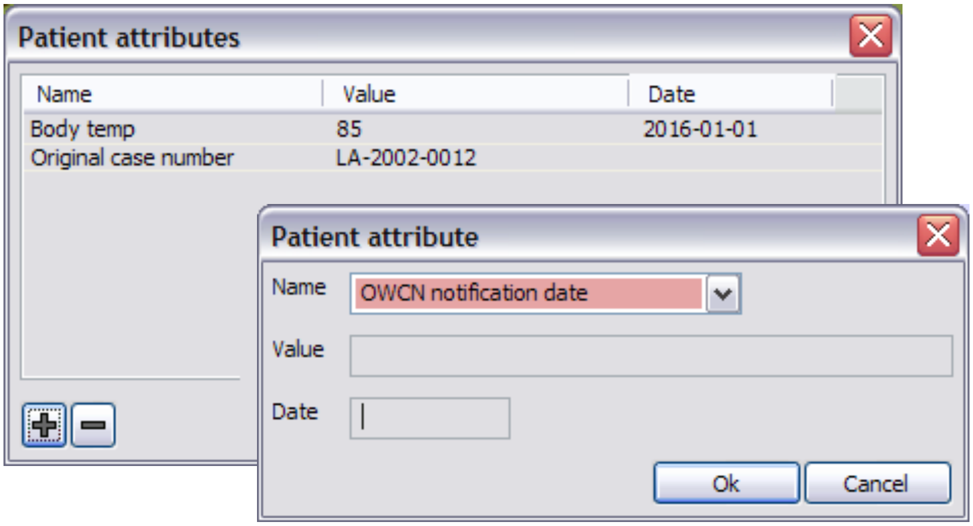
You can also choose how many entries are viewed. By default, the system will only view the last 12 months of entries. This default value can be set to any number of months or it can be overridden completely by checking **Show entire history**. The **Show resolved problems** option will display all problems whether they are resolved or not.

Attributes

Any number of random attributes can be stored for an animal. An attribute can be a name/value pair or simply just a keyword. Each attribute can have an optional date associated with it. Some attributes are automatically generated by the system to track certain events or conditions but you are free to add any number of attributes to track any type of data. These attributes can then be searched or queried later when attempting to mine your data. Some examples of attributes are:

Name	Value	Date
OWCN notification date		2016-03-02
Voriconazole trial		
Body temp	85	2016-01-01
Body temp	86	2016-01-02

To display an animal's attributes, press the **Attributes** link in the **Action Bar**.



You can press the **+** to add an attribute, press the **-** to delete the selected attribute, or double-click on an attribute to edit an existing attribute. The **Attribute editor** dialog allows you to choose a **Name** from the pre-filled list or enter a new name. The **Value** and **Date** are optional and depends on the type of data you are trying to store.

Vaccine History

This function allows you to view this animal's vaccine history. It displays the vaccine given, the date, the form/manufacturer, the volume and the route of administration. This data is created by using the Vaccine link in the Medical Record Entry form.

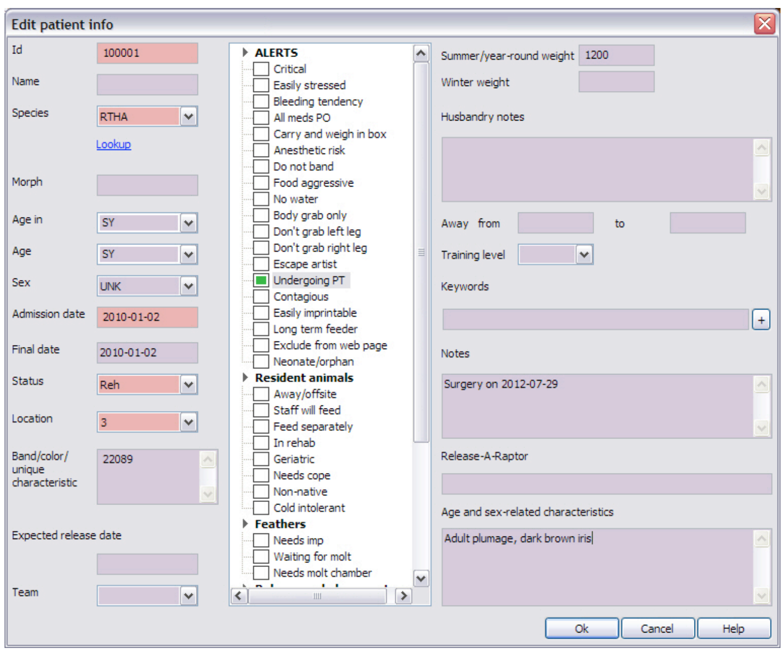
Changing an animal's basic information

Basic patient information such as species, sex, age, etc. can be viewed and changed by clicking on the **Patient info** link in the **Action Bar** on the patient's chart. The most common changes mde involve the patient's location and status (i.e. In Rehab, Released, Died, etc).

The following fields on this form are:

> The input format for all date fields is either `yyyy-mm-dd or mm-dd-yyyy`. You can separate the year, month and day with either a - or a /. For example, July 12, 2012 would be
>
> **`2012-07-12 or`**
> **`07/12/2012`**
>
> You can always double-click in any date field to bring up a calendar date picker.

- **Id** - This number is automatically assigned by the system and should rarely or never need to be changed.



- **Name** - This field is primarily used for resident animals that may have a name.

- **Species** - The species is indicated by an abbreviation. For birds, the 4-letter abbreviations specified by the USGS Bird Banding Lab (BBL) are typically used, although, this is not absolutely required. For non-avian patients, you can used any scheme that works for you. Many facilities use the genus/species as the basis of the abbreviation. For example, the opossum is *Didelphis virginiana* and its abbreviation could be **DIVI**. Another option is to create easily recognized abbreviations for a species so the opossum could be **OPOS**. Any abbreviation can be used as long as two species do not have the same abbreviation. The species abbreviations are defined in the **Species Editor**.

- **Morph** - Any color morphology or subspecies information. This is useful for species such as screech owls that have different feather colors.

- **DOB** - If an actual date of birth/hatch is known, it can be entered here. In this case the actual age in years will be calculated and displayed.

- **Age In** - The age on admission.

- **Age** - The current age. This age should be updated as necessary. For example, all birds traditionally gain a year of age on Jan 1.

- **Sex** - Male, female or Unknown.

- **Admission date** - The date of admission

- **Final date** - The date when the patient is finalized (i.e. release, died, euthanized, etc.).

- **Status** - The current patient status. The basic choices are described in in this table. There may be additional status codes that are specific to your installation.

Status	Description
DOA	dead on arrival
EOA	euthanized on arrival
D24	died within 24 hours
E24	euthanized within 24 hours
D	died after 24 hours
E	euthanized after 24 hours
Reh	currently in rehab
R	released
PR	currently a permanent resident
T	transferred
ESC	escaped
COA	client-owned animal such as a falconry bird

- **Location** - The patient's current location. It is very important that this be kept up-to-date.

- **Band/color/unique characteristic** - Any characteristics that uniquely identify this patient. This is useful to tell this animal apart when in a group. It can be an ID band number, an ear tag number, an ink pen color mark, or even an unique behavioral trait. When the animal is in a rehabilitation setting, this can be a temporary band or marker. This field is also used for a permanent marker when and if an animal is released.
- **Auxilliary marker** - USGS auxilliary markers are recorded in this field. Refer here for more information.
- **Microchip** - Microchip/PIT tag numbers can be recorded here.
- **Expected release date** - The date you expect this patient to be ready for release. This is used in the **Event Planner** to plan release events.
- **Team** - The team that this patient is assigned to. This feature may not be enabled on your system.
- **Summer/year-round weight** - The ideal weight (in grams) for this patient. This value is used for the summer or year-round if a winter weight is not also specified.
- **Winter weight** - The ideal weight (in grams) during the winter months.
- **Husbandry notes** - Any unique husbandry related notes for this animal.
- **Away from/to** - Dates during which this patient will be away from the facility. This is primarily used for resident animals that are out on programs. In these cases, feeding instructions for these patients will not be printed out on the daily treatment sheets. These dates are ignored unless the **Away/offsite** checkbox is checked (see below).
- **Training level** - Used for resident animals that are trained or worked by handlers. Each patient can be assigned a training level. This setting is used in the **Handler Training Log** which allows you to keep track of which handlers have been trained with which animals. The training level ranges from **Beginner** to **Master**. If you leave this field blank, then this animal will not be included in the **Handler training** function.
- **Keywords** - Each patient can have keywords assigned to them for easy retrieval at a later date. For example, a patient that is part of specific treatment trial can be tagged with a special keyword. You can enter any random text or press the **+** button and choose from a pre-defined list of keywords. Any number of keywords can be added and should be separated with commas. A quick search for patients based on many characteristics including keyword can be quickly performed using the **Advanced Search Tool**.

- **Notes** - This field is used to store any information that you want to keep readily available. This information is displayed at the top of the patient's record in the **Summary** area and printed on the daily treatment sheets.

- **Release event** - You can use this field to store information about an upcoming release event that this animal is scheduled for. You can manually enter information here but this field is typically filled in automatically by the **Event Planner**.

- **Age and sex-related characteristics** - This field can store information about any characteristics that help identify the age or sex of this patient. For example, "adult plumage, dark brown iris" might be entered for an adult hawk. This information is displayed later when creating a **Release/Banding Record** as it helps fill the age and sex fields on that form correctly.

The check boxes

There are also a whole list of check box choices that can be made. When checked, a short description of each is displayed at the top of the patient's record in the **Summary** area and printed on the daily treatment sheets. The options are summarized in the following table. The entries marked with an * are for informational purposes only and do not affect the behavior of the program. Note that the check boxes are arranged in a few groups such as **Alerts**, **Resident animals, etc**. These groupings are merely organizational and are for clarity. They do **not** indicate that only resident animals, for example, can use the check boxes in the **Resident animal** section.

name	description
Critical*	This patient is critical.
Easily stressed*	This patient is easily stressed.
Bleeding tendency*	The patient has had a bleeding tendency on previous blood collections.
All meds PO	Used for patients that are not yet self-feeding. Used to ensure that all meds are given manually. Birds with this option selected will automatically be marked as a **GRABBER** on the daily treatment sheets.
Carry and weigh in box*	This patient should be carried and weighed in a box. Typically used for young patients/orphans that are delicate and should be handled as little as possible.
Anesthetic risk*	This patient has had anesthesia problems in the past.
Do not band*	This patient has had issues with id bands on its ankle in the past. This is a reminder to **not** replace a band while in rehab or prior to release.

name	description
Food aggressive*	This patient is food aggressive and can be dangerous when feeding.
No water*	This patient should not be given water for some reason such as a foot bandage.
Body grab only*	This patient should not be grabbed by the legs. Typically used for long-legged avian species or a patient that should not be grabbed by the legs.
Don't grab left leg*	This patient has an injury to the left leg.
Don't grab right leg*	This patient has an injury to the right leg.
Escape artist*	This patient has a tendency to escape so be careful when entering its enclosure.
Undergoing PT	This patient is currently undergoing physical therapy. Selecting this option will place this patient on the **Physical Therapy Report**.
Contagious*	This patient is potentially contagious.
Easily imprintable*	This patient is easily imprintable. Useful for young vultures or any other easily imprintable species.
Long term feeder	For internal use only
Exclude from web page	This patient's chart should not be displayed on the **RaptorMed** web page.
Neonate/orphan	This patient is a neonate/orphan. Depending on how your system was configured, this may be used to determine where this patient prints on the daily treatment sheets. This setting is also used to include patients on the Orphans ready for transfer report.
180 days reported	This patient has been in rehab over 180 days and this status has been reported to appropriate authorities. This checkbox can be checked manually but it is also set automatically by the Greater than 180 days report.
Active patient	This checkbox can be used to indicate if this is an active patient and not one that is in the final stages of rehab. This checkbox can be used in the **Active patients report** (**Reports ▶ Active patients**) and in the active/inactive patient filter on the main window.

name	description
Feed/treat separately	This option is used to indicate animals in a group are to be treated/fed separately. Typically, patients that are housed individually are treated individually using their individual treatment plan. Likewise, patients in a group are treated as a group and use a Group Treatment. By checking this box, this behavior can be overridden such that all patients in a group will use their individual treatment plans. This is useful when there are patients that are housed in a group but require individual treatments. Note: the actual effect of this check box depends on your configuration. In some cases, this check box is ignored and in others cases, it is only recognized if ALL patients in a specific location have the check box checked.
Aggressive/dangerous*	Used for animals that are aggressive or dangerous.
Foster parent	This animal is used as a foster parent. This checkbox can be used in various reports.
Disposition letter sent	Used to indicate that a disposition/status update letter has been sent to the finder.
Locked	This animal's chart has been locked and cannot be edited.
Temporary*	This is a temporary patient.
Resident	This is a resident animal. When PR is chosen for the animal's status, this checkbox is automatically checked. This seems redundant but this keeps the animal's status as a past resident when and if the animal's status is changed (for example if it dies or is transferred).
Away/offsite	This patient is away or offsite. If checked, the **Away From/To** dates are used to determine if an entry for this patient should be printed out on the daily treatment sheets.
Staff will feed	These animals are to be fed by special staff and will appear on a special "Staff will feed" treatment sheet. This option may not be used in your configuration.
In rehab	This is used to indicate that a resident animal is sick or injured and should be temporarily treated by the rehab hospital staff. This may affect where this animal is printed on the daily treatment sheets and this is highly dependent on how your installation was configured.
Geriatric*	This is an old patient. This distinction is subjective and depends on the individual and the species.
Needs cope	This avian patient needs to have its beak coped. It will appear on the **Cope report**.

name	description
Non-native	This patient is not a native species. This setting can be automatically configured for each species using the **Species Editor**. These patients are typically ignored when generating year-end report for each state and for the USFWS.
Cold-intolerant	This patient is cold-intolerant. It will appear on the **Cold-intolerant patients report**.
Program animal	This animal is used for educational programs. Animals with this check box selected can have program usage records recorded using the Group Program Log function.
Group of animals	This animal is not an individual. It represents a group like a school of fish or a collection of insects. See Group animals for more information.
Needs imp	This avian patient needs to have its feathers imped and it will appear on the **Imp report.**
Waiting for molt*	This bird's feathers are damaged badly and cannot be imped. It will likely be a long-term patient while it waits to molt new feathers.
Needs molt chamber*	This bird's feathers a damaged badly and cannot be imped. Checking this option puts in on the waiting list for a molt-chamber, if available.
Release where found*	This patient should be released where it was found. This may be because the finder/public requested it be returned when ready for release or because it is in the best interest of the patient.
Finder present at release	This indicates that the finder would like to be present at the release.
Do NOT release where found	This patient should **NOT** be released where found. This is typically for cases where the patient was injured intentionally (i.e. gunshot). This flag will be set automatically when you select one the illegal causes of injury (click **here** for more information).
Has placement	This patient is non-releaseable but permanent placement has been found. These patients will **not** be shown on the **Patients that need placement report.**
NR	This patient is non-releaseable and permanent placement has not been found. These patients will be shown on the **Patients that need placement report**.
NR on arrival	This patient was non-releasable on arrival. Typically this option is selected along with the **NR** option. If selected, this patient will be excluded from any release rate calculations made by **RaptorMed**. This option is used for patients that are clearly non-releasable on arrival but are either unique or rare and are worth keeping for placement.

name	description
Release approved*	This patient has been approved for release. This may also be referred to as **Transfer approved** when the patients are orphans that have been approved for transfer to another facility to complete the rehab process.
Needs live prey test	This patient needs a live prey test prior to release. It will be shown on the **Patients that need live prey test report.**
Does NOT need live prey test	This patient does not need a live prey test prior to release. This can be used for patients (i.e raptors) with eye damage. Typically, many of these would need vision and/or live prey testing before release. This option can be used for those patients that have eye damage but are deemed fit for release without further testing. These patients will **not** be shown on the **Patients that need live prey test report**.
Needs falconer eval	This raptor needs a falconer evaluation prior to release. These patients will be shown on the **Falconer eval waiting list report**. This is typically used for species such as peregrine falcons that may require special flight training prior to release.
Needs ophtho consult	This patient needs a ophthalmogist's evaluation prior to release. These patients will be shown on the **Ophtho consult waiting list report**.
Band return	This patient has had a band report after release. It will appear on the **Band reports report**. These patients typically will have a **Band Report** record attached to there chart.
Treated with chemotheapeutics	This animal has been treated with a chemical that makes it non-releasable. This is typically used for fish in an aquarium setting. These animals will appear on the Chemotherapeutic exposure report.

Chapter 2

Making medical record entries

Medical record entries can be made for an individual patient, for all patients in the same enclosure (click here), or for multiple enclosures all at once (click here). Which method you use depends on whether the patient is being treated individually or as part of a group.

Individual entries

Medical record entries can be a combination of hand-typed, text, text that is automatically inserted by the system, images, and results of lab tests or examinations. This function is accessed by clicking on the **New entry** link in the **Action Bar** on the patient's chart.

> **RaptorMed** uses a 24 hour clock so 1 PM is 1300. Times can be entered with or without a colon separating the hours and minutes.

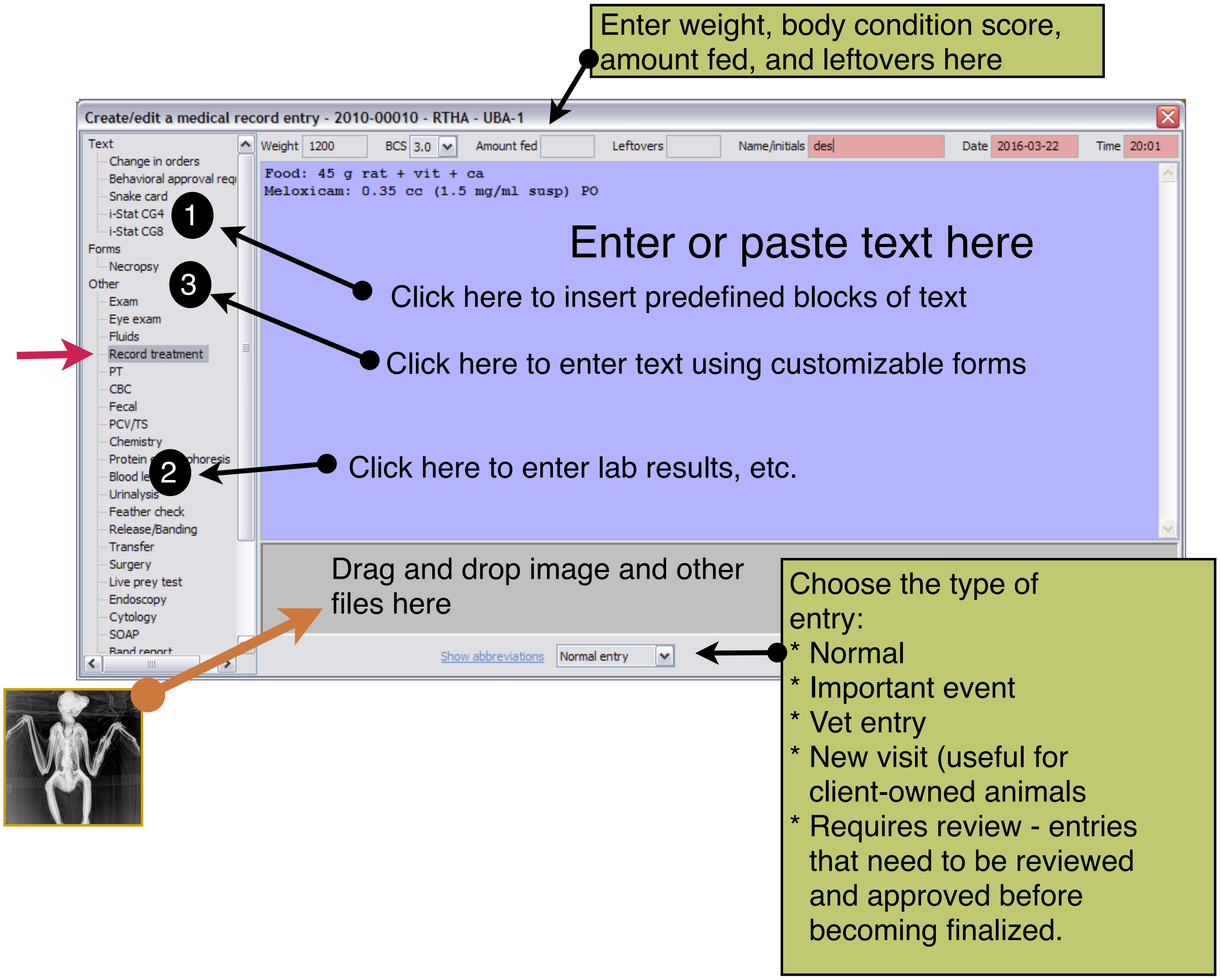
The weight and body condition score (BCS) are entered at the top. Both fields are optional. The weights can also be entered in kilograms. To enter a weight in kilograms, append a "k" after the weight value as in "**1.2k**". The weight can also be entered as **total weight - a tare weight**. So if an animal is weighed in a box that weighs 500 grams and the combined weight is 1300 grams, you could enter "1300-500" in the **Weight** field and RaptorMed will do the math for you.

The initials of the person making the entry, the date and time, are required fields. Note that the date and time fields are filled in with the present date and time so you may need to change these if you are making an entry for something that happened early that day or on an entirely different day altogether.

If enabled, there may also be fields to enter the **Amount fed** and the **Leftovers**. Using these entries allows for food intake and leftovers to be graphed in the Historical Data Viewer.

You can enter any amount of text in the main text area or you can cut and paste text in from any other application.

Double-clicking on any of the entries in **Area 1** will automatically insert a predefined block of text. This is useful to quickly enter text that is used repeatedly. The list of choices in this area is configurable and can be changed at any time. See the Text template editor for more information.



You can have **RaptorMed** alert you if a newly added weight varies by a specified percentage from the previous weight or if the new weight is outside an "ideal" weight range. You can also have the system send an email or text message to a designated person if such an event occurs.

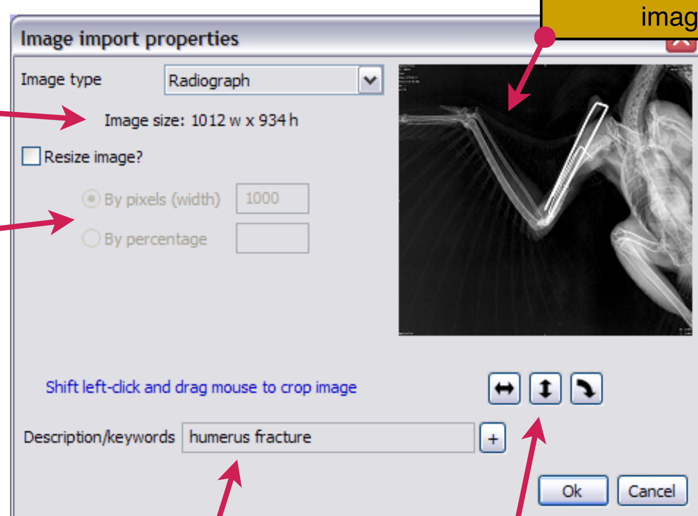
The **Entry type** field is useful in order to designate some entries as more important or special in some way. Using **View Options**, you can filter the display to only see certain types of entries.

Double-clicking on any of the entries in **Area 2** allows you to enter lab results, treatments and many types of other data. Click here for more information.

Double-clicking on any of the entries in **Area 3** (**Forms**) allows you to enter data using any number of user-defined data entry forms.

Double-clicking on the **Record treatment** item in **Area 2** (the **red** arrow in the picture) will automatically insert the patient's complete treatment plan into the record. This includes everything that was specified in the treatment plan as well as drug concentrations and amounts. All you have to do is modify it to match what was actually done. This allows you to make a very accurate and complete entry in almost no time at all.

Any file can also be dragged onto the form and added as an attachment. For image files, the JPEG or PNG file type are recommended. Other file types, such as Word or Excel files, pdf's or other image file types can also be dragged and dropped onto the medical record.



When you drag and drop and image file, the **Image import** window appears. This allows you to choose the image **type**. Here are some possible choices:

- Radiograph - the default choice
- Zoomed radiograph
- Endoscopic image
- ID photo
- Microscopic image

- Photograph
- Scanned document

When a image is marked as a **Radiograph**, it will be used by the **Cost Estimator** when calculating the total cost. For this reason, make sure you set the image type correctly. Otherwise, the cost estimate will be inaccurate. It is not uncommon to save a zoomed or cropped version of a radiograph that focuses on an area of interest. For these images, choose **Zoomed radiograph** for the image type so these images will **not** be counted by the **Cost Estimator** as another radiograph.

When the image is marked as an **ID photo**, it will be displayed at the top of the patient's chart. This image is displayed as a square with a resolution of 150x150 pixels so any image you import of this purpose should have the same aspect ratio and should ideally be an even multiple of this resolution for the best viewing.

You can add a description to your images and/or choose from the keywords list by pressing the **+** button. Adding a description allows you to find images easily later using the **Image Search** tool.

When you add an image, the **Image import** tool allows you to resize, crop, rotate and flip the image. It is often recommended that images be resized before saving, especially if taken with a modern digital camera since those images tend to be quite large and have many more pixels than are actually needed for a good-quality image. A good recommendation for photographs is to crop and resize an image to a width of about 1000 pixels. This still provides good quality and saves storage space. When you drag and drop the image, the dimensions of the image will be displayed. Radiographs can also be resized but it is important to store a much more higher resolution image. 3500 pixels in width is a good recommendation.

> Do **not** resize radiographs as you usually want to maintain the highest image quality so that you can zoom in on small details later.

To resize the image, check the **Resize image** check box and then choose either **By percentage** or **By pixels**. **By pixels** is usually more helpful. Then enter the desired width (such as 1000 pixels). The image aspect ratio will be preserved.

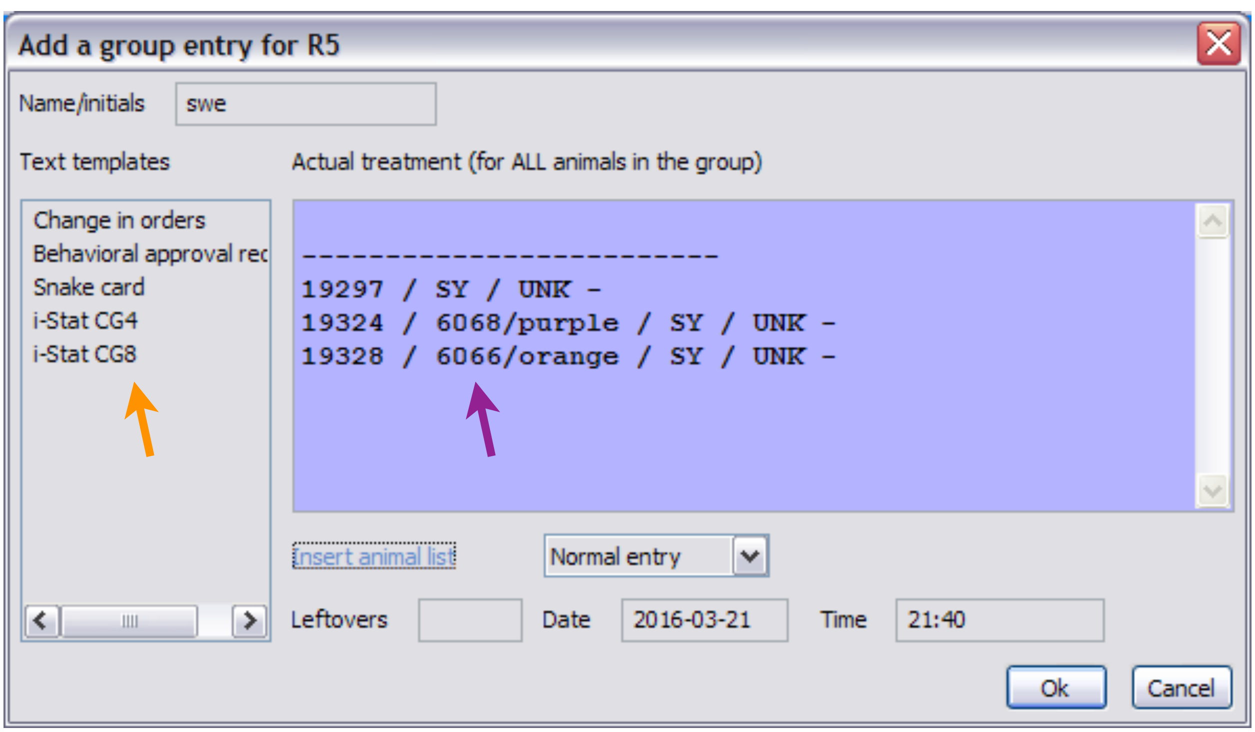
You can flip and rotate the image as well by pressing the corresponding buttons. Finally, you can crop the image by left-clicking and dragging a box on the image preview while holding the **Shift** key down. The program will automatically select the upper-left hand corner of the image if you click within 10 pixels of the corner. This makes it easier to select the upper-left corner. Once you have the image the way you want it, press the **Ok** button. If you made a change that you don't like, simple press the **Cancel** button and start over.

Group entries

To make an entry for all animals in a specific enclosure, right click on the enclosure in the **Enclosure** list on the main screen and choose **Record group entry** from the popup menu. Or you can right-click and choose **Group Operations ▶ Record Group Entry**. In the second case, you will first be prompted to choose which animals to apply this entry to.

Whichever way you choose, a form will appear. It will display what the currently ***proposed*** treatment is. You may simply modify the existing text or completely replace it if necessary. Be sure to enter your initials and the correct date and time. After pressing the **Ok** button, a separate and identical entry will be made in the chart of each of the patients in this enclosure. Click here to see how to set up a group treatment.

Note: The proposed treatment is for ***each*** patient. So be sure to edit the entry to reflect what was really done. For example, if you plan to feed animal 25 grams and there are 4 animals in the group, you should record that 100 grams were fed. Always remember to multiply the treatment food amounts by the number of animals in the location. Otherwise the resulting entries made in each animal's chart will not be correct.



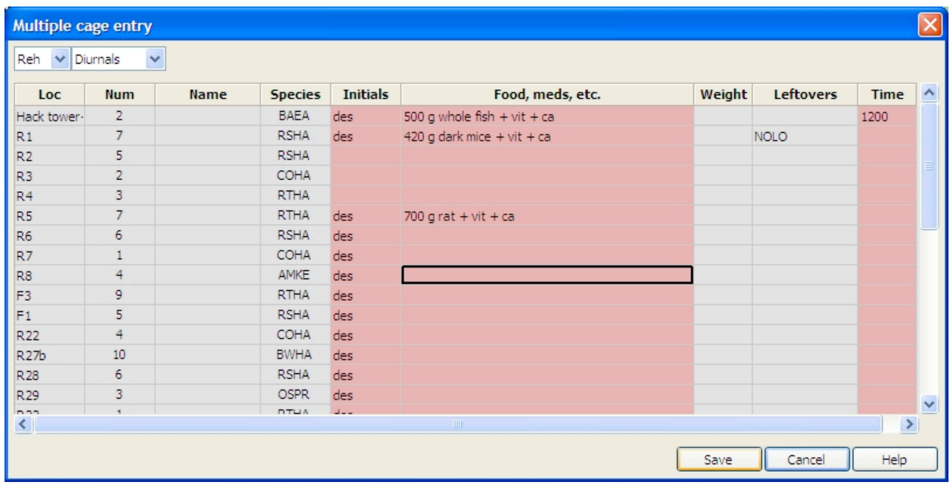
You can press the **Insert patient list** link and a list of each animal's id, band/tag, age and sex information will be inserted (**purple arrow**). This is helpful when you need to record notes about each patient in an enclosure.

You can auto-insert any of the predefined text templates by double-clicking on an entry in the list on the left-hand side of the screen (**orange arrow**). See the Text template editor for more information.

The amount of leftovers can be recorded and you can also specify whether this is a special entry (such as a vet entry or an interesting even) or just a normal entry.

Multiple enclosure entries

To enter treatments for multiple enclosures at once, choose **Tools ▶ Multiple cage entry** from the main menu. A form will appear that contains a spreadsheet that lists all the enclosures that have at least one patient in them.



You can filter the list by **Nocturnal** or **Diurnal** and by **Rehab** or **Resident**. There are columns that allow you to enter the initials of the person who did the treatment/feeding, the actual treatment or food provided, the leftovers (if any) and the time that the treatment occurred.

There is also a column for the weight that can be filled in if the patient was weighed. Obviously, it only makes sense to fill in the weight if the enclosure has only one patient.

The **Initials**, **Food**, and **Time** columns must all be filled in. If not, then the row in the table will be ignored. This is convenient as you may only want to record treatments for some of the enclosures.

Note: Multiple enclosure entries are most useful for simple cases. Entries for more complicated cases are best handled as described above.

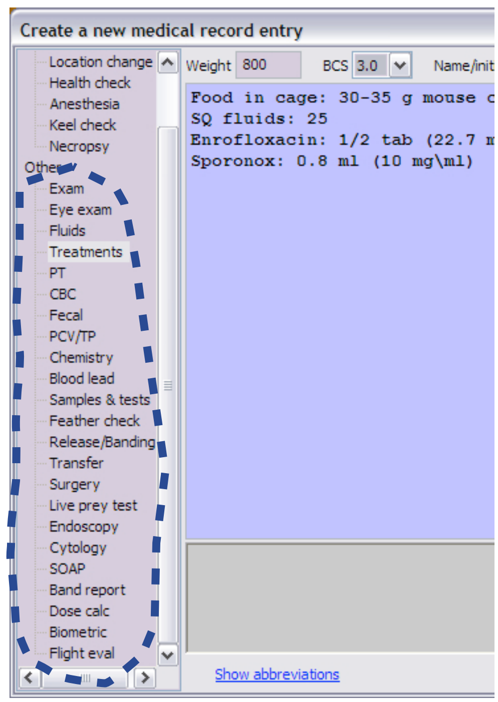
As a time-saver, you can right-click on a cell in the **Initials** and **Time** column and choose **Fill down** to copy the current cell's value down to the bottom of the column.

Once you have entered everything, press the **Save** button and the records for each patient in each of the **Locations** in the table that you filled in will be updated.

Entering results of laboratory tests and examinations

Results for laboratory tests, examinations, surgery, transfers and a whole host of other important records can be attached to a patient's file by clicking on the appropriate links listed vertically on the left side of the medical record entry form. Results for the following lab tests, exams, procedures can be added to a patient's record:

Examinations
- Physical exams
- Eye exams
- Biometric measurements
- Flight evaluations
- Feather checks



Laboratory tests
- CBC
- PCV/TS
- Serum chemistries
- Protein electrophoresis
- Blood lead
- Fecal exams
- Cytologic exams
- Miscellaneous samples and tests
- Urinalysis

Procedures
- Surgery reports
- Endoscopy reports
- Physical therapy
- Advanced imagery

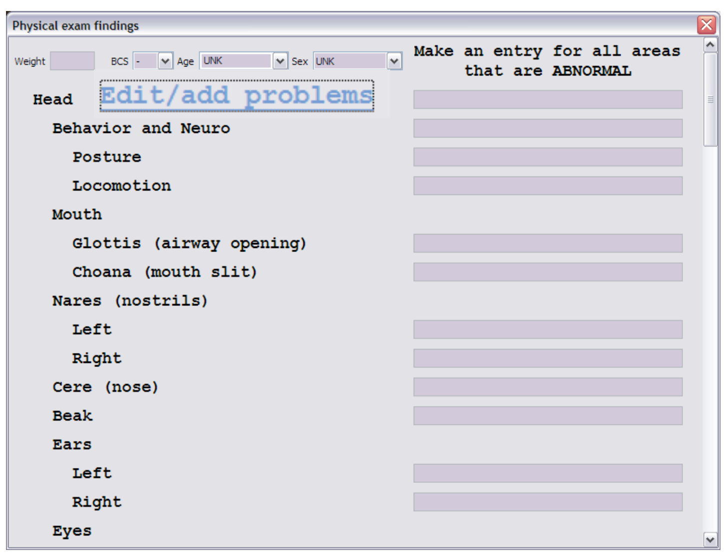
Miscellaneous
- Release/band use reports
- Transfer reports
- Band reports

- SOAPs
- Dose calculations
- Fluid calculations
- Enrichment
- Training
- Live prey test
- Invoices and the procedure log
- Vaccines
- Wounds

Physical exams

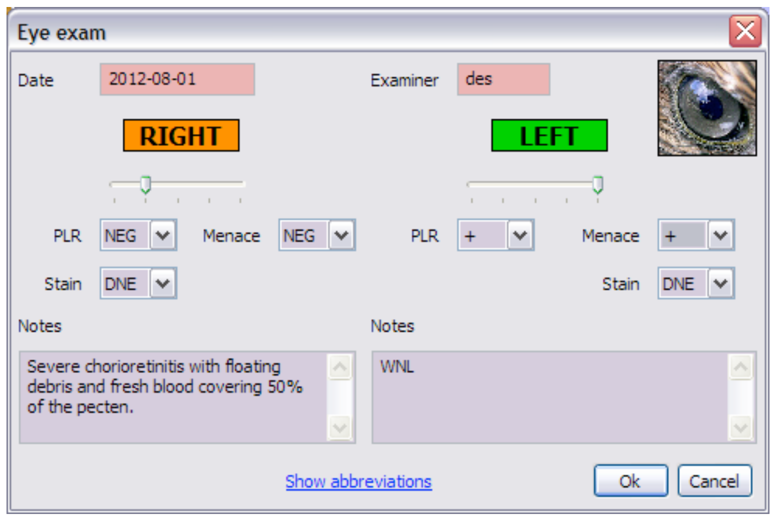
The physical exam form allows you to make entries for any abnormal finding. There are different sections that cover all body areas and systems. When you have completed your entries, press the **Ok** button and your entries will be formatted and inserted into the patient's record. It is usually recommended that you leave an entry blank if the corresponding area or system is normal. Alternatively, you may want to make an entry indicating that no problem was found to make it clear that the exam was completed thoroughly. Note that the actual entry fields on the form depend on the species group the patient belongs to. In addition, the fields are customizable so the fields you see may differ from the screenshot.

You can also specify the patient's weight, body condition/keel score, age and sex in the appropriate fields at the top of the form. In addition, there is a link that allows you to specify the cause of injury and to edit the problem list.



Eye exams

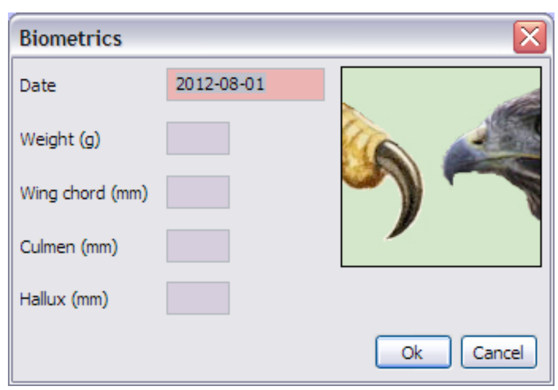
The eye exam form allows you to record your observations and to color code each eye to indicate the severity of the damage. The color coding scheme is very subjective, but if used consistently, it can be very effective in demonstrating changes over time. The color codes range from **red** (completely blind) to bright **green** (perfect vision). There are fields to record the PLR and menace response as well as the results of a corneal stain. The **Notes** fields are used to record any other finding including results of a fundic exam.



Biometric measurements

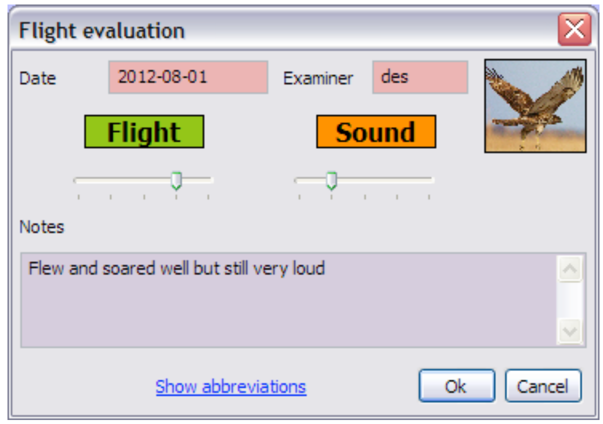
Biometric measurements can be recorded using this form. The actual measurements to be recorded are based on the animal's species group. For example, you can record the weight, wing chord, culmen length and hallux length for a bird and you can record various carapace measurements for a turtle.

If you enter a weight value, this value will be auto-copied into the parent medical record entry record as well. This is important and helpful because it is the weight that is recorded in the medical record entry that is automatically graphed in the Historical Data Viewer.



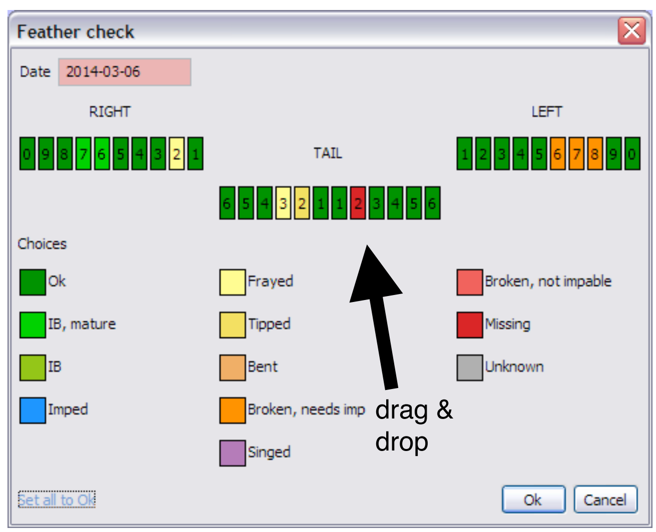
Flight evaluations

Results of flight examinations can be recorded and scored using a color code. Scores for both the ability to fly and the sound level can be recorded. The color coding scheme is very subjective, but if used consistently, it can be very effective in demonstrating changes over time. The color codes range from **red** (unable to fly or very loud) to bright **green** (perfect/silent flight).



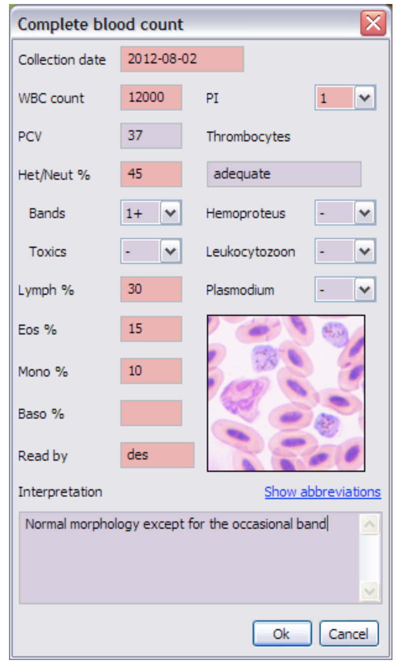
Feather checks

Records of feather condition can be recorded for the primary feathers and the tail feathers. The form is oriented as if the bird was laying on its back for the exam. So the left side of the form is for the right wing. Each feather state is color-coded. Greens indicate better or good feather quality while yellows, oranges and reds indicate progressively worse condition. The condition of a specific feather can be recorded simply by dragging a color from the color palette to the appropriate feather.



The feather colors default to gray/unknown. You can set them all to dark green/Ok by pressing the **Set all to Ok** link.

CBC



Complete blood count results can be recorded including specific findings regarding hemoparasites, cell morphology, and platelets. The percentages of each cell type must total to 100%. It is important, although optional, that you enter the corresponding PCV/Hct, if known, as the actual white count can be adjusted up or down based on the PCV. The following formula is used to calculate the WBC count:

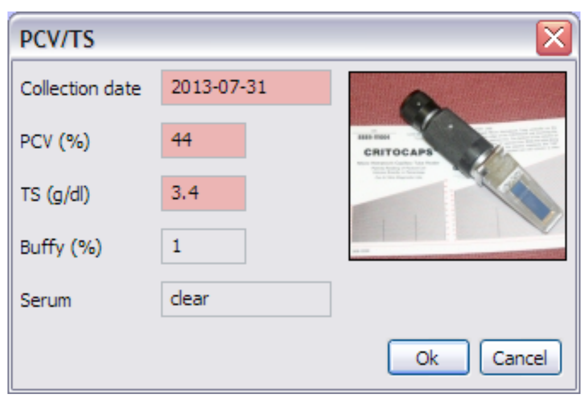
$$\text{WBC count} = \text{WBC count}_{\text{observed}} \times \text{PCV} / 45$$

If the PCV is not supplied, then a correction will **not** be made. If desired, you can also choose to disable this auto-correction function.

Note: the PCV that is recorded here is **NOT** used to create the PCV graph in the **Historical Data Viewer**. The PCV graph uses the PCV value stored in the PCV record (see below). If desired, you can configure the system to automatically create a PCV record using the value entered on this form.

This form can also be optionally expanded to allow for the entry of various RBC indices.

