1 Version 2.0 Release Notes

Version 2.0 brings a lot of internal changes to Campground Master to support networking and make the database more robust and efficient.

This release also adds a few other major features and a lot of smaller additions. The major additions include networking, monthly billing, receipt printer support, and a new method of entering meter readings and charges. Complete manual excerpts are included in these release notes for some of the major additions, so they can be printed out separately and added to an existing manual.

To upgrade to this release, you only need to install it over your current version. There is no need to uninstall the previous version. All previous versions will be upgraded automatically -- you do not need to install previous upgrades before this one, and all of your data and settings will be retained.

Note: While there should be no problems with the new version, be aware that you may not be able to go back to using your database with a previous version of Campground Master once you start using this version, due to upgrades that are automatically made to the database. Be sure you make a backup of the database before installing the new version, in case you have any trouble.

Also Note: When you install the new version, the "**demo**" database (demo.prk) will be overwritten with a new version of the sample database. If you have been working with the sample database and want to save the changes you've made, then you need to load it and then use File | Save As to save it to a different name before installing the new version of the software.

Version 2.0.4 -- This release fixes several minor bugs and adds a "Total Paid" field option to most tab view reports (see Other Changes for details).

Version 2.0.3 -- This release fixes a few minor bugs with the Enter Charges function on the New Reservations dialog.

Version 2.0.2 -- This release fixes a bug that caused the Default Receipt Format to not be saved after it's changed in File / Printing Options.

Version 2.0.1 -- This release fixes a bug that caused unbound transactions to be excluded from transaction reports and QuickBooks exports.

Version 2.0 release changes:

- **Changes to be aware of** -- minor but important changes you should know about, which may require changes to your settings.
- **Other changes** -- Lists other changes and fixes.
- **Database Options** -- A new options tab under Maintenance | Program Options, with some new settings for data logging.
- **Monthlies Options** -- A new options tab under Maintenance | Program Options, with some new settings for making monthly reservations.
- **Monthly Billing** -- Details on the new Monthly Billing function under Transactions.
- **Meter Readings** -- Details the new easier methods for entering meter readings.

- **Network functions** -- Details about setting up and maintaining the network.

Changes to be aware of

There are a lot of changes in this version that will affect what you see in normal operations. Please read these carefully before installing the new version. Some of the changes can be disabled if you prefer the original methods, but we feel that they are worthwhile for improving the ease of operation and preventing errors.

- The settings under View | Options have been moved to more appropriate locations. The Printer Options have been moved to the File menu, the Rack options have been moved to a new Options button on the Rack itself, and the other options have been moved to the Maintenance menu (see Program Options).

- The Flip Orientation option has been removed from the right-click menu on the Rack. The orientation can be changed from the new Options button.

- The View Product Authorizations function has been moved from the Maintenance menu to the View menu

- Fixed the Data Tables, Pick Lists, and Define Data Fields editing grids to always trim leading and trailing spaces from entries. (This will not automatically correct old entries, however -- in particular, you should check your Pick Lists to make sure the names don't have extra spaces.)

- Added check-in time and check-out time and date on receipts. If you don't want it, disable the Park fields for checkin and/or checkout time, under Maintenance / Define Data Fields / Park Fields

- Use the Park's Short Name for park selection in drop-down lists and Site Filter. (If you are set up with multiple Parks, you may want to adjust these short names accordingly in Maintenance / Park Setup / Parks.)

- If a Default site filter is defined for the Rack, the New Reservation dialog will use that also (if starting fresh without a site number). To see all sites, you can still select "All Site Types" from the site type list.

- The Site Type selection on New Reservations also limits the sites in the Quick Pick list to those matching the site type or filter selected.

- The Site Name, rather than the Abbreviation, is used by default on receipts and invoices. You may need to adjust the names to be appropriate (see the Site Details), or if you prefer the abbreviations then you can disable the new default under File | Printing Options \ Receipts.

- Added special flags to Rate Definitions for Monthly billing and Ask for Meter Reading. The Ask for Meter Reading flag will automatically be set for all existing meter reading rates, and indicates that the meter reading entry dialog should be used when this rate is selected. The Monthly Billing flag should be set for any monthly rates that will be used for the new automatic monthly billing feature.