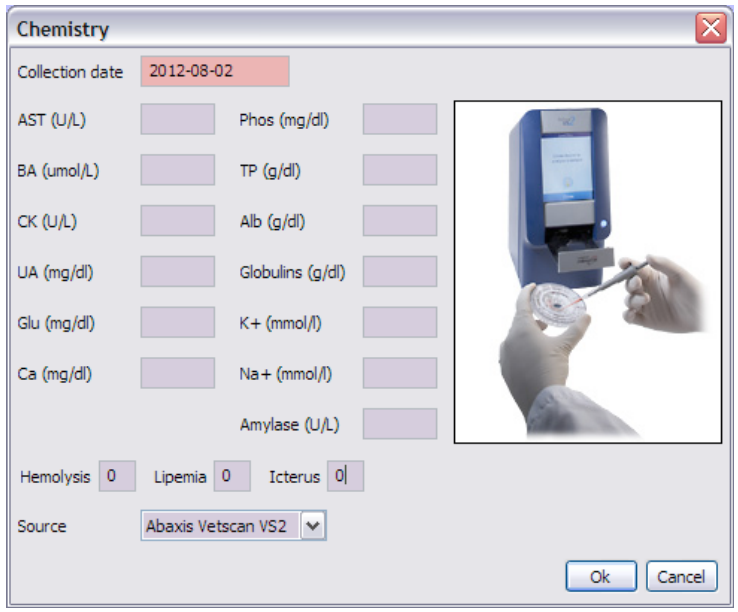
PCV/TS



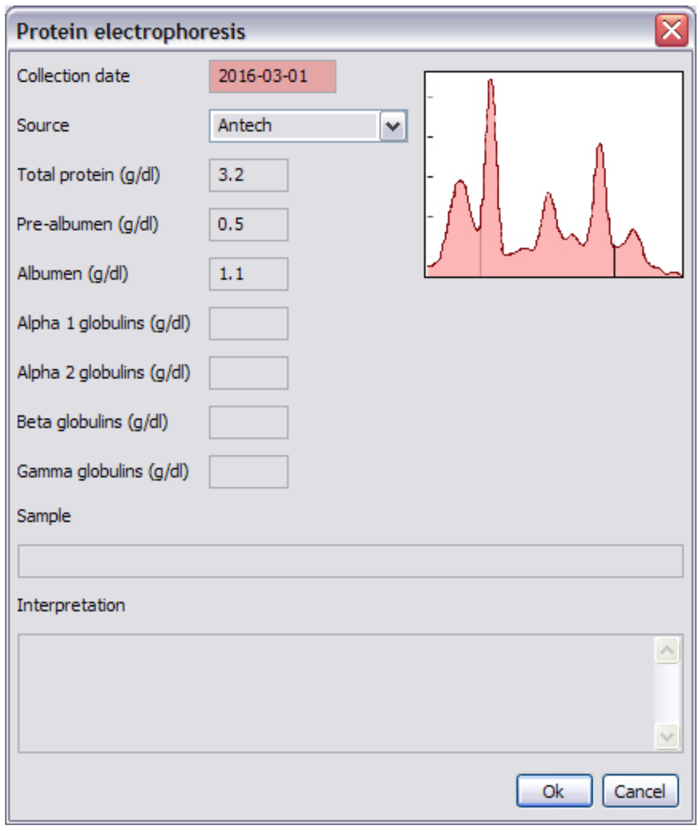
The packed celled volume (PCV), buffy layer and total solids (TS) can be recorded. The units for PCV and buffy are % and g/dl for TS. A subjective interpretation of the plasma can also be recorded. The PCV/TS values entered here a automatically graphed in the **Historical data viewer**.

Serum chemistry

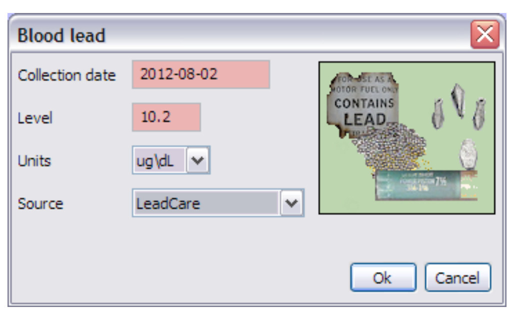
Blood chemistry results can be recorded using this form. The actual fields present depend on whether the patient is a mammal or avian/exotic. The source of the results can also be chosen from a configurable list.



Protein electrophoresis
Use this record to store serum EPH data. You can specify each fraction as well as record notes about the source of the results, the sample and your interpretation.

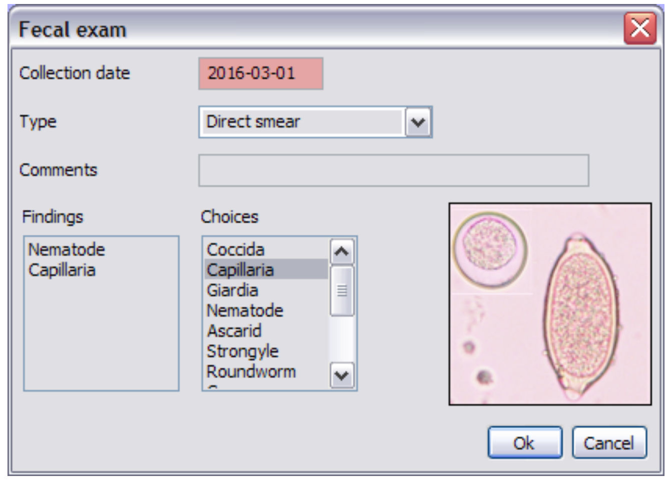


Blood lead
Blood lead values can be recorded using this form. The units (i.e. ug/dL or ppm) and the source of the results can be selected from a configurable list.



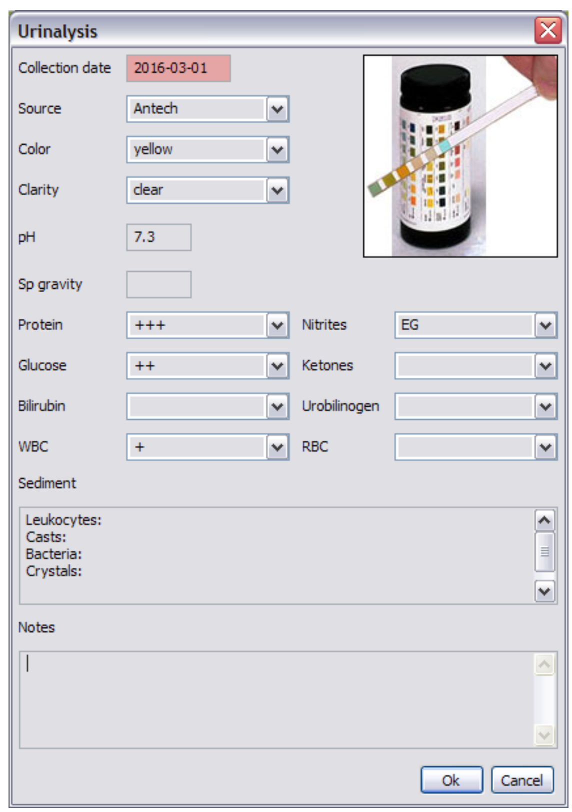
Fecal exams

Results of fecal exams can be recorded with this form. The list of choices is configurable. To select an entry, double-click on the name of the parasite in the **Choices** list and it will be added to the **Findings** list. To remove a selected choice, double-click on it in the **Findings** list. If the exam was negative, simply leave the **Findings** list empty. You can also specify the **type** of flotation as well as any random **comments**.

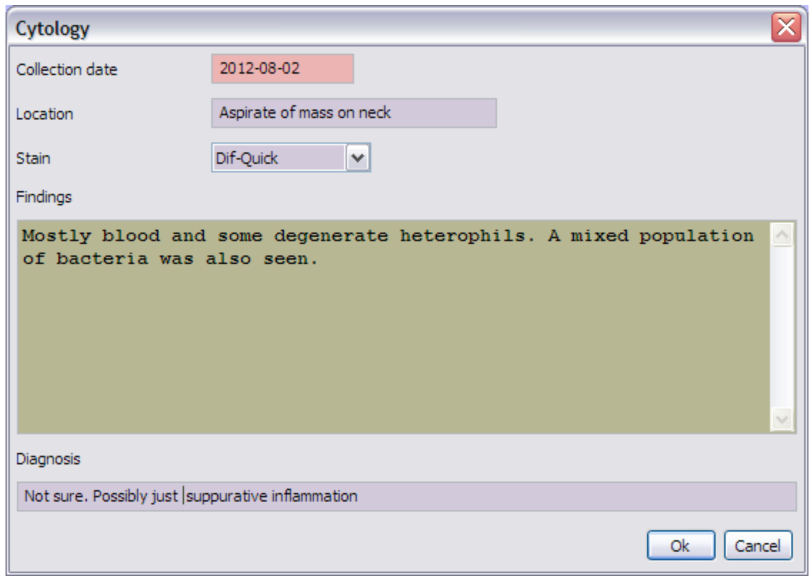


Urinalysis

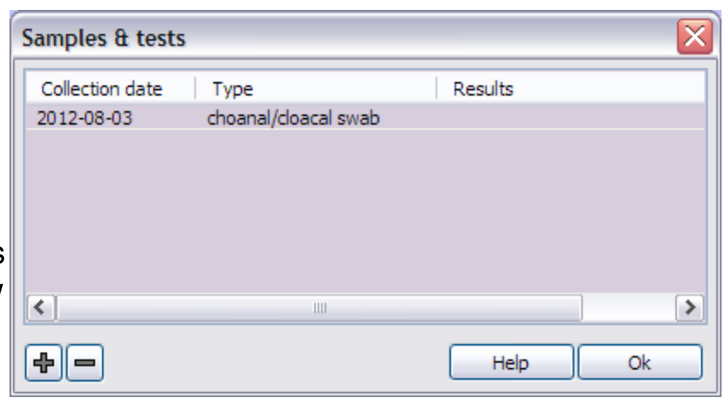
Urinalysis results are recorded with this form. There are fields for the physical properties (such as color and clarity), biochemical dip-stick tests, as well as a description of the sediment and your notes and interpretation.



Cytologic exams
Cytologic exam results can be recorded using this form. The list of **Stains** is configurable. There are fields to enter the **Location** of the sample, your **Findings** and the **Diagnosis**.



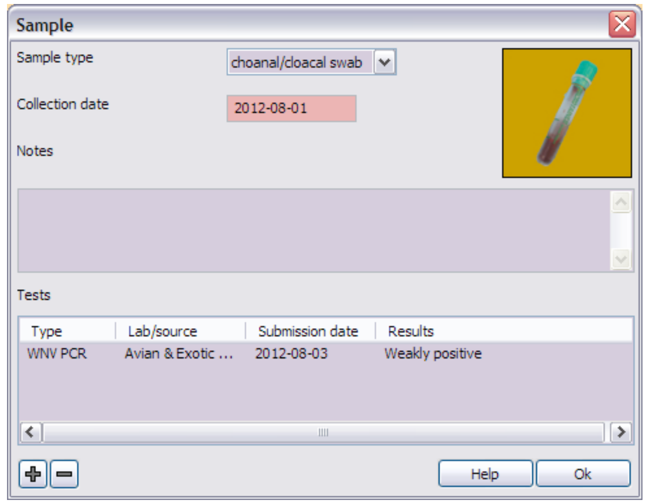
Miscellaneous samples and tests
Samples and test results that do not fit into one of the above mentioned pre-defined categories can also be recorded in **RaptorMed**. After double-clicking on the **Samples & tests** choice, a list of current samples will be displayed. You can add a new one by pressing the **+** button or removed the selected one by pressing the **-** button. You can edit the selected sample by double-clicking on it.



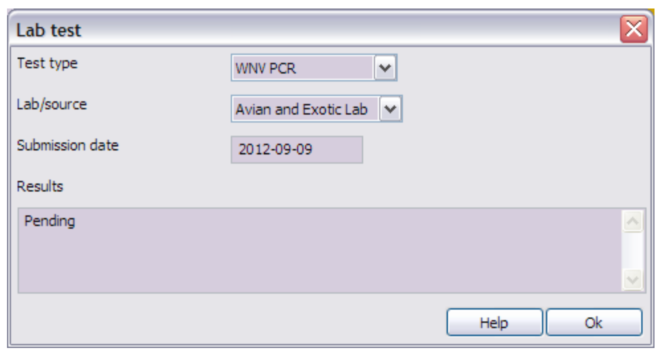
When you add or edit a sample, you must select the **Sample type** and **Collection date**. There is also an optional **Notes** field. You can add a new **test** by pressing the **+** button or remove the selected one by pressing the **-** button. You can edit the selected test by double-clicking on it.

Note: Samples can only be added to existing medical record entries. Therefore, you cannot create a new entry then add a sample to it before saving the entry.

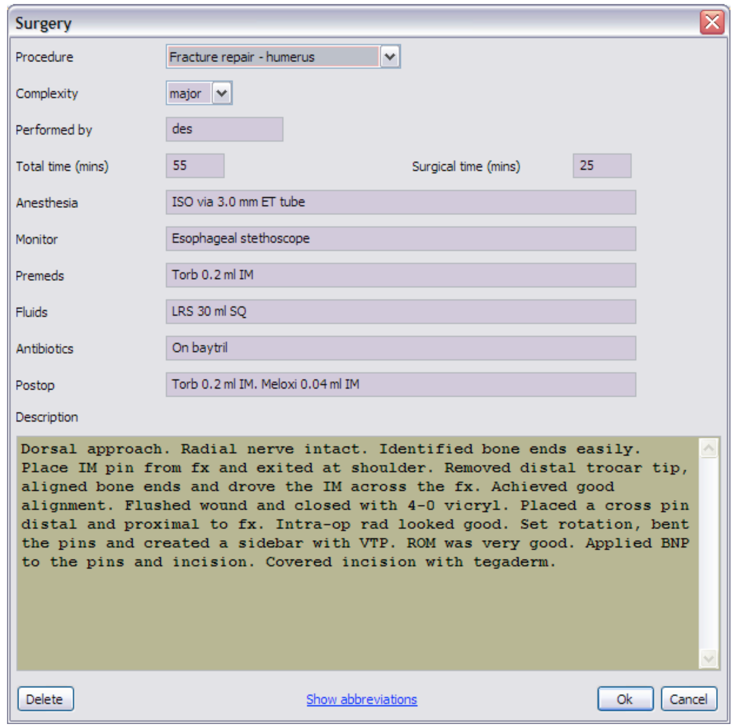
The test result form allows you to specify the **Test**, the **Lab**, the **Submission date,** and any **Results**.



The sample form lists all tests run on that sample.

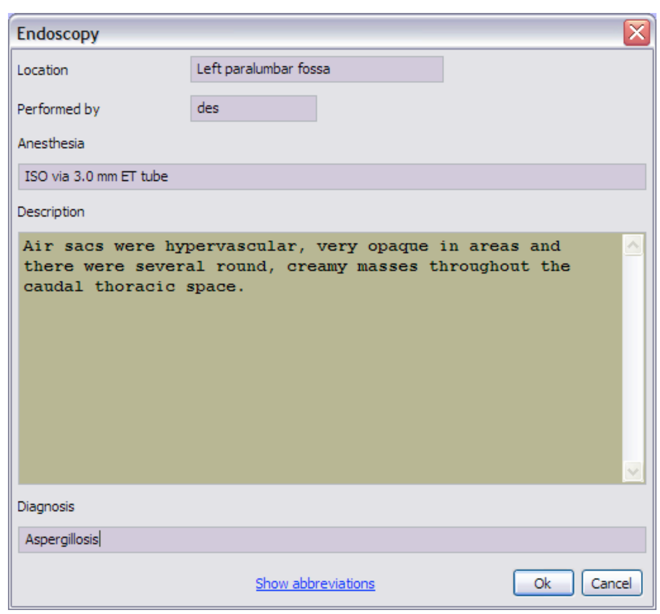


Surgery reports



Surgical reports can be recorded using this form. The actual procedure performed is chosen from the **Procedure** list. The list of choices is configurable. The **Complexity** field allows you to specify if this was a **Major** or **Minor** procedure and this choice is used by the Cost Estimator when calculating the patient's total cost. You can also record the **Total time** and the actual **Surgical time**. This is very useful to track trends and gauge your surgical skill over time. There are also fields to record the **Anesthesia protocol**, your **Monitoring methods**, **Pre-medications**, **Fluid therapy**, **Antibiotics,** and any **Post-op medications**. Each of these fields is pre-filled with commonly-used text and this text can be edited or replaced completely as needed. There is also a large edit field to record the actual procedure.

Endoscopy reports



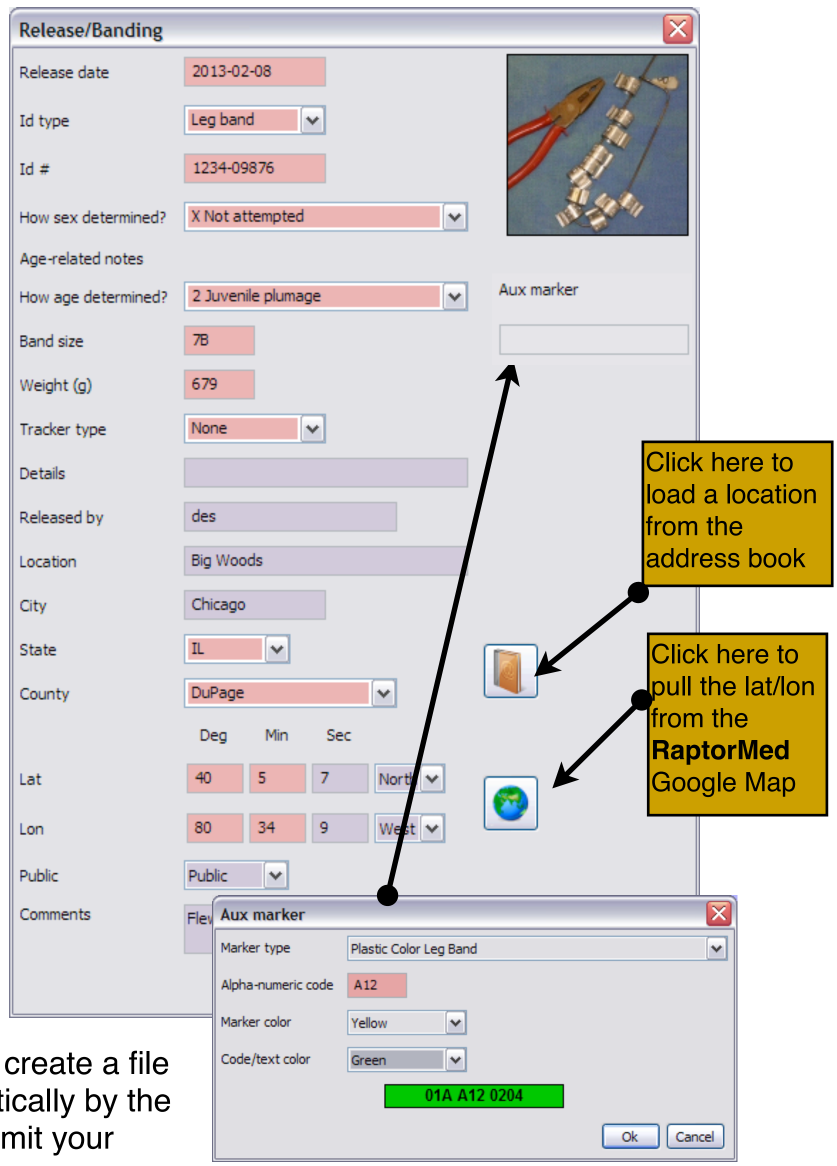
Endoscopic procedures can be recorded using this form. There is a field to record the location that was scoped (i.e. trachea, air sac, etc), a field to record the anesthetic protocol used, and a field to actually record the procedure and findings as well as a diagnosis if there was one.

Physical therapy

Physical therapy sessions can be recorded with this form. You can select which limb received the therapy as well as the beginning and ending angles for each of the major joints. This data is graphed in the Physical therapy chart.

Release/band use records

Releases (with or without a federal band or other identification device such as an ear tag) are recorded with this form. The **Id type** list allows you to choose the type of identification device. There are several options (including "**None**") to choose from. The **Id number** field is used to store the unique identification number that is on the leg band or ear/wing tab.



If you enter a band number that is already in use, you will be prompted to continue. Since these bands are unique, this should typically not happen.

If you choose "**Leg band**", then additional fields will be enabled that allow you to enter all the information that is required to be submitted to the USGS Bird Banding Lab (BBL). **RaptorMed** can then create a file that can be imported automatically by the BBL's Bandit Software to submit your banding data. Click here for more information on how **RaptorMed** integrates with Bandit. If your facility does not federally band your avian patients on release or for non-avian patients, this form will be simpler and will not have all the fields shown here.

If you do submit banding data to the BBL, it is very important that you make the correct entries in this form or your data may not be accepted. This is especially important for the **How sex determined**, **How age determined**, **Id number,** and **Band size** fields. The Age-related notes field will contain any notations that you made in the **Patient info** form, usually when the patient was first admitted. These notes can help to serve as a reminder for how the age was determined. Select the type of tracking device in the **Tracker type** list and enter any additional details in the **Details** field.

This form also supports optional **Auxiliary Markers** and these can be entered on this form if necessary. Double-click in the field and a form will popup that allows you to choose the code and colors for the marker. The field at the bottom will turn **green** when you have entered a valid marker code.

You can also enter information about any tracking devices that may have been attached prior to release.

You should also enter the location where the release took place, including the latitude and longitude, if known. If the animal was released at a known site in the **Address Book**, you can import all the relevant information automatically by pressing the **Address Book** button and selecting the appropriate site. Click here for more information on the **Address Book**.

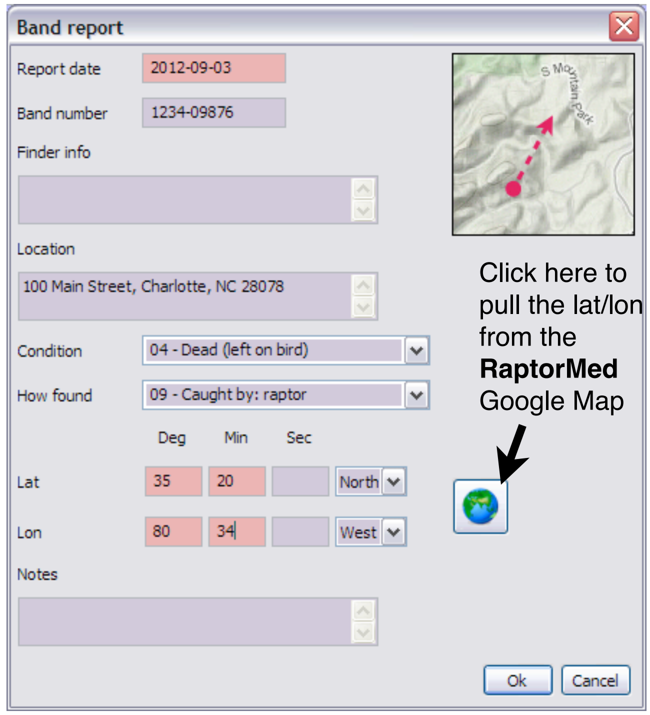
You can also pull the exact latitude and longitude coordinates from the **RaptorMed Google Map**. To do this, load the Google Map into your browser. Find the location on the map and left-click on the location. Now, back in **RaptorMed**, press the **Google Map** button and the coordinate fields will be filled in automatically for you. Click here for more information on the **RaptorMed Google Map**.

You can also record whether the release site was on **public** or **private** land.

Band report records

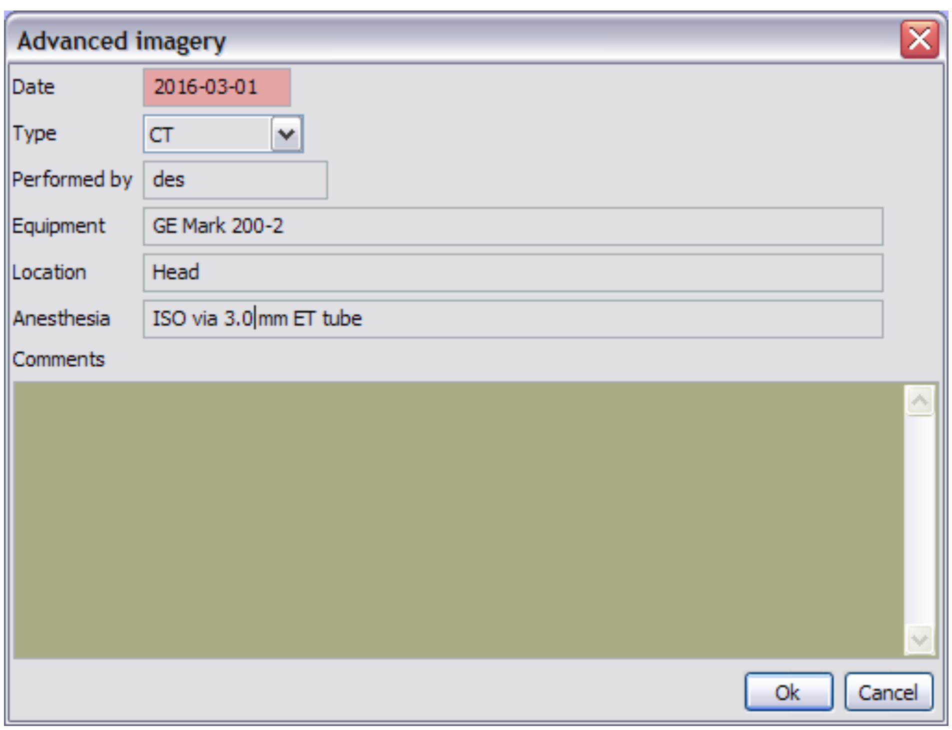
These records are used to record a band report. That is, when a banded animal is spotted or recovered in some way after release. The **Condition** and **How found** codes are usually stated on the official band reports that you will receive from the Bird Banding Lab. If the report came directly from the person who found the banded animal, choose the most accurate codes for the situation.

In cases where the animal is readmitted as a new patient, it is important to attach the band report record to the **original** patient's chart, not the new patient's chart.



Advanced imagery

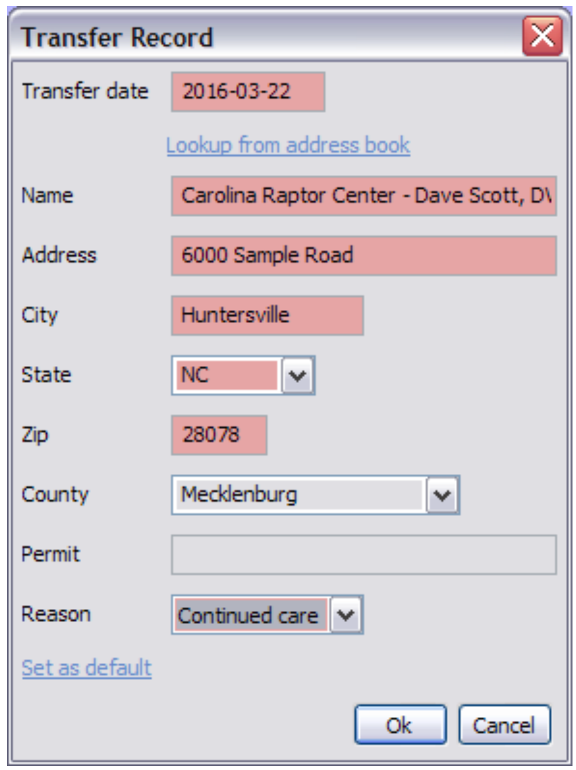
A record of advanced imaging studies can be recorded with this form. You can record notes about the type of study and the equipment used as well as how the patient was anesthetized and your findings.



Transfer records

All transfers should be recorded with this form. This is very important as this information is required on the year-end US Fish and Wildlife Service (USFWS) report and may also be required on your state reports. Animals are transferred for several reasons including:

- For continued care with the hopes of eventual release.
- For permanent placement if non-releasable.
- Transferred live or dead for scientific/ education use.
- For falconry or propagation programs.



You must enter the information for the recipient including the permit number. If the animal was transferred to a facility in the **Address Book**, you can import all the relevant information automatically by pressing the **Lookup from address book link** and selecting the appropriate facility. Click here for more information on the **Address Book**.

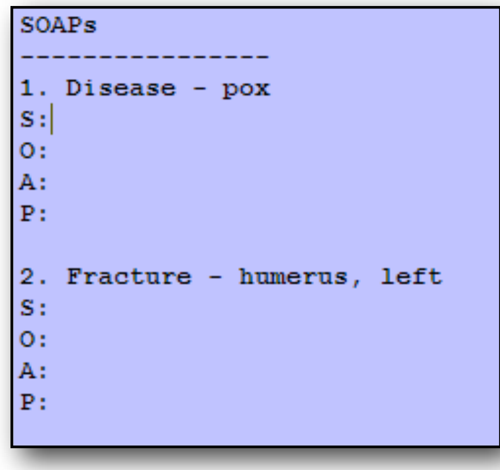
The **Reason** choices are:
- Release
- Continued care
- E/S - educational/scientific study
- F/P - falconry/propagation
- Other

Note: When transferring a patient, the patient status should be set to **T** and the **Final date** should be set appropriately. Click **here** for more information on finalizing a patient. The one exception is when the patient is deceased (with status of **DOA**, **D**, **D24**, **EOA**, **E**, or **E24**) and it is transferred dead for education or scientific purposes. In this case, the status should be left unchanged and should **not** be changed to **T**.

You can press the **Set as default** link to save the current choices. These will be used as the default values the next time you create a Transfer record. This is helpful if you often transfer animals to the same place.

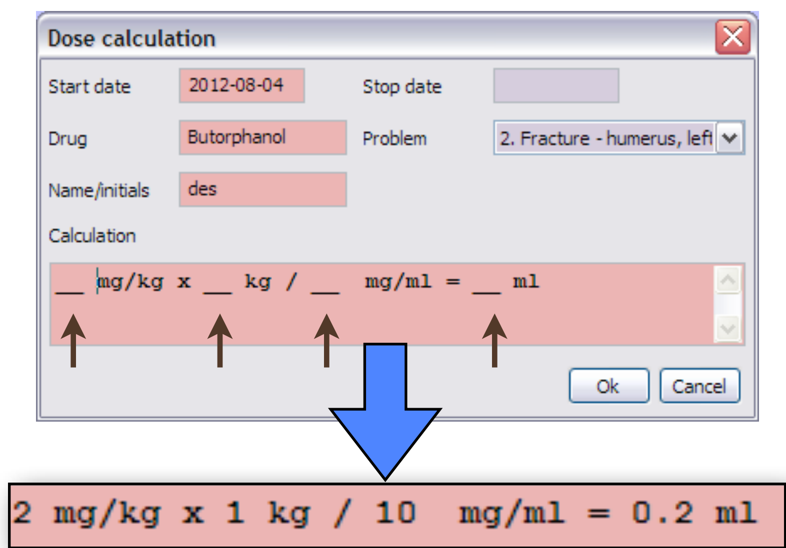
SOAPs

Clicking on the SOAPs item inserts a pre-formatted block of text into the medical record that has a SOAP entry for each unresolved problem (click here for more on **Problems**). This simply provides a shortcut so that you don't have to type as much. Note that use of this feature, and SOAPing in general, is completely optional and may not be necessary at your facility.



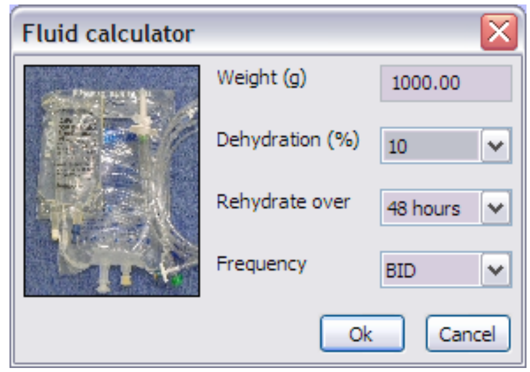
Dose calculations

This feature is used to document how drug doses were calculated. This is generally only useful in an educational setting (i.e. a vet school) where students are required to show their math. After clicking on the **Dose calc** item, a form appears that allows you to specify the drug and the problem for which the drug is meant to help. There is also a field that is pre-filled with the dose calculation formula. The student must edit the formula and enter the actual numbers to show the calculation. It is meant to be a manual process so that the student is forced to do the calculation. The areas indicated by the arrows in the screenshot are to be replaced with actual numbers.



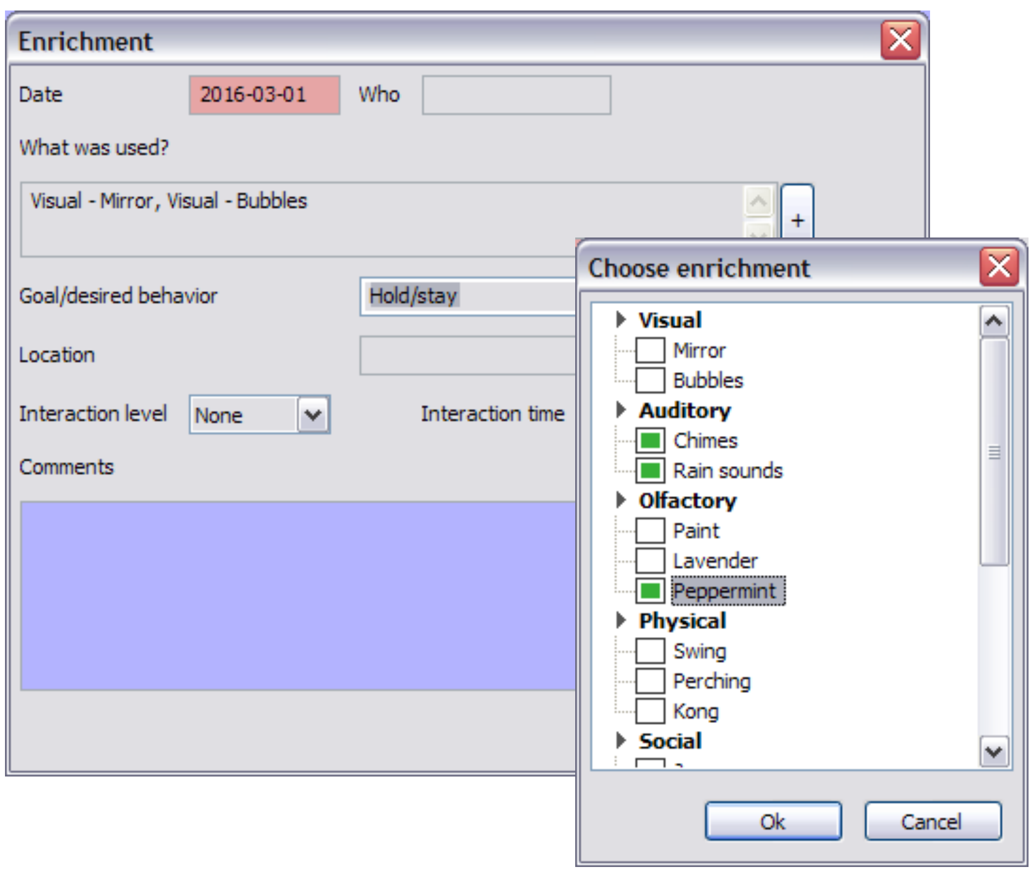
Fluid calculations

This tool does quick fluid calculations for you. After clicking on the **Fluids** item, the fluid calculator window will appear. This form allows you to select the dehydration level, how quickly you want to replace the deficit and how often you want to administer the fluids. It will then perform the calculation and insert the corresponding fluid therapy plan into the patient's chart. Note that it assumes a value of **50 ml/kg/day** for maintenance. If you have entered a weight in the patient's record, then it will be pre-filled in the **Weight** field. Otherwise, you have to enter a weight manually.

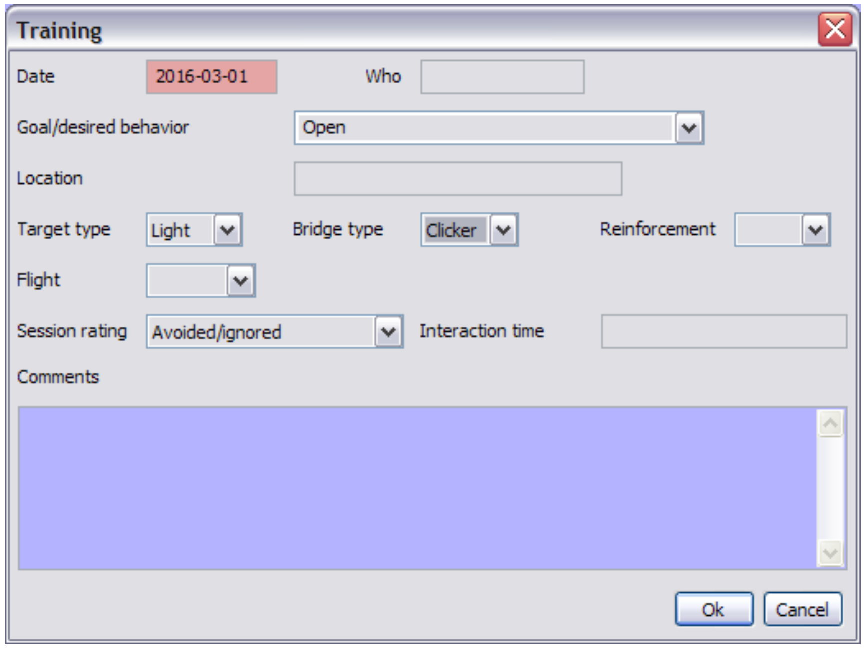


Enrichment

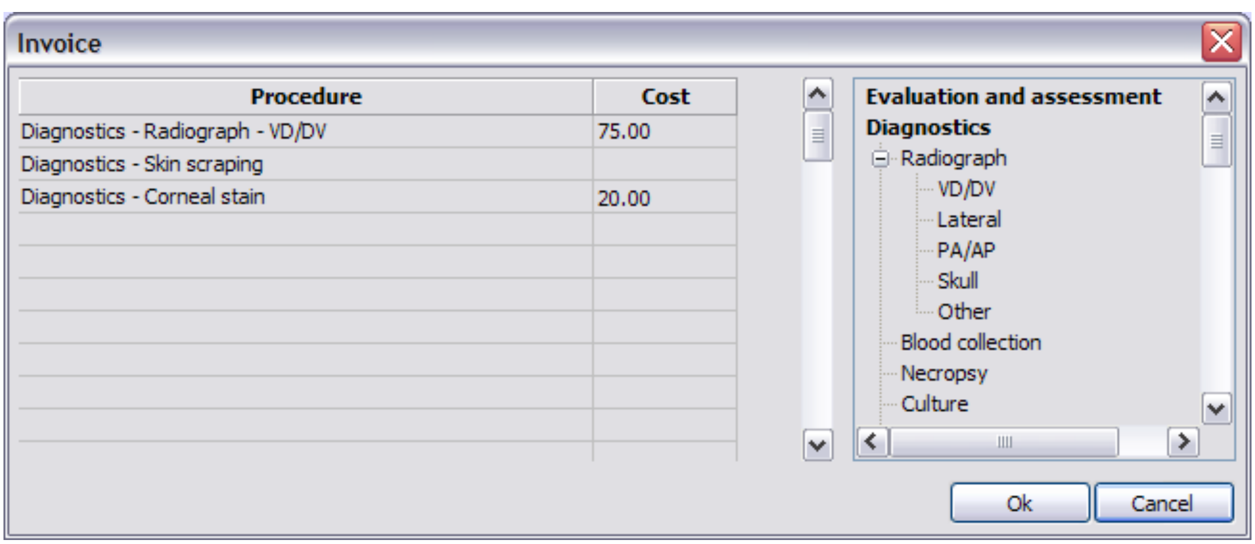
Enrichment activities can be recorded here. There are multiple fields to record various aspects of the activity including the type of enrichment and time. Click on the **+** to the right of the **What was used?** field. This will produce a hierarchical list of choices for you to select from.



Training
The training form allows you to record many aspects of a typical training session.



Invoices and the procedure log
The procedure log allows a ledger of procedures with optional prices to be recorded. This data can then be used to create an invoice. To log procedures, select the **Procedures** link. Note that this may be displayed as **Invoice**, depending on how your system is configured. A screen will be displayed that allows procedures to be selected from a hierarchical list on the right-hand side.



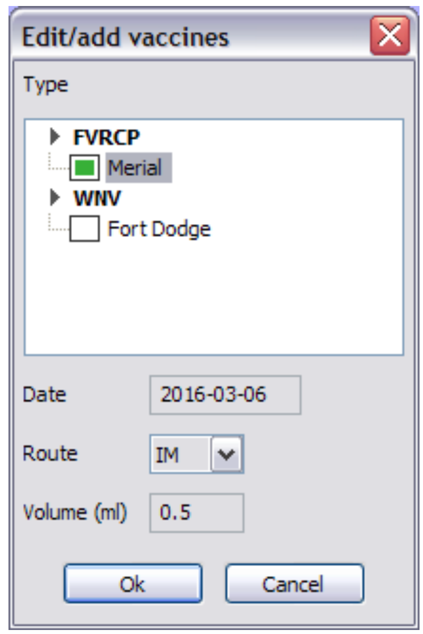
Double-click to select an item. It will be added to the list on the left-hand side. You can edit both the entry and the cost or you can edit/remove an item that was added incorrectly.

Depending on your setup, there may be fields to enter **Anesthesia time**, **procedure time** as well as to check off which procedures were actually performed under anesthesia.

The data entered here can be used later to generate an Invoice.

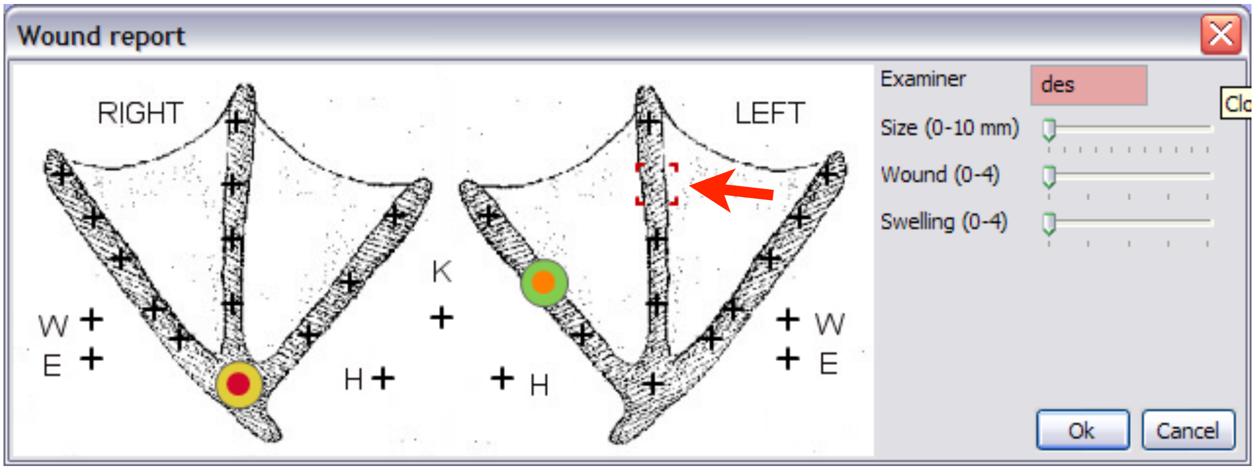
Vaccines

This tool allows you to record vaccinations. A form will appear that allows you to choose the vaccines from a list. Fill in the date (which will default to today), the route of administration and the volume (for each injection). Press **Ok** and an entry will be added to the medical record. You can then select the Vaccine History link in the **Action Bar** and see a list of all vaccines given.



Wound reports

Wound reports allow you to record characteristics about wounds using a visual tool. The wound reports use a template which includes a in image with one or more areas identified as common wound sites. A good example would be the feet of a bird of prey where bumblefoot lesions are commonly found or the shell of a turtle which can often be cracked from roadside trauma. To create a **wound report**, *double*-click on the **Wounds** entry in the list on the left-hand side of the Medical Record Entry form. This will open the *first* wound report template that your system is configured with. If your system is configured with more than one wound template, you can *right*-click on the **Wounds** entry and choose from a list. Please contact customer service for help in setting up wound templates. The **Wound report** form will appear. It displays a graphical image of the affected body area with **+** marks indicating specific locations where a recording can



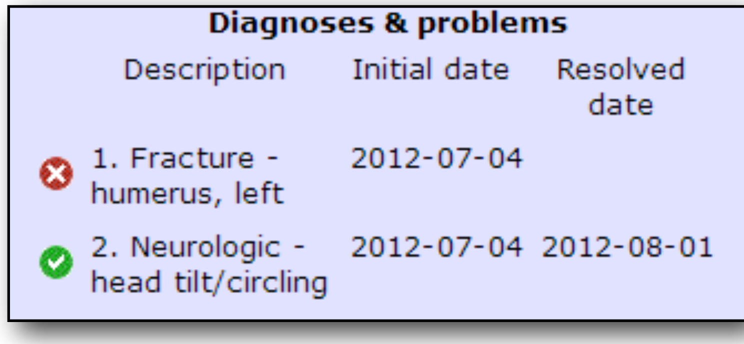
be made. If you click on a **+** mark, the location will be marked a selected (red arrow). You can then select the wound's size, severity and the amount of swelling by adjusting the corresponding slider controls. Your choices will be reflected by a "bull's-eye" symbol at the appropriate spot. The **size** slider determines the diameter of the bull's-eye symbol, the **wound severity** slider sets the *outer* color and the **swelling** slider sets the *inner* color.

You can make a record for a lesion at one or all of the locations specified by the **+** mark. When you are done, press the **Ok** button. The wound report will be saved and an image of the wound report will be captured and stored as a thumbnail as is the case with all other image attachments.

Wound reports and the associated image can be viewed or deleted at any future date but they cannot currently be edited. Multiple wound reports can also be simultaneously in chronological order in the Historical Data Viewer.

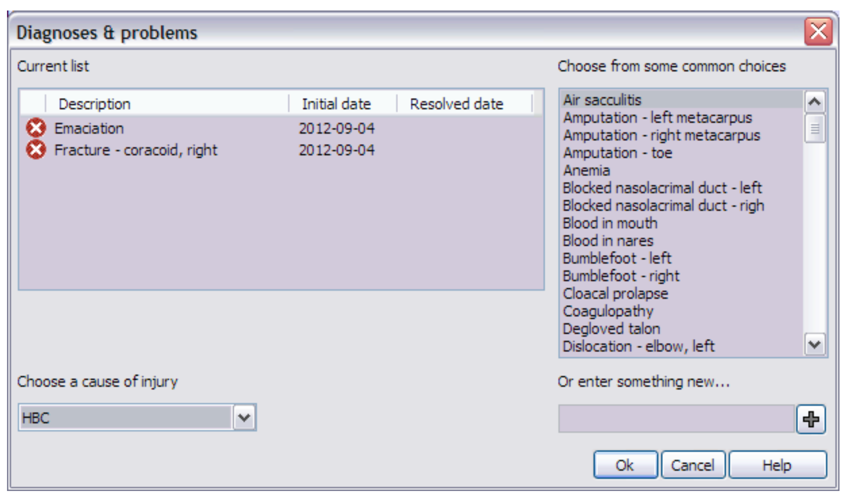
Problems

You can maintain a problem list for each patient. This list is displayed on the animal's main chart at the top in the **Summary** area. Problems can be added and removed. An initial and end date can be specified and you can mark if a problem has been resolved. A **green** check indicates that the problem is resolved while a **red** x indicates it is still an issue. If no problems have been identified, then "NO PROBLEMS RECORDED" will be displayed.



To add or edit problems, click on the **Problems** link in the **Action Bar**.

The current list of problems is displayed to the left. You can right-click on an existing problem to remove it, set the initial or resolved dates or to switch its status. When a problem is marked as resolved, the **Resolved date** is automatically set to the current date.



You can add a new problem from a list of pre-configured problems by double-clicking on any of the entries in the list to the right. If there is a problem not currently in the list that you would like to add, just enter it in the edit field in the lower right and press the **+** button.

There are few problem choices that have special meanings:

- **Toxin - Lead** - Be sure to use this choice for all confirmed lead poisoning cases as this information is used in optional Part E of the US FWS year-end report.
- **Orphaned** - Be sure to use this choice (and only this choice) for all healthy orphans as healthy orphans are reported differently in the Bandit report that goes to the US Geologic Survey when reporting birds that are released with official federal bands.

Note: since this is a "normal" condition and not necessarily a true problem, these entries are marked as "resolved" with a **green** check when added.

- **orphan** - For the Washington state year-end report, make sure that this word appears in at least one problem associated with each orphan patient.

The system can be configured to treat various problems as "non-problems" and will mark them as resolved with **green** check mark instead of a **red** X when added. This is useful when you want to record various issues and conditions such as "Orphaned" that really are not true problems. Please refer to the Technical Reference Manual for more information.

You can also choose the cause of injury from a list of pre-configured choices. There are a few choices (such as gunshot) that are considered illegal causes of injury by the US Fish and Wildlife Service (USFWS). When one of those choices is selected, a **reminder** will automatically be created to remind you to notify the USFWS. In addition, the patient will be marked as "**Do NOT release where found**".

The system can assist you in sending an automated update email to USFWS when there is a patient admitted as a result of an illegal cause of injury. Click here for more information.

Chapter 3

Treatments

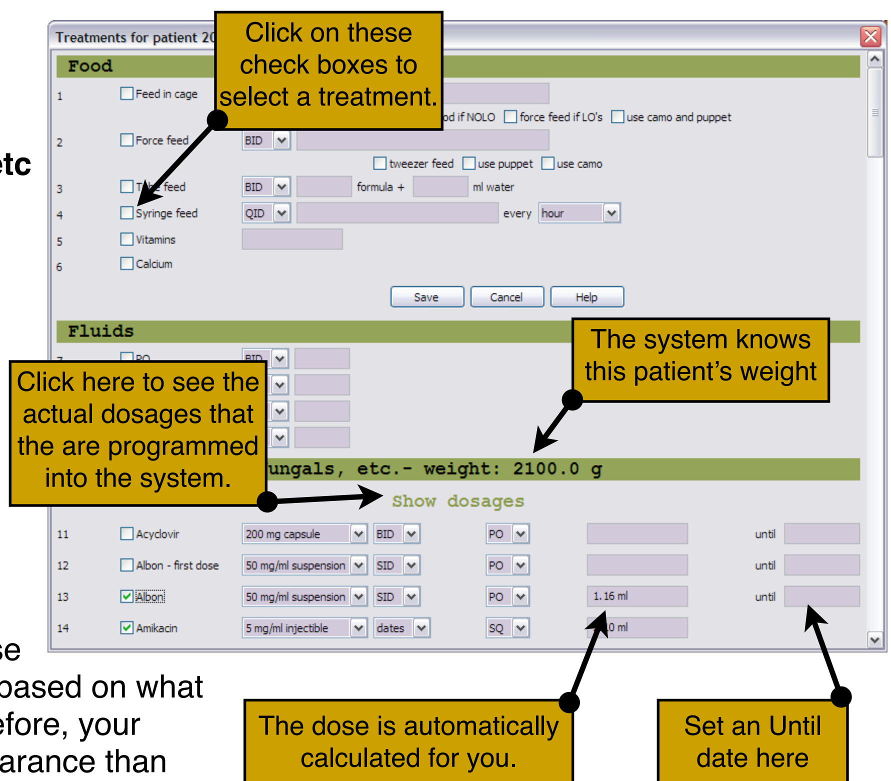
You must specify a treatment for each patient. Each day, treatment sheets are printed and the appropriate treatments are printed based on the date and the time of day. It is not uncommon to print sheets multiple times a day as a patient may need different care in the morning compared to at night. It is also very common for a treatment plan to change during the day and for patients to be moved to a new location. A patient either has an **individual** treatment or is part of a **group** treatment.

All active patients must have a valid location and treatment plan.

Individual treatments

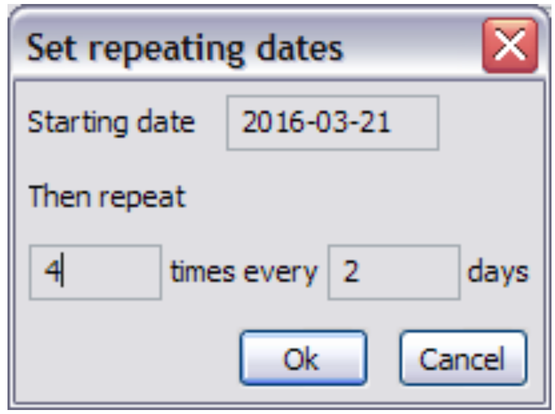
All patients kept in an inclosure by itself will use its individual treatment plan. This treatment plan is accessed via the **Treatments** link in the **Action Bar** at the top of the patient chart. The **Treatment** form appears and it has the following main categories:

- **Food**
- **Fluids**
- **Antibiotics, anti-fungals, etc**
- **Analgesics, NSAIDs, etc**
- **Eyes**
- **Ears**
- **Other meds**
- **Vaccines**
- **Miscellaneous** - radiographs, blood collection, surgery, physical therapy, bandage changes, clinician consults, etc.



Each section has many different choices and these choices are configurable based on what your facility needs. Therefore, your screen may differ in appearance than what is shown here. The medication choices are configurable using the Medication Editor and all the other choices are configurable using the Treatment Options Editor.

Each choice has a check box that allows the treatment to be selected. In general, each treatment may have a frequency list to allow you to select how often (i.e. SID, BID, TID, etc.) the treatment needs to be done. There may also be options for setting specific dates or for setting a date to continue the treatment until. Remember that you can double-click in any date field to bring up a calendar date picker. Many drugs allow you to enter multiple future dates. You can enter each one manually by typing the date or by using the calendar date picker in each field. You can also auto-set the dates by right-clicking on any one of the date fields and choosing **Set dates on interval**. A small window will appear that allows you to set the **start date**, the **number of dates** and the **interval in days** between dates. When you press Ok, the date fields will be automatically filled in.



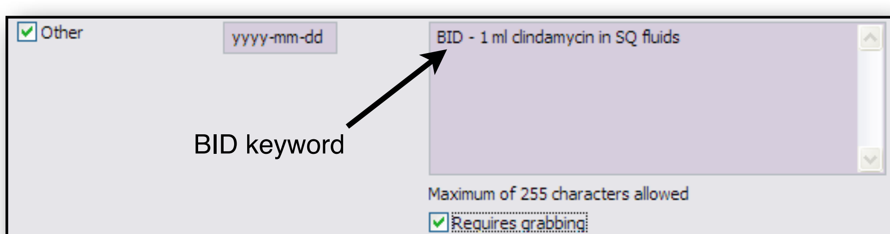
If the treatment option is a medication, the dosage will be automatically calculated for you if the patient's weight has been entered and if your formulary contains a dosage for this drug. See the Medication Editor for more information.

In the **Food** section, there a many different options for feeding, including leaving food in the enclosure (**Food**), force feeding (**Force feed**), tube feeding (**Tube feed**), etc. For most options, you can simply type in the details of the diet. For the simple **Food in cage** option, you may also be able to choose from a list of pre-defined diets that are appropriate for the particular species. Please contact customer support for details.

There is also an option called **NPO** which stands for "nothing per os". This means that nothing is to be given orally and is usually used on surgery days so that a patient is not fed before anesthesia. If this option is checked, then all food entries will be ignored on the specified days.

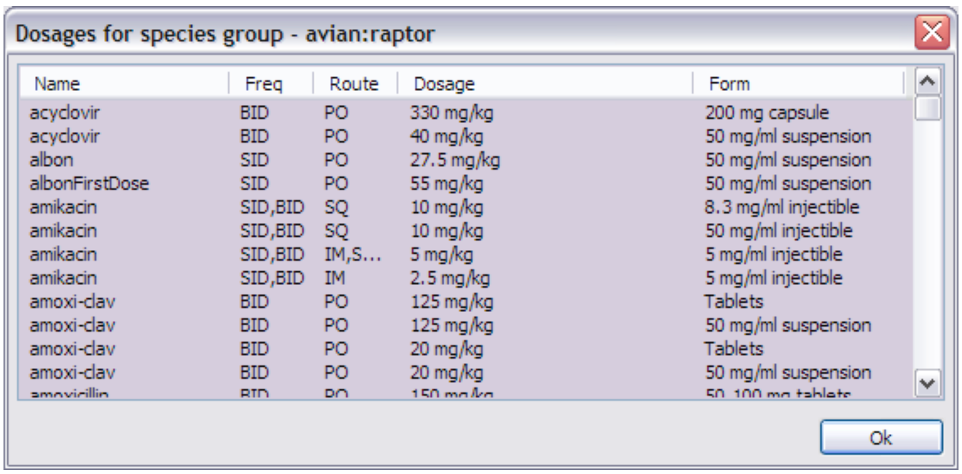
In the **Fluids** section, there is also an option called **Periodic** which allows you to specify that fluids be administered on specific dates rather than one or more times every day.

There is a special field called **Other**. This field is used to schedule a treatment that isn't already built-in to the system. By selecting this option, you can enter any custom text describing the treatment. You can either enter a specific date in



the date field or you can put the SID, BID, TID keywords in the actual text description to program a treatment that is to be performed at least once or more times per day. The **Requires grabbing** is used to indicate if the patient needs to be handled in order to perform this treatment.

Click the **Show dosages** link to view the dosages that are being used by the system for this patient. The dosages are taken from a formulary that has been configured for the animal's species group. There can be any number of individual formularies. For example, animals in the **avian:raptor** species group may use a different formulary than animals in the **mammal:rodent** species group. See the **Medication Editor** for more information.


Dosages for species group - avian:raptor

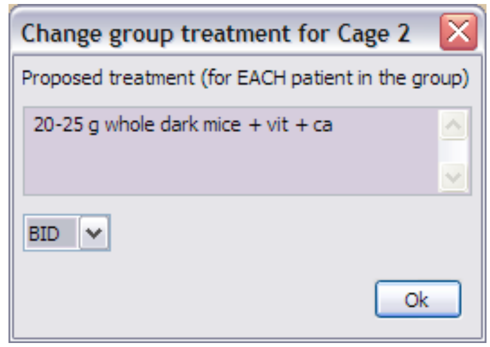
Name	Freq	Route	Dosage	Form
acyclovir	BID	PO	330 mg/kg	200 mg capsule
acyclovir	BID	PO	40 mg/kg	50 mg/ml suspension
albon	SID	PO	27.5 mg/kg	50 mg/ml suspension
albonFirstDose	SID	PO	55 mg/kg	50 mg/ml suspension
amikacin	SID,BID	SQ	10 mg/kg	8.3 mg/ml injectible
amikacin	SID,BID	SQ	10 mg/kg	50 mg/ml injectible
amikacin	SID,BID	IM,S...	5 mg/kg	5 mg/ml injectible
amikacin	SID,BID	IM	2.5 mg/kg	5 mg/ml injectible
amoxi-clav	BID	PO	125 mg/kg	Tablets
amoxi-clav	BID	PO	125 mg/kg	50 mg/ml suspension
amoxi-clav	BID	PO	20 mg/kg	Tablets
amoxi-clav	BID	PO	20 mg/kg	50 mg/ml suspension
amoxicillin	BID	PO	150 mg/kg	50, 100 mg tablets

Ok

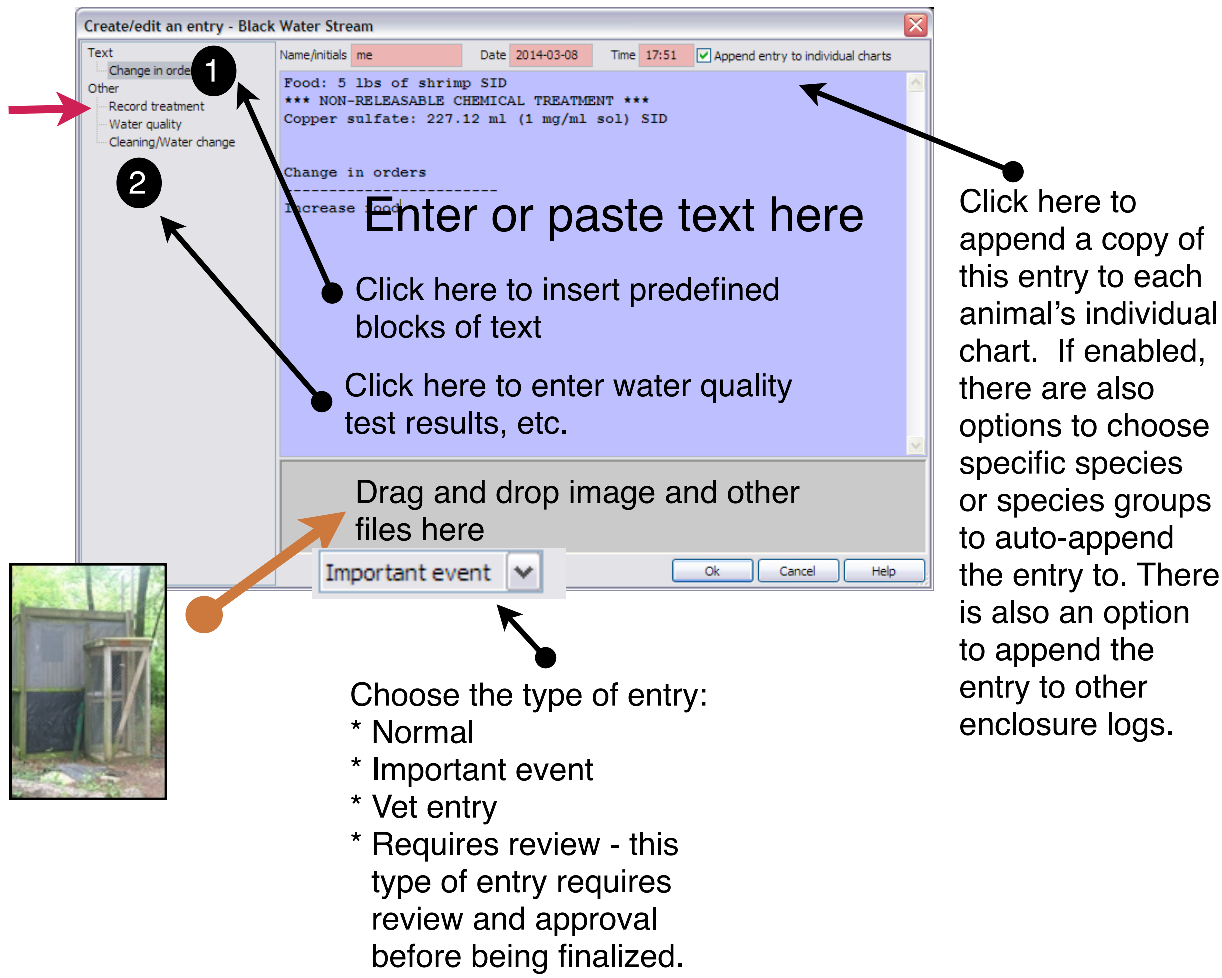
If enabled, the system will auto-insert a summary of the treatment plan into the medical record after the treatment has been modified and saved.

Group treatments

When a patient is part of a group of two or more animals, the treatment/feeding will be specified by a **group** treatment plan. In these cases, the animals are usually on more of a maintenance-type plan where individualized treatments are no longer required. To create or edit a treatment plan for a group, right-click on the enclosure/location in the **Enclosure** list on the main screen. Choose **Edit group treatment** from the popup menu. Press the **Yes** button when prompted if you want to proceed. A window will appear that allows you to enter the treatment plan and to select the frequency (i.e. SID, BID, etc). Note that the treatment plan that you enter is for **EACH** animal in the enclosure.



So, for example, you may have an enclosure with three screech owls. The plan may call for 25 grams of mouse daily for each animal. This exact plan and the number of animals will be printed on the daily treatment/feeding sheets. You must realize that the enclosure actually requires **`25 x 3 = 75`** grams since there are three birds. Press the **Ok** button when complete. You can always go back and edit this treatment plan later.



If an animal that is in a group needs a special treatment, there are three ways to accomplish this:

1. Use a reminder. Reminders can be added for a patient to schedule a procedure or treatment. They can be scheduled for a specific day or set to repeat daily until turned off. Click here to see how to setup a reminder.
2. Mark the patient as "**Feed separately**". This will tell the system that, even though this patient is in a group, the patient's individual treatment plan should be used. Click here for more information about setting this option.
3. You can set up a ***virtual*** cage. For example, if there are 2 animals in CageA and they need to be treated individually, you can create CageA-1 and CageA-2 and move each animal into one of them. You, of course, realize that they are actually the same enclosure but this "tricks" **RaptorMed** into thinking they are individuals. In this case, each animal's individual treatment plan will be printed out separately on the daily sheets.

Double-clicking on the **Record treatment** item in **Area 2** (the **red** arrow in the picture) will automatically insert the enclosure's complete treatment plan into the record. This includes everything that was specified in the treatment plan as well as drug concentrations and amounts. All you have to do is modify it to match what was actually done. This allows you to make a very accurate and complete entry in almost no time at all.

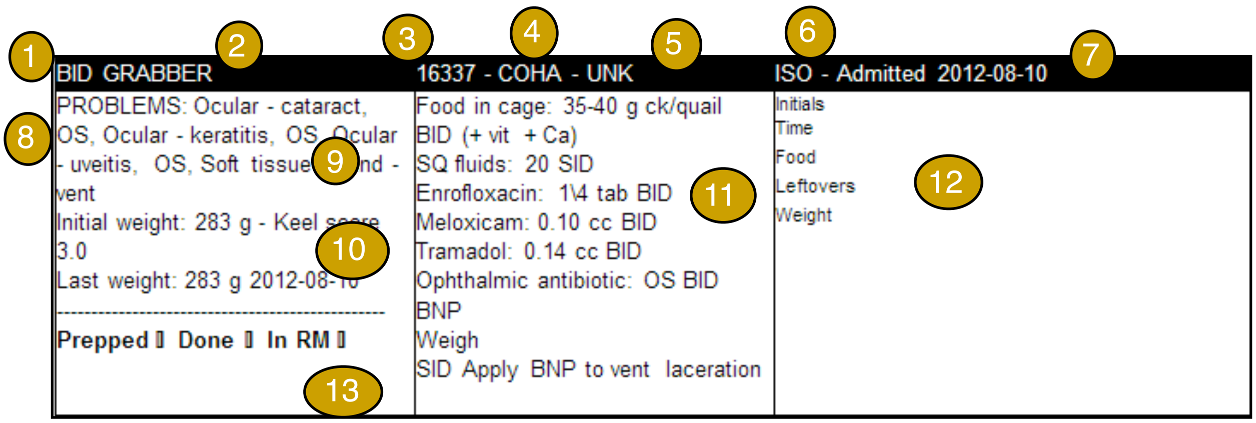
separately, then all patients in the enclosure must also be marked as such.

Printing treatment sheets

The treatment sheets that print out are designed to provide a clear and concise synopsis of the patient and the treatment that has been planned for it. The actual format of the sheets that are printed have been customized for your facility so they may be different that what is shown in this example. The following areas and pieces of information may be available on your sheets.

1. How often does this patient need to be treated each day?
2. Does the patient need to be grabbed in order to perform the treatment? The system automatically determines this from the treatment plan. This is helpful as you can utilize less experienced staff and personnel for the "non-grabbers" and use your more experience people for the "grabbers".
3. The patient id
4. The species
5. The age
6. The current location
7. Admission date
8. The problem list
9. Other important notations

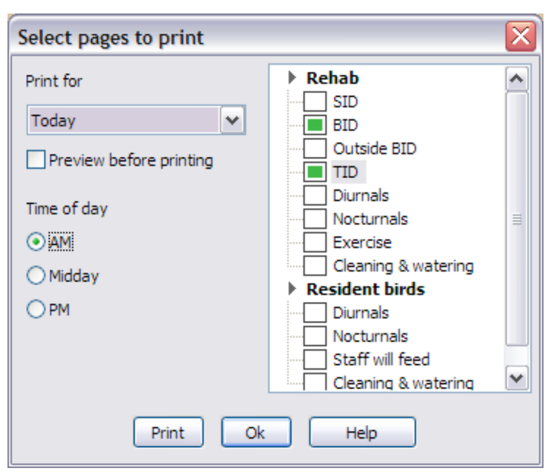
10. Weight history
11. The treatments that are required
12. An area to jot down notes
13. Check boxes to indicate that the treatment is done. There is a checkbox to indicate the treatment was prepped, one to indicate it was actually performed and one to indicate if it was recorded in **RaptorMed**.



To print treatment sheets, choose **Tools ▶ Print treatment sheets** from the main menu. A window will appear that allows you to choose which sheets to print, if you want to print for today, tomorrow or any future date and it allows you to preview the printout before printing. The actual appearance of your print selection form may vary as this feature is customized for your facility.

Note that it is good practice to print sheets for the next day at the end of each day. This insures that you will have your treatment sheets ready the next morning. You can never predict when you may have a printer problem or power outage so it is strongly encouraged that you print your sheets as part of your end-of-day procedure.

The **Preview** option is helpful in that you can preview the treatments for a future date to help get an idea of how busy the day will be.

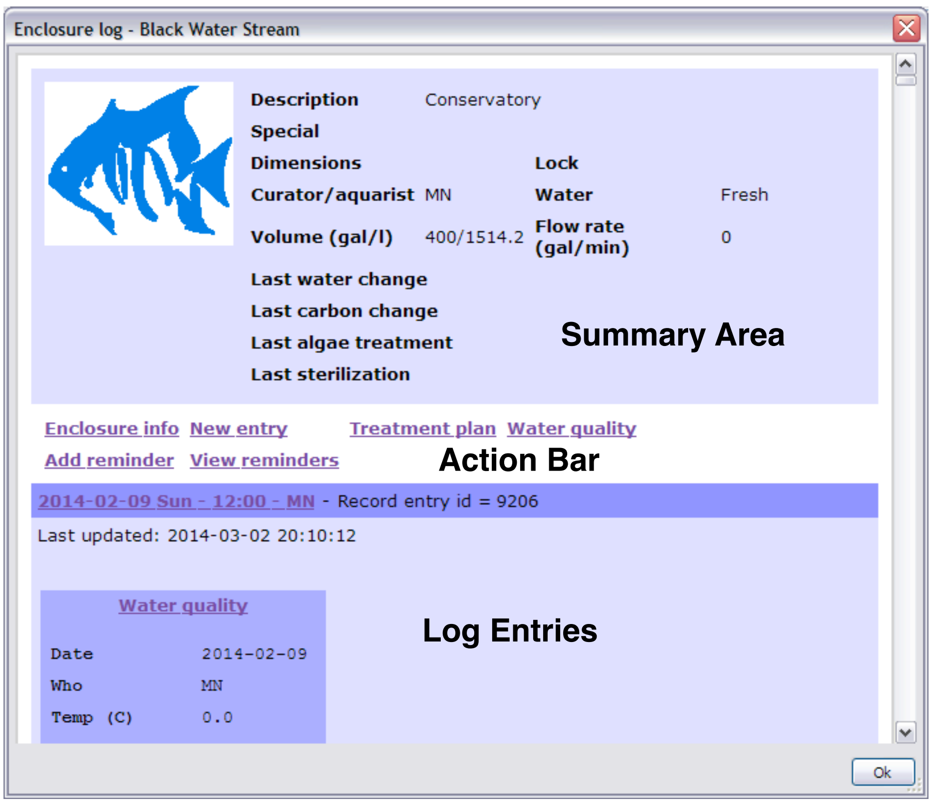


Enclosure logs and treatments

Treatment plans for an entire enclosure can be setup and recorded in an enclosure log. When an entry or treatment is recorded, a duplicate entry can also be made in the individual chart for each animal in that location. This function is more versatile than the standard Group treatment function described above and is designed for organizations like aquariums that need may have complicated treatment and or feeding plans for their various enclosures. In general, you should use either the enclosure logs or the group treatments as there is not much reason to use both simultaneously.

To access the enclosure log, right click on an location and select **Enclosure log**. The enclosure log screen will be displayed. It has a **Summary Area** at the top that includes various attributes and details for aquatic systems as well notations on when various maintenance and cleaning functions were performed. There is an **Action Bar** below the **Summary Area** that allows you to

- View/edit the enclosure properties
- Create a new log entry.
- Edit the treatment plan.
- View water chemistry or environmental conditions data.
- Search for text in the log.
- Add or view the reminders.
- Jump to a specific Special entry.
- Filter the log to view only Special entries.



The actual log entries are listed below the Action Bar with the most recent entry displayed at the top.

Adding an enclosure log entry
To add a new log entry, press the **New entry** link. A form will appear that is very similar to the one that is used to create a new individual patient record entry.

You can enter any amount of text in the main text area or you can cut and paste text in from any other application.

Double-clicking on any of the entries in **Area 1** will automatically insert a predefined block of text. This is useful to quickly enter text that is used repeatedly. The list of choices in this area is configurable and can be changed at any time. See the Text template editor for more information.

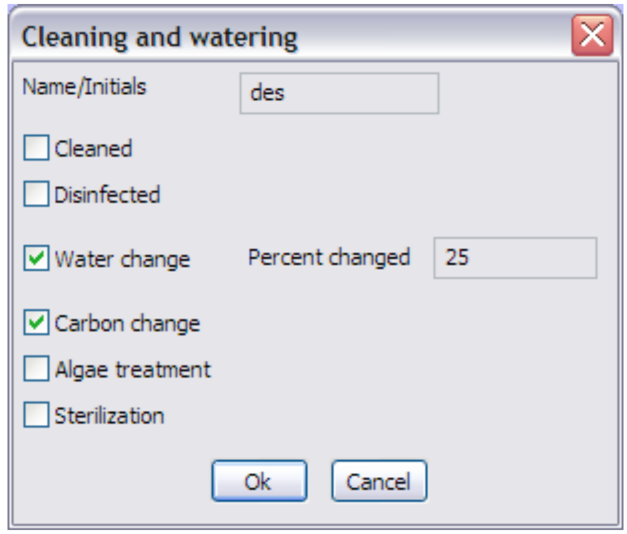
Double-clicking on any of the entries in **Area 2** allows you to enter lab results, treatments and many types of other data. See below for more information.

Any file can also be dragged onto the form and added as an attachment. For image files, the JPEG file type is recommended. Other file types, such as Word or Excel files or other image file types can also be dragged and dropped onto the enclosure log. For more information on importing image and document files, look here.

The **Entry type** field is useful in order to designate some entries as more important or special in some way. Using **View Options**, you can filter the display to only see certain types of entries.

Recording enclosure maintenance

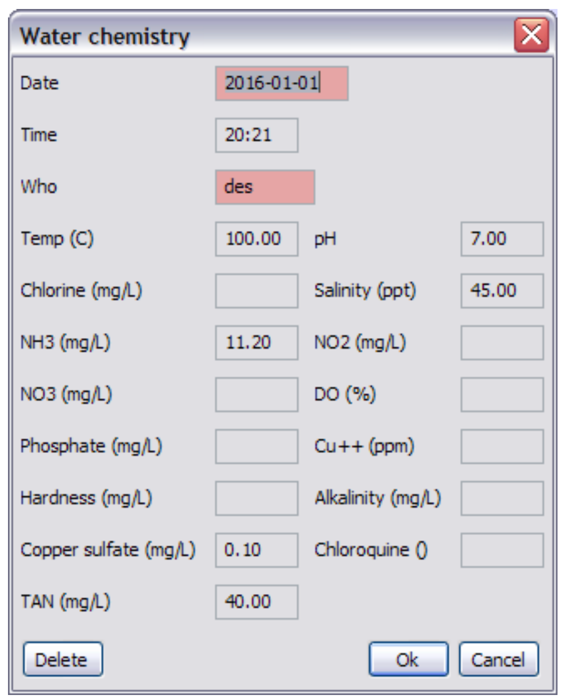
To record that an aquarium/system has been cleaned or disinfected, double-click on **Cleaning/water change.** A form will appear that allows you to select what was done (cleaned, disinfected, carbon change, etc) and to specify the amount of water changed as a percentage of the entire volume. Enter the initials or name of the person responsible for the work and press **Ok** to append this to the enclosure log.



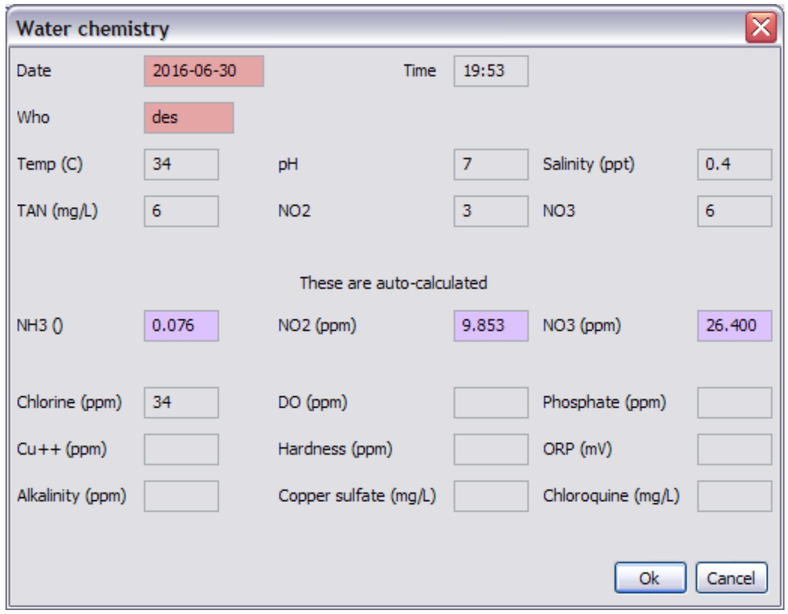
Recording water chemistry tests

To record a water quality test, double-click on **Water chemistry**. A form will appear that allows you to enter values for many different parameters. The actual parameters that are listed depend on how your system is configured. In addition, the measuring units and what is considered a "normal" range can be set for each parameter. Press **Ok** to append this to the enclosure log. All the water quality data can be viewed and graphed as described below.

Temperatures can be entered in either Celsius or Fahrenheit. You can specify the unit by appending a **C** or an **F** after the numeric temperature. If neither letter is used, the system assumes the unit that is set up as the default.



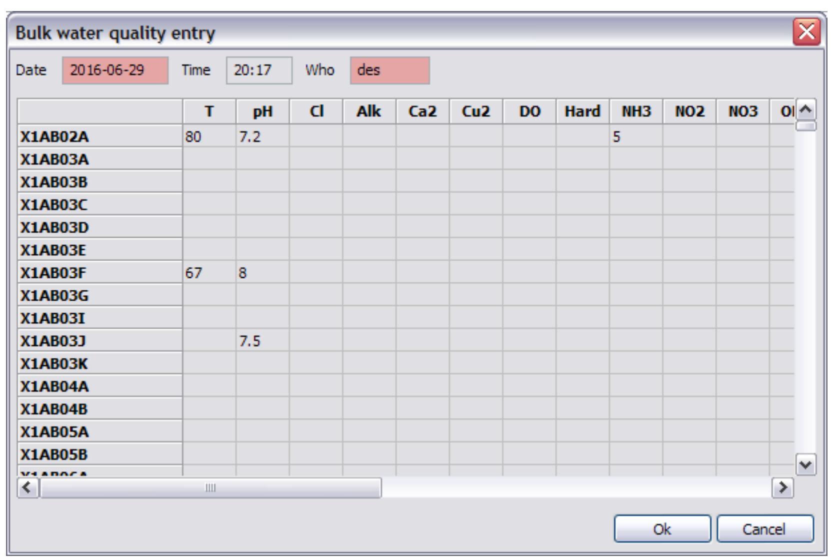
Depending on your configuration, you may have a customized form that can auto-calculate various parameters. For example the form shown at the right has lavender-highlighted fields that are automatically calculated based on the values entered in the fields near the top. This can be a big time-saver as these calculations can be quite complicated in some instances.



Note: you can enter test results for multiple enclosures at once using the **Bulk water quality entry** tool.

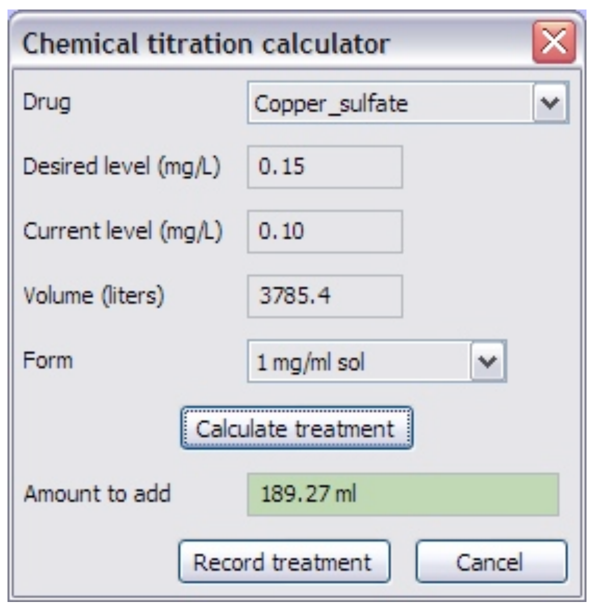
Bulk water quality entry

This tool is accessed by choosing **Tools ▶ Multiple enclosure water quality entry** from the main menu. A form is displayed that allows you to entry water chemistry data for any number of systems. Only *aquatic* system are listed. Enter the appropriate data, enter a date, time and the name of the person responsible and press the **Ok** button. You do not need to enter data in each test column and entire rows can be skipped. Only enter the data that was recorded and needs to be saved.



Recording environmental conditions
Click on this link to record measurements for various conditions such as air temperature (ambient, basking, low), humidity as well as UV light levels. A form will appear that allows you to enter values for many different parameters. Press **Ok** to append this to the enclosure log. All the environment condition data can be viewed and graphed as described below.
Temperatures can be entered in either Celsius or Fahrenheit. You can specify the unit by appending a **C** or an **F** after the numeric temperature. If neither letter is used, the system assumes the unit that is set up as the default.

Chemical titration calculator
This tool can be used in aquatic environments to auto-calculate the amount of a certain chemical in order to raise it from the current concentration to a desired concentration. It takes into account 1) the volume of the enclosure/system, 2) the last measured level for the drug or chemical in question 3) the selected concentration of the raw stock to be added and 4) the desired concentration.



To use this tool, select the chemical from the **Drug** list. The desired level and the current level will be filled in automatically if that information is available. Select a concentration from the **Form** list. Press the **Calculate** button and the volume of chemical to be added will be displayed. To record this calculation/treatment, press the **Record treatment** button and an entry will be made in the enclosure's log.

Insert animal list will automatically append a list of the animals in this location into the currently open log entry. The id number, band/tag information, name, age and sex will be inserted for each animal. This command is useful when you need to make an observation about each animal as this provides a nice placeholder or starting template of text for the entry.

Creating an enclosure feeding/treatment plan

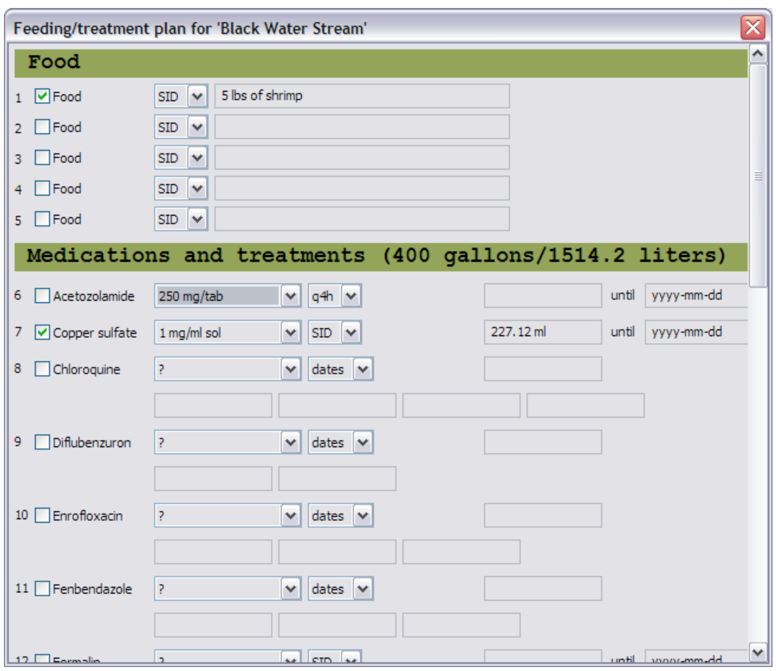
To setup the feeding/treatment plan for an enclosure, press the **Treatment plan** link. The Treatment plan form will appear that allows you to specify various types of food, medications and miscellaneous things like water changes and chemistry tests.

The food can be setup in many different ways. For example, you can choose to provide a different meal on each day of the week and you can schedule multiple meals per day.

For aquatic enclosures, you can also setup and schedule various medication and chemical treatments.

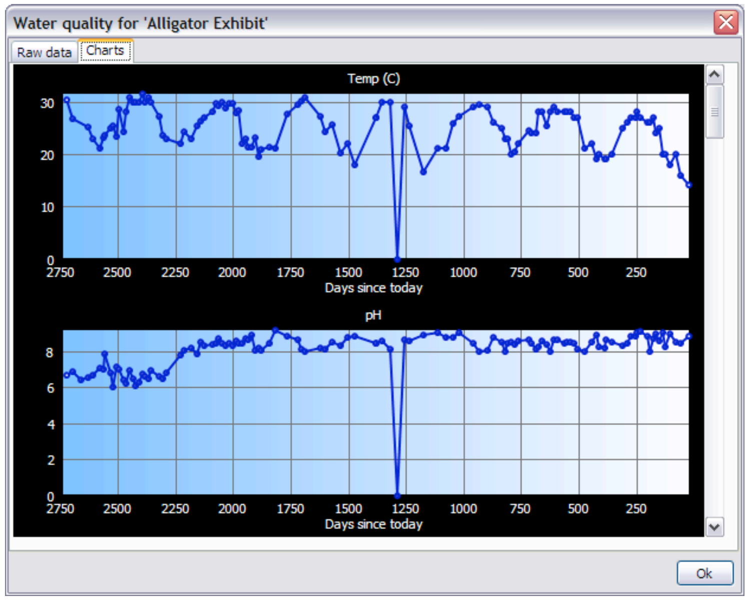
The **Miscellaneous** section allows you to schedule various things like sunning, misting, and water changes. For aquatic systems you can also schedule water chemistry tests. There is an **Other** category that allows any type of random task to be performed. **Other (daily)** is for something that needs to be done daily. There is another **Other** category that allows specific dates to be specified.

Be sure to check the box before any item on the treatment plan that you wish to select. For the various medications, you can select the treatment form (if there is more than one) and the frequency as well as specific treatment dates or an until date for medications that are done daily. If properly configured, RaptorMed will automatically calculate the dose based on the desired dosage, the volume of the system and the concentration/form of the medication.



To specify a date, just double-click in any of the date fields and a calendar will appear that allows you to choose a date.

Viewing water quality and environment conditions data
To view this data for an enclosure, press the **Water chemistry** or **Environment conditions** links. A window will appear with two tabs. One tab displays the data in tabular/ spreadsheet form. The other tab graphs the data.

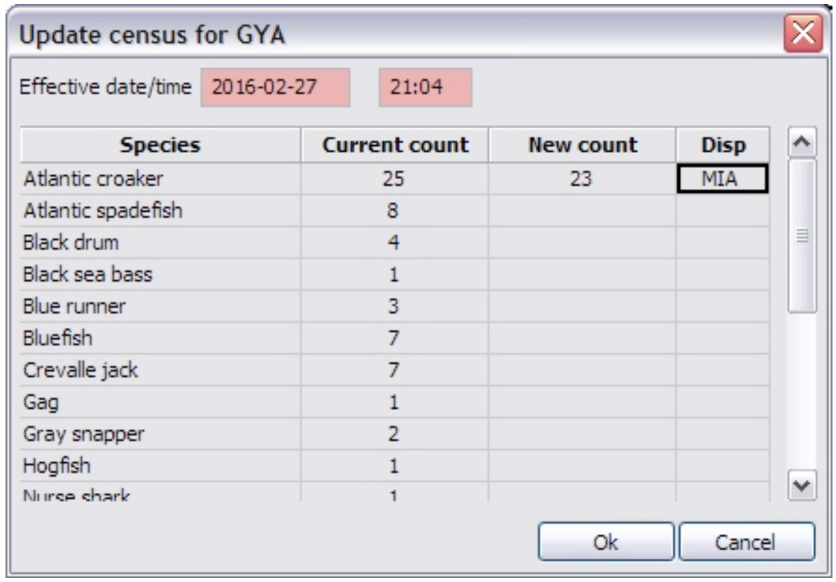


Jump to special entry
Press the Special/vet entry link. This will produce a list of special entries sorted by date. If you double-click on one, the log will jump down to the selected entry.

View options
If you click on this link, you can choose to view only the **Special entries**. This is very helpful when you want to filter out all the normal daily entries. You can also choose whether to display the entire medical record or just the last x months-worth of entries You can also choose whether to display problems that have already been resolved.

Update census command
This command is available for a specific enclosure via the right-click menu in the enclosure list on the main screen. It will display a spreadsheet with the current species counts. There is a column for you to record the new count for each species. If the new count is less than the previous count, then you must also choose a disposition or status code in the last column. Valid disposition codes are D, MIA, E, or ESC. This can occur

in an aquarium setting when some animals found to be missing or dead. If the new count is greater, than the current count, the disposition column is ignored as it is assumed that the new animals are the result of internal procreation or are simply the result of a previous miscount. If the count for a certain species is unchanged, then leave the **New count** field blank.



Reminders

RaptorMed allows for reminders to be added to the system. A reminder can be set for an individual patient, for an enclosure or general purpose reminders can be added for the facility as a whole. Each reminder will be printed on the daily treatment sheets on the correct date.

Creating a reminder

To add a reminder for a patient, click the **Add reminder** link in the **Action Bar** on the patient's chart.

To add a reminder for an enclosure, right-click on the enclosure in the **Enclosure list** on the main screen and choose **Add reminder**.

To add a general purpose reminder, choose **Edit ▶ Add reminder** from the main menu.

Enter some text describing the task and enter a date. You can choose **Once** if you only want one reminder or you can have the reminder repeat any number of times by selecting **Repeat** and filling the **number of times to repeat** and the **interval in days between repeats**. These repeating reminders will begin on the date specified.

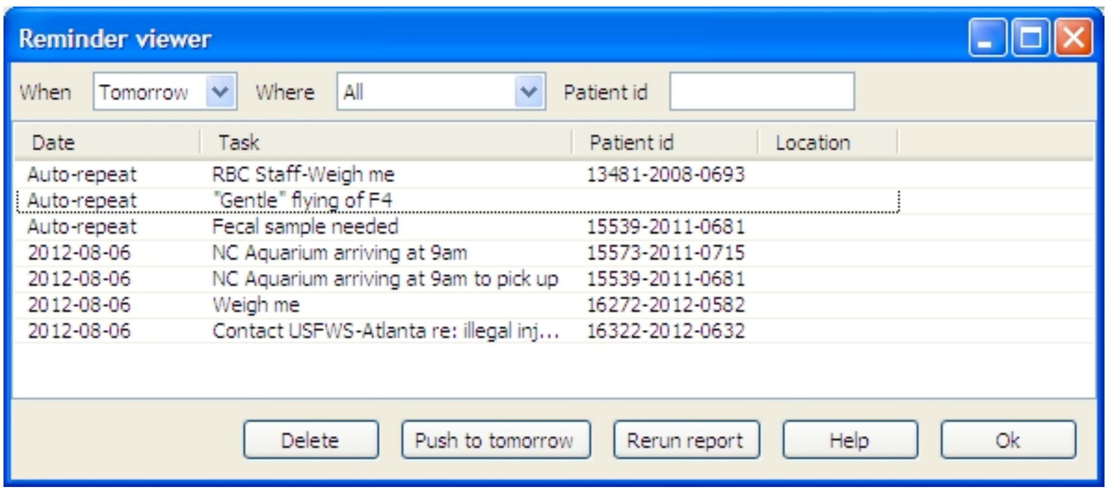
Additionally, you can create a reminder that will automatically repeat every day, on specific day of the week or on a specific day of the month. These reminders will continue forever until deleted.

You can also choose an optional **Category** for the reminder and this allows reminders to be sorted in the Reminder Viewer. The category can be anything and can indicate a type of task (e.g. rehab or maintenance), a person's name or anything else that allows you to group or organize your reminders.

Viewing, editing and removing reminders

To view reminders, choose **Reports ▶ Reminder viewer** from the main menu. A window will appear that shows your reminders. You can filter what to view by choosing

All, **Today**, **Upcoming** or **Tomorrow** from the **When** list. You can also view reminders for a single enclosure/location by selecting from the **Where** list and you can choose to view only reminders of a certain **category**. Finally, you can view reminders for a single animal by entering the patient id in **Patient id** field. After entering the id, press the **Rerun report** button to refill the list.



To edit a reminder, just double-click on it. To view the chart for a patient listed in a reminder, double-click on the patient's reminder with the **SHIFT** key held down.

You can push a reminder to tomorrow by selecting it and pressing the **Push to tomorrow** button. This is handy for those days where you could not get everything done.