Other Changes

- A small network-heartbeat indicator has been added to the right end of the status bar - see Help for details (Getting Started / Main Program Window / Status Bar.)
- Some items on the Maintenance menu have been rearranged, and a Network functions item added.
- Added command-line options to allow auto-login. See the Help for details (Maintenance Functions / Park Setup / Operator Setup).
- Fixed the New Reservation dialog so that the initial site selected (e.g from double-clicking on the Rack) does show up in the Site(s) Selected list.
- Added support for receipt printers (e.g. 3" roll-paper retail receipt printers). Corresponding receipt types and Printer Setup options have been added. A Windows driver will be required for the receipt printer, and you may need to use the "native font" option for clean output if the printer is not graphics-capable. See File | Printer Options for the native font setting.
- Added a Window Tag "receipt type", which will print the site name and in/out dates in large print.
- Fixed a problem with receipts printing with black backgrounds on Lexmark printers (worked around a Lexmark driver bug).
- Nearly all settings (from "Options" dialogs) have been moved into the database instead of the "Campground Master.ini" file. This was required to keep them synchronized for networking, and also results in the settings being backed up automatically with the database. Many settings are still "local" to each workstation in a network, but can be manually synchronized when needed.
- Added a clickable E-mail link on Customer Details (opens your "default" E-mail program with the customer's address filled in)
- Added totals on the bottom row for all applicable columns on tab views (e.g. balance, # adults, children, etc.)
- Allow Phone, Email, Discounts, and Addr2 customer fields to be disabled.
- The font for all grid reports has been changed to MS Sans Serif. The difference will be unnoticeable on most systems, but it improves the readability and fixes some font sizing problems on printed reports.
- Fixed some printing problems on Win9x systems (font problem, lock-up after many receipts printed)
- Added an option to show the print setup dialog every time you print (normally shown, but now you can disable it)
- Allow shrinking the cell width on the Rack to get a compressed view (more days) -- see the Options button on the Rack view
- Improved the ability to import data from CSV files, particularly supporting ReserveRight data better (several new fields and options added)
- Added confirmation number column on some tab views (default on Arrivals, optional on some others).

- Fixed a bug that prevented the "Applies only to Site Class" setting in a Rate definition from being saved.
- Automatically adjust the Site and Type columns on the rack to fit the text widths.
- Automatically use the Rack's default site filter when making new reservations
- Allow selecting individual sites in the site filter
- Added Site Class and Site Park grouping in Transactions reports
- Added Reservation filtering to Transaction reports. This replaces the Site Filtering function (site filtering is included in reservation filtering), and allows reports based on reservation type (group, extended stay), status, dates, length of stay, etc.
- Added length-of-stay filtering to the Reservation Filter (used for many reports like transactions, batch receipts, occupancy, etc.)
- Conflicting reservations are nearly impossible to create now (except when importing data), but if there is a conflict then right-clicking on it will allow listing and editing the details for all conflicts (making it easier to resolve the conflict).
- Added an Amt Tendered entry field to the Enter Payment dialog, and show the Change Due.
- Added a Check Rates function to the New Reservation dialog, which can be used to calculate the rate for the current site & dates selected without entering customer information or saving the reservation.
- Added an Enter Charges function to the New Reservation dialog, which can be used instead of the "Continue to details" function to go directly to entering transactions (either charges or a deposit.)
- New options have been added for printing "new" transactions, on the Transactions dialog and also the Batch Receipts report. In addition to the "new" transactions as defined previously, you can print transactions since last paid-in-full (zero balance), or all transactions starting on a particular date.
- Several "OK" buttons on dialogs have been changed to a more appropriate "Save" or "Done"
- New color coding has been added for pending reservations that are paid (using the paid-through date).
- Added a Print List function to Reservation Receipts and Mailing Labels/Envelopes dialogs (prints the list of reservations/customers as shown.)
- Added an "Applies to reservation field" selection for rates definitions. This can be used for any add-on rates or special-case rates (extra people, vehicles, 50A, etc.) to help filter the rates shown for reservations.

2.0.4 changes:

- Fixed a bug that caused the last row of a tab-view report to be blank if the "totals row" option was turned off.
- Fixed the check-rates function to include the applicable add-on rates.
- Fixed the Meter List so it doesn't jump back to the top every time a new reading is entered manually.