You can edit a reminder by double-clicking on it or by selecting it and pressing the **Edit** button.You can select multiple reminders by left-clicking and shift-left clicking. You can then edit, delete or push them all simultaneously by pressing the **Edit, Delete** or **Push** buttons, respectively.

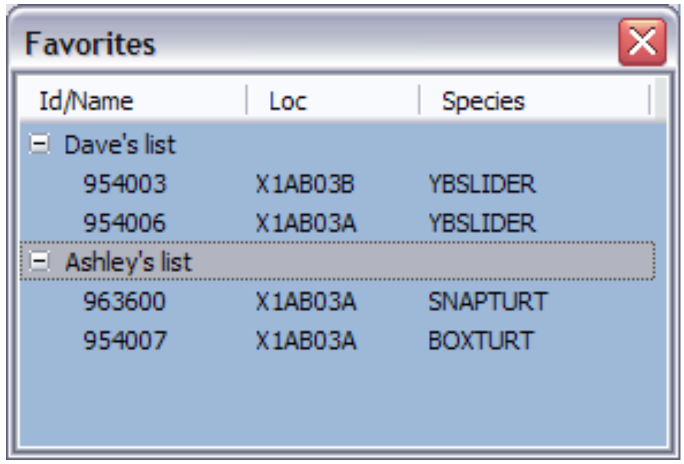
If you are viewing reminders for a specific animal, then an **Add** button will also be present that allows you to add new reminders.

You can sort the reminders by clicking on any of the column headers and you can print the currently displayed list of reminders by pressing the **Print** button.

As a shortcut, you can view all reminders for a single patient by clicking the **View reminders** link from the **Action Bar** in the patient's chart.

Favorites

Favorites are shortcuts to animals that you work with frequently or otherwise would like to have quick access to. Any number of favorites lists can be created and animals can be added or removed to a list at any time. Choose **Edit ▶ Favorites list** from the main menu. A window will be displayed that shows each favorites list as well as the animals that are part of each list. To access an animal's chart, just double-click on it.



Right-click and choose **Add new list** to create a new list. To add an animal to a particular list: select the list, then, in the **Animal** list on the main screen, right-click on the desired animal and choose **Add to favorites list.** Note that an animal can be on multiple favorites lists.

To remove an animal from a list, simply right-click on it and choose **Remove this animal from list**. Note that a list will cease to exist if all animals are removed from it, so there is no need to delete or remove a favorites list.

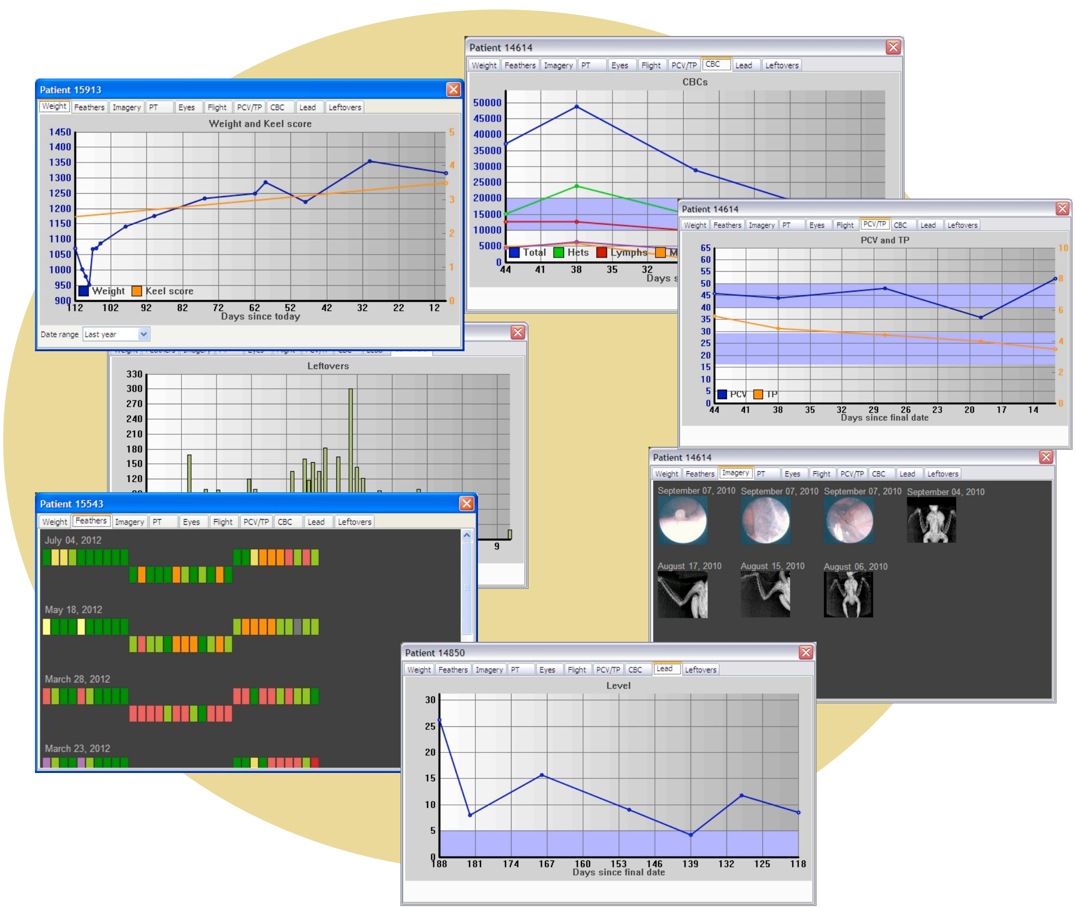
The size and position of the Favorites list will be remember when it is closed and will be restored the next time it is opened. It will also remember to expand the list to that was **last** selected.

Chapter 4

Historical data viewer

Press the **Historical data** link in the **Action Bar** on the patient's chart to view all sorts of patient data. A window with the following tabs will appear:

- **Weight** - Displays a graph of the animal's weight and body condition score.
- **Feathers** - Displays a view of all the animal's feather checks. The most recent is at the top.
- **Imagery** - Displays thumbnail views of all the animal's imagery including photos and radiographs. You can click on each image to display it in a larger view. Click here for more information on viewing imagery.
- **PT** - Displays a graph of the animal's physical therapy sessions.
- **Eyes** - Displays a view of all the animal's eye exams. The most recent exam is at the top.



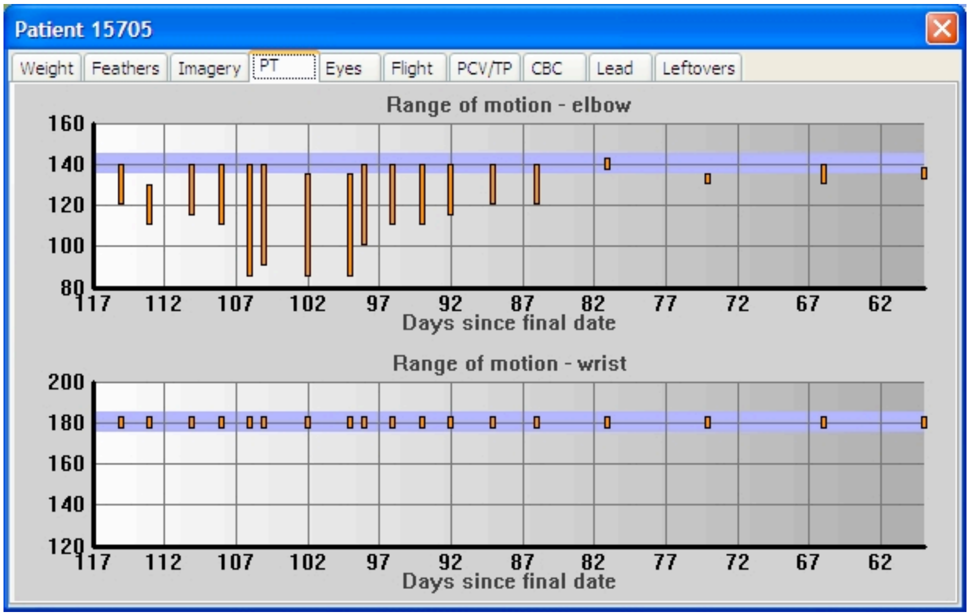
- **Flight** - Displays a view of all the animal's flight evaluations. The most recent evaluation is at the top.

- **Wound records** - Displays all the animal's wound reports in a chronological order so that you can assess progress easily.
- **PCV/TS/Buffy** - Displays a graph of the animal's PCV/TS/Buffy coat measurements.
- **CBC** - Displays a graph of the patient's CBCs.
- **Blood chemistry** - Displays a graph of the animal's blood chemistry values. Since there are so many analytes that can be recorded, you must choose the analyte to graph from a list.
- **Lead** - Displays a graph of the animal's blood lead measurements.
- **Dose calcs** - Displays all the animal's dosage calculations. Note that this feature may not be enabled on your system.
- **Food intake** - Displays a graph of the daily amount fed and the leftovers. Note that this feature may not be enabled on your system.
- **Group weight ranges** - Often individuals in groups of animals cannot be uniquely identified. In this case, the lowest and highest weight in the group can be recorded and graphed. This allows you to spot trends without actually knowing individual weights. Click here for more information.

If you click on a point on the Weight, PCV/TS, CBC and Lead charts, the actual value and date will be displayed. On many of the charts (including the Weight chart), you can also choose the date range to display.

The **Physical therapy (PT) chart** displays the range of motion (ROM) for each major joint in the limb undergoing therapy. There are separate charts for each each joint (the elbow and the wrist in the case of a wing). Each PT session is represented by a vertical orange bar. The bottom of the bar indicates ROM angle at the start of session and the top of the bar indicates the angle at the end of the session. The blue band represents the ideal angle for the specific joint. For the typical raptor, the ideal angle is 140 degrees for the elbow and 180 degrees for the wrist. A healthy bird should have very short orange bars that are contained completely within the blue band. The left side of the display is the oldest and the right side is the most recent.

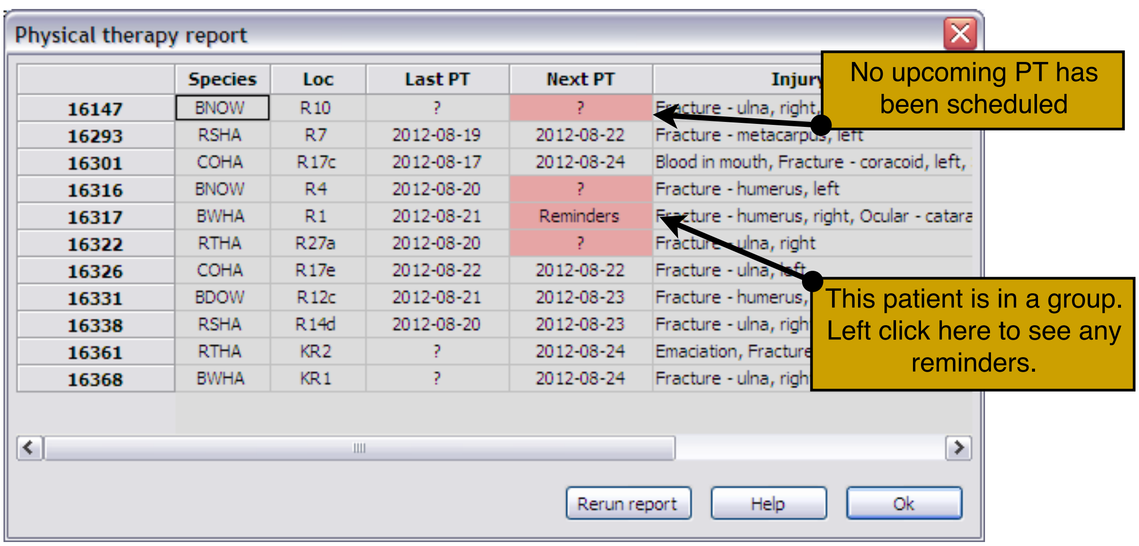
In the example in the screenshot, the elbow had poor ROM that then progressed to near-perfect extension. The wrist was very good from the beginning. As you can see, the display enables you to determine very quickly whether the ROM is good or bad and whether or not you need to continue physical therapy.



Reports

The Physical Therapy Report
This report allows you to review at-a-glance all patients that are currently undergoing physical therapy (PT). A patient will be included in this report if it's **Undergoing PT** checkbox is checked. Click here for more information. The report shows the patient id, the species, the current location, the last PT date, and the date of the next scheduled PT session.

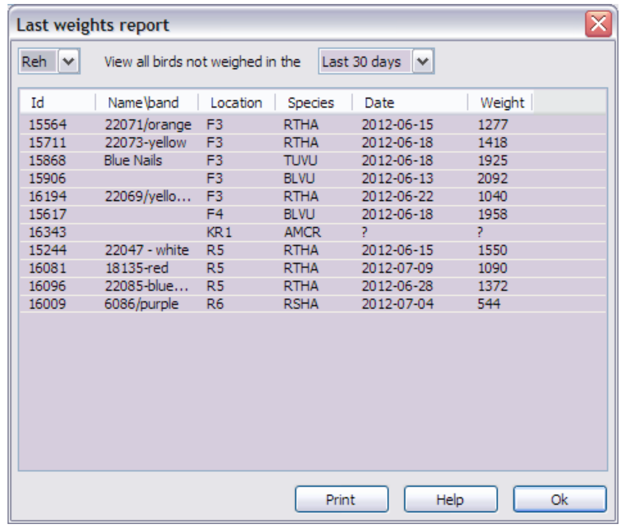
If a next PT is not scheduled, the box will be highlighted. For an individual patient, physical therapy is scheduled on the patient's individual treatment plan (click here for more information). If the patient is part of a group, then future PT sessions must be scheduled with a **Reminder** since patients in a group do not use their individual treatment plans. In these cases, the **Next PT** column will say **Reminders**. Left click on the **Reminders** text and the list of upcoming reminders will be displayed.



The Last Weights Report

This report allows you to quickly determine which patients have not been weighed recently. Choose **Reports ▶ Last weights report** from the main menu. You can choose to view:

- Either patients currently in rehab or resident animals
- To view only those patients that have not been weighed in a specific number of days
- Only animals taken care of by a specific curator.



Id	Name\band	Location	Species	Date	Weight
15564	22071/orange	F3	RTHA	2012-06-15	1277
15711	22073-yellow	F3	RTHA	2012-06-18	1418
15868	Blue Nails	F3	TUVU	2012-06-18	1925
15906		F3	BLVU	2012-06-13	2092
16194	22069/yello...	F3	RTHA	2012-06-22	1040
15617		F4	BLVU	2012-06-18	1958
16343		KR1	AMCR	?	?
15244	22047 - white	R5	RTHA	2012-06-15	1550
16081	18135-red	R5	RTHA	2012-07-09	1090
16096	22085-blue...	R5	RTHA	2012-06-28	1372
16009	6086/purple	R6	RSHA	2012-07-04	544

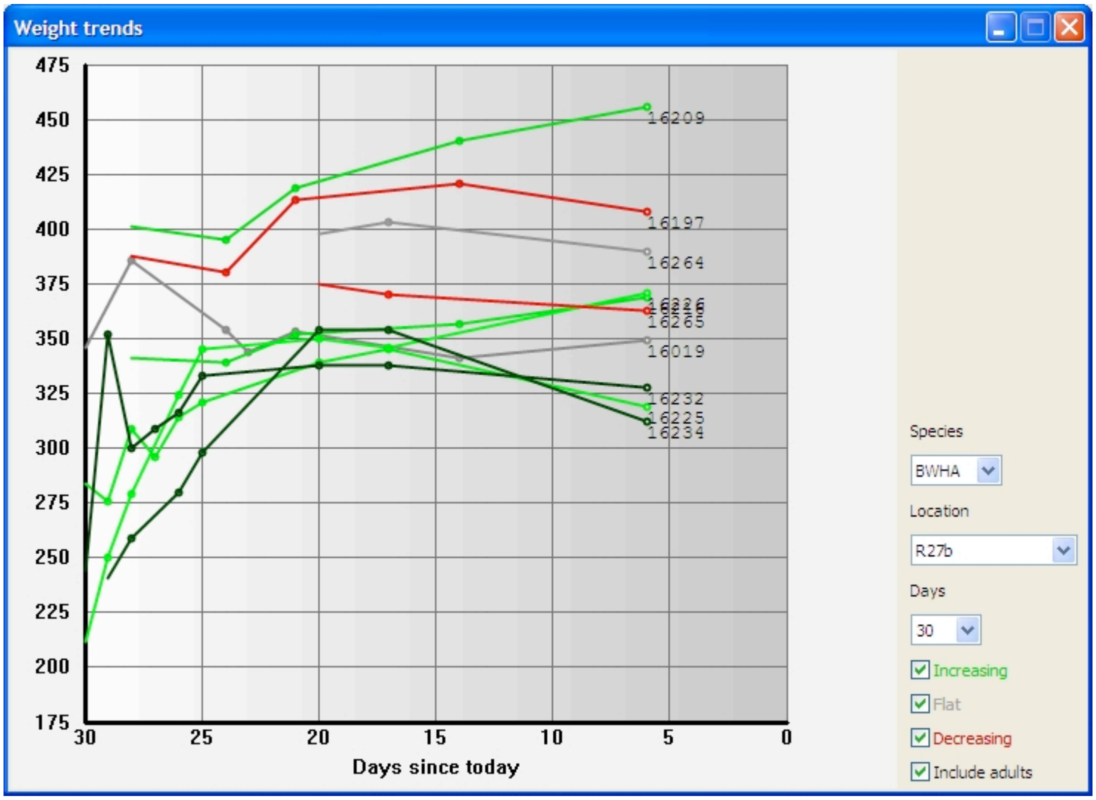
The report displays the patient id, name/band information, the location, species, and the last weight/date. It is a good idea to check this report periodically to make sure a patient doesn't "slip through the cracks". Note: resident animals in aquatic environments are **not** included in this report as animals in aquariums typically do not get weighed very often.

The Weight Trends Report

Right-click on a location in the **Location** list and choose **Show weight trends.** This command displays the weight trends for all patients in the enclosure. The patient's id number is displayed to the right of the trend line. The actual weight can be viewed by clicking on any point. The overall trend is color-coded.

- Green means that the trend is generally increasing.
- Gray means that the trend is mostly flat.
- Red means that the trend is generally decreasing.

Note that recent changes are weighted more heavily than past changes.



You can select the number of days to display, you can filter the chart to only show lines based on their color and you can also choose to display only juveniles or mixed ages. The age filter currently only works for avian species whose current age is listed as L or HY.

The Site Map

Choose **Reports ▶ Site viewer** from the main menu to view the **Site Map**. This shows a graphical view of your facility with each enclosure indicated by a color code.

- **Red** - under construction
- **Orange** - this enclosure is dirty and should not be used
- **Yellow** - occupied by at least one patient
- **Green** - empty

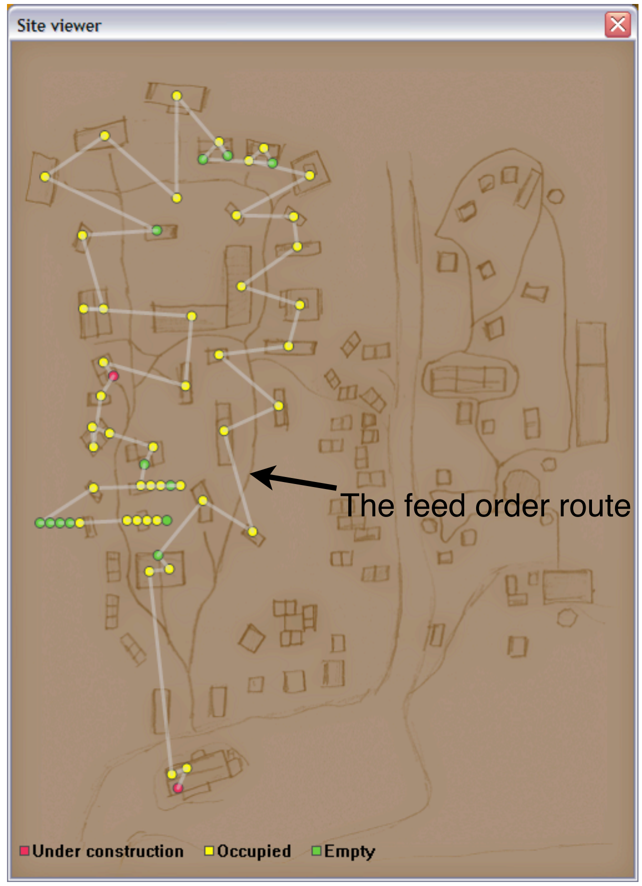
Click on each colored indicator to see a popup summary of the enclosure.

Shift-left click on any spot on the map to save the coordinates for later recall in the **Location Editor** (click here).

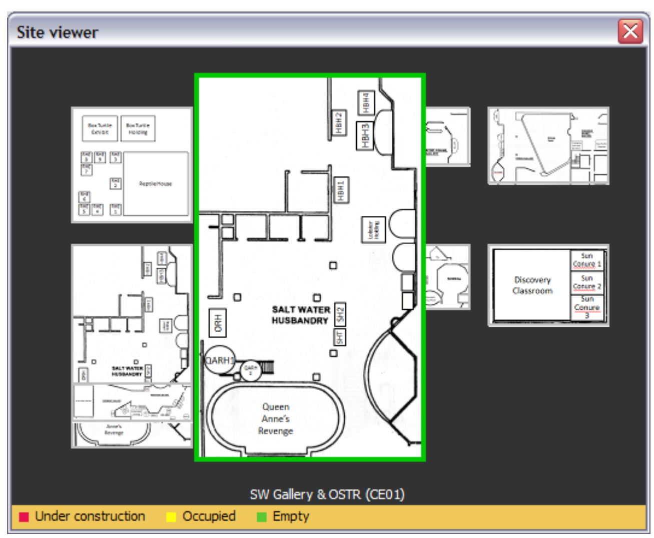
Right click and choose **Reload** to have the map redrawn. This is useful if you make a change to a location and want to see the changes reflected in the **Site Map** without having to close it and re-open it.

Right click and choose **Show feed order** to display the route specified by each enclosure's **Feed order** setting. To hide the route, right click and choose **Hide feed order**.

Click here for more information on configuring locations and enclosures.



Some organizations have a multi-level site map. Small thumbnails are displayed for each level. Click on a thumbnail to view an enlarged view of the level or area. Each individual location is indicated by a colored dot. Click on the dot to bring up the Enclosure log for that specific location.



Resident Animal Summary

This report creates a concise summary of all the current residents animals. The report includes the animal's name, id, species, location, sex, age, a list of the current problems and any other annotations that were recorded in the patient's **Notes** field (click here for more information on the **Notes** field).

Active Patients

This report displays a list of all patients that are considered "active". The report is configurable to use one of two algorithms to determine which patients are active:

- Those with the Active patient checkbox checked.
- Or those with at least one unresolved problem.

You can double-click on any item to open the patient's chart.

Donation report

This report tabulates donation information. You will be prompted to choose a date range and a folder to save the report to. The report totals donations made via cash, check and credit card.

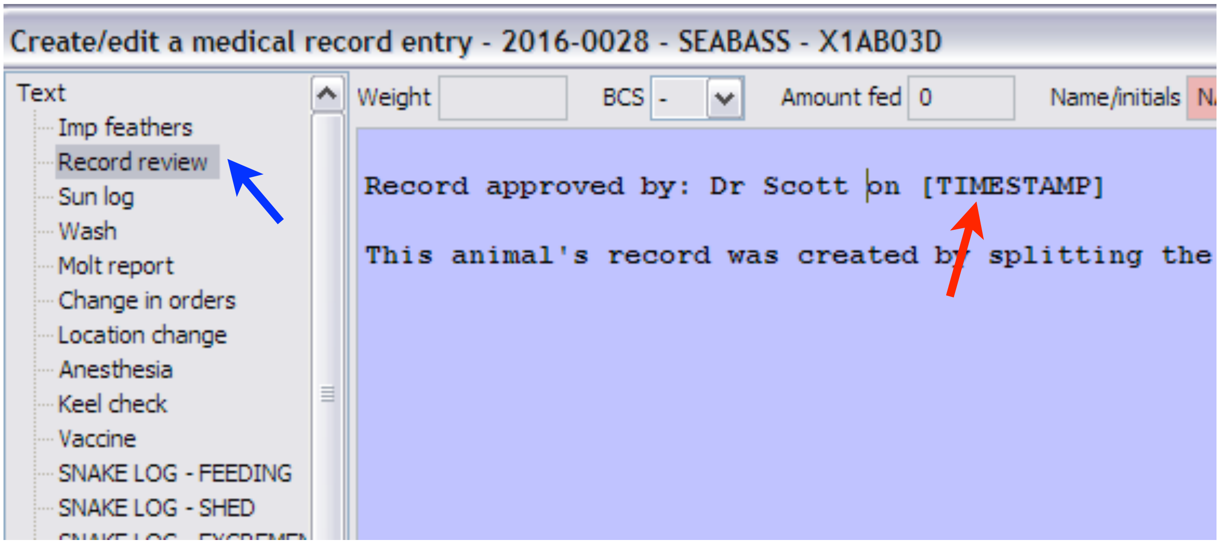
Recent special entries

This report will display all special entries made in the last X days where X is a configurable number of days. Special entries are entries made in an animal's chart or in an Enclosure log when the **Entry type** is something other than **Normal entry** (i.e. Vet entry, important event). This report contains a list for individual animal special entries and one for Enclosure log special entries. Double-clicking on one of the special entries will open the corresponding animal's or enclosure log chart.

Entries that need review

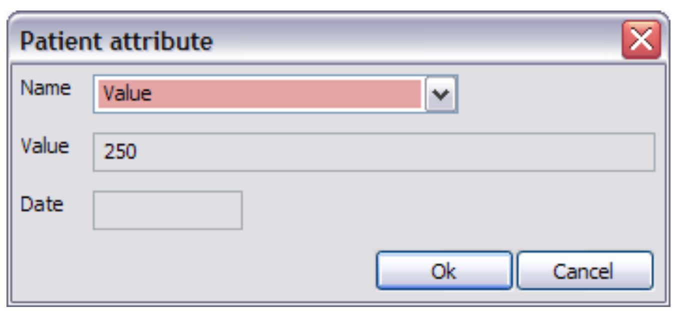
If enabled on your system, this report will display all entries that need review before being finalized. Entries that need review may be present in an animal's chart or in an Enclosure log. Because of this, this report contains a list for individual animal entries and one for Enclosure log entries. Double-clicking on one of the entries will open the corresponding animal's or enclosure log chart. The record can be edited and the entry type should be changed to one of the other options such as **Normal** or **Vet entry**. If configured on your system, there may be a text template setup (**blue** arrow) that you can use to auto-insert a text statement stating that this record was reviewed. This template can include a `[TIMESTAMP]` macro (**red** arrow) that will auto-expand to the current date and time.

After you have reviewed and saved some entries, you can then press the **Rerun report** button to refresh the screen to reflect your changes.



Collection value report

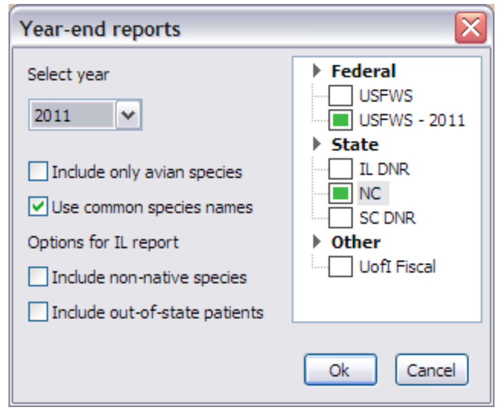
This report will generate an itemized list of all animals that are currently in the resident animal collection. The total value for each species and the total value for the entire collection will be calculated. Only **resident** animals are included. Animals in rehab are ignored. The value for each individual is taken from the **Value** specified for each species in the **Species Editor**. However, as individuals of a particular species may have different values, the value of any individual can be overridden by creating an **Value** attribute and specifying the value in the local currency. For example, a species may have a typical value of \$50.00 but an unusual individual happens to have a value of \$250 due to some interesting color or genetics. In this case, you can add an animal attribute with the **`Name=Value`** and the **`Value=250`**. See **Attributes** for more information.



Enclosure Cleaning and Maintenance

This report displays when each enclosure was last cleaned, disinfected and when the water was last changed. It can be used to schedule the next cleaning and to prioritize which enclosure should be cleaned next. For installations that use curators, the list can be filtered by a specific curator. If an enclosure contains only one animal, then that animal's name will be displayed next to the enclosure name.

The Year-End Reports



Choose **Reports ▶ Year-end reports** from the main menu to generate your year-end state and federal reports. You can select either this year or last year as well as the report you would like to run. The following options apply to all reports:

- **Include only avian species** - the report will include only avian species. Otherwise all types of animal species will be included in the report.
- **Use common species names** - the reports will use the common name instead of the species abbreviation.

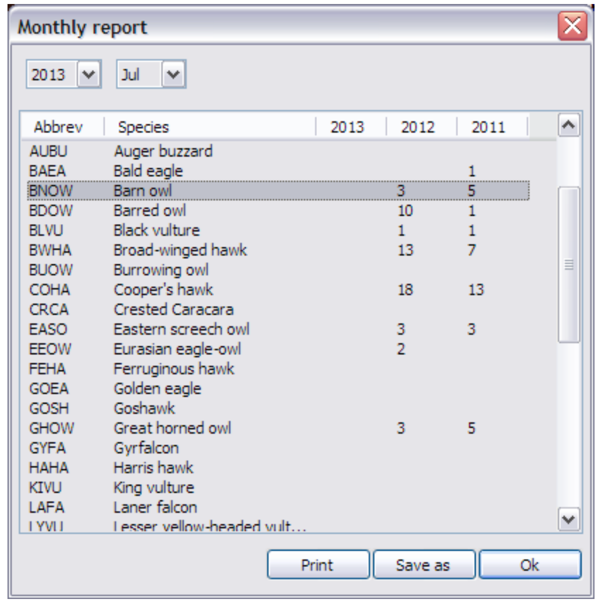
In addition, there are state-specific options that you can select. Once you choose the reports to generate, press the **Ok** button. You will then be prompted for a folder to save the reports to. The reports are created in an html format so you can view them in a web browser by double-clicking on them. You can also send them as an attachment to an email.

The following reports are currently supported:

- US FWS rehabilitation
- US FWS eagle exhibition
- US FWS education/possession

- AZ state rehabilitation report
- IL DNR state rehabilitation report
- IL endangered/threatened program usage report
- NC state rehabilitation report
- NC state education report
- PA state amphibian/reptile education report
- SC DNR state rehabilitation report
- TX state education report
- WA DFW state rehabilitation report

Monthly Report

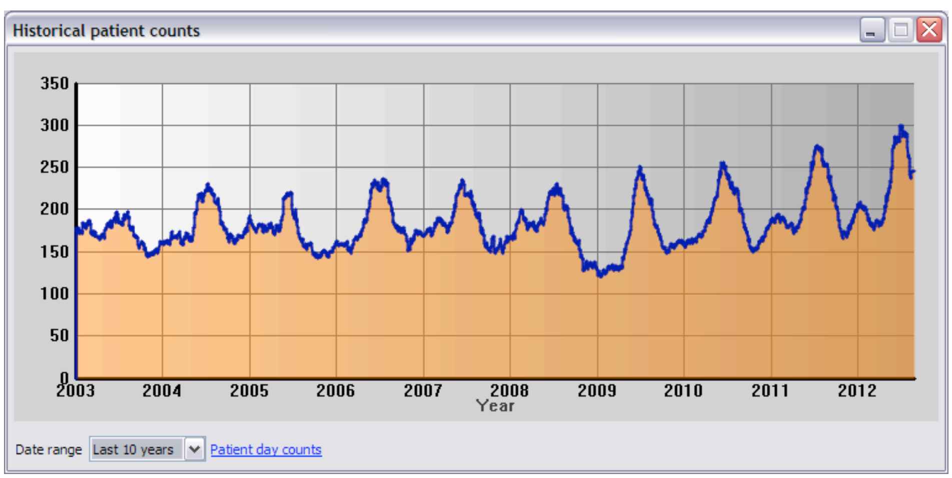


This report displays the number of each species admitted on a monthly basis and it compares/displays the corresponding values from the two previous years. You can select the year and month and you can also choose **All** for the month to see numbers for the entire year.

This report can be printed or saved as an html file.

The Historical Patient Count Report

This report displays a graph of the total patient population (animals in rehab and permanent residents) over time. You can choose the time duration over which to display the data and you can see a tally of the total patient-days per year for the last 5 years by pressing the **Patient day counts** link. This report is very useful when forecasting as it clearly shows monthly and yearly trends regarding your patient population.



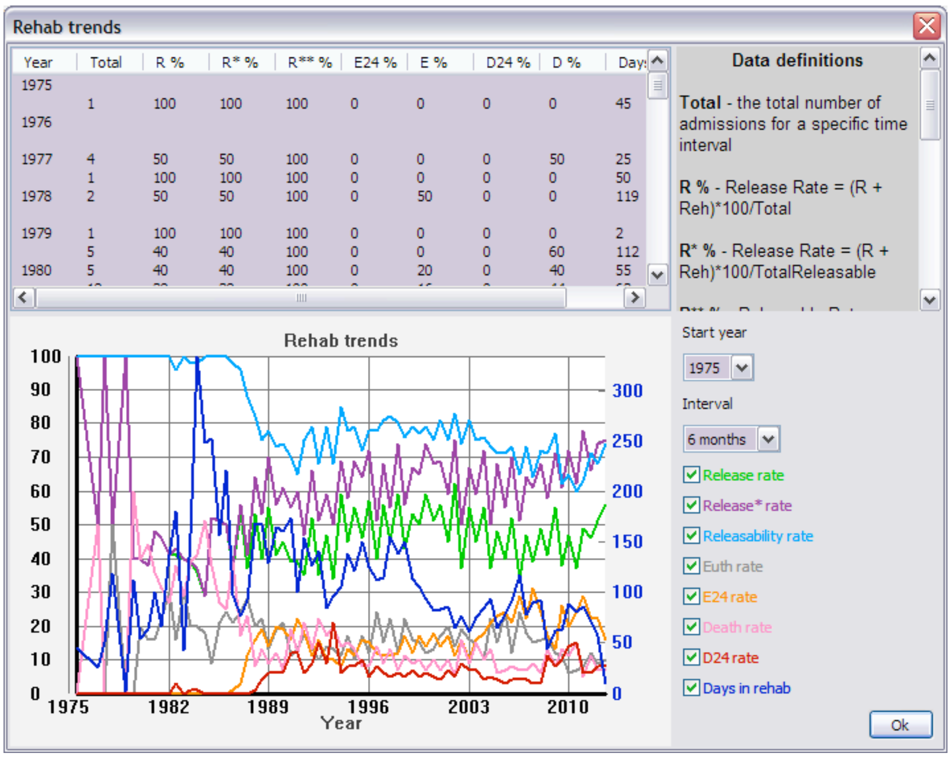
Rehab Trends

This report tabulates and graphs various statistics over time. The following statistics are calculated:

- Release rate (2 different ways)
- Releasability rate
- Euthanasia rate
- E24 rate
- Death rate

• D24 rate
• Days in rehab

The formulas used to calculate the various statistics are displayed in the upper right corner and the actual data is displayed in a table in the upper left. You can choose the **Start year** as well as which statistics to graph. In addition, you can choose an **Interval** of either one month or six months. This **Interval** is used to determine how many data points are calculated to create a graph.

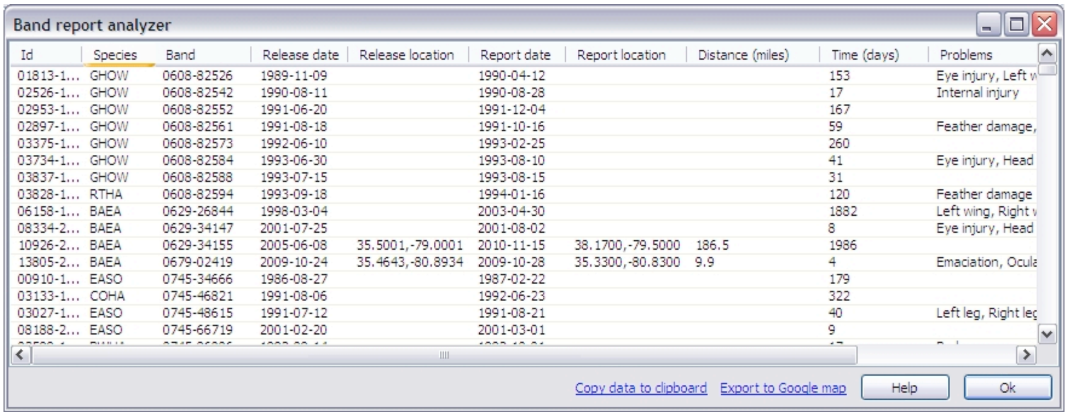


Species disposition report
This report totals the individuals for each species admitted within a specified date range by their current disposition/status.

Program usage report
This report totals all program usage for a specified year. Only animals with **Program animal** checkbox checked are included on this report.

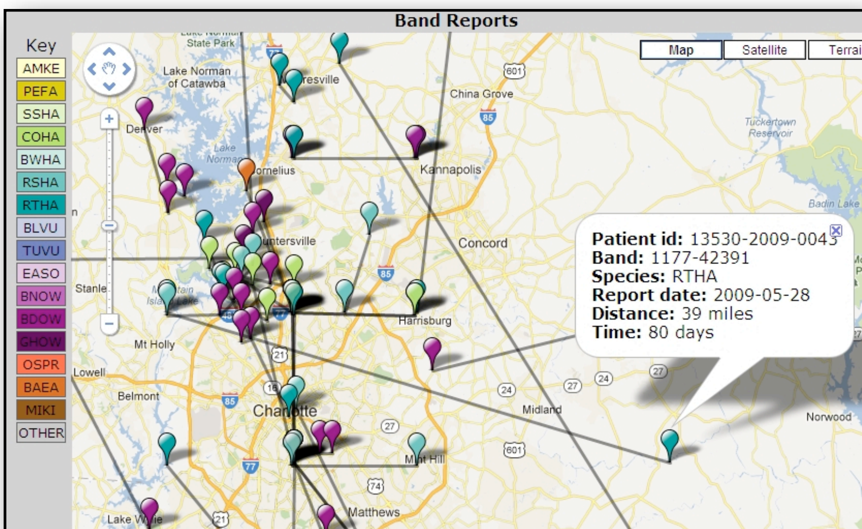
The Band Report Report
This report will produce a spreadsheet that summarizes each band report. It includes information about the patient as well as the time elapsed and distance traveled between the initial release and the subsequent report. You can sort the spreadsheet by clicking

on each column and you can export the data to the clipboard to paste into another program like Excel by clicking the **Copy data to clipboard** link.



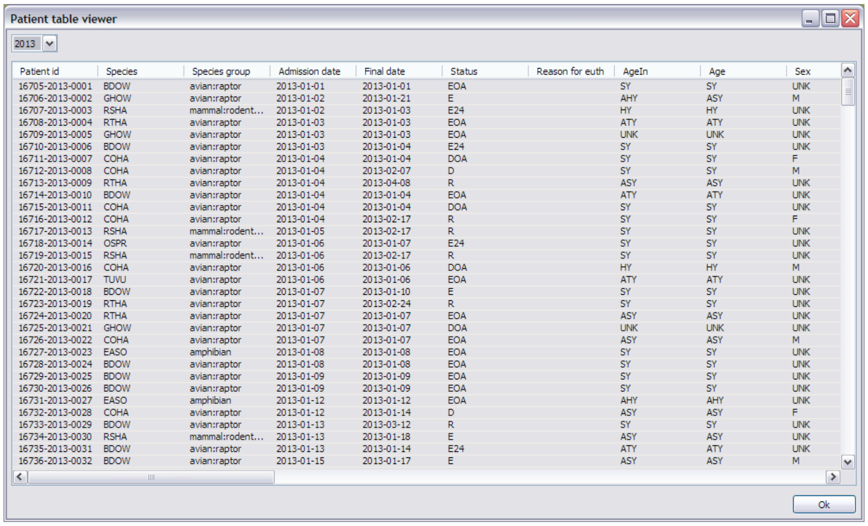
Id	Species	Band	Release date	Release location	Report date	Report location	Distance (miles)	Time (days)	Problems
01813-1...	GHOW	0608-82526	1989-11-09		1990-04-12			153	Eye injury, Left w
02526-1...	GHOW	0608-82542	1990-08-11		1990-08-28			17	Internal injury
02953-1...	GHOW	0608-82552	1991-06-20		1991-12-04			167	
02897-1...	GHOW	0608-82561	1991-08-18		1991-10-16			59	Feather damage,
03375-1...	GHOW	0608-82573	1992-06-10		1993-02-25			260	
03734-1...	GHOW	0608-82584	1993-06-30		1993-08-10			41	Eye injury, Head
03837-1...	GHOW	0608-82588	1993-07-15		1993-08-15			31	
03828-1...	RTHA	0608-82594	1993-09-18		1994-01-16			120	Feather damage
06158-1...	BAEA	0629-26844	1998-03-04		2003-04-30			1882	Left wing, Right w
08334-2...	BAEA	0629-34147	2001-07-25		2001-08-02			8	Eye injury, Head
10926-2...	BAEA	0629-34155	2005-06-08	35.5001,-79.0001	2010-11-15	38.1700,-79.5000	186.5	1986	
13805-2...	BAEA	0679-02419	2009-10-24	35.4643,-80.8934	2009-10-28	35.3300,-80.8300	9.9	4	Emaciation, Ocula
00910-1...	EASO	0745-34666	1986-08-27		1987-02-22			179	
03133-1...	COHA	0745-46821	1991-08-06		1992-06-23			322	
03027-1...	EASO	0745-48615	1991-07-12		1991-08-21			40	Left leg, Right leg
08188-2...	EASO	0745-66719	2001-02-20		2001-03-01			9	

You can also export the reports to a Google Map by pressing the **Export to Google map** link. A new map will open that shows each report connected by a line to the preceding release. You can click on each balloon to get details about each report.



Patient Table Viewer

This report lists all patients in a tabular format. You can select which year to view and then sort the entries by clicking on any column heading.



Patient id	Species	Species group	Admission date	Final date	Status	Reason for euth	AgeIn	Age	Sex
16705-2013-0001	BDOW	avian:raptor	2013-01-01	2013-01-01	EOA		SY	SY	UNK
16706-2013-0002	GHOW	avian:raptor	2013-01-02	2013-01-21	E		AHY	ASY	M
16707-2013-0003	RSHA	mammal:rodent...	2013-01-02	2013-01-03	E24		HY	HY	UNK
16708-2013-0004	RTHA	avian:raptor	2013-01-03	2013-01-03	EOA		ATY	ATY	UNK
16709-2013-0005	GHOW	avian:raptor	2013-01-03	2013-01-03	EOA		UNK	UNK	UNK
16710-2013-0006	BDOW	avian:raptor	2013-01-03	2013-01-04	E24		SY	SY	UNK
16711-2013-0007	COHA	avian:raptor	2013-01-04	2013-01-04	DOA		SY	SY	F
16712-2013-0008	COHA	avian:raptor	2013-01-04	2013-02-07	D		SY	SY	M
16713-2013-0009	RTHA	avian:raptor	2013-01-04	2013-04-08	R		ASY	ASY	UNK
16714-2013-0010	BDOW	avian:raptor	2013-01-04	2013-01-04	EOA		ATY	ATY	UNK
16715-2013-0011	COHA	avian:raptor	2013-01-04	2013-01-04	DOA		SY	SY	UNK
16716-2013-0012	COHA	avian:raptor	2013-01-04	2013-02-17	R		SY	SY	F
16717-2013-0013	RSHA	mammal:rodent...	2013-01-05	2013-02-17	R		SY	SY	UNK
16718-2013-0014	OSPR	avian:raptor	2013-01-06	2013-01-07	E24		SY	SY	UNK
16719-2013-0015	RSHA	mammal:rodent...	2013-01-06	2013-02-17	R		SY	SY	UNK
16720-2013-0016	COHA	avian:raptor	2013-01-06	2013-01-06	DOA		HY	HY	M
16721-2013-0017	TUVU	avian:raptor	2013-01-06	2013-01-06	EOA		ATY	ATY	UNK
16722-2013-0018	BDOW	avian:raptor	2013-01-07	2013-01-10	E		SY	SY	UNK
16723-2013-0019	RTHA	avian:raptor	2013-01-07	2013-02-24	R		SY	SY	UNK
16724-2013-0020	RTHA	avian:raptor	2013-01-07	2013-01-07	EOA		ASY	ASY	UNK
16725-2013-0021	GHOW	avian:raptor	2013-01-07	2013-01-07	DOA		UNK	UNK	UNK
16726-2013-0022	COHA	avian:raptor	2013-01-07	2013-01-07	EOA		ASY	ASY	M
16727-2013-0023	EASO	amphibian	2013-01-08	2013-01-08	EOA		SY	SY	UNK
16728-2013-0024	BDOW	avian:raptor	2013-01-08	2013-01-08	EOA		SY	SY	UNK
16729-2013-0025	BDOW	avian:raptor	2013-01-09	2013-01-09	EOA		SY	SY	UNK
16730-2013-0026	BDOW	avian:raptor	2013-01-09	2013-01-09	EOA		SY	SY	UNK
16731-2013-0027	EASO	amphibian	2013-01-12	2013-01-12	EOA		AHY	AHY	UNK
16732-2013-0028	COHA	avian:raptor	2013-01-12	2013-01-14	D		ASY	ASY	F
16733-2013-0029	BDOW	avian:raptor	2013-01-13	2013-03-12	R		SY	SY	UNK
16734-2013-0030	RSHA	mammal:rodent...	2013-01-13	2013-01-18	E		ASY	ASY	UNK
16735-2013-0031	BDOW	avian:raptor	2013-01-13	2013-01-14	E24		ATY	ATY	UNK
16736-2013-0032	BDOW	avian:raptor	2013-01-15	2013-01-17	E		ASY	ASY	M

Sample Viewer
This report lists samples that have been collected. Click [here] for more information on samples. You can display samples whose results are still **Pending** or all samples by making a choice from the **Which** list. You can also enter a specific **Patient id** to view samples for just that patient. Double-click on any entry to open the patient's complete chart. Note: sample test results are considered **Pending** if the test results field is blank.

Client-owned animal report
This report shows important information for all your client-owned animals. You can view all new admissions between a date range or you can view all "active" patients.

Miscellaneous reports

Patients not fed or treated today
This report lists all patients (in rehab or permanent resident) that have not had an entry made in their chart today. It is a good idea to run this report at the end of each day to catch any patients that may have been accidentally forgotten.

Patients not fed or treated yesterday
This report lists all patients (in rehab or permanent resident) that did not have an entry made in their chart yesterday.

View last record entries
This report lists the last entry made **today** for each patient. You can select either **Rehab** or **Permanent resident** and either **Diurnal** or **Nocturnal**. This report is

useful as an end-of-day check to make sure each patient has received the proper treatment or food.

Patients that need live prey test
This report lists all patients in rehab that have their **Needs live prey test** checkbox checked. Click here for more information.

Ophtho consult waiting list
This report lists all patients (in rehab or permanent resident) that have their **Needs ophtho consult** checkbox checked. Click here for more information.

Falconer evaluation waiting list
This report lists all patients in rehab that have their **Needs falconer eval** checkbox checked. Click here for more information.

Patients that need placement
This report lists all patients in rehab that have their **NR** checkbox checked and their **Has placement** checkbox **not** checked. Click here for more information.

Missing release locations
This report lists all patients that have been released but for which an actual latitude and longitude have not been recorded in their **Release** record. Click here for more information. This report is helpful for birds that have been released with a federal band because the release location must be recorded and submitted with your banding reports.

Imp report
This report lists all patients (in rehab or permanent resident) that have their **Needs imp** checkbox checked. Click here for more information.

Cope report
This report lists all patients (in rehab or permanent resident) that have their **Needs cope** checkbox checked. Click here for more information.

Cold-intolerant patients
This report lists all patients (in rehab or permanent resident) that have their **Cold intolerant** checkbox checked. Click here for more information.

Orphans ready for transfer
This report lists all patients in rehab that have their **Neonate/orphan** checkbox checked and their **Release approved** checkbox checked and they have an expected release date set. Click here for more information on the checkboxes and here for information on setting the **Expected Release Date**. Basically, this

lists all orphans that are ready to transfer to another facility to finish the rehab process.

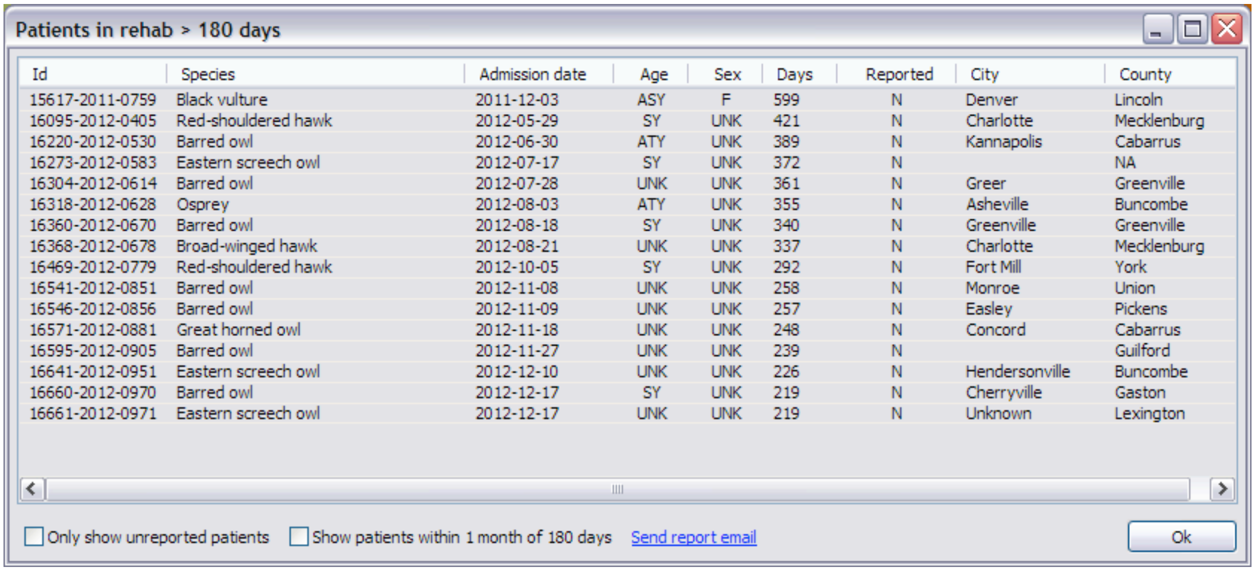
Waiting for consult
This report lists all patients (in rehab or permanent resident) that have a specialist consult scheduled in their individual treatment plan. Click here for more information.

Patients in hospital
This report lists all patients (in rehab or permanent resident) that were in the clinic on a specific date. You will be prompted for a specific date before the report runs.

Patients > 90 days and patients > 180 days
These report lists all patients that have been in rehab over 90 or 180 days. You can sort the report by clicking on each column. You can have the report show all patients that are within one month of the number of days (90 or 180) by selecting the **Show patients within 1 month...** checkbox. This allows you to request a rehab extension ahead of time.

To automatically create an email listing details of all patients currently displayed, press the **Send report email** link. This will create an email that you can edit if needed and send to the appropriate authorities. Each patient reported in the email will automatically be marked as "**reported**" by the addition of a special "already reported" patient attribute.

In addition, you can choose to see only those patients that have not been reported yet by checking the **Only show unreported patients** checkbox.



Patients in rehab > 180 days

Id	Species	Admission date	Age	Sex	Days	Reported	City	County
15617-2011-0759	Black vulture	2011-12-03	ASY	F	599	N	Denver	Lincoln
16095-2012-0405	Red-shouldered hawk	2012-05-29	SY	UNK	421	N	Charlotte	Mecklenburg
16220-2012-0530	Barred owl	2012-06-30	ATY	UNK	389	N	Kannapolis	Cabarrus
16273-2012-0583	Eastern screech owl	2012-07-17	SY	UNK	372	N		NA
16304-2012-0614	Barred owl	2012-07-28	UNK	UNK	361	N	Greer	Greenville
16318-2012-0628	Osprey	2012-08-03	ATY	UNK	355	N	Asheville	Buncombe
16360-2012-0670	Barred owl	2012-08-18	SY	UNK	340	N	Greenville	Greenville
16368-2012-0678	Broad-winged hawk	2012-08-21	UNK	UNK	337	N	Charlotte	Mecklenburg
16469-2012-0779	Red-shouldered hawk	2012-10-05	SY	UNK	292	N	Fort Mill	York
16541-2012-0851	Barred owl	2012-11-08	UNK	UNK	258	N	Monroe	Union
16546-2012-0856	Barred owl	2012-11-09	UNK	UNK	257	N	Easley	Pickens
16571-2012-0881	Great horned owl	2012-11-18	UNK	UNK	248	N	Concord	Cabarrus
16595-2012-0905	Barred owl	2012-11-27	UNK	UNK	239	N		Guilford
16641-2012-0951	Eastern screech owl	2012-12-10	UNK	UNK	226	N	Hendersonville	Buncombe
16660-2012-0970	Barred owl	2012-12-17	SY	UNK	219	N	Cherryville	Gaston
16661-2012-0971	Eastern screech owl	2012-12-17	UNK	UNK	219	N	Unknown	Lexington

Only show unreported patients   Show patients within 1 month of 180 days   Send report email   Ok

Admissions
This report displays the number of admissions with a user-specified date range. The report is broken down by species and both the common and scientific name are displayed.

Endangered species
This report displays all endangered species that were admitted within a specific year. Only animals with a status of **Endangered** specified in the Species Editor will be included.

No leftovers
This report displays all animals that have not had leftovers for the last X days where X is a configurable number. This report requires that the **Leftovers** field in the Medical Entry form be used and it is useful in finding animals that may need to have their diet increased.

Volunteer training
If enabled, his report displays the volunteer training records for volunteers. See the Address Book for more information.

Client-specific reports
This area in the **Reports** menu contains reports that were specifically designed and implemented for a specific client and/or state Some may or may not be available in your installation.

Census reports

- Annual census report
- Aquarist habitat census report
- Exhibit census report
- Habitat census report
- Habitat census report with id tag/band information

Chemotherapeutic exposure report
HMS interim report - Highly migratory species monthly report
HMS annual report - Highly migratory species annual report
Create float plan
Create scientific collection notification
Create transfer agreement
Email active patient list
Print curator summary
Collection site report - This report will lookup where specific species where collected. This uses the Collection site name as a key. If exact lat/lon coordinates where also saved, then the collections can be plotted on a Google map.

North Carolina permit reports

- Sea turtle census report
- Reptile/amphibian possession report
- Reptile possession report
- Amphibian possession report
- Freshwater collection report
- Collection report
- Endangered species report
- SECP report **-** The North Carolina Scientific or Educational Collection Reporting Form report includes all collections of salt-water species for a given year**.**

California permit reports

- Department of Fish and Wildlife Rehabilitation report

Outstanding disposition letters report
This report will list all animals that were admitted and had an answer of **YES** for the **fourth** admission question. This question typically asks if the finder would like to be notified about this animal's progress. This list will display information about the animal including its current status and the number of days since admission. You can select any or all of the animals in the list, then press the **Send email** button. An email will be automatically formatted and addressed. You can review, edit and send each one as desired. Note: the animal must have an email address for the finder or person of concern listed in its medical record for an email to be

generated. If no email is found, an error message will be displayed. Once the email is sent, the **Disposition letter sent** checkbox is checked in the animal's chart. This checkbox makes sure that it will not show up in this report the next time you run it.

You can also press the **Mark as sent** button. This will simply check the **Disposition letter sent** checkbox in the animal's chart without actually sending the email. This is useful, if the person in question has already been update via some other means.

OWCN report
This report is used to bill the OWCN network for costs incurred when treating oiled birds. The user is prompted for a date range. All animals within that range will be included if they showed visible signs of oiling on their intake examination. The intake examination will normally result in the following text entered into the medical record:

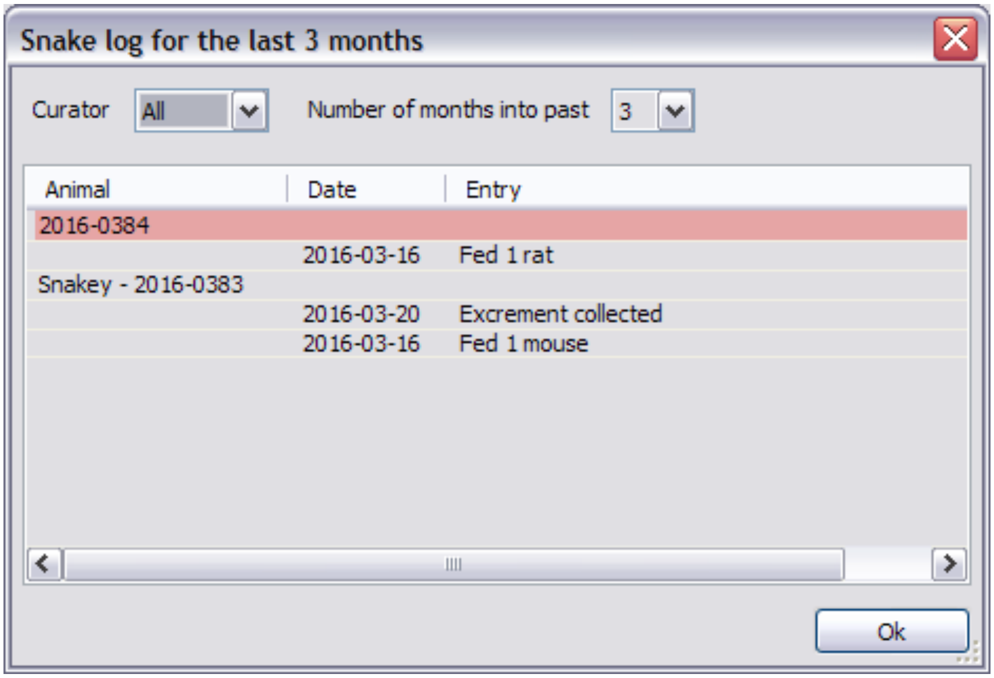
```
------------- PHYSICAL EXAM FINDINGS ----------------
Oiling signs : Visible
% oiled : 2-25 %
```

This report will include all animals that have **`Visible`** recorded for **Oiling signs**. The notification date column is filled with the value stored in the animals **OWCN notification date** attribute. The **Daily cost** (in water less than 75%) is based on the species **Cost category**. The **Daily cost** (in water greater than 75%) is 50% of the dry cost.

Snake log
The snake log report list all resident animal snakes. It searches the medical record for keywords and the goal is to highlight those snakes that have been fed but have not produced feces. You can filter your search by animal's name and/or look at a specified number of months into the past. The report will list the animals id number and name as well as each relevant entry. The entries that it looks for are of the following format:

```
SNAKE LOG: Fed ...
SNAKE LOG: Excrement ...
```

Animals will be highlighted that have a **Fed** entry but do not have an **Excrement** entry afterwards. You can double-click on an animal's id to open it's chart.

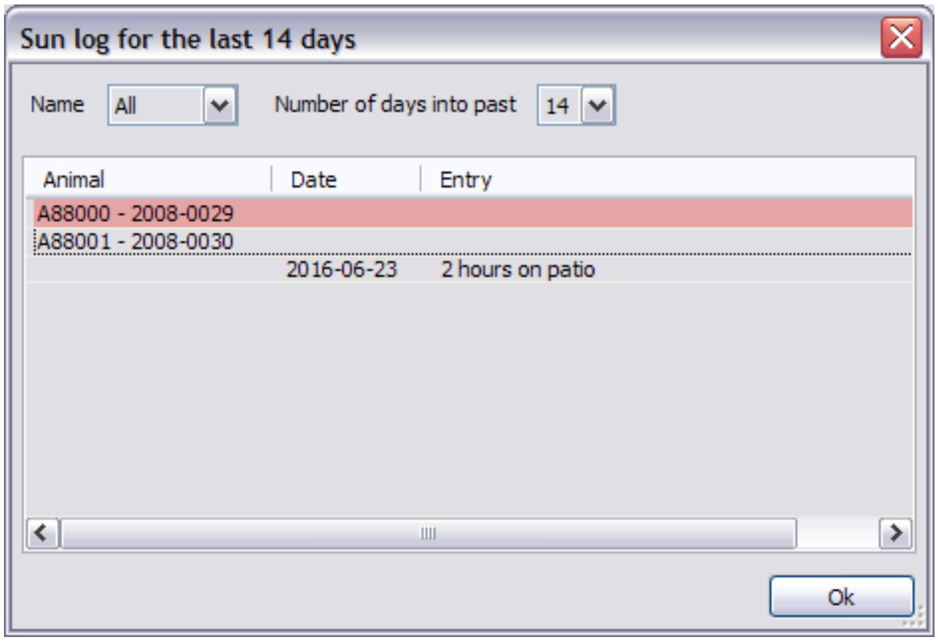


Sun log

The sun log report list all resident animal that have been specified as needing regular sun exposure. To include an animal on this list, it must have an **`Include in sun log`** attribute set. See **Attributes** for more details. For each animal on the list, this report searches the medical record for certain keywords and it highlights the animals that have not had sun exposure in the last X days. You can filter your search by animal's name and/or look back a certain number of days into the past. The report will list the animals id number and name as well as each relevant entry. The entries that it looks for are of the following format:

```
SUN LOG: 2 hours on the patio
...
```

Animals will be highlighted if a `SUN LOG` entry was **not** found in the specified number of days. You can double-click on an animal's id to open it's chart.



Illinois endangered/threatened species permit report.
This report is used to transfer or dispose of a deceased endangered or threatened species. It will prompt you for a transfer or disposal. If transferring, you will be prompted to choose a destination contact from the Address Book. If disposing of a body, it will prompt you for a short explanation.

PAWS vet procedures report
Texas education permit report

Chapter 5

Group operations

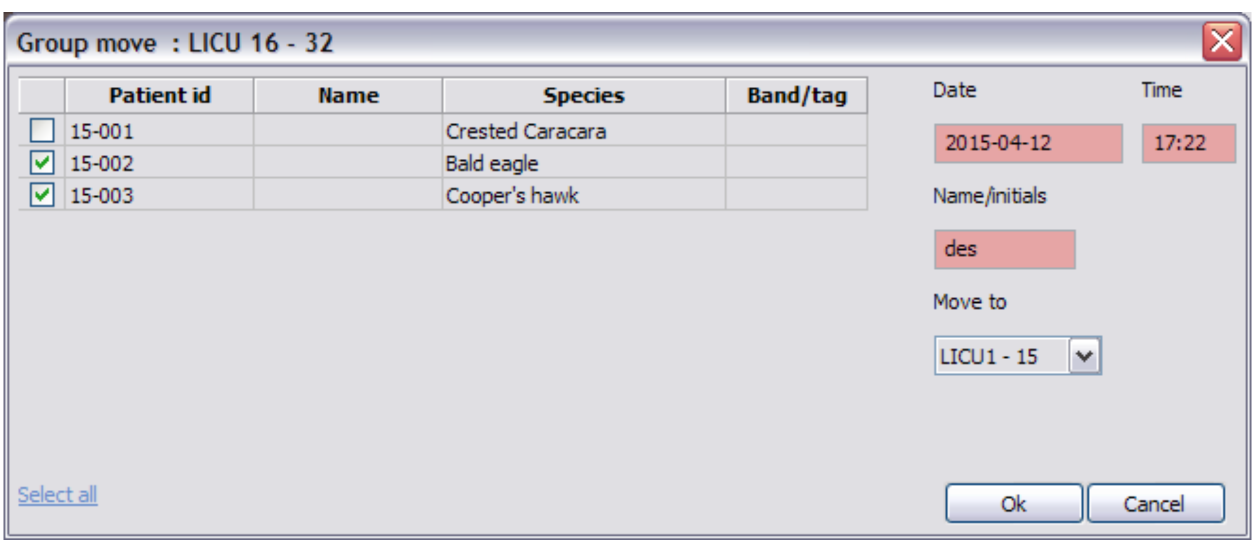
The group operations allow you to perform various functions on a whole group of patients at the same time. They are accessed by choosing **Tools ▶ Group operations** from the main menu or by right-clicking on a specific location in the **Enclosure list** on the main screen and choosing **Group Operations** from the popup menu. A form will appear that allows you to enter and select the **id numbers** of the patients you want to work with.

If you access the group operation functions by right-clicking on an enclosure, then the list of patients will be automatically filled with all the patients in that enclosure. If you access the group operations from the main menu, then you can enter specific id's for the animals you want to work with. In either case, check the boxes in the first column for the rows of the animals that you want to modify. Press the **Select all** link to automatically select all animals in the list. There are fields to enter the date and time for the operation. They default to today and now but you can back date them to record something that happened in the past.

Groups of animals can be moved, released, transferred or added. In addition, you can change the various properties of multiple animals in a group. You can also add enrichment and training records, program usage logs, problems, photographs and fecal exam results for groups of animals. Finally, you can also make a random entry for all or some animals in a group.

Move

After making your selection in the patient list and entering your initials, choose the new location to move the patients to and press the **Ok** button.



Release
After making your selection in the patient list and entering your initials, press the **Ok** button. The **Release** form will be displayed. Fill it out accordingly and press the **Ok** button. Note that this form is simplified and does not include the band/tag fields since you cannot specify a band or tag for multiple animals at once.

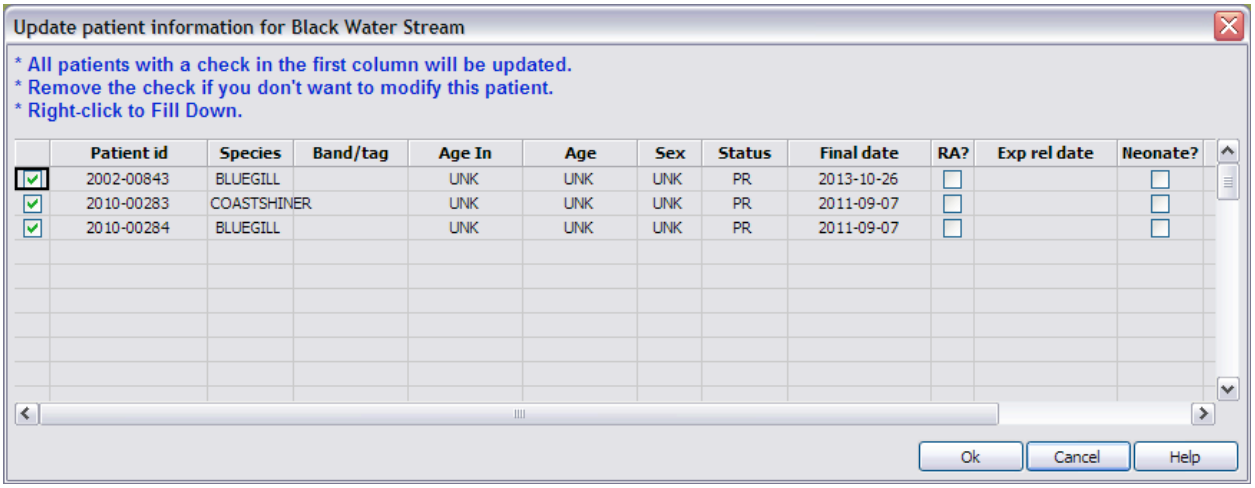
Transfer
After making your selection in the patient list and entering your initials, press the **Ok** button. The standard **Transfer** form will be displayed. Fill it out accordingly and press the **Ok** button.

Set patient info
This function allows you to simultaneously set/modify several different properties for multiple animals in a specific location. The following properties can be set:
- Band/tag
- AgeIn - choose from the list that will appear when you click in cell
- Age - choose from the list that will appear when you click in cell
- Sex - choose from the list that will appear when you click in cell
- Status - choose from the list that will appear when you click in cell
- Final date - enter in yyyy-mm-dd format. Note that this field must be filled in with a valid date if you choose a **Status** that requires a **Final date**.
- Release approved - check the box for if applicaable
- Expected release date - enter in yyyy-mm-dd format
- Neonate - check the box for if applicable
- Keywords - anything entered here will be **appended** to the patient's current list of keywords.

Note: in order to modify a patient, you must place check the box in the first column. To leave a patient unchanged, clear the check box. Also note that the **Patient id** and **Species** columns are for informational purposes only. They cannot be modified here.

You can **right-click** on a cell and choose **Fill down** to copy the cell's value to all cells below it.

After making your selection in the patient list, press the **Ok** button.



Add

The **Group Add** function is slightly different than the other group operations since a list of animals is not presented. In this case, you must specify how many animals you want to add and where they are going to be located. You can also specify a band/tag number if each animal is to be identified the same way.

There are the following check boxes:

- **Neonate/orphans** - if this is checked, then Neonate/orphan checkbox in the animal's chart will be automatically checked and the specified values for the age, cause of injury and initial problems will be automatically set for you.
- **Oiled -** if this is checked, then **Oiled** will be added as a problem.
- **Group as one** - if this is checked, then a single **GROUP** animal will be added. See Update Census command for more information.

Once you do this, the normal **Add patient** form is presented. After filling out that form, the specified number of new patients will be created with sequential **id numbers** and they will automatically be placed in the specified location. Any number of animals can be added but you will be prompted to confirm the operation if you enter a number larger than 10.

Note that you still have to setup a treatment plan for these new patients.

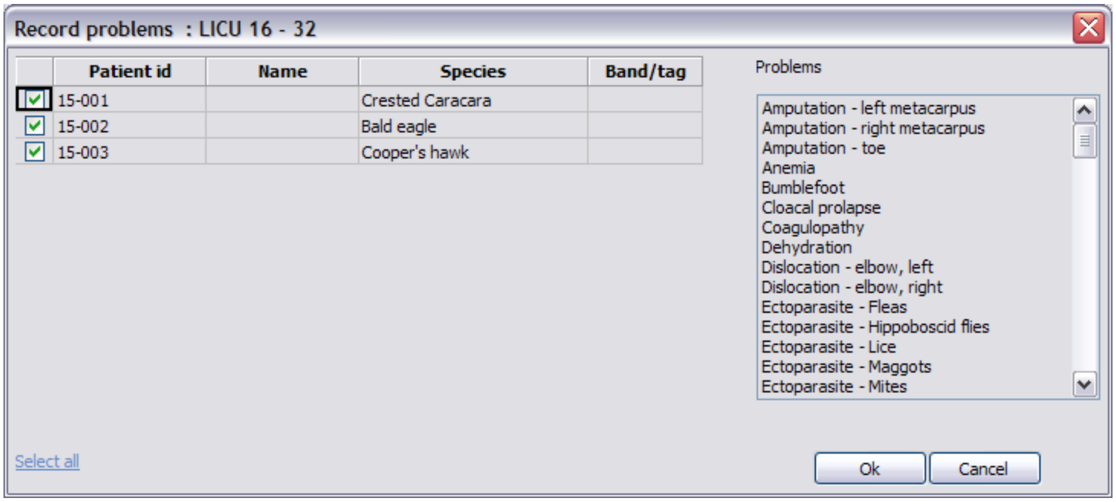
Enrichment
After making your selection in the patient list and entering your initials, press the **Ok** button. The standard **Enrichment** form will be displayed. Fill it out accordingly and press the **Ok** button.

Training
After making your selection in the patient list and entering your initials, press the **Ok** button. The standard Training form will be displayed. Fill it out accordingly and press the **Ok** button.

Program log usage
Only animals with the **Program animal** checkbox checked will be listed. If you choose this function from the main menu, then all program animals will be listed. After making your selection in the patient list and entering your initials, press the **Ok** button. The standard **Program Log** form will be displayed. Fill it out accordingly and press the **Ok** button.

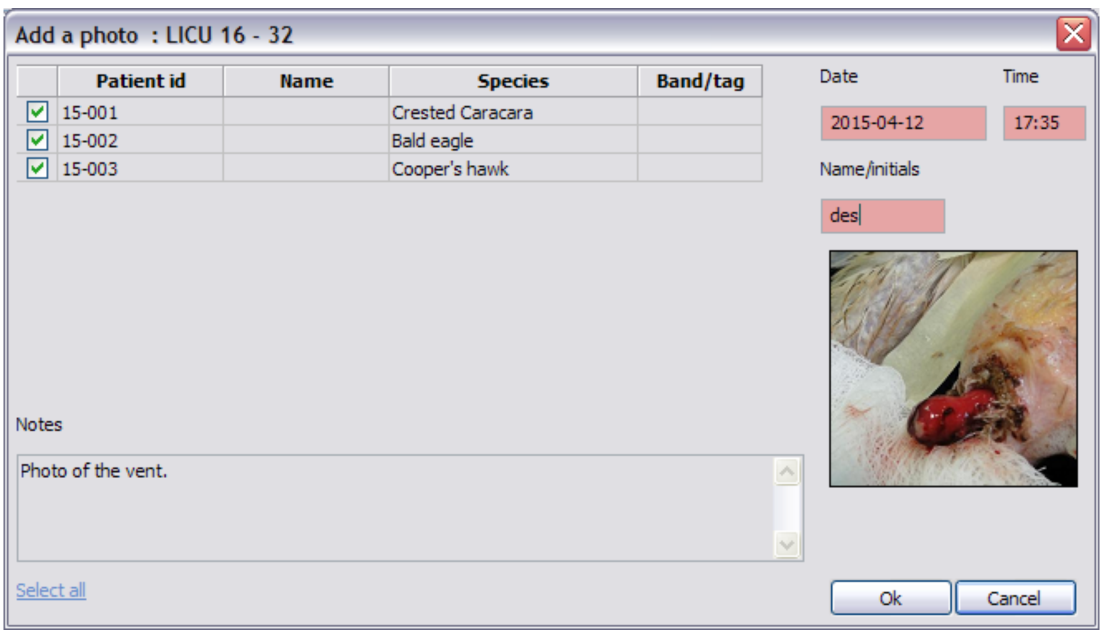
When you are recording a program log for more than one animal, you will be prompted as to whether you want to split the number of people present at the program between all the animals evenly or use the entire number for the log entry for each animal. For example, if 4 animals went to program with 100 people, you have the option of recording 100 people in each animal's log entry or just 25. It really depends on how you do your record keeping and how your reports need to reflect the number of people present.

Problems
Making your selection in the patient list. Select one or more problems from the problem list and the press the **Ok** button.



Photograph

Make your selection in the patient list. Then drag and drop an image/photograph onto the image viewer area. A popup will allow you to crop and resize the image. You can make a notation and the press the **Ok** button.

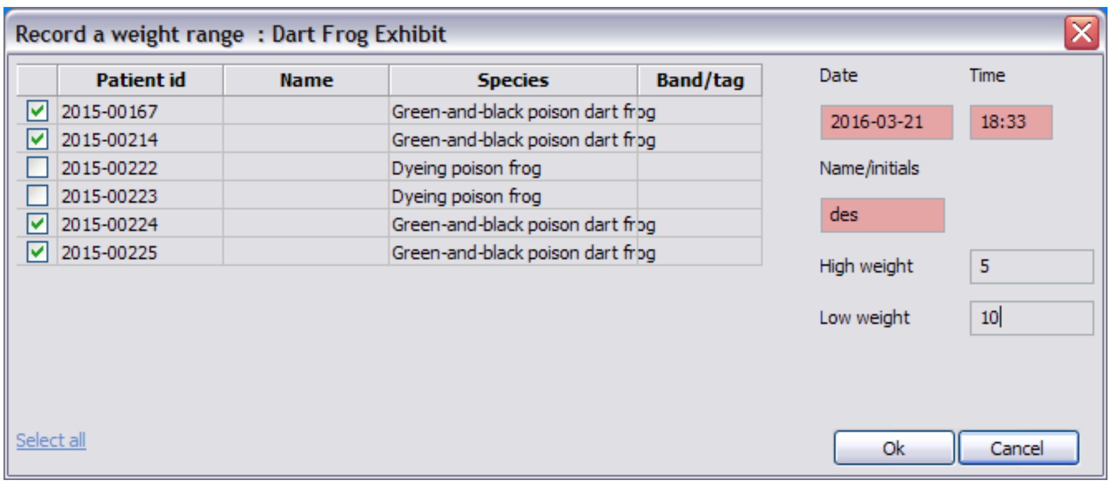


Fecal

After making your selection in the patient list and entering your initials, press the **Ok** button. The standard Fecal form will be displayed. Fill it out accordingly and press the **Ok** button.

Weight range
Often individuals in groups of animals cannot be uniquely identified. In this case, the lowest and highest weight in the group can be recorded and graphed. This allows you to spot trends without actually knowing individual weights.

After making your selection in the animal list and entering your initials, enter a high and a low weight entry. Press the **Ok** button. This will make a weight range entry in the chart for each of the selected animals. The group weight range data can then be view in the Historical Data Viewer.



Automated paperwork

RaptorMed can automate much of the routine paperwork that is required by the US FWS. To access these functions, right click on the patient in the **Patient List** on the main window and choose **Paperwork**. The following functions are automated:

- Send **Special Species Admitted** email - The USFWS must be notified when any of the species of interest (such as eagles) are admitted into a rehabilitation facility. This function automates the process. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to your USFWS representative and is based on a template that you can edit to suit your needs. You can edit the message if needed and press the **Send** button to send the message. These messages are only sent for animals in a rehabilitation setting, not for animals that are permanent residents in a collection. In addition, these messages are only sent for species that are marked as a species of concern either at the state or federal level. See the Species editor for more information. When a special species is admitted as a rehabilitation patient, a daily repeating reminder is created in order to remind you to report this admission.

- Send **Illegal Cause of Injury** email - The USFWS must be notified when a patient is admitted as a result of illegal activity such as gunshot. This function automates the process. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to your US FWS representative and is based on a template that you can edit to suit your needs. You can edit the message if needed and press the **Send** button to send the message. The list of causes of injury that should be considered illegal can be configured as needed. These messages are only sent for animals in a rehabilitation setting, not for animals that are residents in a permanent collection. When an animal with an illegal cause of injury is admitted as a rehabilitation patient, an daily repeating reminder is created in order to remind you to report this admission.

- Send **Status** email - This function allows you to quickly send a patient status update email. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to the address specified in the patient's finder information. If no address was specified, then you can manually enter an address. You can edit the message if needed and press the **Send** button to send the message.

- **Send other emails** produces a form that allows the user to choose which of many pre-formatted emails. Choose from the **Function** list. The **To**, **Subject** and message body fields will be filled in. Edit as needed and press the **Send** button to send the message.

- Create **Transfer Request** - An official USFWS **Transfer Request worksheet** must usually be submitted before a non-releasable animal can be transferred. This function creates a worksheet for you based on a pre-installed template. You will be prompted for a folder where the new worksheet will be saved. Once it is saved, you can double-click on it to open and edit it before submitting it to your USFWS agent.

- Write **Non-Releasability Letter** - A letter of non-releasability from a veterinarian is often required before a non-releasable animal can be transferred. This letter is typically addressed to the recipient from the veterinarian representing the organization transferring the animal. This function creates a new letter for you based on a pre-installed template with the patient's information plugged into it. You will be prompted to choose an recipient from the **Address Book**. You can choose an existing entry from the **Address Book**. If the recipient is not in the **Address Book**, then press the **Cancel** button and the recipient area in the letter will be left blank for you to manually edit. You will then be prompted for a folder where the new letter will be saved. Once it is saved, you can double-click on it to open and edit it before sending it to the recipient.

- **Report Band** - This function simply opens a web browser to the USGS Bird Banding Lab Band Report web page.

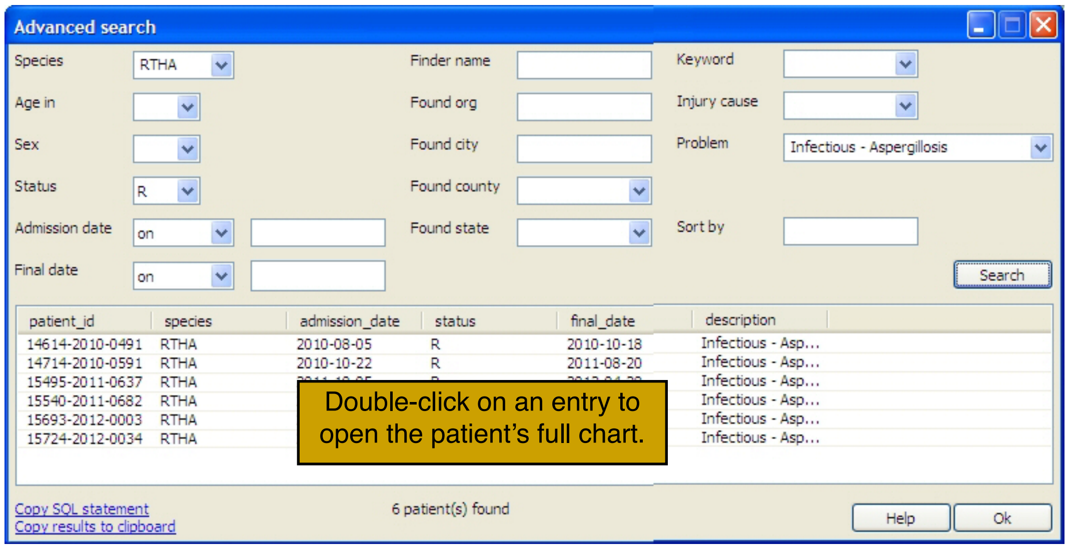
- **Print admission receipt** - This function will print a receipt for the person delivering the animal. It has details about the animal as well as any donation that may have been given.

- **Link to previous patient** - This function is used to record a band report (when a new patient is admitted that was previously released with a band or tag). After the new patient is entered and it's found location has been recorded (ideally including the exact latitude and longitude), choose this command. The database will be searched for a previous patient with the same band or tag. If one is found, the following will occur:
  - A band report record will be created based on the found location of the new patient and it will be attached to the previous patient.
  - The previous patient will be marked as a BAND_RETURN.
  - A notation will be added to the new patient indicating the id number of the previous patient.

These functions should have been configured and tested when the system was installed. Please contact customer support if you encounter any problems.

Searches and queries

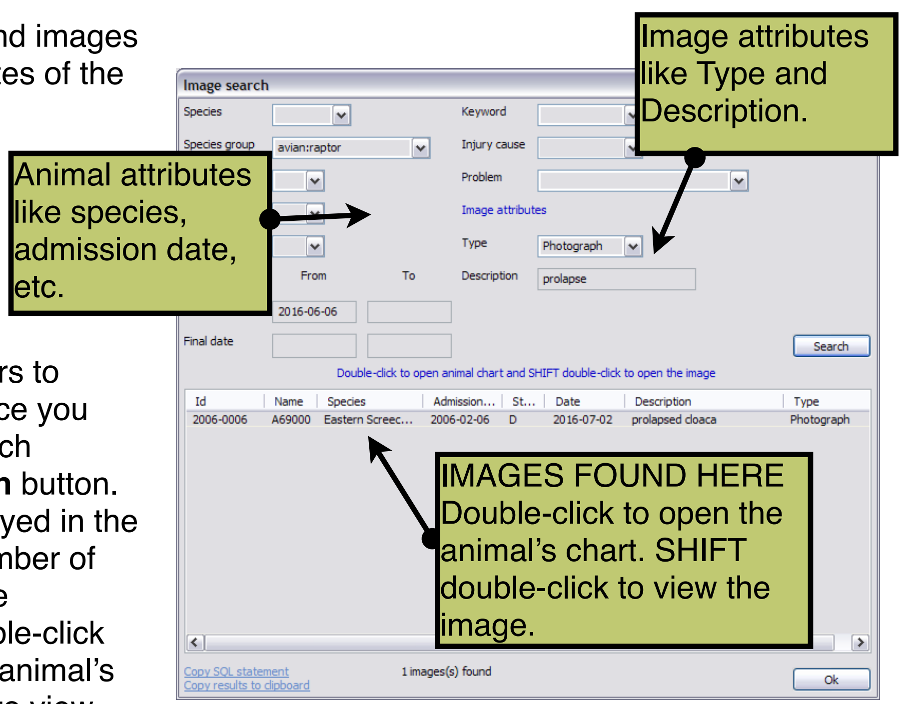
Advanced Search Tool
This tool allows you to search for and find past patients based on a whole range of parameters. It is accessed by choosing **Tools ▶ Advanced search tool** from the main menu. You can specify many different parameters to narrow your search. Once you have specified your search criteria, press the **Search** button. The results will be displayed in the spreadsheet and the number of patients found will also be displayed.



The following fields do **NOT** have to be an exact match: **Finder name**, **Organization**, **Keyword,** and **Problem.** The results will be sorted by **Patient id** unless you specify a different column name in the **Sort by** field. You can copy the results to the clipboard to use in another program by clicking the **Copy results to clipboard** link.

Image Search Tool

This tool allows you to find images based on various attributes of the animal as well as the type of image and the image description. It is accessed by choosing **Tools ▶ Image search** from the main menu. You can specify many different parameters to narrow your search. Once you have specified your search criteria, press the **Search** button. The results will be displayed in the spreadsheet and the number of images found will also be displayed. You can double-click on any entry to view the animal's chart or **SHIFT** left-click to view the actual image.



You can copy the results to the clipboard to use in another program by clicking the **Copy results to clipboard** link.

Band lookup

This tool is accessed by choosing **Tools ▶ Lookup band/tag** from the main menu. It allows you to find an animal based on the information in it's band/tag field.

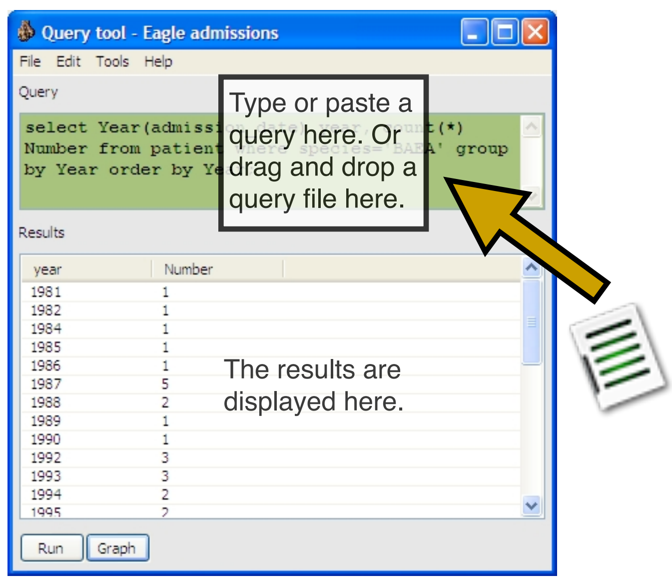
Lookup by legacy id or group number

This tool is accessed by choosing **Tools ▶ Lookup by legacy id or group** from the main menu. It allows you to find an animal based on the id number that it had in the original database prior to being imported into **RaptorMed**. This information is stored as a patient attribute but the actual name of the attribute depends on the customer and the previous database.

The Query Tool

The query tool is a very powerful utility that allows you to pose very complex queries to the database. It allows you to mine your data in ways never before possible and it can create beautiful graphs with just a few mouse clicks. This tool is accessed by choosing **Tools ▶ Query tool** from the main menu. Here are some example queries:

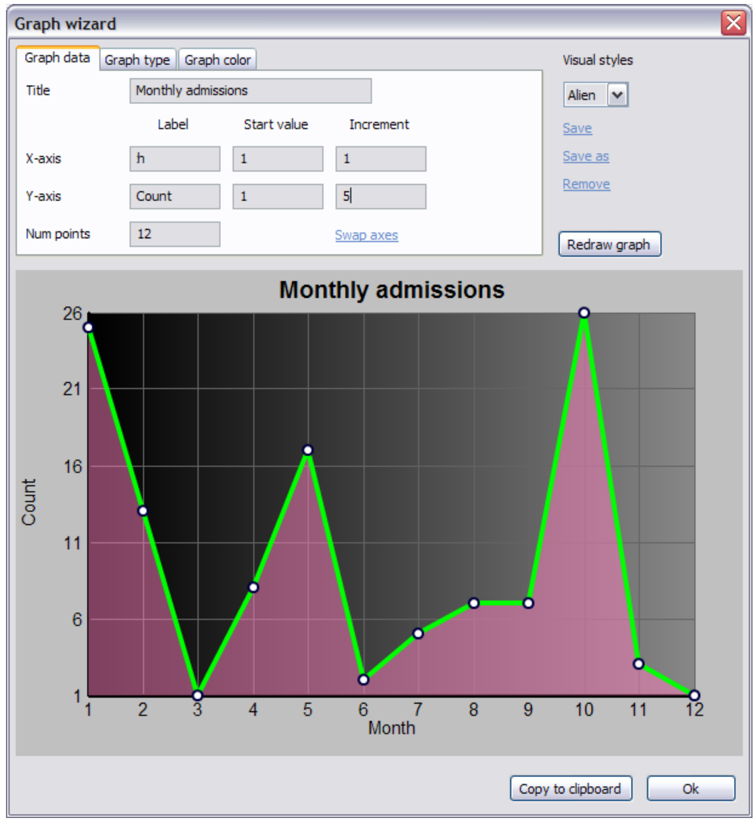
- Show me all red-tailed hawks that were admitted in 2010 from Gaston county, NC with an ulna fracture.
- What are the admission trends in bald eagles since 1980?
- What was the outcome of all patients treated with experimental drug X?
- How has our surgical time for humerus fracture repairs improved over time?



Queries of this type require in-depth knowledge of the internal database structure. Because of this, you will likely need assistance from customer support. So, send us a question you would like answered and we will create a custom query. This is simple file that you can drag and drop onto this form.

You can also type or paste the query text into the edit field at the top of the form. After you press the **Run** button, your results will display in the **Results** spreadsheet at the bottom. You results can be copied to the clipboard and then pasted in Excel or any other Windows application. To copy the results to the clipboard, **Edit ▶ Copy results to clipboard** from the menu.

Queries can also be saved for later recall. Under the **File** menu, there are choices to **Open**, **Save**, and **Save as**. You can also **Delete** or **Rename** the currently loaded query by using the corresponding commands under the **Edit** menu.



Your data can be graphed using the **Graph Wizard**. Once you have run your query and have your results listed in the **Results** spreadsheet, press the **Graph** button and the **Graph Wizard** will appear. The wizard has three tabs that allow you to modify the appearance of the chart.

Tab 1 allows you to specify:

- The title
- The text labels for each axis
- The starting value and increment value for each axis. The increment value determines how far apart the horizontal and vertical lines are spread.
- The number of points to include in your graph. If you dataset has 50 points, you can choose to graph just the first 25, for example.

Tab 2 allows you to change:

- the graph type (line, bar, scatter, pie)
- The line and bar thickness for line and bar graphs, respectively.
- The symbol shape (square, x, circle, cross or no symbol) and size for line and scatter graphs.
- You can also specify whether to fill the area under the curve for line graphs.

Tab 3 allows you to specify the various colors. Double-clicking on each square in the color palette. If you hover your mouse over each square, a tool tip will appear that tells you what the color is for.