- Removed the Rates table from the Raw Data Tables menu (to avoid confusion and potential problems).
- Added a Total Paid column option to Arrivals, Departures, On Site, Unassigned, Non-Reserved and Payments Due tab views.
- Allow changing the Discount Used field to blank on the Reservation Details.
- If the last discount used is none (blank), make sure the Discount-Used field is also blanked out for the reservation.
- Fixed the problem if incorrect color coding on the Rack (rainbow colors) when the Show Unavailable option is not checked.
- Changed the logic for reservation color coding on various reports to be more appropriate -- in particular, use the status on an appropriate date, so partially-paid reservations don't show unpaid on the Arrival report but do on the Departures report.
- Fixed problem of the number of periods for base rates going to zero if add-ons are selected first (Select Rates).
- Fixed so manually selecting a rate for a monthly (extended-stay) reservation doesn't default to a negative number of periods.
- Fixed meter reading calculations so if it's the same reading as before, it calculates correctly as $0.00.
- Changed so transactions with 0 "qty" and/or $0 "each" can be created (manually in the transaction grid, or in rates definitions -- the entry dialogs don't allow 0's as a safeguard).

2 Database Options

These new options have been added under Maintenance | Program Options | Database. They are primarily for networking support, but the new logging functionality also adds the ability to recover from crashes or other problems with the database file.

History logging enabled -- This option is enabled by default, and makes the program write out a log of every change made to the database. This is required for proper functioning if you are networking multiple computers, and can also be helpful if you aren't using the auto-save option above (to restore changes lost due to a power outage, for instance). If you are not using networking and you do enable the auto-save function, then history logging is not necessary, but it could still be helpful for tracking down problems (for instance, to determine if a reservation was deleted by accident). While the log is in text format, it's not necessarily easy to interpret without some technical knowledge. Contact Cottonwood Software if assistance is needed.

Lock/Unlock logging enabled -- This is not required for any functionality and is only useful for diagnosing network problems. Since it increases log size and delays, it should not normally be enabled.

Check history logs for unsaved changes after loading the database -- This option can be used to automatically restore changes "lost" due to computer crashes or power outages. (However it can also cause a significant delay when starting the program, so you may want to only use it in emergency cases.) This will check to see if any changes have been logged (assuming history logging was enabled) since the database file was saved. If it detects that some unsaved changes exist, you will be prompted to re-apply them. This can be extremely helpful in the even that you must restore the database from a backup after a computer crash -- assuming the log files are intact, it will be able to automatically re-apply all changes made since the backup was made.

Automatically delete logs after ... days (0 to 999 days) -- Depending on your disk space, you may want to have the program automatically delete the oldest history logs automatically. The size of the log files depends on the amount of activity each day, but generally a 30-day history is only a few megabytes. You should keep at least 7 days of logs available in case a restore is needed. You can set this value to 0 to completely disable log deletion

3 Monthlies Options

These options have been added in Maintenance | Program Options to help support monthly billing. They make it easy to automatically set the length of monthly (extended-stay) reservations, and the amount initially charged. They only affect reservations with the Extended Stay flag set.

There are 3 different settings allowing automatic date setting, based on the start date of the reservation, to a specified number of months, or to the end the month any number of months away, or the end of a year. These automatic settings can also be disable by selecting the "none" options.

Automatically extend reservation -- This setting determines the automatic Last Night of a new reservation when the Extended-Stay flag is set on the New Reservation dialog, if (and only if) the reservation's Last Night has not yet been selected manually or by entering a number of nights. For instance to make all extended-stay reservations for at least 5 months, select "by exactly one month", and enter 4 in "and then add another __ months".

Also Block the site for the reservation -- This works similar to the setting above, but instead of setting the Last Night, it sets the Block date. For instance, you may want to make the actual reservation for only a few months, but keep the site blocked for several years.

Limit the initial number of days charged to -- This is used when selecting rates for an extended-stay reservation. This is normally only the initial charges, since the Monthly Billing will likely be used for subsequent months. Only a few options are available here -- charge for exactly one month, to the end of the month, or to the end of next month. This setting will depend on whether you force billings on the first of the month, and whether you require at least a month's rent up front.

The combination of these settings depends partially on your monthly billing procedures (exact-month or end-of-month), but in general there are a couple different recommended ways of doing monthly reservations.