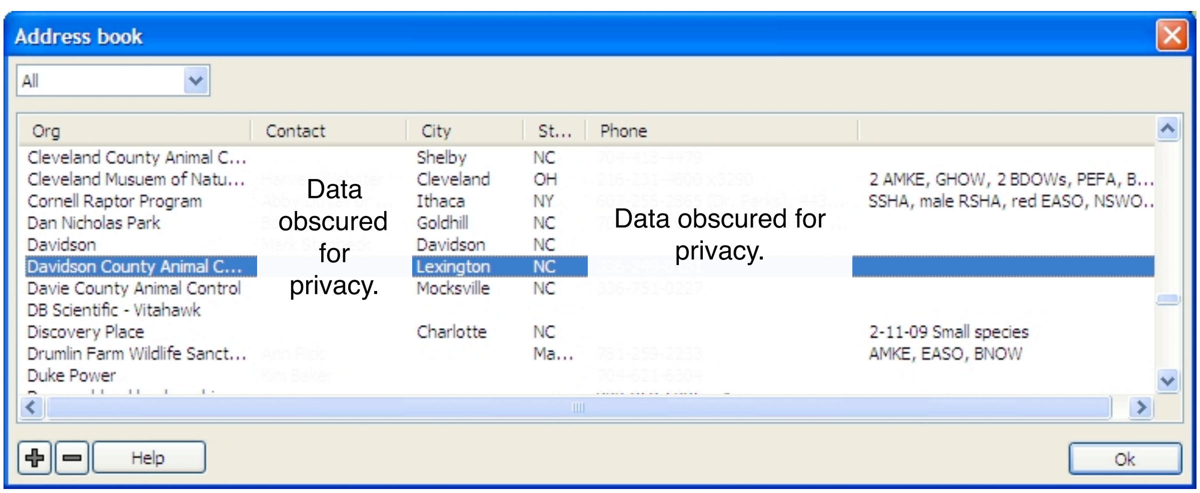
After making your selections and changes to colors, etc, press the **Redraw graph** button to see what your chart looks like. Once you are happy with its appearance, press the **Copy to clipboard** button to save the chart to the Windows clipboard. You can then paste it into another document like Word or Powerpoint.

> Note: in order to use the **Graph Wizard**, the query must be formulated such that the values for the X axis are in the first column and the values for the Y axis are in the second column. If you data is not presented in the correct order, you can modify the query to fix it or press **Swap axes** on the first tab.

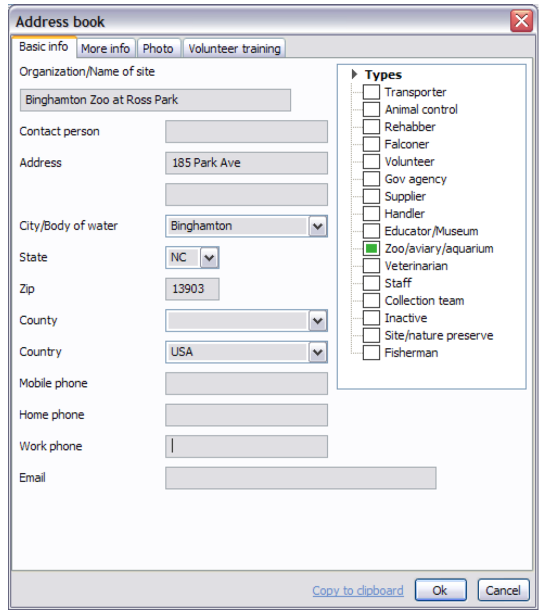
If you have color scheme that you like you can save and recall it for later use. You can select a color scheme by choosing it in the color scheme list. If you make changes, you can save them by pressing the **Save** link or save them into a new color scheme by pressing the **Save as** link. You can remove the currently selected color scheme by pressing the **Remove** link.

The Address Book

The address book allows you to store contact information for all sorts of things like people, places, suppliers, etc. To access the **Address Book**, choose **Edit ▶ Address Book** from the main menu.



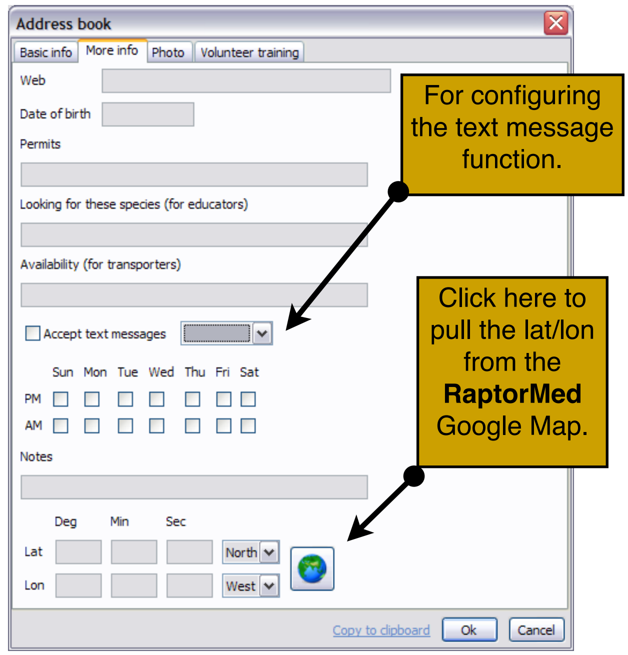
The **Address Book** viewer lists each contact. You can sort by any of the columns and you can filter the list to show only certain types of contacts by choosing from the **Type** list at the top. You can add a new contact by pressing the **+** button or remove the selected one by pressing the **-** button. You can edit the selected contact by double-clicking on it.



The contact editor has 4 tabs.

- **Tab 1 - Basic info** - This tab has fields for:
  - Contact information including multiple phone numbers.
  - Check boxes to choose which type of contact this is. The following contact types are possible. Note that more than one type can be selected, so a contact/entry could be a rehabber **and** a transporter, for example.
    - **Transporter** - For people that can assist with rescuing and transporting injured animals.
    - **Animal control** - Animal control agencies. Usually government/county-run, but not always.
    - **Rehabber** - Other rehabilitation facilities or people that you work with.
    - **Falconer** - Falconers. Sometimes useful for rehab or for rescuing birds trapped in warehouses.
    - **Volunteer** - Volunteers of your organization.
    - **Government agency** - USFWS, state DNR, etc.
    - **Supplier** - Suppliers for medications, food, etc.
    - **Handler/trainer** - People in your organization that handle/train resident animals. Only contacts with the check box checked will be included in the **Handler training log**.
    - **Educator/museum** - Educational facilities that you work with. Useful when you need to place non-releasable animals.
    - **Zoo/aviary**
    - **Staff** - Staff members at your organization.
    - **Veterinarian** - Veterinarians that you work with.
    - **Site/nature preserve** - Actual locations that you use, potentially for release sites. The **Release form** allows you to choose one of these entries so that the location information does not have to be re-entered.
    - **Inactive** - Used to mark this contact as inactive. This allows you to keep the contact information in the **Address Book** without having to delete it completely.

- **Tab 2 - More info** - This tab has several miscellaneous fields for:
  - A web address
  - Date of birth - Note: this field is only viewable by RaptorMed users who have Administrator privileges.
  - Permit information
  - A field that allows you to record if a certain contact is looking for specific non-releasable animals. If you enter something here, this contact will be listed when you choose **Looking for animals** from the filter in the Address Book list window shown above.
  - The **Availability** field allows you to record when, for example, a Transporter-type person is available to go out and rescue an animal. For example, you might enter something like “M-F PM + weekends” or “Any day except Tuesday”.
  - **Latitude and longitude** - these must be filled in if you would like to plot this entry on a Google Map (see below).
  - Note that the **Cell provider** is only needed if you intend to use the Text Messaging function.
  - Permit numbers
  - The **Notes** fields is for any additional information that you would like to record for this contact.
  - The check boxes for **AM/PM** and **Sun-Sat** are used determine when it is appropriate to send a Transporter-type person a text message. Click **here** for more information.

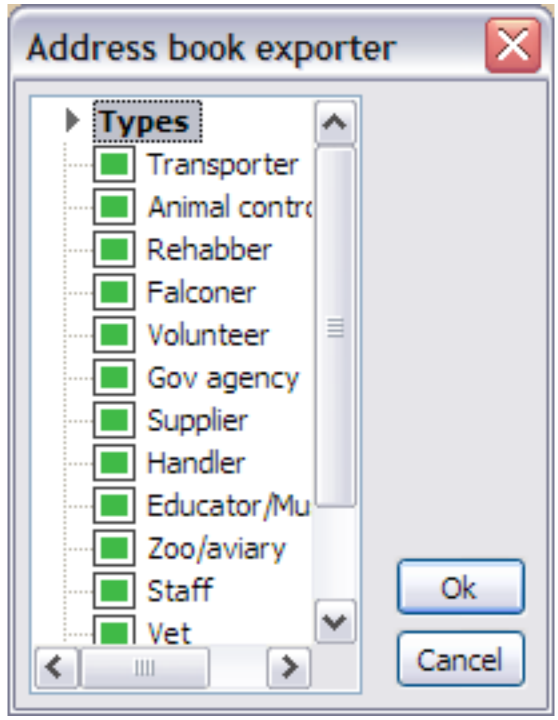


- **Tab 3 - Photo** - This tab allows you to import an image for this contact. It could be photo of a volunteer or a scan of a business card for a client or supplier. You simply drag and drop and image into the designated area. A window will popup that allows you to resize, crop and flip the image. When you have adjusted it the way you like, press the **Ok** button.

- **Tab 4 - Training** - If enabled, this tab allows you to record when a staff member or volunteer has been signed off on a certain training item. There will be a list of pre-defined training options. Double-click to set the date from a popup calendar. To clear a date, right click and choose **Clear date**. The training data for volunteers is tabulated in the **Volunteer training** report.

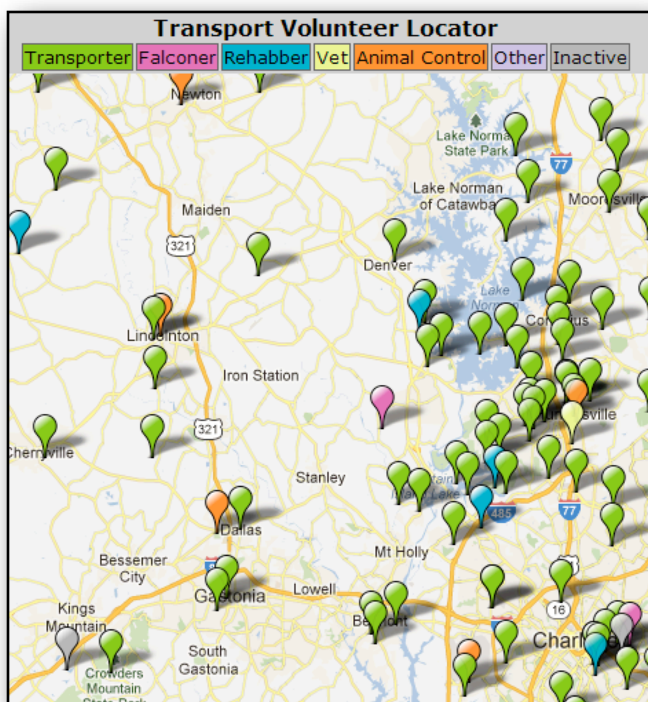
The **Copy to clipboard** link allows you to quickly copy an Address Book entry's contact information to the clipboard.

Exporting to a Google Map



The entries in your **Address Book** can be exported to a Google Map by choosing **Report ▶ Export address book to Google map** from the main menu. A window will appear that allows you to choose the types of **Address Book** entries you want to export. Remember that only entries with a valid latitude and longitude can be exported.

Once you make your selections and press the **Ok** button, you will be prompted for a folder to save the Google Map to. An html file will be created. You can then double-click on it to view it in your browser. Each entry will have a color-keyed balloon and you can click on each balloon to get information about the entry.



It is very recommended that you export **Transporters**, **Rehabbers** and **Animal control agencies** to the map. If you do this, this map will be very helpful when trying arrange for the capture and care of an injured animal.

This map is also very useful as it will store the latitude and longitude in the Windows clipboard when you **double-click** on a point. Note that this feature does not work with Internet Explorer but works well with **Google Chrome**. When you double-click a point, a popup will be displayed. Press **CTL-C** and then the OK button. This will copy the coordinates to the clipboard.

This location can then be automatically imported by **RaptorMed** and is helpful

when:
- Recording where an animal was found or collected
- Recording a **Release**
- Sending a text message to transport volunteers
- Recording **Band Reports**
- Creating new **Address Book** entries
- Creating an **Oil spill** log entry.

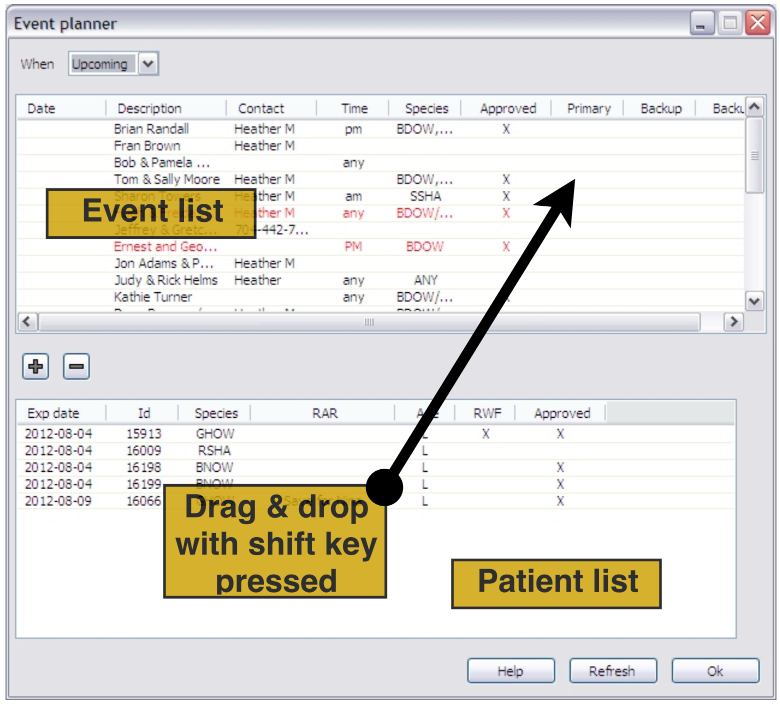
The Event Planner

The **Event Planner** is accessed from the main menu under **Tools ▶ Event planner**. This tool is great for fundraising as it helps coordinate events where you are planning to release an animal. This tool allows you to create and schedule events and match those events with animals that have upcoming expected release dates. The **Event Planner** lists all events at the top and all animals with an **Expected release date** that has been set are listed at the bottom. Remember, the **Expected release date** is only a best guess as last minute changes or delays are not uncommon. Click here for information on setting this date.

To use the tool, there are three steps that need to be followed:

1. Create an event.
2. Mark animals with an upcoming release dates. This is done in the Patient Info form.
3. Match an animal to an event.

You can view **All** events or all **Upcoming** events by selecting from the **When** list. The highlighted events are those that were marked with highest priority.



The **Patient** list displays the patient's expected release date, id, species and age. The **RWF** column refers to **Release Where Found** and indicates that this patient was requested to be released at the site where found so it may not be available to use in a special event (click here for more information). The **Approved** column indicates whether this patient has been approved for release yet.

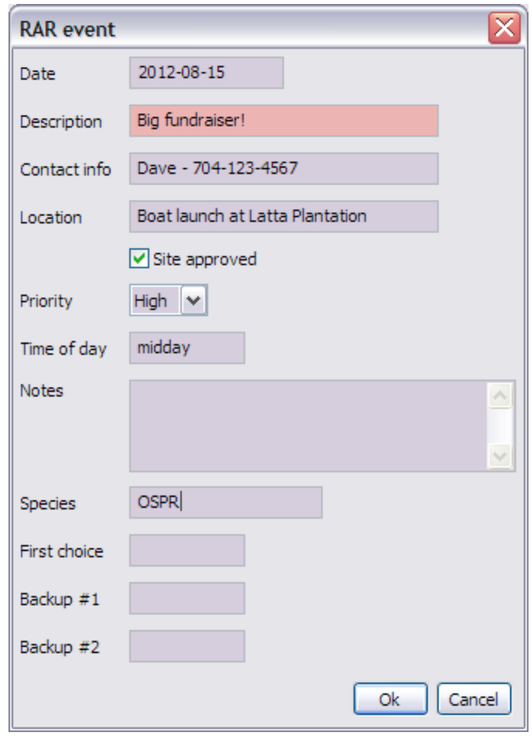
When an animal is associated with an event, the event's description will be displayed in the patient's **Release event** field.

Note: **RAR** refers to Release-A-Raptor which is catchy name for the release program developed at the Carolina Raptor Center. Its meaning has been expanded to include the release of any type of animal.

To create a new event, press the **+** button. To delete the selected event, press the **-** button. Double-click an event to edit it.

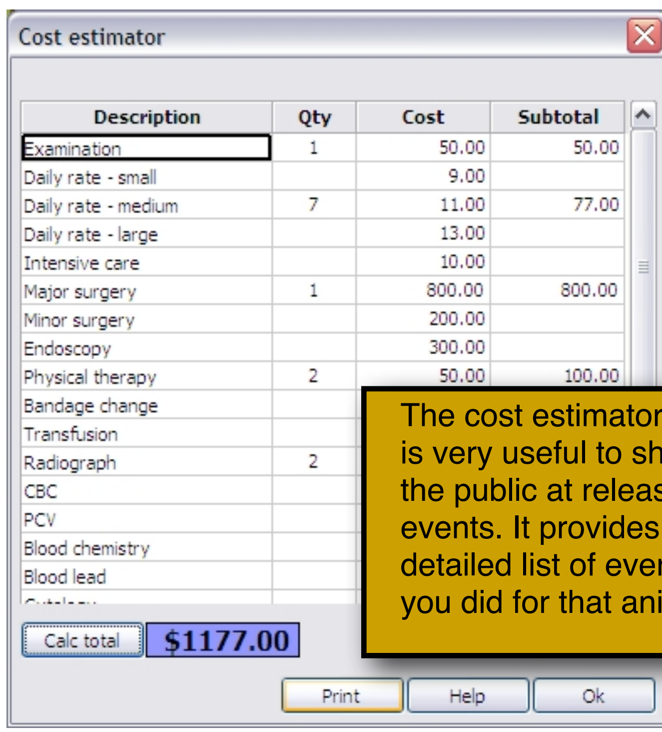
To add or edit an event, a form appears that allows you to enter a **Description** for the event, who is the main contact person and where the event is to take place. The **Date** is optional as some events may be flexible and may be dependent on the availability of a certain species to release. The **Site approved** check box is used to indicate that the specified location has been reviewed and approved. The **Priority** can be set and **High** priority events will be highlighted in the **Event** list. There is an additional **Notes** field and the desired **Species** can also be specified.

The **First choice** and **Backup** fields indicate which animal(s) are matched with this event. You can simply enter the **patient id** of the desired animal(s) in the appropriate fields or, with the **Shift** key pressed, drag and drop a choice from the **Patient** list to the **Event** list. Be sure to drop the choice in either the **Primary** or one of the two **Backup** columns for the desired event in the **Event** list.



Cost Estimator

The **Cost Estimator** function is a tool that provides an estimate of the cost associated with the treatment for a specific patient. It is accessed by pressing the **Cost estimator** link in the **Action Bar** on the patient's chart.



The cost estimator report is very useful to show to the public at release events. It provides a detailed list of everything you did for that animal.

The estimator automatically tallies the number of days in rehab, as well as radiographs, bloodwork and many other tests and procedures.

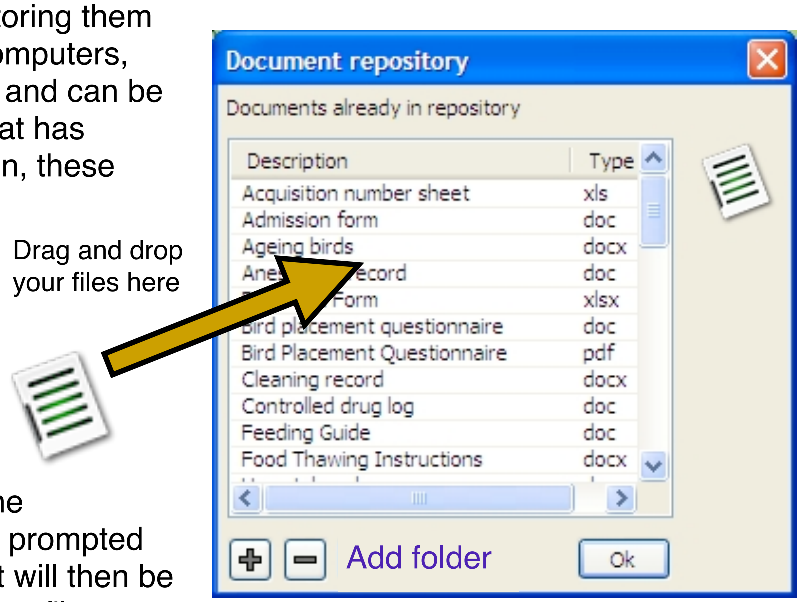
Although usually unnecessary, you can edit each line item if necessary to change a description, quantity or cost. There are also blank lines at the end that can be used to add completely new items.

Once the spreadsheet accurately reflects the desired costs, press the **Calc total** button to have the total calculated. Note that any edits you make here will **NOT** be saved.

Press the **Print** button to create a report that summarizes the animal's basic information, problems, all treatments and costs.

The Document Repository

This function is accessed by selecting **Tools ▶ Document repository** from the main menu. The repository provides an easy-to-access location for various documents and files of any type. Rather than storing them in various folders on different computers, they are all stored in one place, and can be accessed from any computer that has **RaptorMed** installed. In addition, these files will be automatically copied for safe-keeping when the rest of the database is backed up.



To add a file to the repository, simply drag and drop it onto the form. Or you can press the **+** button and browse to select the file when prompted. You will be prompted for a description of the file and it will then be added to the list. To view or edit a file already in the repository, just double-click on it. To delete a file, select it and press the **-** button.

You can create folders to organize your documents by pressing the **Add folder** link. To enter a folder, double-click on it. To back out of a folder, double-click on the entry that will be listed at the top of the list.

Handler training log

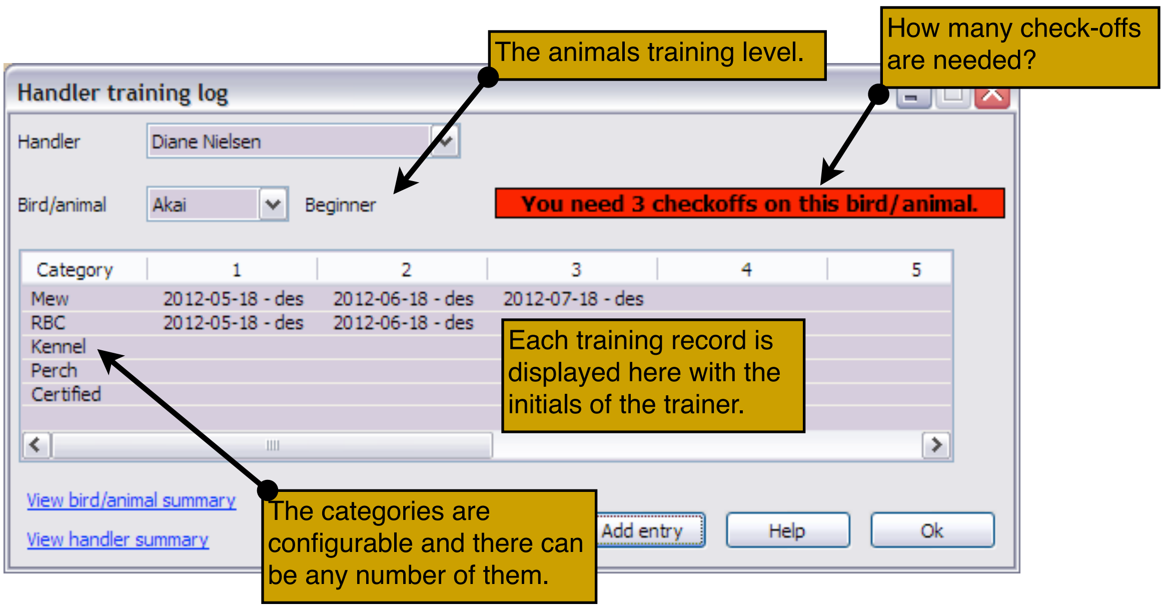
RaptorMed can help you keep track of who is trained to work with various animals in your resident population. To access this function, choose **Edit ▶ Handler training log** from the main menu.

For each resident animal, you can specify a **Training level**. This level indicates how much training a person needs to have in order to be certified or signed off to work independently with the animal. The **Training level** can be one of the following:

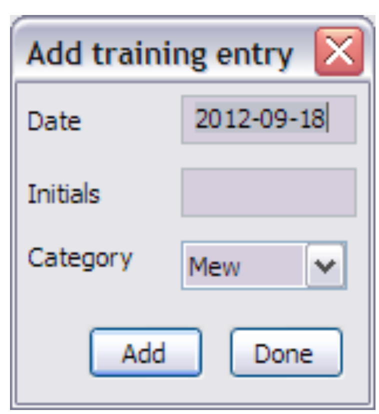
Beginner, **Intermediate**, **Advanced**, or **Master**. Click **here** for more information on setting the **Training level**.

The system can be configured so that a person needs a set number of check-offs in any number of training categories. Once a person has completed the required number of check-offs in each category, you can mark the person as **certified** on a particular animal.

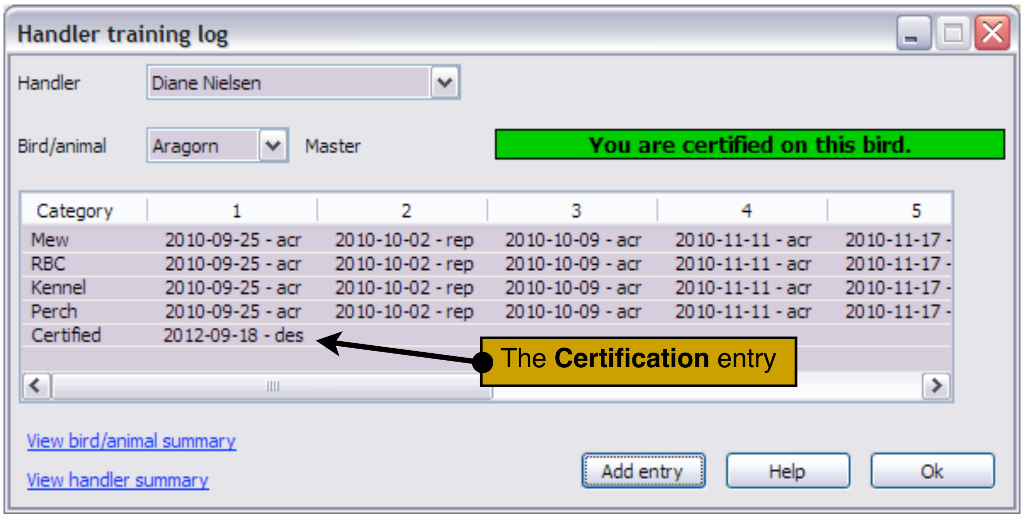
In the Handler training log, you can select the Handler and the animal they are training on. Only people from the **Address Book** with the **Handler** check box checked will be included in the list. Only animals with a **Training level** set will be included the list. Click **here** for more information on the **Training level**.



When an animal is selected, the **Training level** and the number of required check-offs will be displayed. When a person is then selected, each training check-off will be displayed. To add a new training entry for this person/animal, press the **Add entry** button. A small window will appear that allows you to specify the date, the initials of the trainer and training category. Press **Add** to add a new entry. You can add multiple entries and then press **Done** when you are finished.



When all training is complete, add one more entry by choosing **Certified** for the category. The display will change to show a **green** banner indicating that the person is now certified on this animal.



There are two reports that you can run:

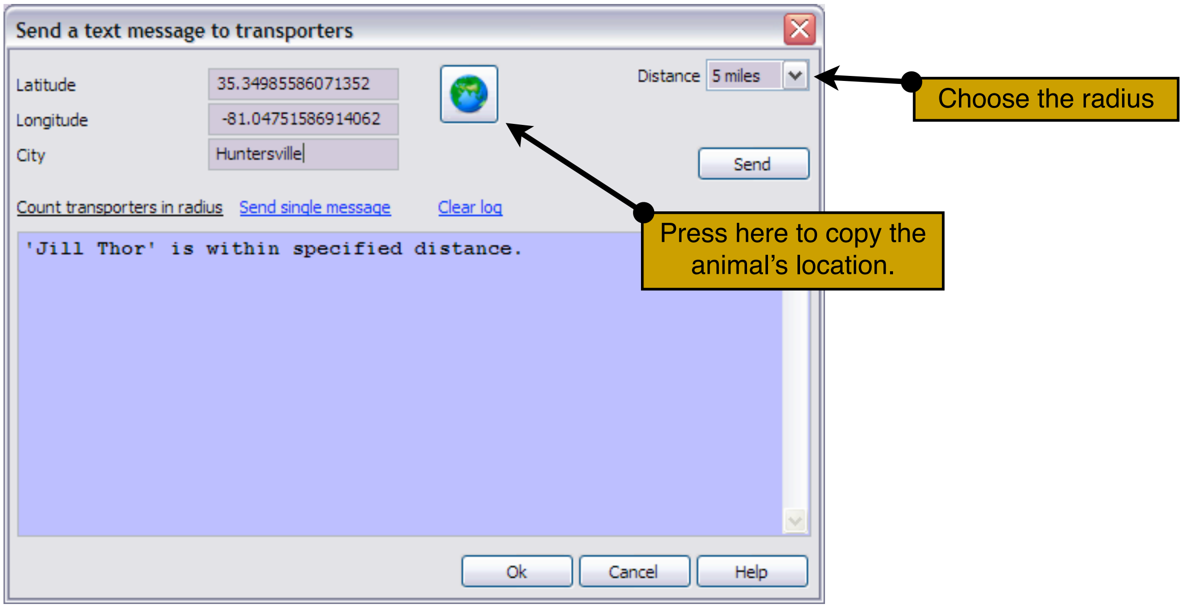
- The **Animal summary report** lists all the **Certified** people for each animal.
- The **Handler summary report** lists the training history of each person for each animal.

Transporter text messages

The function allows you to quickly and automatically send a text message to all **Transporter** people in the **Address Book** which are within a specified radius of an injured animal. To access this function, choose **Tools ▶ Contact transporters** from the main menu.

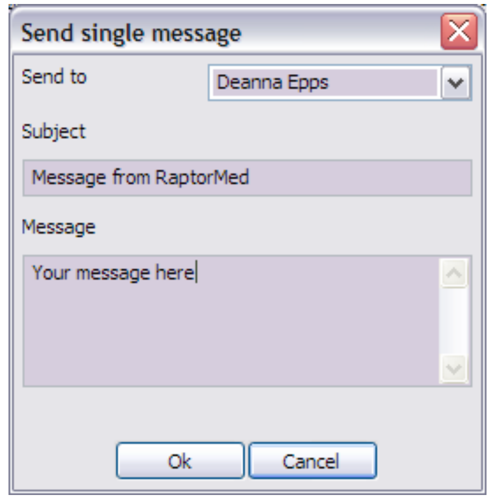
To use this function:

1. Find the location of the injured animal on the **Transporter Google Map**. Click **here** for information on creating the the map. This will store the location of the injured animal in the Windows clipboard.
2. Choose **Tools ▶ Contact transporters** from the main menu. The text message for will appear.
3. Press the globe button to copy the location you just stored from the map.
4. You can enter the city's name. This will be inserted into the text message that will be sent.



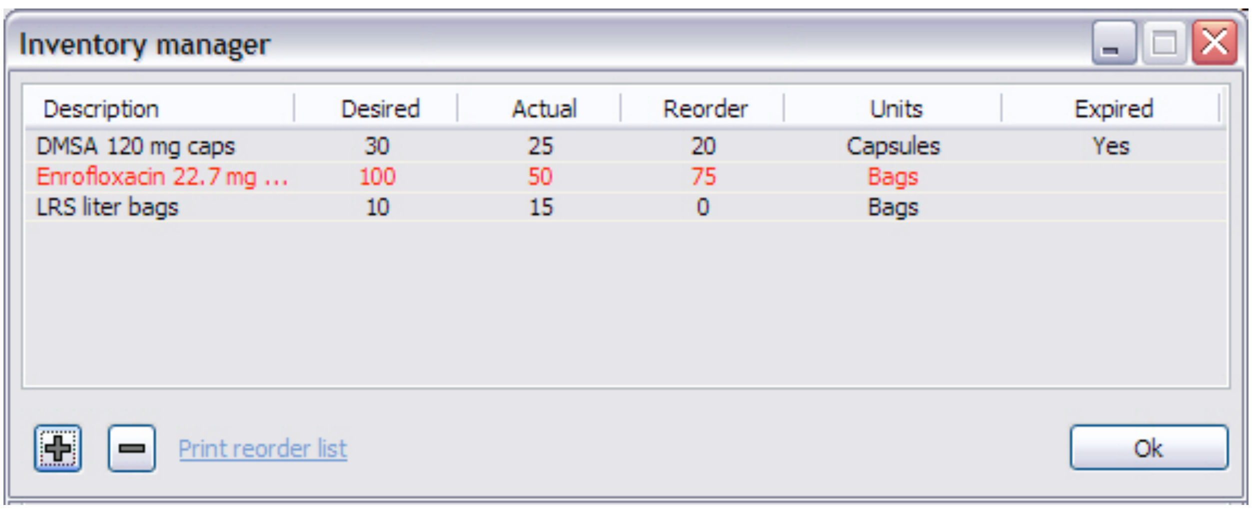
5. Choose the desired **Distance**. This is the radius in miles that will be used to search for transporters.
6. Press the **Count transporters in radius** link to see how many people are in the desired radius. You can increase or decrease the **Distance** as needed. The list of available people will be printed out for you to view. Note: contacts from the **Address Book** will only be listed here if:
   - They have the **Transporter** checkbox checked.
   - They are within the desired distance/radius.
   - They have a **Mobile phone** number and **Cell provider** specified.
   - They have the **Accept text message** check box checked.
   - And finally, if the **Availability check boxes** for the time of day and day of week match the current time of day. These check boxes allow you to prevent somebody from receiving a text message at times of day where they cannot accept them or do not want to be bothered.
7. When you have a reasonable list of transporters, press the **Send** button. A text message will be sent to each person. The message is configurable and is formatted when **RaptorMed** id installed but it generally says something like “There is an injured animal in CITY. Can you help? If yes, please call...”.

You can also send a random text message to any contact in the **Address Book**. Press the **Send single message** link and the following form will appear. Choose a recipient from the **Send to** list, type in your subject and the message body and press **Ok**. Note that only the contacts with text messaging enabled in the **Address Book** will appear in the **Send to** list.



Inventory manager

To access this function, choose **Tools ▶ Inventory manager** from the main menu. The Inventory Manage allows you to keep track of supplies and to print a reorder list.

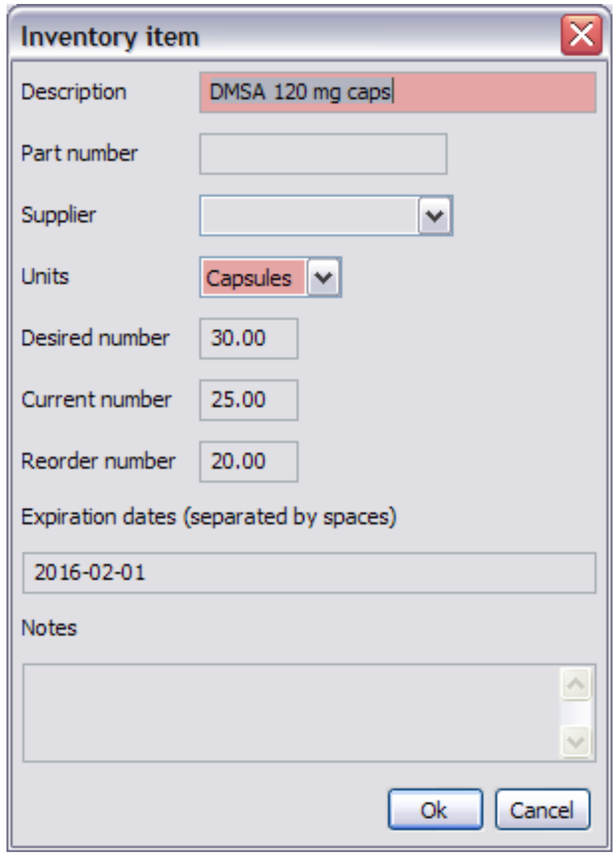


Press the **+** button to add a new entry, double-click to edit an existing entry and press the **-** button to delete the selected entry.

The Inventory Manager will indicate if you are below your reorder count by highlighting an entry in red. It will also indicate if at least one item is expired.

The Inventory Item editor has fields for the description, supplier and the part number. The choices in the **Supplier** list are entries in the Address Book that have the Supplier checkbox checked.

You can specify a desired number, the current number and the number at which you would like to re-order each item. You can also specify the units that these numbers are measure in such as tablets, bags, boxes, etc.

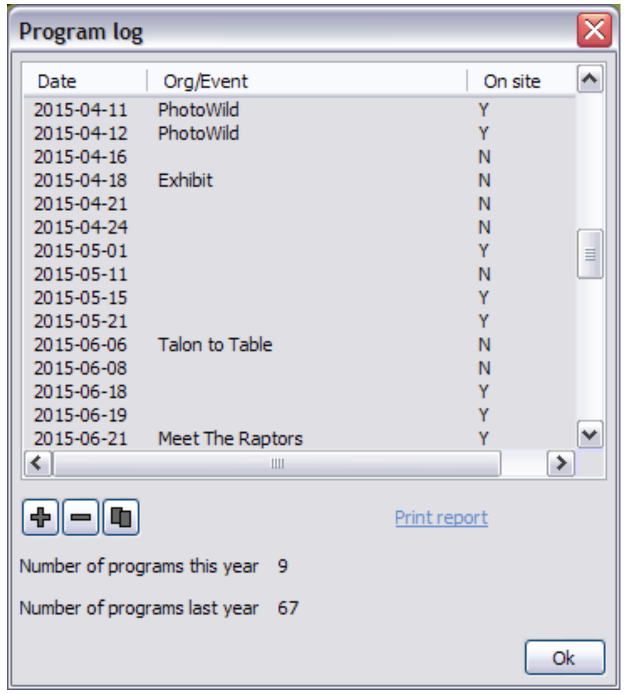


You type in any number of expiration dates (each separated by a space) or you can double-click in the **Expiration dates** field to pull up the calendar. If you double-click on an existing date, the calendar will allow you to edit that date. If you double-click to the right of the dates, you can add a new date.

Back on the main Inventory Manager screen, press the **Print reorder list** link to produce a reorder list. This list will contain a entry for all items whose **Current number** is less than or equal to the **Recorder number**. The items are arranged and sorted by **Supplier** for easy re-ordering.

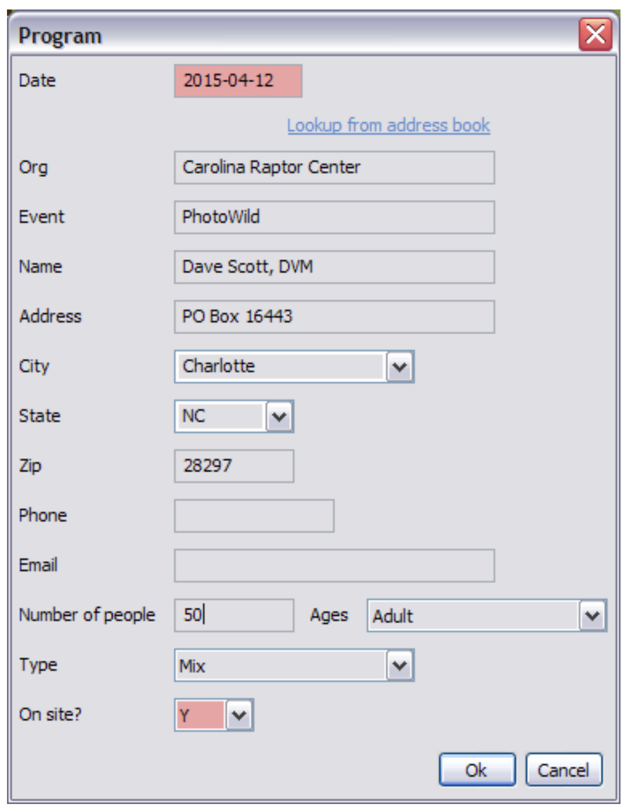
Program log

The **Program Log** is accessible from the animal's main chart window. This feature is only available for animals that have the **Resident** check box checked. The log window displays all the programs that this animal was used for, sorted by date. It also displays the number of programs for this year and last year.



To add a new program, press the **+** button, to delete a program press the **-** button and to copy an existing entry, press the **copy** button. You can edit/view and entry by double-clicking on it and you can print a program usage report by clicking **Print report**.

Each entry can store information about the event and location. If you do programs repeatedly at the same place, you can save the information in the **Address Book** and recall it easily by pressing **Lookup from address book**.



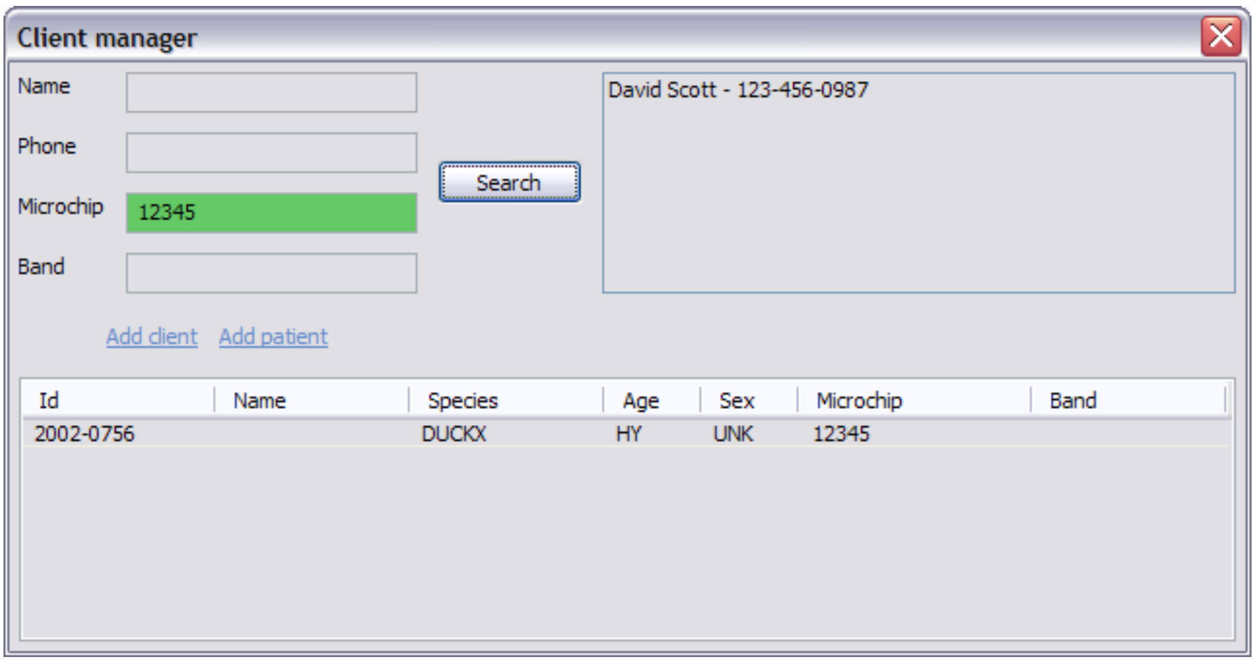
There are fields to record the number of people, the age ranges as well as the type of program.

The program usage for all animals can be reported using the [Program usage report](#).

Client manager

The client manager is used for client-owned animals. If enabled, this feature is accessed from the main menu by choose **Tools ▶ Client Manager.** A form will appear that allows you to enter a name, phone number, microchip number or a band number. Partial matches are allowed. Note that a microchip scanner can be used in the green **Microchip** field to automatically fill in this field.

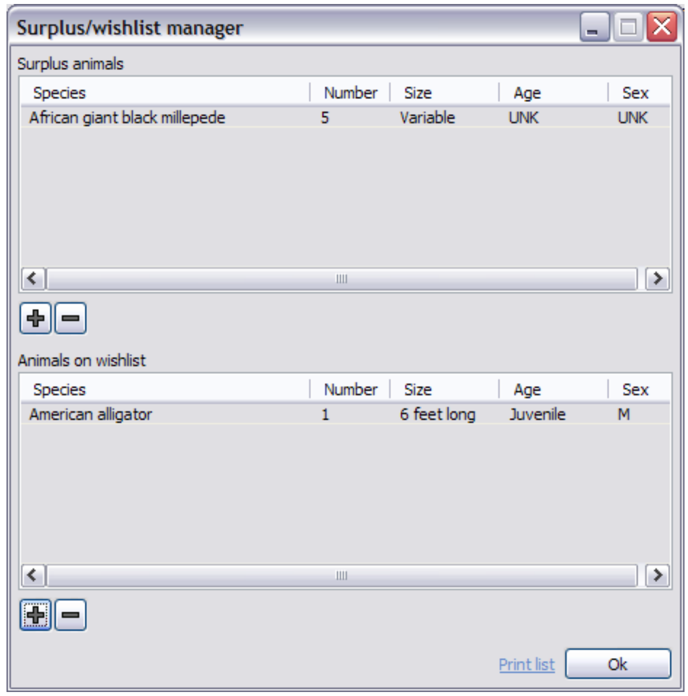
When you pressed the **Search** button, a list of matching clients will be displayed in a list on the right. When you select a client, a list of their animal's will be displayed in the lower list. You can double-click on an animal to see it's chart.



There are shortcut links that allow you to create a new client and/or a new animal/ patient on this screen.

Surplus/wishlist manager

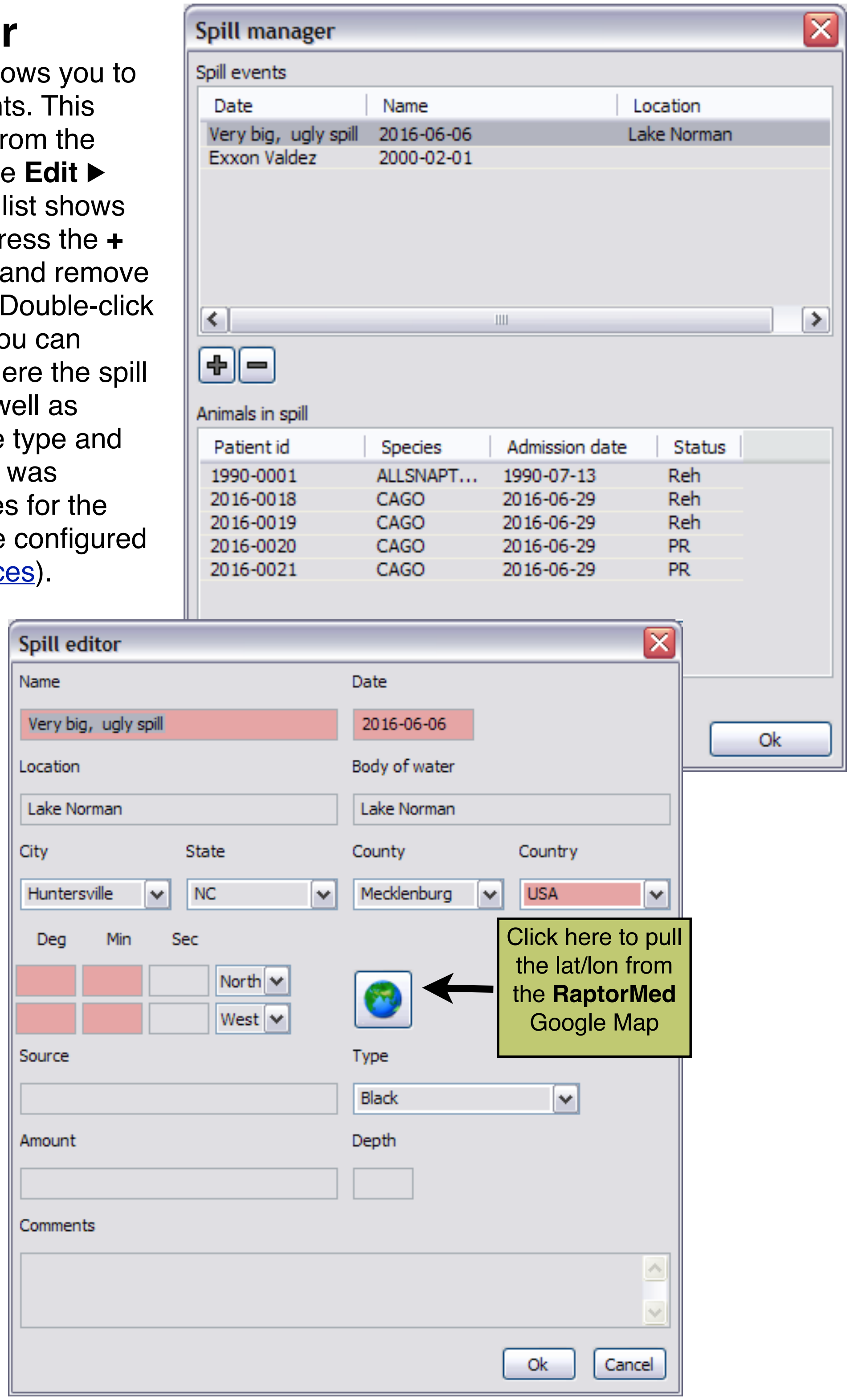
The surplus/wishlist manager allows you to keep track of animals that you want to add to your collection and also animals that you have a surplus of and wish to re-home.
This feature is accessed from the main menu by choose **Tools ▶ Surplus/Wishlist Manager.** The upper list is for surplus an animals and the lower is for your wishlist. Press the **+** and **-** buttons to add and remove entries from each list. Double-click and entry to edit it. You can specify the number, size, age and sex as well as information (name, phone number) for the person to contact.



Spill manager

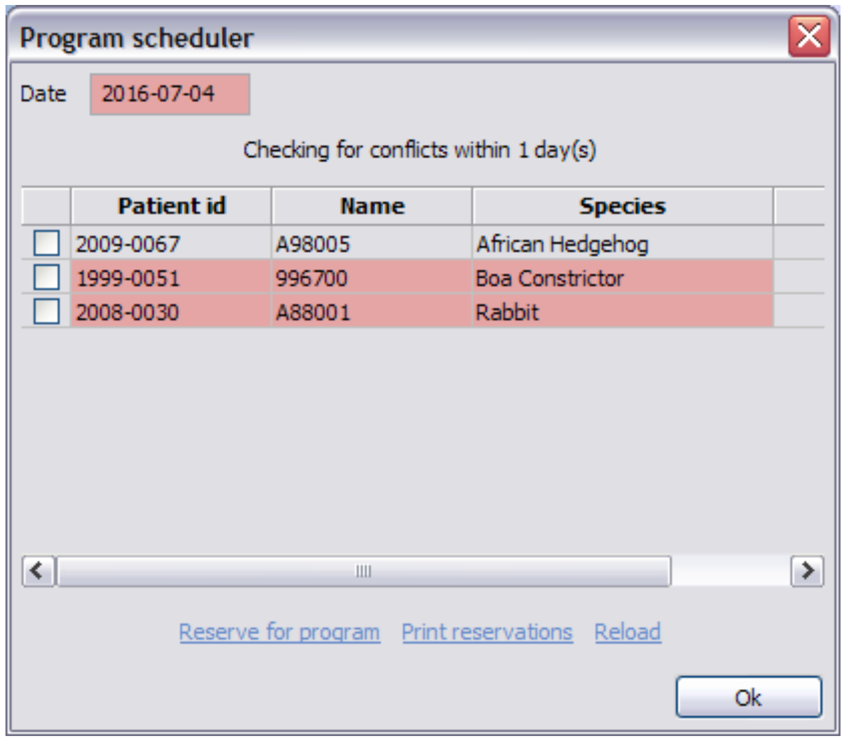
The spill manager allows you to manage oil spill events. This feature is accessed from the main menu by choose **Edit ▶ Spill log.** The upper list shows all the spill events. Press the **+** and **-** buttons to add and remove entries from this list. Double-click and entry to edit it. You can specify when and where the spill event took place as well as information about the type and amount of crude that was involved. The choices for the **Type** of crude can be configured (see Editing list choices).

If you single click on a spill entry, all the animals that are associated with the spill will be listed in the lower list. You can double-click on any of the animals to open the corresponding chart.



Program scheduler

The Program Scheduler is used to reserve program animals for programs without worrying about scheduling conflicts. To use the Program Scheduler, choose **Tools ▶ Program scheduler** from the main menu. A window will appear that lists all the resident animals that have been designated to be **Program animals**. That is, they have their **Program animal** checkbox checked.

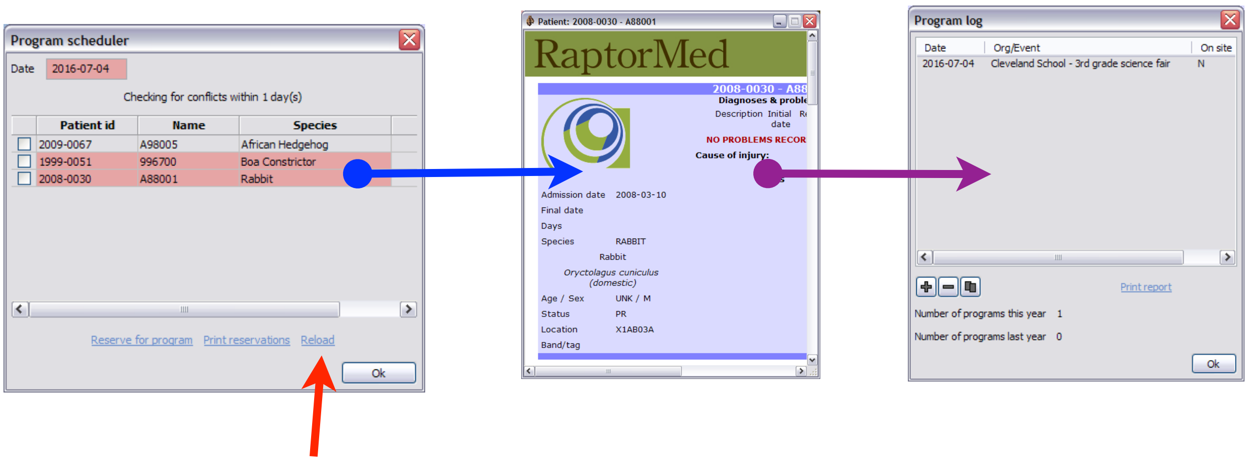


After you specify a date, the this tool will highlight each animal that has a conflict on that date. A conflict is either due to another program already being scheduled on that exact date or if a program is scheduled for within **X** days of the specified date. The actual number of days is configurable and this feature is useful in order to prevent an animal from being scheduled several days in a row without a day off, for example.

The animal list displays the animal's id, name and species. Choose the animals that are needed for a specific program by checking the appropriate check boxes on the left-most column. Once you have selected the animals that will be needed. press the **Reserve for program** link. The standard **Program Log** form will be displayed.

Note that an animal with a conflict displayed can still be selected and scheduled for a new program. **RaptorMed** only highlights the conflicts. It is up to the user to avoid or resolve them.

At any time, you can double-click on an animal to open its chart (**blue** arrow). This is useful, for example, when resolving a conflict and you want to see what program an animal is already scheduled for. Once you have opened the chart, then click on the **Program Log** link (**purple** arrow) to open the animal's program log. You can then remove or modify an upcoming program in order to resolve any conflicts. If you do modify an animal's programs in this way, you can return to the **Program scheduler** window and press the **Reload** link (**red** arrow) to refresh the display and see that the conflict has been resolved.



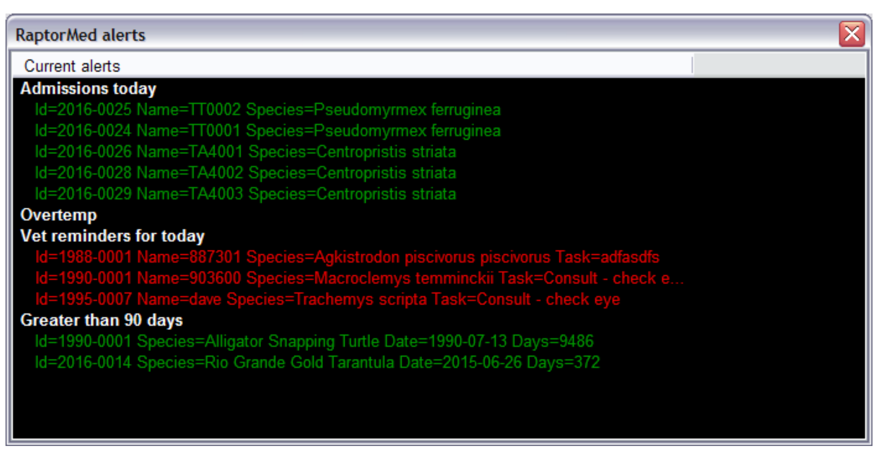
At any time, you can choose a date and print out the reservation sheet for that date by pressing the **Print reservations** link.

Custom automated alerts

The system allows user-defined alerts to be programmed into the system. These can be enabled or disabled on each workstation separately and they allow individual users to monitor all types of events or changes in real-time. Here are some examples:

- Alert for all new admissions today
- Alert for an enclosure temperature or pH out of range
- Alert for al animals in rehab over 180 days.

Any number of alerts can be programmed (please contact customer service for assistance). You can specify the importance level and which users are to be alerted. In the **Preferences**, you can specify how often the alerts should be checked and you can turn this feature on and off as needed.



Chapter 6

Miscellaneous functions

Finalizing a patient

Once an animal's final disposition has been established, it's status must be updated in the system. An animal's **status** is set by clicking **Patient info** in the **Action Bar** on the patient's chart. Click here for more information on setting **Patient info**. The choices for patient status are summarized in this table.

Status	Description
DOA	dead on arrival
EOA	euthanized on arrival
D24	died within 24 hours
E24	euthanized within 24 hours
D	died after 24 hours
E	euthanized after 24 hours
Reh	currently in rehab
R	released
PR	currently a permanent resident
T	transferred
ESC	escaped
COA	client-owned animal

Only **Reh** and **PR** are considered "**active**" patient statuses. All others are inactive and it is important to properly set the patient **Status** and **Final date** in order to remove a patient from active status.

Note that if you set the patient status to **R** or **T**, then you should also create a **Release** or **Transfer** record for the patient.

- Click here for **Release** records
- Click here for **Transfer** records

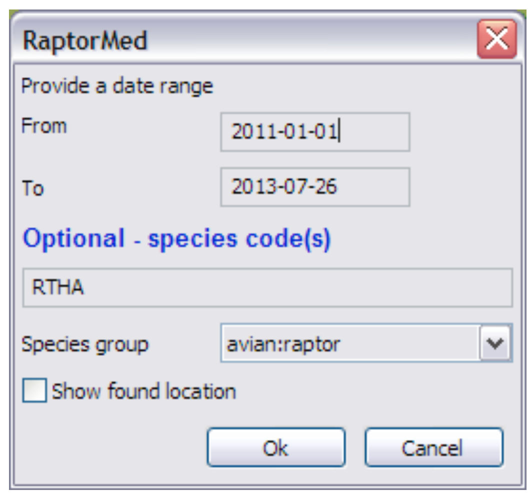
Client-owned animals (COA) are a special case. These animals are not considered an "**active**" patient unless the **Active patient** check box is checked. If this box is not checked, these animals are assumed to be away, offsite with their owners and will not appear on any daily treatment sheets. In addition, the status of COA animal should never be changed. Once COA, they are always COA. Instead, when there is a status change, you should use the **Sub status** field. The **Sub status** field allows you to select from one of the following choices: Died, Euthanized, Escaped, Transferred, or Released. Note that the **Final date** should also be set when setting the **Sub status**.

Delete last group entry

This command allows you automatically delete the last record entry for each patient in the specified location. This is primarily used to correct a previous data entry error and is accessed by right-clicking on the enclosure and choosing **Delete last group entry**.

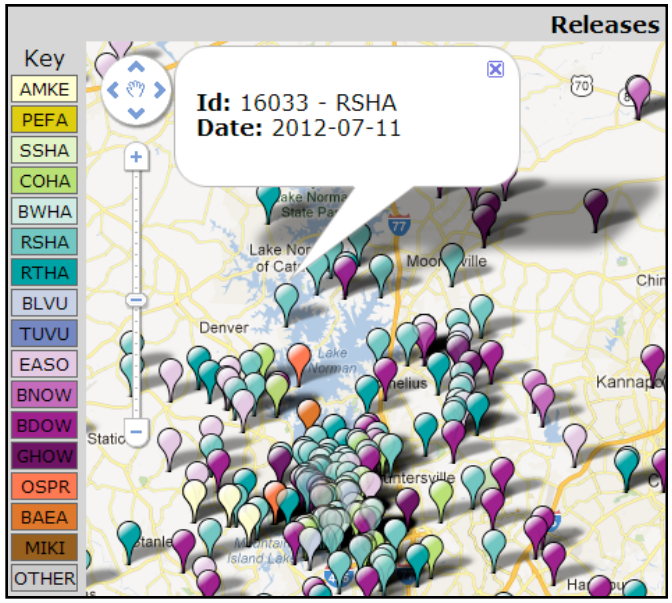
Exporting releases to a Google Map

RaptorMed can export information about past releases to a Google Map. This is very useful when planning future releases as it helps prevent over-crowding of certain species in a certain area. Choose **Report ▶ Export releases to Google Map** from the main menu. A window will appear that allows you to specify:



- A date range
- Individual species - just enter the species codes. Any number can be entered with a space between them. If nothing is entered here, then all species will be exported.
- The species group can also be specified to

- export only reptiles, for example.
- You can also select whether to display the found location in addition to the release location.



The number of patients will be displayed and then a newly created Google Map will be displayed. Each release is indicated by a balloon that is color-keyed based on species. You can click on each balloon to view information about the animal that was released.

Bandit integration
All federal bands that are placed on avian patients prior to release must be reported to the Bird Banding Lab (BBL). This is typically done through the use of the Bandit software. You can manually enter the data into Bandit but this is cumbersome, time-consuming and error prone. **RaptorMed** simplifies this process. Choose **Report ▶ Bandit** from the main menu. You will be prompted to enter a date range. Once you specify a range and select a folder to save to, **RaptorMed** will create a file that contains the required information on all the bands used in the specified date range. You can then use the **Import** command in Bandit to load this data and submit it to the BBL.

To import this data into Bandit version 3.01:
- Choose File ▶ **Import from file ▶ Bands/Recaptures** from the main menu**.**
- Choose **tab-separated file** for the type of tfile.
- Check the **Skip first row/Don't import first row** checkbox.
- Choose **Matching names** for **Arrange by**.
- Choose **Add new records** for the **Import action**.
- Use the various controls on the form to match the column names in the input file with what Bandit is expecting.
- Press the **Import** button.

RaptorMed supports Bandit version 3.01 and 4.0.

Locking a record
A record can be locked against further edit by going to Patient info and checking the Locked checkbox. The chart will be marked with banner at the top that says "**This record is locked and cannot be edited**".

A record can be unlocked by right-clicking on the animal's chart in the animal list on the main screen. Choose **Maintenance ▶ Unlock this patient's chart.**

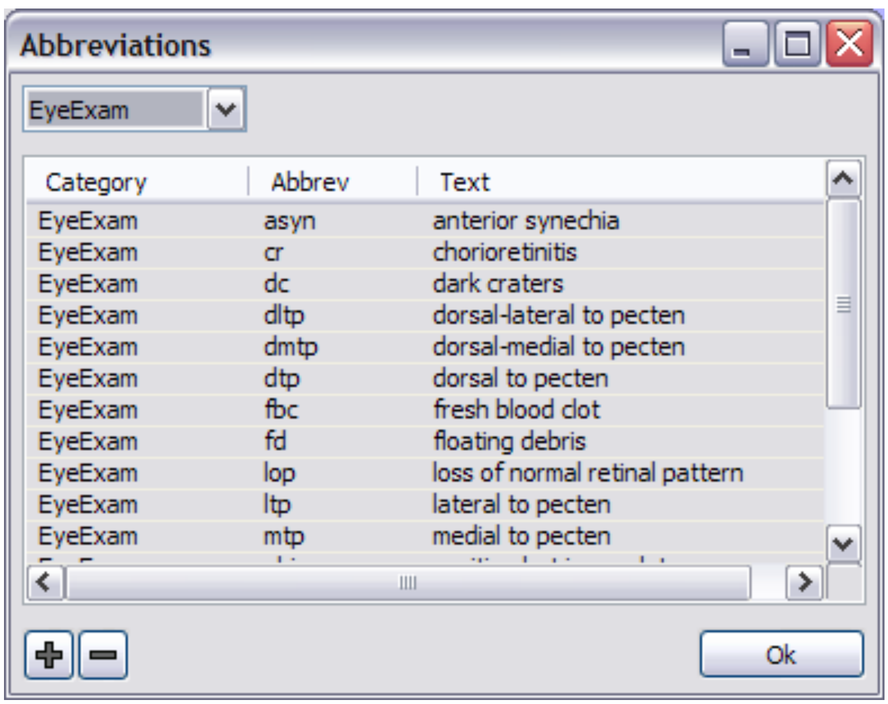
Note that this function is only available to users with Maintenance privileges.

Using abbreviations

When entering data, you can use predefined abbreviations that will auto-expand to a longer block of text. Abbreviations are available for use in:

- Individual animals medical records
- Enclosure record entries
- Complete blood count results
- Eye examinations
- Surgical reports
- Endoscopy reports
- Flight evaluations

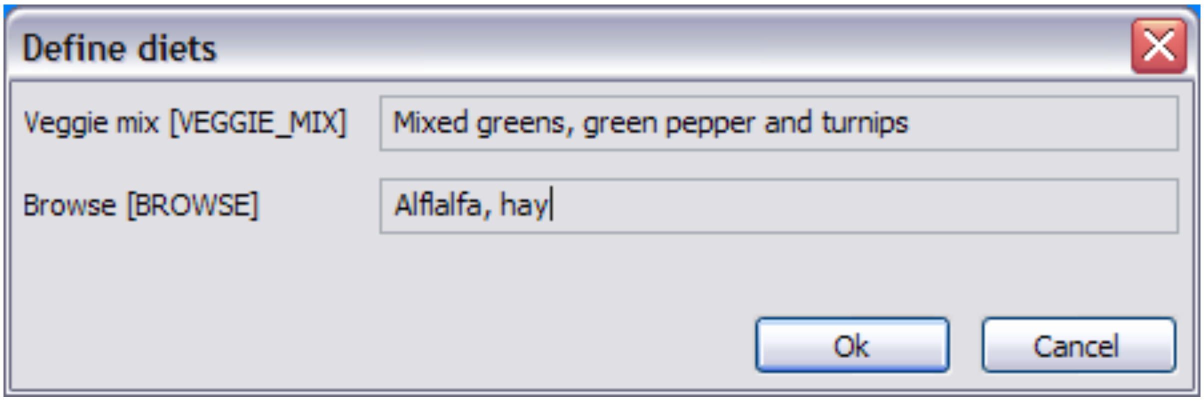
In these forms, you will see a **Show abbreviations** link. Clicking this will display the **Abbreviation manager** screen. Abbreviations are categorized according the list above. You can select a category to view the current abbreviations. You can add a new abbreviation for the currently selected category by pressing the **+** button and you can delete the currently selected abbreviation by pressing the **-** button.



When you enter an abbreviation into the appropriate form fields, it will be auto-expanded when the record is saved.

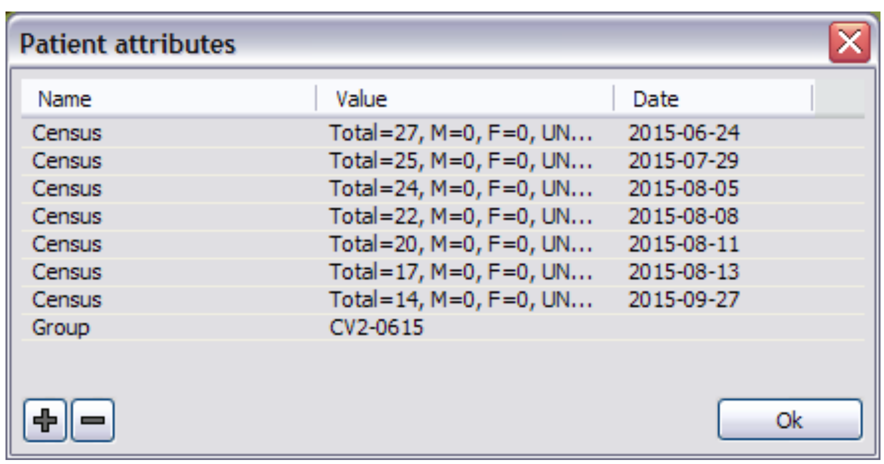
Depending on how your system is set up, there may be a few special abbreviations that define specific diets. From the main menu choose **Tools ▶ Define diets.** A window will appear that allows you to define an abbreviation for two special diets. When

VEGGIE_MIX or **BROWSE** is entered in either a individual record entry or an enclosure record entry, the abbreviation will be auto-expanded as specified in the **Define Diets** window..



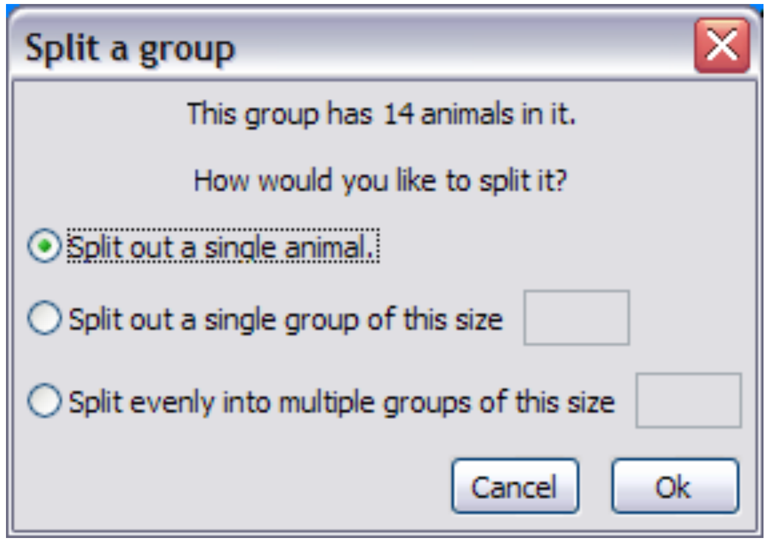
Group animals

This type of animal is not an individual. It represents a group like a school of fish or a collection of insects. Animals are generally managed as a group if you cannot distinguish individuals easily. The actual number of animals in the group is displayed in the **Notes** section at the top of the animal's chart. This number can be changed using the Update census command. The group number is actually stored in a an attribute and any number of census counts can be stored as shown in this example. The latest value is used but the previous ones are retained for historical purposes.



Groups can be split and merged as needed. A split might occur if you move half of the individuals of a species from one system to another. A merge might occur if you move, for example, 2 new animals into an enclosure that already contains 5 of the same species.

To split a group, right click on the grouped animal in question and choose **Maintenance ▶ Split group** from the menu. You have several options:



- **Split out a single animal** - in this case, a single **non-group** animal record will be created.
- **Split out a single group** - in this case a single group will be created of the specified size.
- **Split evenly into multiple groups** - in this case, multiple groups will be created. One group may have a few extra animals if the number of animals in the original group does not divide evenly by the new group size.

In all cases, the new animals will inherit all medical record history from the originating animal.

To merge individuals into a new group, right click on the ungrouped animal in question and choose **Maintenance ▶ Merge into group** from the menu. The selected animal will be used as the source for all information in the new group. **Note that all animals that are to be merged into the group will be deleted**. Also note that only animals in the same enclosure are considered for merging and animals that are already grouped will be ignored.

Animals that that are already in groups can be manually merged into one group. For example, if there are 2 groups of fish with 30 animals in group 1 and 20 in group 2, you can merge them using the Update Census command. For the **New Count**, specify a total of 50 for group 1 and then press the **Ok** button. Group 1 now has 50 animals and you can add a record entry to describe the merge. Now simply delete Group 2 by right-clicking on it and choosing **Maintenance ▶ Delete this animal/patient.**

Importing a medical record
A medical record that was exported in **XML** format from another RaptorMed database can be easily imported by choosing **Edit ▶ Import animal record** from the main menu. The entire record, including all lab results will be copied over and the next patient/animal id will be assigned to this new animal. This new record is identical to if you had entered all the data manually.

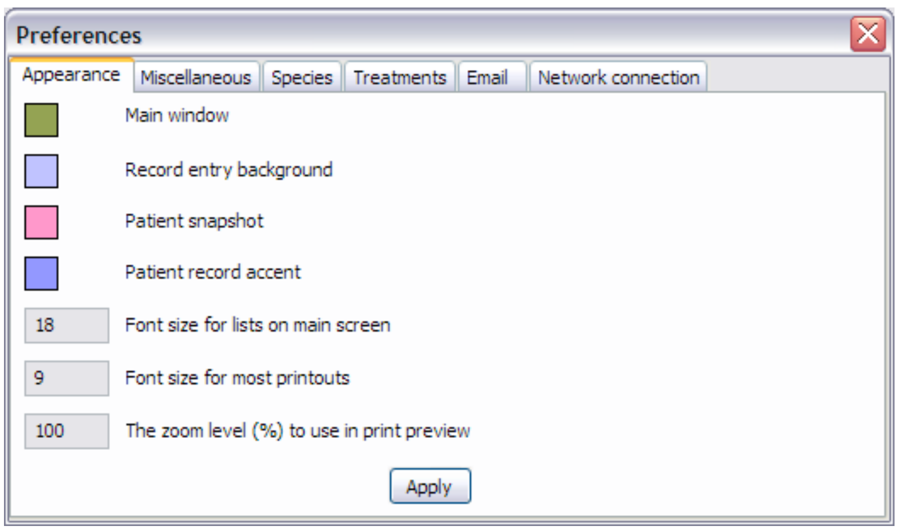
Configuring your system

Preferences

Choose **File ▶ Preferences** from the main menu to set preferences and various other settings. A window with several tabs will be displayed. Note that the actual tabs displayed depend on the specific privileges of the **RaptorMed** user that you are logged in as. Click here for more information on users and user privileges. In most cases, you will need to press the **Apply** button before your changes will be activated. In some cases, you may need to restart the program.

Appearance

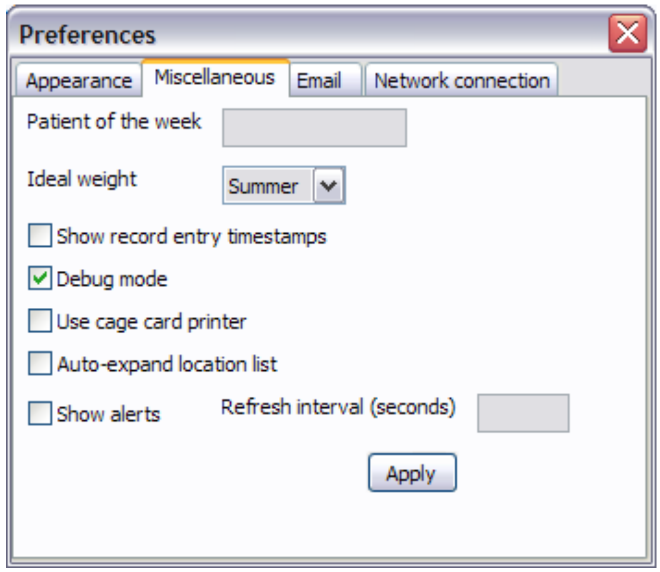
This tab allows the colors of various areas in the program to be set. Double-click on each color to choose from a color-picker.



- **Main window** - This sets the color of the **Patient** list and the **Enclosure** list in the main window.
- **Record entry background** - This sets the color of the main text edit area in the medical record entry form as well in other forms throughout the program.
- **Patient snapshot** - This sets the color of the patient snapshot popup window.
- **Patient record accent** - This sets the color of the accented areas in the main patient record display.
- You can also choose the **font size** that is used in the lists in the Main Window and on most printouts. If you leave these blank, then the default system font will be used. As a point of reference, the default size is typically around 10, a font size of 8 is very small and 18 is very large.
- The default **zoom level** that is used when you preview the various printouts before actually printing them.

Miscellaneous

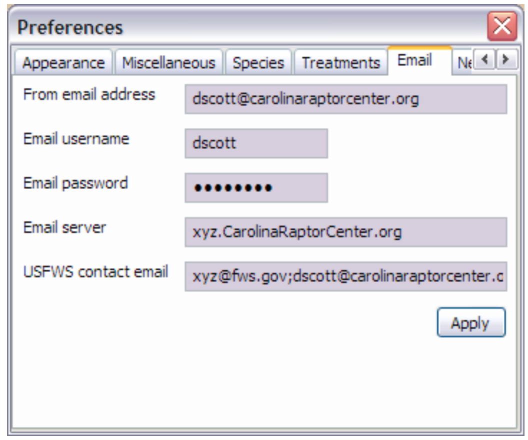
This tab allows the following settings to be configured:



- **Patient of the week** - This determines which patient will be showcased on the **RaptorMed** web page.
- **Ideal weight** - Each patient can have an ideal weight specified for the summer and/or winter. See **Patient info** for details. This weight is displayed as an “ideal weight band” on the patient’s weight chart. This setting allows you to choose which weight will be used for the weight band display. This setting should be updated based on the season.
- **Show record entry timestamps** - If this is checked, then the last date and time that a record entry was updated will be displayed in the patient’s record.
- **Debug mode** - For internal use only.
- **Use cage card printer** - If this is checked, the dedicated cage card label printer function is enabled.
- **Auto-expand location list** - if checked, then each entry in the Enclosure List on the main screen will be expanded to display each animal in each enclosure.
- **Show alerts** - If this is checked, then the **Alert** function will be started and will run in the background. You can specify the interval (in seconds) for how often the alerts will be checked.

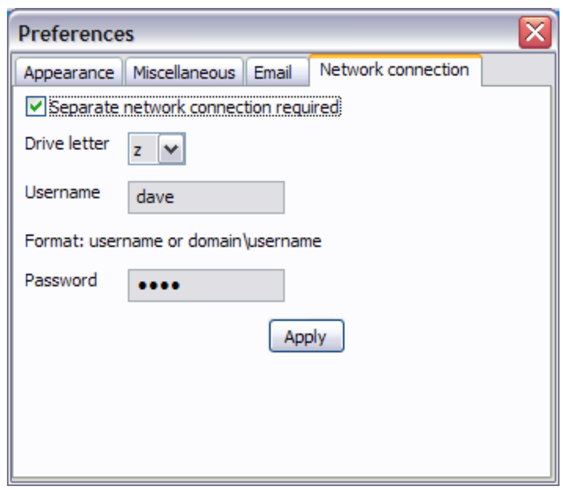
Email

These settings are used to configure the function that allows **RaptorMed** to automatically sends emails for various situations. Click here for details. These settings are typically configured when the system is installed and should not need to be changed.



Network connection

Each **RaptorMed** workstation needs to have access to a few shared folders on the **RaptorMed** server machine. In most instances, this access will be established automatically by Windows when you log onto your machine. In some cases, this does not occur and this tab allows you to manually configure access to these folders.



Check the **Separate network connection required** checkbox if this is necessary.

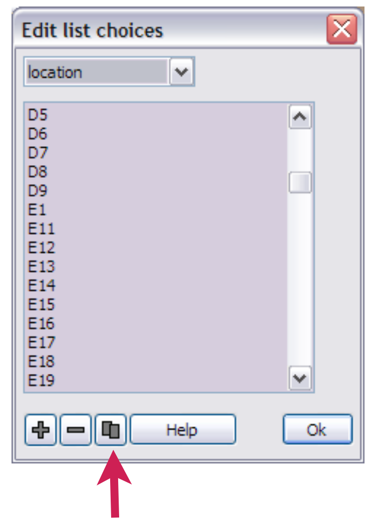
A drive letter must be specified in order to access to the shared folders. It should be a letter that is not already in use.

Enter the Windows login **username** and **password** required to access these folders. The username may need to be provided as a DomainName\Username pair. Your network administrator may need to provide this.

You will need to restart **RaptorMed** for the changes to take place. When **RaptorMed** starts a command-prompt window will popup momentarily as the connection to these folders is established. As a test, try to view any image for an existing patient. If you can view an image, then you have configured this properly. If the images for any patient do not appear, then you may have entered the wrong username or password.

List choices

There are lists to choose from throughout the program. In general, the choices in these lists are configurable. To edit these choices, select **Edit ▶ List choices** from the main menu. A window will appear that allows you to select the category/list you want to edit. You can add a new entry by pressing the **+** button. You can delete the selected choice by pressing the **-** button and you can edit the selected choice by double-clicking it. In addition, you can copy the selected **Location** by pressing the **Copy** button (indicated by the arrow in the screenshot). The following category/lists can be edited:



- **Age** - Used to specify the patient age on admission and the current age.
- **Chemistry source** - Used to specify the source of the results for blood chemstries.
- **City** - Used to specify where an animal was found or released and for making entries in the Address Book.
- **Clinicians for consult** - Used to schedule a consult with a specific clinician on the treatment sheet.
- **Collection method** - The methods used by aquariums to capture fish from the wild.
- **Collection vessel** - The vessels/boats used by aquariums to capture fish from the wild.
- **Consult** - Used in the individual treatment plan to specify a service or hospital section that is needed to perform a consult.
- **County** - Used to specify where a patient was found and for making entries in the Address Book.
- **Crude type** - The different types of oil involved in spills.
- **Dosage units** - The units used to specify a dose per kg. Used by the Medication Editor when setting up a dosage for a liquid drug. The typical value is **ml**.
- **Ear medication type** - These are the choices available when ordering ear medications on the treatment sheet.
- **Eye antibiotic** - These are the choices available when ordering ophthalmic antibiotics on the treatment sheet.
- **Eye NSAIDs** - These are the choices available when ordering ophthalmic NSAID medications on the treatment sheet.
- **Fecal parasites** - Used when recording results of fecal examinations.
- **Formula** - These are the choices available when ordering formula on the treatment sheet.
- **Image type** - Used to specify the type of image when a new image is dragged and dropped onto a patient's chart.
- **Injury cause** - Used to specify the cause of injury.

- **Inventory units** - Used by the Inventory manager. These are the units of measure for the different supply items.
- **Keyword** - Used to save special keywords in the patient's chart. These can be used to search for patient's with special problems or that were treated with special treatments.
- **Lab results source** - Used to record the source (i.e. lab or instrument) that generated the results of a specific sample test.
- **Lab test** - Used to specify a lab test that was run on a sample.
- **Location** - Used to configure each separate enclosure or cage for housing patients.
- **Patient attributes** - Each animal can have any number of attributes that store miscellaneous information. Each attribute must have a name and these are configured here. See Patient attributes.
- **Patient skill level** - Used to specify the skill level required to do a treatment on a particular patient. This option may not be available in all installations.
- **Problem** - Used to record the various problems and diagnoses.
- **Program ages** - These are the age categories used to record attendance at a program
- **Program type** - These are the types of presentations that can be utilized when doing a program.
- **Release id type** - Used to specify the type of release identification device that was used when a patient is released. Typical choices include **Leg band** and **ear tag**. This choice is made on the **Release** form.
- **Reason for euthanasia** - Used to specify the reason that a euthanasia was performed.
- **Reminder category** - Used to categorize reminders. They can be any descriptive text such as a department or person's name and can be used to sort the reminders in the Reminder Viewer.
- **Sample type** - Used to specify the type of sample (i.e. blood, biopsy, etc.).
- **Species group** - Used to specify a group of species such as avian, avian:raptor, avian:songbird, or mammal. Note that the species groups are hierarchical and each sub-category is separated by a colon.
- **Stain** - Used to specify the stain that was used in preparing a cytology slide.
- **State** - Used to populate all the lists that allow a state to be chosen.
- **Surgical procedure** - Used to specify the procedure that is described in a surgical report.
- **Tag type** - The type of tag used to identify aquatic animals. PIT tag is the most common choice for this.
- **Taxonomy_xyz** - These are used to fill the taxonomy lists in the Species Editor. There are separate lists for kingdom, phylum, class, order and family.
- **Tracker type** - Used the specify the type of tracking device that may have been used when a patient is release. This choice is made on the **Release** form.
- **TrainingXYZ** - These are used to fill the various fields on the Training form. There are separate lists for behavior, bridge type, flight type, reinforcement type and target type.

- **Transfer reason** - These are added to the **Reason** list on the **Transfer** form.
- **Urinalysis clarity** - Used to record urine clarity.
- **Urinalysis color** - Used to record urine color.
- **Urinalysis test results** - Used to record the results for the various tests in a urinalysis panel.
- **Vitamin type** - Used to specify the type vitamins that are to be used in individual treatment plan. Not currently used.

All category list values except for the **Location** are simple text. For each **Location**, a special form appears that allows you to configure various properties about the location. See **Enclosure editor** for more information.

Admission questions
The system can be configured so that the person delivering an animal can be asked a series of pre-determined questions. Up to five questions can be asked and they have must be set up in the following format:

```
Question? [answer1,answer2,etc]
```

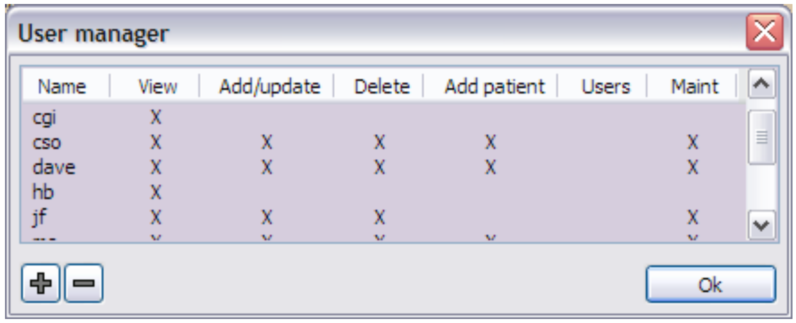
For example:

```
How did you hear about this wildlife center? []
Would you like to be placed on our mailing list? [yes,no]
```

In the first case, the answer is free-form and you can type in anything. In the second, case, you must choose from one of the preset answers. The **fourth** question is special in that it drives the Outstanding disposition letter function. Any animal with a **YES** answer for **Question 4** will be included on this report.

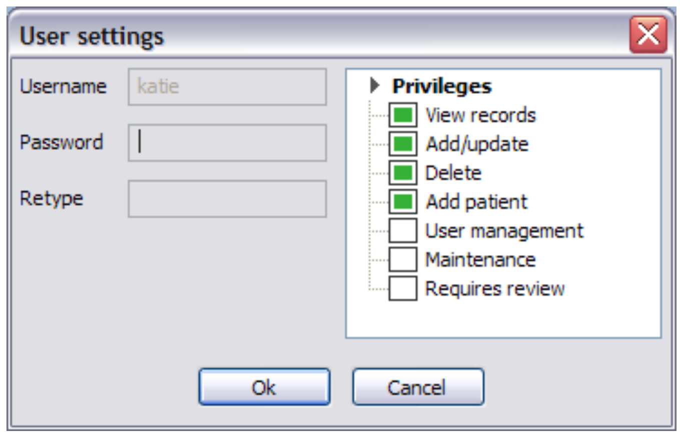
Users and user privileges

Users can be managed by choosing **File ▶ User manager** from the main menu. Currently you must be logged into **RaptorMed** as a special user whose login name is **root**. This user is setup when the system was installed. It should only be used when you need to manage or add a user; not for day-to-day use.



You can add a user by pressing the **+** button and you can remove the selected user by pressing the **-** button. To edit a user, just double-click on it.

You can select any number of privileges for a user. It is always best to select only the privileges that are absolutely needed for that user.



A typical user should have **View**, **Add/update,** and **Delete** privileges. You may also want to grant **Add patient** privileges. Only administrator or management-type users should have **User management** or **Maintenance** privileges.

The **Requires review** option means that this user's entries need to be approved by a supervisor in order be considered finalized. Entries made by these users that include anything other then simple text (i.e. lab results, any attachment, or data entered via a data-entry form) will have be automatically given an entry type of of. These entries will remain in this state until a supervisor has reviewed them. See the **Entries that need review** function for more information. Note: this review process applies to entries made in an animals chart as well as entries made in an enclosure's log.

Note that **Delete** privileges only allows a user to delete a specific single entry. It does **NOT** allow a user to delete a patient or an entire record entry. This requires a user with **Maintenance** privileges.

Maintenance

The **Maintenance** menu is only available to **RaptorMed** users with **Administrator** privileges. Click **here** for more information on User privileges. This menu contains the following areas that allow for the system to be configured and maintained.

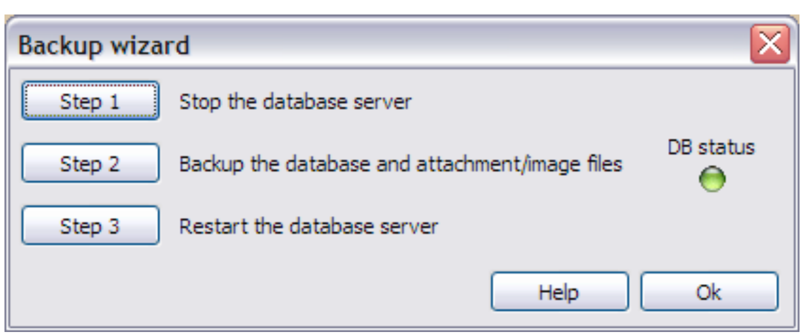
Increment ages
This command can be used to update the age of each active patient. It currently only works for patients whose ages are specified using the age scheme utilized by the USGS Bird Banding Lab (BBL). Specifically, ages such as L, HY, AHY, SY, TY, 4Y, 5Y, 2, 2+ will be properly incremented but other age values will be ignored. As birds are deemed to have aged one year on Jan 1, this command should be run in early January. Note that this command cannot be undone so you will be prompted twice to proceed before the operation will take place.

Update license key
This command allows a new license key to be entered. See Licenses below.

Backing up the database
The database should be backed up frequently. In order to do this, you can access the **Backup Wizard** by choosing **Tools ▶ Maintenance ▶ Backup database** from the main menu. Note that you must have **Maintenance** privileges to access this function. Click **here** for more information on User privileges.

> **Notes:**
> In order to run this command, the Windows user that you are logged in as must have Administrator rights on the computer. This is sometimes complicated, especially on Windows 7, so you may need assistance from your network administrator.
> Also realize that the database will be offline for the short period of time that is required to perform the backup, so you should plan to do the backup during a slow period or after hours.

When you press **Step 1**, a window will pop up momentarily. This stops the database and the **green** light should change to **red**. If the color does not change, then your Window's user account probably does not have the correct access rights.



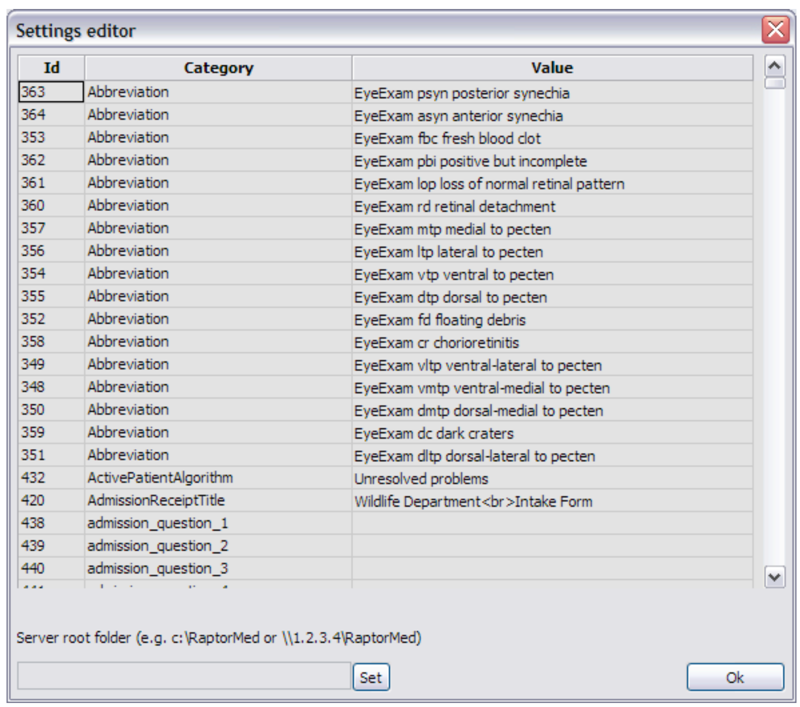
Once the light has turned **red**, press **Step 2**. This automatically opens each folder that has data that needs to be backed up. This is done as a convenience for you but the actual backup procedure that you must perform depends on if you are burning the data to a CD/DVD or copying it to a secure network drive.

Once the backup procedure is complete you can close all the folders that were opened in **Step 2** and press **Step 3**. A window will popup again to restart the database and the light should turn back to **green**. At this point, the backup procedure is complete.

You can view the history of all backups by choosing **Help ▶ About** from the main menu. A list of all database maintenance, including backups and updates, will be displayed.

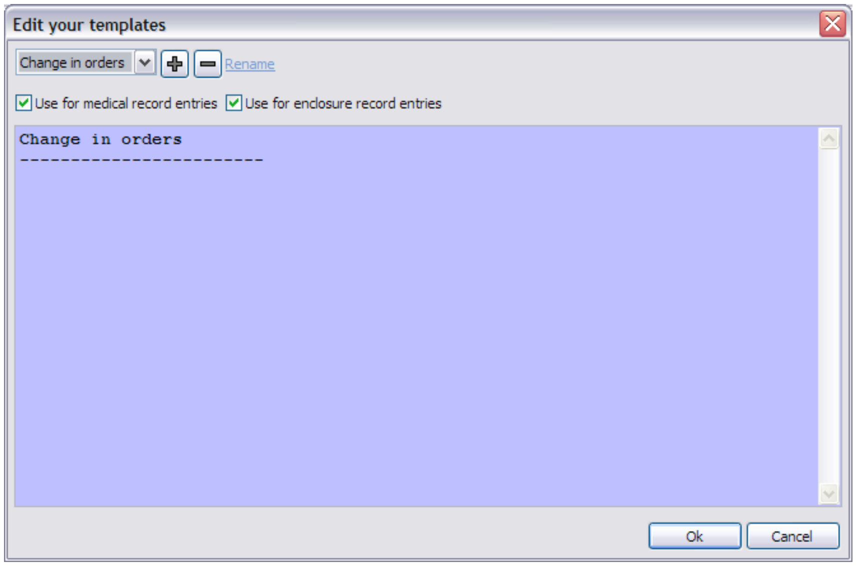
Settings editor

The Settings editor is used to do maintenance or make configuration changes to the database. It is accessed by choosing **Tools ▶ Maintenance ▶ Settings editor** from the main menu. This function is generally for internal use only or should only be used under direction from **RaptorMed** technical support. Note that you must have **Maintenance** privileges to access this function. Click here for more information on User privileges.



Text template editor

The text stings that can be automatically inserted into a medical record are listed at the top of the list on the right-hand side of the medical record entry form and also in the Enclosure Log entry form. These can be edited using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Template editor.**



A window is displayed that displays each template.

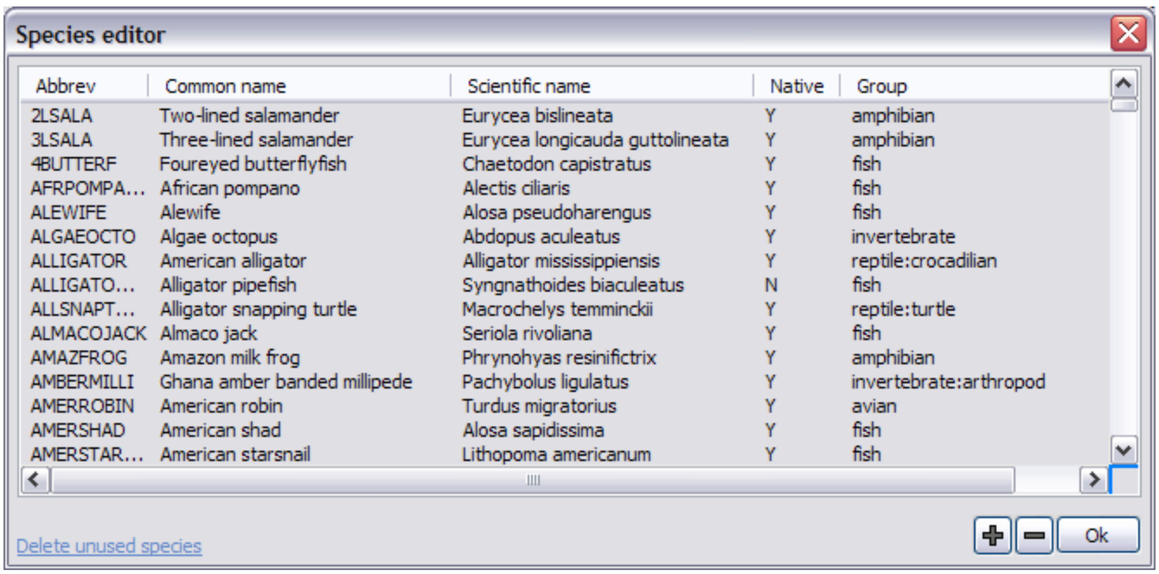
Select a template by choosing one from the list. You can edit the template's text that is displayed in the large edit fields.

Add a new template by pressing the **+** button.
Remove a template by pressing the **-** button.
Rename a template by pressing the **Rename** link.
In addition, you can specify whether this template should be available for individual patient record entries and/or enclosure record entries by checking the appropriate boxes.

Species editor

This list of species programmed into the system can be edited and modified as needed. These can be edited using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Species editor.** To add a new species, press the **+** button. To edit an existing species, double-click on it. To delete the selected species, press the **-** button. Note that you can select more than one species using the shift and control left-click key combinations. You can sort the list by clicking on each column heading. Note that **N or D** stands for **Nocturnal or Diurnal**.

You remove any unused entries from the list by pressing the **Delete unused species** link.



Abbrev	Common name	Scientific name	Native	Group
2LSALA	Two-lined salamander	Eurycea bislineata	Y	amphibian
3LSALA	Three-lined salamander	Eurycea longicauda guttolineata	Y	amphibian
4BUTTERF	Foureyed butterflyfish	Chaetodon capistratus	Y	fish
AFRPOMPA...	African pompano	Alectis ciliaris	Y	fish
ALEWIFE	Alewife	Alosa pseudoharengus	Y	fish
ALGAEOCTO	Algae octopus	Abdopus aculeatus	Y	invertebrate
ALLIGATOR	American alligator	Alligator mississippiensis	Y	reptile:crocadilian
ALLIGATO...	Alligator pipefish	Syngnathoides biaculeatus	N	fish
ALLSNAPT...	Alligator snapping turtle	Macrochelys temminckii	Y	reptile:turtle
ALMACOJACK	Almaco jack	Seriola rivoliana	Y	fish
AMAZFROG	Amazon milk frog	Phrynohyas resinifictrix	Y	amphibian
AMBERMILLI	Ghana amber banded millipede	Pachybolus ligulatus	Y	invertebrate:arthropod
AMERROBIN	American robin	Turdus migratorius	Y	avian
AMERSHAD	American shad	Alosa sapidissima	Y	fish
AMERSTAR...	American starsnail	Lithopoma americanum	Y	fish

When adding or editing a species, the following form appears. There are fields for the **Abbreviation**, **Common name**, **Scientific name,** and you can specify whether the species is **Native** or not and whether it is **Diurnal or Nocturnal**.

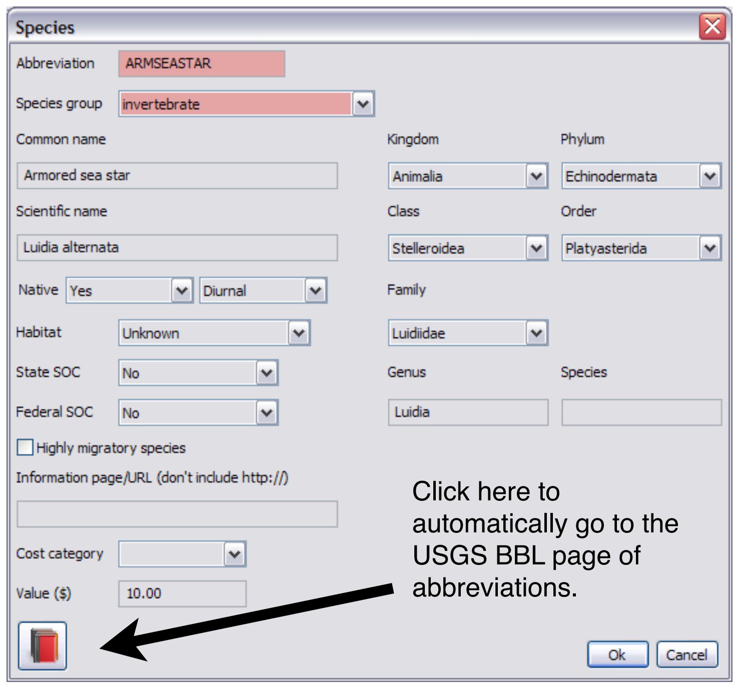
You can specify whether this species is a **Species of concern** (i.e. threatened or endangered) in your state or nationally. This is important because the system will remind you to report species of concern when admitted.

You can specify if this is a **Highly Migratory Species** (important when creating HMS reports) and the system can optionally alert you (when the animal is admitted) to record the proper biometric data that is required for the HMS reports.

You can specify if this is a **Rabies Vector Species** and the system can optionally alert you (when the animal is admitted) with a custom message that can provide additional instructions that may be required. For example, your state or county may require additional information or paperwork to be be filled out and this optional alert message can provide the proper guidance.

You can specify if this is a **Venomous Species** and an alert banner will be automatically printed on the animal's cage card and on the main medical record page.

For birds, the four-letter abbreviations specified by the **USGS Bird Banding Lab** (BBL) are typically used, although, this is not absolutely required. For non-avian patients, you can used any scheme that works for you. Many facilities use the genus/species as the basis of the abbreviation. For example, the opossum is *Didelphis virginiana* so its abbreviation could be **DIVI**. Another option is to create easily recognized abbreviations for a species so the opossum could be **OPOS**. Any abbreviation can be used as long as two species do not have the same abbreviation.



The **Habitat** can also be specified. This may be important for various reports.

If enabled on your system, you can also specify the entire **Taxonomy** from Kingdom to Species.

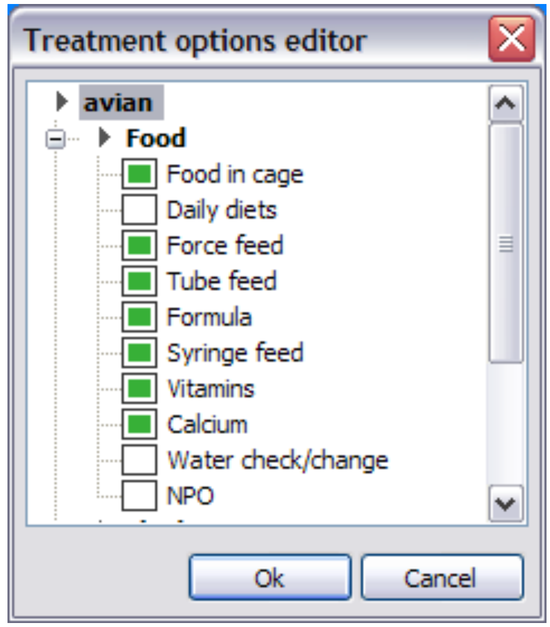
You can specify an **Information page/URL** as well. This page will be displayed when the user right-clicks on a patient and chooses **Show species info page**. Note that Wikipedia has a very good set of pages for a wide range of species. The prefix `http://` is **not** needed.

The **Cost category** is used by the **Cost Estimator** function and this setting helps determine the per day cost for a patient of a particular species.

The **Value** field can be used to assign a monetary value to a specimen of this species. This is used in the **Collection Value Report**.

Treatment options editor

The **Treatment Options Editor** allows you to choose which non-medication options are present on the treatment plan sheet. The editor is accessed by choosing **Tools ▶ Maintenance ▶ Treatment options editor** from the main menu. It is divided into sections based on the species group so there is a section for avian, reptile, mammal, etc. This allows you to configure different options for each species group. This is important since it does not make sense to have “Feather check” on the treatment sheet for a turtle, for example. There are the following general categories: **Food**, **Fluids**, **Eyes**, **Ears** and **Miscellaneous**. Click on each section and choose the options you want. When you are done, press the **Ok** button. You must restart the program before any changes made here will take effect.

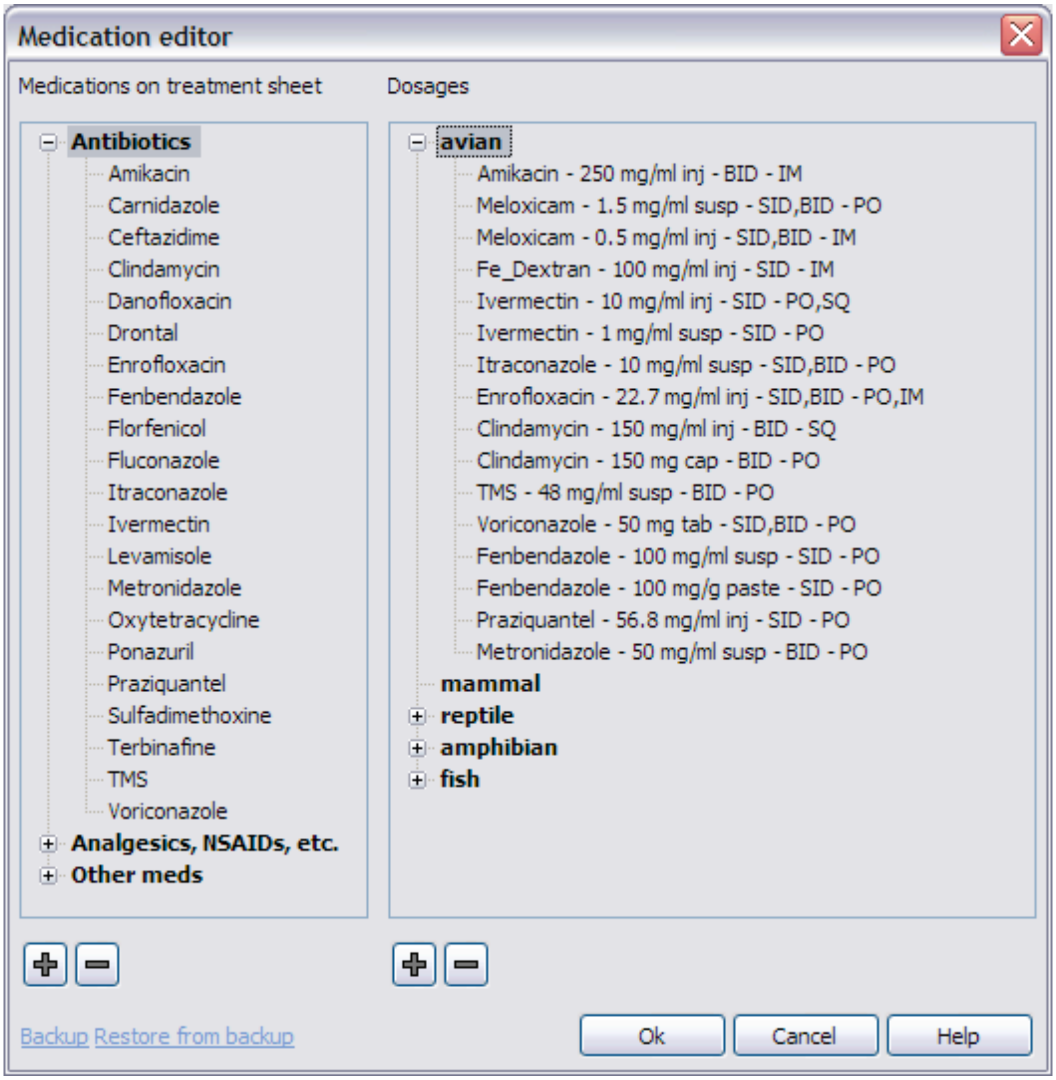


Medication editor

The medications listed on the individual treatment sheets can be configured using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Medication editor.** The following window will appear. It is divided into two main sections. The left side lists each medication and they are divided into four main categories:

- Antibiotics
- Analgesics, NSAIDs, etc.
- Other meds
- Vaccines

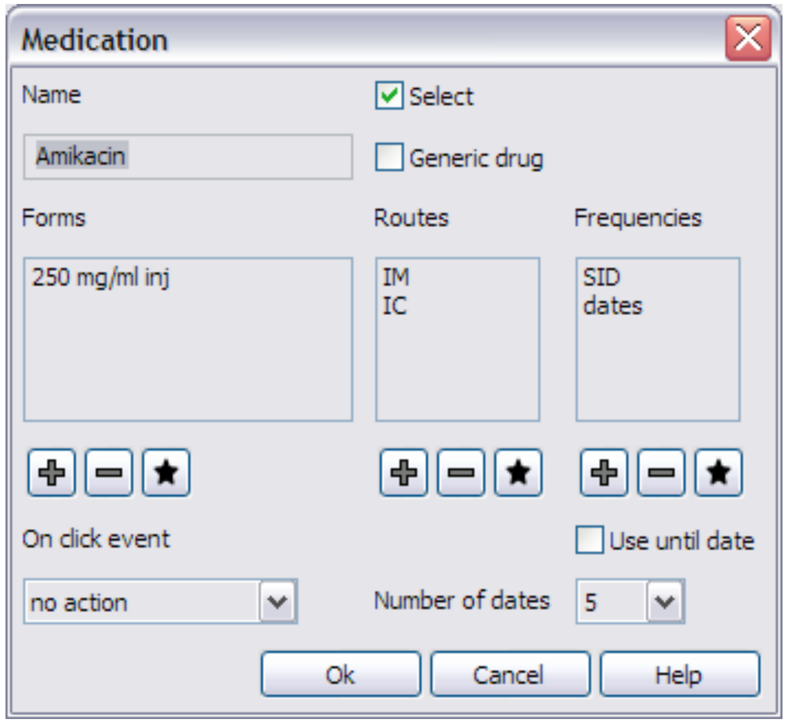
The right side lists the dosage formulary for each drug and it is organized in a nested arrangement based on the species group. For example, avian:raptor is listed below avian. This means that you can have a separate formulary for avian:raptor vs avian:songbird.



You can edit an existing **medication** by double-clicking any entry in the list on the **left** side. You can add or remove the selected medication by pressing the **+** and **-** buttons. When adding a new medication it will be added to the category that is currently selected.

The medication editor form is displayed when editing or adding a medication. The following fields are on this form:

- **Name** - the name that will appear on the treatment sheet. Note that spaces are not allowed. If you enter a space it will be replaced with an underscore.
- **Select** checkbox - check this box if you want this medication to be available on the treatment plan form.
- **Generic** checkbox - check this box if this is a generic drug.

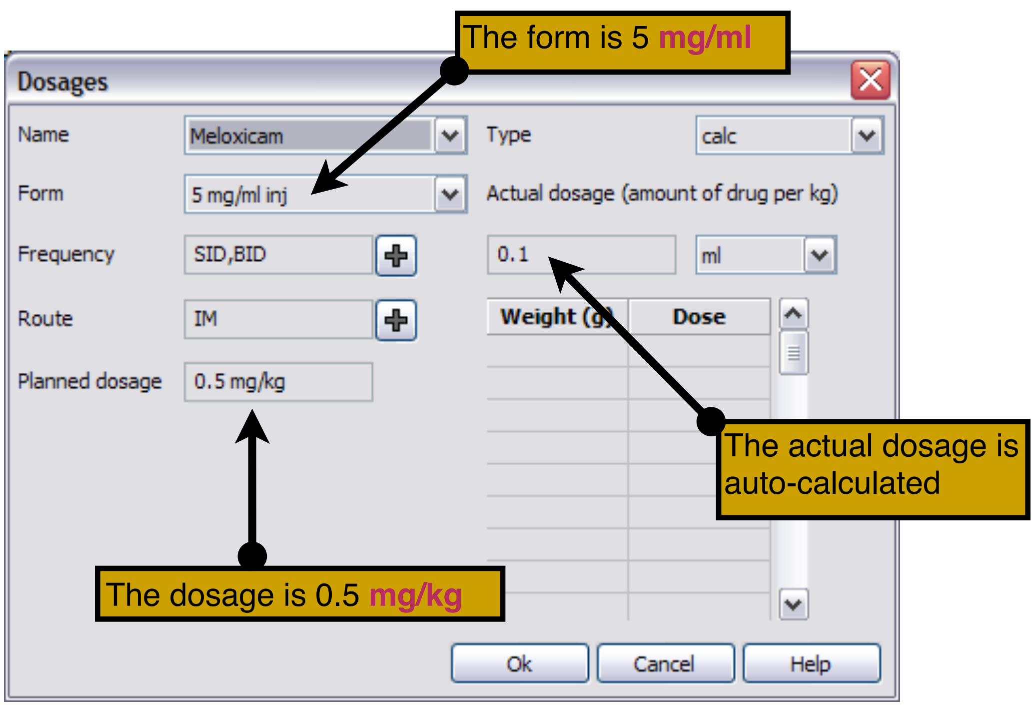


- The **Forms** list - specify any number of different drug forms/concentrations. Double-click on an entry to edit it. Press the **+** and **-** buttons to add and remove choices. Press the * button to mark the selected choice as the default.
- The **Routes** list - specify any number of different delivery routes. Press the **+** and **-** buttons to add and remove choices. Press the * button to mark the selected choice as the default.
- The **Frequencies** list - specify any number of different delivery frequencies. Press the **+** and **-** buttons to add and remove choices. Press the * button to mark the selected choice as the default. Valid choices are **SID**, **BID**, **TID** and **dates** where **dates** indicates that individual dates can be specified.
- **Use until date** checkbox - check this box if you want this medication to allow an Until date to be specified.
- **Number of dates** - specify the number of individual dates that can be entered. This is only relevant if you have selected "**dates**" as an option in the **Frequencies** list.
- **On click event** - allows you to specify an action that will occur when this medication is selected. The choices are:
  - **approvalRequired** - this will force the user to enter the initials of the person that has approved the use of this drug.
  - **fluids** - this will prompt the user to setup a fluid protocol and is typically used for nephrotoxic drugs.

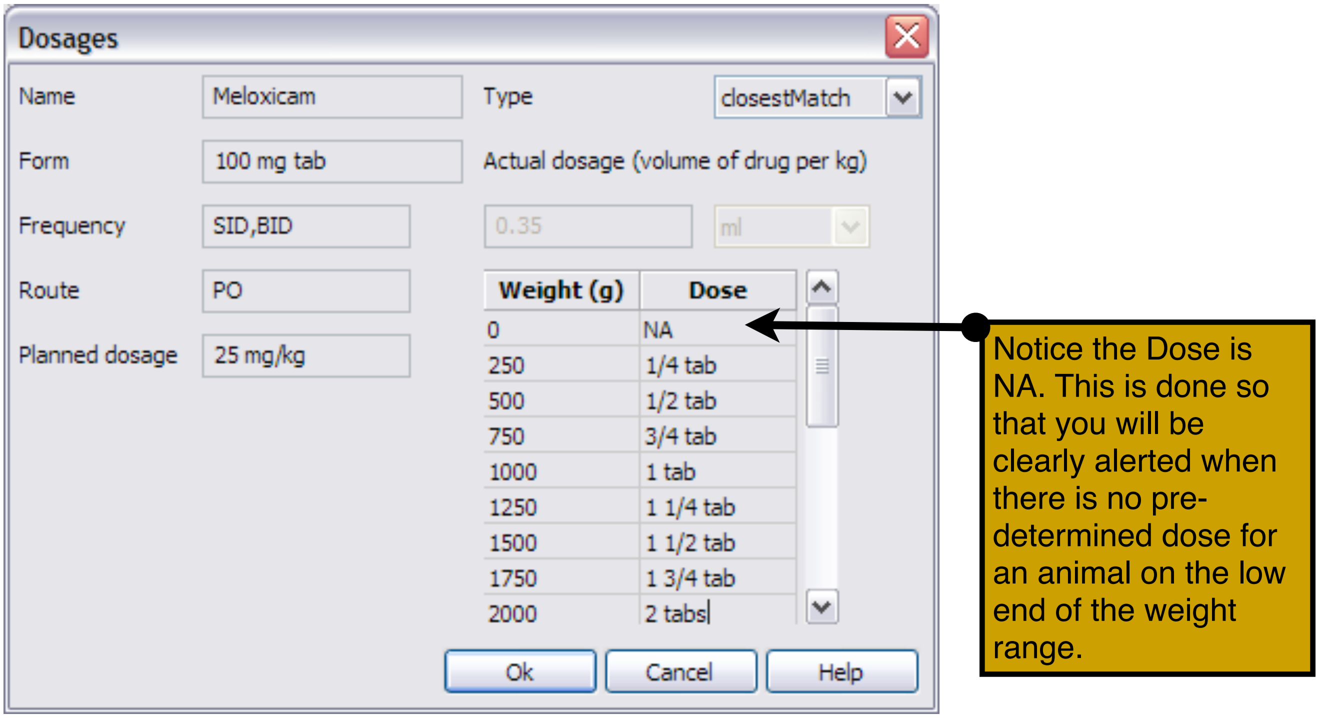
You can edit an existing **dosage** by double-clicking any entry in the list on the **right** side. You can add or remove the selected dosage by pressing the **+** and **-** buttons. When adding a new dosage it will be added to the species group that is currently selected or to the species group that contains the dosage that is currently selected.

The dosage editor form is displayed when editing or adding a dosage. The following fields are on this form:

- **Name** - Choose the name from the list. The names in this list must have already been setup as shown above in the medication list.
- **Form** - When you select a medication name, the list of available forms will be listed.
- **Frequency** - the dosage frequencies that this dosage applies to. You can list more than one separated by a comma. For example: SID, BID, TID
- **Route** - the dosage route that this dosage applies to. You can list more than one separated by a comma. For example: SQ, IM, IV
- **Planned dosage** - the intended dosage in mg/kg.
- **Type**
  - **calc** - This is used for liquid medications that can be dosed exactly by calculating the dose based on the animal's weight and the concentration of the liquid. The dose is calculated by multiplying the animals weight in kg by the Actual dosage specified in the Actual dosage fields. For example: if the weight is 2 kg and the Actual dosage is specified as 0.35 ml, then the dose would be 0.7 ml. **If the Form is listed in a mg/ml format, and you enter the planned dosage in a mg/kg format, then the Actual dosage field will be auto-filled for you**.



  - **closestMatch** - This is used for tablets and capsules that cannot be divided easily. If this choice is selected, the **Actual dosage** fields are ignored. Instead a spreadsheet is used that allows you to specify a dose that most closely matches the animal's weight. So for example, you could specify that 250 g animal gets 1/4 tab, a 500 g animal gets 1/2 tab, etc. The program will find the closest match based on weight. You can make the weight increment between entries as small or as large as is needed for this particular medication. The following is a typical example.



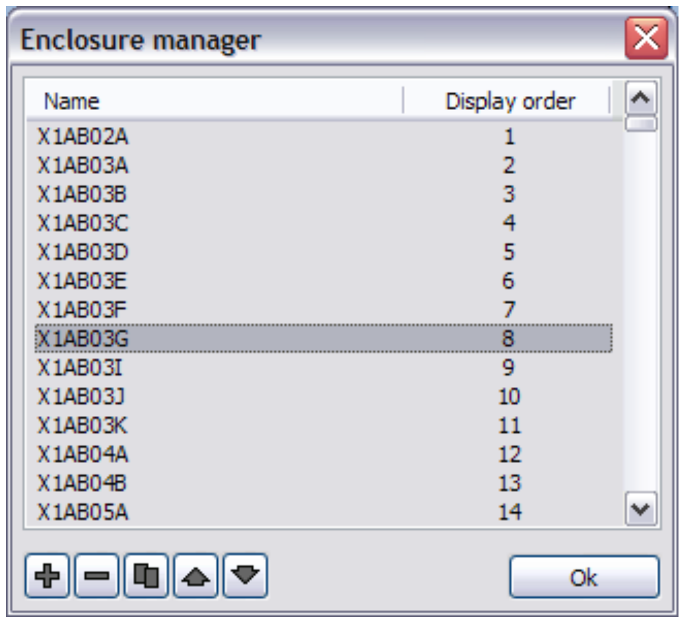
Note that it is good practice, as is shown in this example, to include a dose of **NA** (not applicable) for a weight that is too small or too large to be effectively dosed by this medication form. If this is done, then the auto-calculator will display **NA** when this drug is selected and this will indicate to the user that another drug form must be used. In reality, this is a very common situation as tablets and capsules can typically only be divided into halves or quarters but rarely anything smaller.

You can right click on the dosage spreadsheet to **Clear all** previously entered dosages and to **automatically insert a range of weights**. When auto-inserting a weight range, you will be prompted for the min weight, the max weight and the increment in weight between entries. All weights are in grams. Note that **NA** will automatically be inserted in the Dose column for the first and last entry. You can always override this but it is good practice to have **NA** at the top and bottom of the weight range.

At any time, you can backup the medication formulary by pressing the **Backup** link. As the process of editing the formulary is somewhat detail-oriented, it is not a bad idea to perform a backup before making any edits. When you make a backup, the formulary is stored in a file that contains the date and time. If an error is made, you can easily restore a saved backup by pressing the **Restore** link. When restoring a formulary from a backup, you will be prompted to choose from a list of previously saved backups.

Enclosure editor

The enclosures can be configured using this tool. It is accessed by choosing **Tools ▶ Maintenance ▶ Enclosure editor.** A list of all currently defined enclosures is displayed. The **Display order** is also shown. This is the order that the enclosures are listed in the **Enclosure List** on the main screen. This is typically alphabetical, but they are be ordered in any manner that makes sense to your operation. The **Display order** for the selected enclosure can be changed by pressing the **Up** and **Down** arrows.

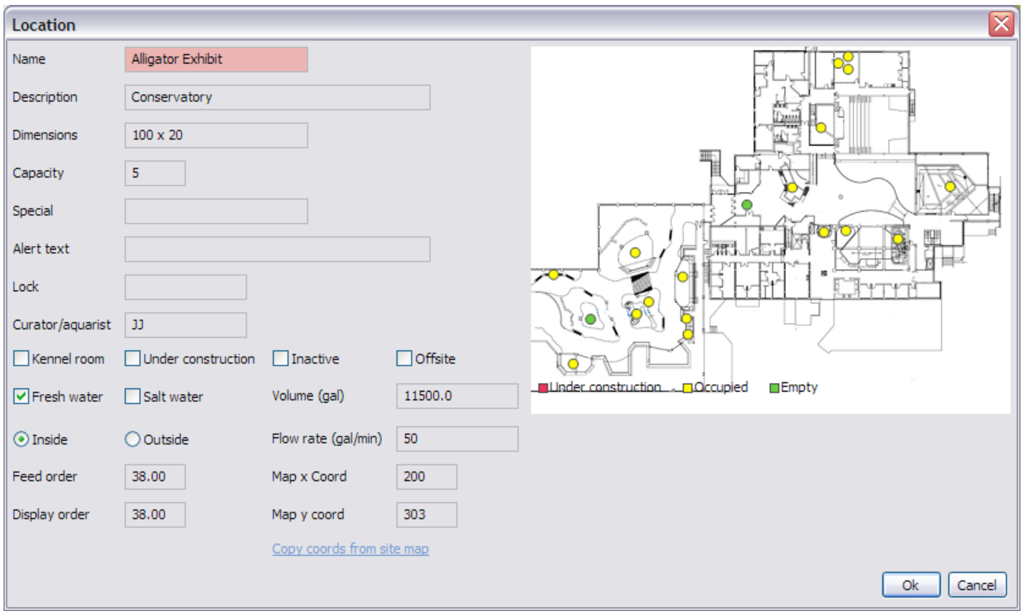


You can add a new enclosure or delete the selected one by pressing the **+** and **-** buttons, respectively. You can edit an enclosure by double-clicking on it and you can copy the selected enclosure by pressing the **Copy** button (the center button).

When creating a new enclosure or when copying or editing and existing enclosure, the Location/enclosure info form is displayed. The form allows you to set many properties for each locations. These include:

- **Name** - The name of the enclosure. This can be simply a number or a more descriptive name. Note that apostrophes are not allowed in the name.
- **Description** - A description of this enclosure. For information purposes only.
- **Dimensions** - The enclosure dimensions. This is displayed in the **Enclosure list** on the main screen and is for informational purposes only.
- **Capacity** - The enclosure capacity (i.e. the number of animals that can comfortably be houses in this location). This is displayed in the **Enclosure list** on the main screen and is for informational purposes only.
- **Special** - Any special notes about this enclosure. This is for informational purposes only.
- **Alert text** - This text will be printed on the daily treatment sheets and can be used as an alert or reminder about something specific about this cage. For example, you could say something like “Be careful with door latch” or “CAREFUL - AGGRESSIVE”.
- **Lock** - Indicates whether this enclosure has a lock. If you enter the lock information (such as the combination lock code), it will print out on the daily treatment sheets.

- **Curator** - The curator/aquarist is the person responsible for this enclosure. If enabled, the Enclosure List on the main screen can be filtered by this field.
- **Department** - This is the name of the section in your organization that this enclosure belongs to. If enabled, the Enclosure List on the main screen can be filtered by this field.



- There are also several check boxes that determine how this location is used and interpreted by **RaptorMed**.
  - **Kennel room** - This indicates this location is a room full of separate kennels or enclosures. If this box is checked, then each animal in this location will be treated as an individual. If this box is not checked, then all patients in this location will be treated as a group.
  - **Under construction** - If checked, this location will be highlighted in the **Enclosure** list and on the **Site Map**. This is for informational purposes only and the program does not prevent you from putting a patient in a location that is under construction.
  - **Inactive** - If this box is checked, this location will be removed from all lists and it cannot be selected or used for patients until unchecked.
  - **Offsite** - These locations are for enclosures that are not on the premises and can be used for patients that are currently “on loan” to another organization or are otherwise offsite. Offsite locations are **not** included in the main **Enclosure list**.
  - **Fresh water and Salt water** - Used to indicate that this enclosure is aquatic. Water quality data can be recorded for these enclosures.
  - **Inside and Outside** - These allow you to specify whether the enclosure is inside or outside. Depending on your configuration, this may determine where patients in these locations will appear on the daily treatment sheets.

- **On Exhibit** - This enclosure is on display and will be part of the **Exhibit census report**.
- **Under treatment** - This is used to indicate that a system is under treatment. This is very useful in aquarium situations where a tank of newly captured fish are being treated during a quarantine period. Enclosures in this situation are marked with a **red** dot in the center of their symbol in the **Site Viewer.** There will also be an **UNDER TREATMENT** text banner across the top of the Enclosure Log screen.

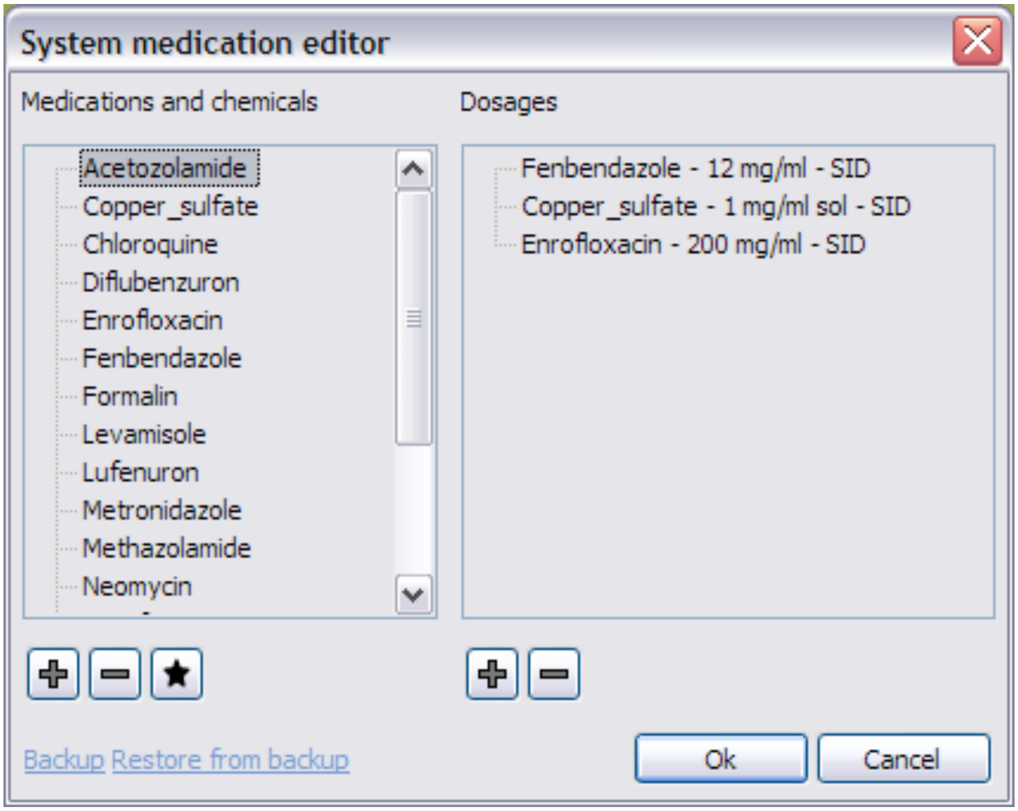
- **Pending issue** - The check box can be used to mark an enclosure as having an unresolved issue. This checkbox may be used in your daily treatment printouts.
- **Dirty** - This is used to indicate that an enclosure is dirty and should not be used. It will display as an **orange** dot on the **Site Viewer.**

- **Volume** - The volume of the tank. This is important for aquatic enclosures and is used to auto-calculate enclosure medication dosages.
- **Flow rate** - For aquatic enclosures. For informational purposes only.
- **Feed order** - This number indicates the order that this location will appear on the daily treatments sheets. Typically, it makes sense to set the feed order so that the order mimics the route that somebody would walk to visit each location. It is a decimal number so that you can add a new location between two existing ones easily. For example, if Cage 1 and Cage 2 have feed order 2.4 and 2.5 respectively, you can add a new location called Cage 1a with a feed order of 2.41.
- **Display order** - This number indicates the order that this location will appear in the **Enclosure list** on the main screen. Typically, it makes sense to set the display order so that each location is in alphabetic order. As with the **Feed order,** this number is a decimal number so that you can easily insert a new location between two existing ones.
- **X Coord** - This is the horizontal coordinate of the location on the **Site Map**. 0,0 is in the upper left corner.
- **Y Coord** - This is the vertical coordinate of the location on the **Site Map**. 0,0 is in the upper left corner.

To easily set the coordinates for a location, **Shift-left click** on a spot on the **Site Map**. A purple spot will be displayed. Shift-left click until the purple spot is in the correct location. Then press the "**Copy coords from site map**" link.

Enclosure medication editor

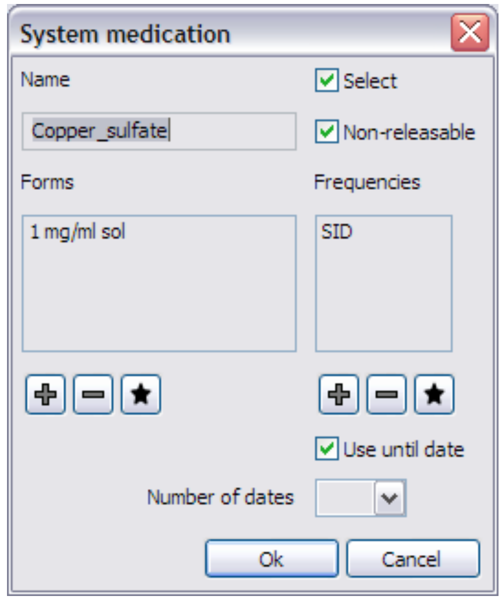
The medications listed on the enclosure treatment sheets can be configured using this tool. It is accessed by choosing **Tools ▶ Maintenance ▶ Enclosure/system medication editor.** The following window will appear. It is divided into two main sections. The left side lists each medication and the right side lists the dosages.



You can edit and existing **medication** by double-clicking any entry in the list on the **left** side. You can add or remove the selected medication by pressing the **+** and **-** buttons.

The medication editor form is displayed when editing or adding a medication. The following fields are on this form:

- **Name** - the name that will appear on the treatment sheet. Note that spaces are not allowed. If you enter a space it will be replaced with an underscore.
- **Select** checkbox - check this box if you want this medication to be available on the treatment plan form.
- **Non-releasable** checkbox - check this box if this is a drug that should result in any animals being marked as non-releasable after being treated with this drug.

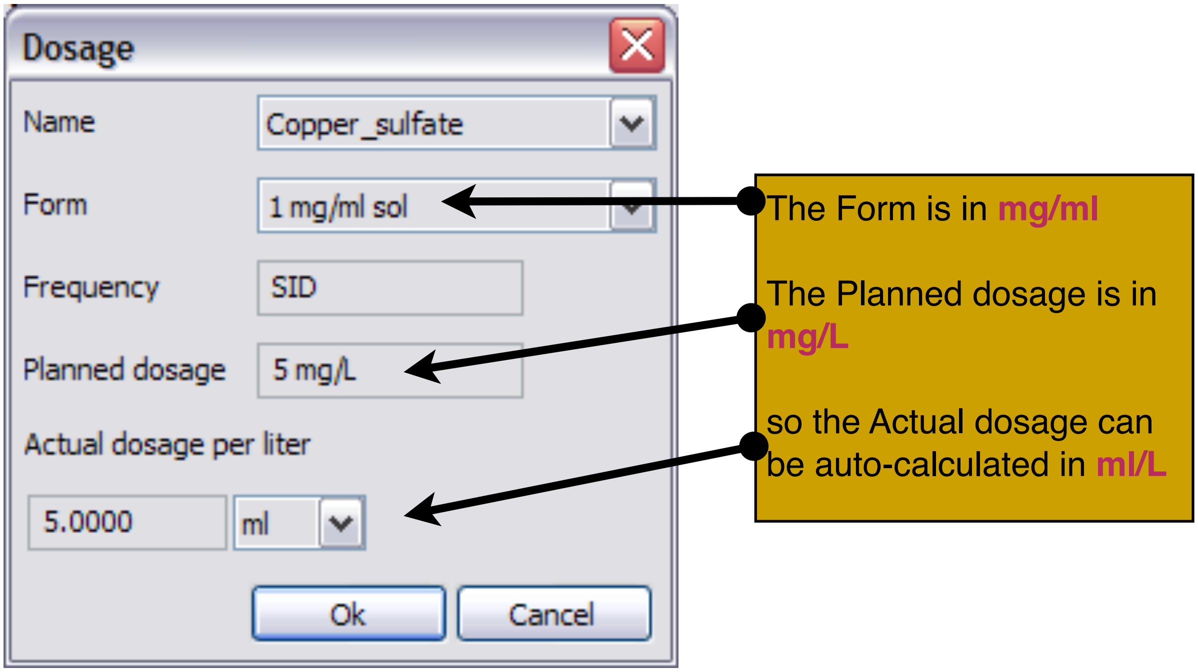


- The **Forms** list - specify any number of different drug forms/concentrations. Double-click on an entry to edit it. Press the **+** and **-** buttons to add and remove choices. Press the * button to mark the selected choice as the default.
- The **Frequencies** list - specify any number of different delivery frequencies. Press the **+** and **-** buttons to add and remove choices. Press the * button to mark the selected choice as the default. Valid choices are **SID**, **BID**, **TID** and **dates** where **dates** indicates that individual dates can be specified.
- **Use until date** checkbox - check this box if you want this medication to allow an Until date to be specified.
- **Number of dates** - specify the number of individual dates that can be entered. This is only relevant if you have selected “**dates**” as an option in the **Frequencies** list.

You can edit and existing **dosage** by double-clicking any entry in the list on the **right** side. You can add or remove the selected dosage by pressing the **+** and **-** buttons.

The dosage editor form is displayed when editing or adding a dosage. The following fields are on this form:

- **Name** - The name of the medication is chosen from the list
- **Form** - This list is filled with available choices when a medication is chosen from the above list.
- **Frequency** - the dosage frequencies that this dosage applies to. You can list more than one separated by a comma. For example: SID, BID, TID.
- **Planned dosage** - the intended dosage in **mg/L**. If the **Form** is specified in a **mg/ml** format and the **Planned dosage** is provided in **mg/L** format then the **Actual dosage** will be auto-calculated in a **ml/L** format.
- **Actual dosage** - Specify the amount here. The volume units for the dose and the units for the destination aquarium must be specified are you can have the system auto-calculate the value for you as described above.

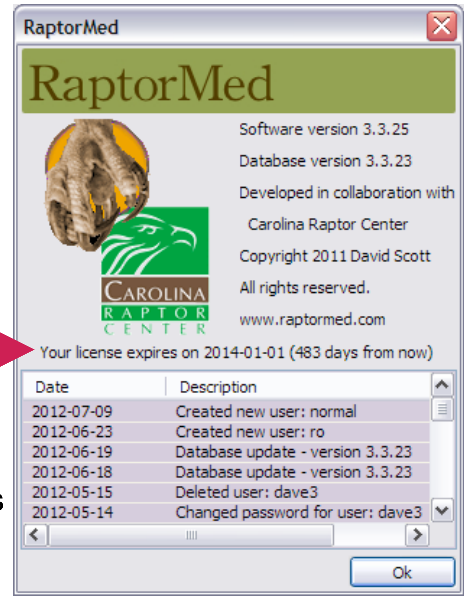


At any time, you can backup the medication formulary by pressing the **Backup** link. As the process of editing the formulary is somewhat detail-oriented, it is not a bad idea to perform a backup before making any edits. When you make a backup, the formulary is stored in a file that contains the date and time. If an error is made, you can easily restore a saved backup by pressing the **Restore** link. When restoring a formulary from a backup, you will be prompted to choose from a list of previously saved backups.

Open shared folder
This function will open the Windows File Manager in the RaptorMed shared folder. This is simply a convenience function and is useful when doing maintenance or debugging issues.

Licensing and system information

RaptorMed requires an active license in order to run. The license is renewed on a periodic basis as determined by the purchase agreement. The current license expiration date is shown in the **About** box that is displayed when you select **Help ▶ About** from the main menu.



In addition, this window displays the network IP address or hostname of the **RaptorMed** server and the status of the **RaptorMed** shared folder resource. These can be helpful when debugging problems that you may encounter.

The list at the bottom is a maintenance log that displays information about events such as database backups, additions of new users and when animal records are deleted.