One way is to only "reserve" the site for one month at a time, but block it initially for an extended period (this can be several years if you like, or just a few months, depending on the typical length of stay). Then when monthly billing is done, extend each reservation by an additional month (this is a one-click function on the Monthly Billing dialog). This may work best if your monthlies are typically short-term (less than a year), and are billed on their month-anniversary date instead of the first day of the month.

Another good way is to go ahead and make the reservation extend out to the end of next year. Then at the end of this year, when you do the monthly billing go ahead and extend them all another year (keeping the site reserved for at least 1 year in advance). This works best for billing on the 1st of each month (presumably the first partial month is pro-rated), where your tenants are likely to stay at least a year at a time.

4 Monthly Billing

This function is available under Transactions on the main menu, and is used for adding monthly charges to all extended reservations.

Overview

Only reservations with the Extended Stay flag will be used in monthly billing, so make sure that you set this flag (when making the new reservation or through Reservation Details) for any monthly-billed reservation, and also make sure it's not set by accident for reservations that pay in full on arrival even if they are staying several months.

When making reservations that will be billed monthly, you will want to be consistent as to how far out you reserve the site (setting the Last Night of the reservation). The Monthlies Options settings have several options available to make this automatic for monthly reservations.

Note that this is a very "simple" one-month-billing function. It will add one months' charges to all current extended-stay reservations (subject to paid-through date filtering), regardless of the actual reservation dates. Thus it's important to make sure that any reservations that should no longer be billed are either checked out (if they are gone) or have been changed to non-extended-stay. (Even if they have been monthly before, if they will be leaving in less than a month then you should remove the extended-stay flag and handle their last month's charges separately.)

Also note that it will not attempt to "catch up" charges for a reservation no matter how long it has been since the last charges were added or paid -- only one month will be charged. Thus it's important to keep up to date with billing. (However, by individually selecting reservations in the list and adding charges, you can manually add as many months as needed to correct missed billings.)

The table on this dialog shows the basic reservation information, plus the current balance due and the new charges that will be applied for this month's billing. If you want to print this as a report or export it, you can use the Print List or Export List buttons. Note that the New Charges amount will remain even after charges are applied, although the Current Balance amount will change to include the new charges.

As with other tables, you can click on any column header to sort the records by that column.

Rates Setup Requirements

Monthly billing uses the defined Rates, so you don't need to specify the monthly rate for each and every reservation. (This also allows price changes to be automatic for everyone). In order for monthly billing charges to be correct, you must have the Rates set up properly. The primary rule is that you make sure there is no "duplication" of rates. If more than one rate definition applies to a reservation, they will all be added. This is actually useful, to allow multiple charges to be added at once -- for instance you may have one base rate and then an add-on rate for extra people, and you would want both to be applied. However, if more than one basic Rental Rate applies, it can result in double billing.

Only rates that have the "Use for monthly billing" flag set will be considered for monthly billing. This helps in avoiding duplicate rates, since you can define a separate set of rates for monthly billing that won't normally be used for daily reservations. Also setting the >= number of days to something like 60 or more will help keep these rates out of the normal rates selection lists. The rates for monthly billing must also have a rate type of Rental Rate or Add On.

Seasonal rates can also be a problem. The important thing here is that the previous Paid-Thru date of the reservation is used to determine the start date of the next month billed. If you have seasonal rates, it gets complicated if a reservation billing month spans 2 seasons. If you always bill even months (the 1st through the end of the month), then if your rates' season dates are also set up this way then it will work fine. Otherwise, you will have to do the charges manually for the month surrounding a season change. Of course, it's also important that the paid-through date for a reservation be correct to avoid billing mistakes.

If you use any discounts for monthly rates, make sure each reservation has its Discount Used set properly. You will also have to make sure that you have a separate rate set up for every discount type you've defined in the pick lists, even if it doesn't affect the rate. Otherwise, a reservation with a discount used that doesn't have a specific rate defined won't get charged. This can't be solved by simply leaving one rate with the "Applies to Discount" blank, since that would get applied to all discounted rates as well, resulting in duplicate charges -- you must select the "Only applies if no discount used" option for the undiscounted rate to avoid duplication.

If you need to charge a special rate for someone (perhaps a promotional deal, or if they have been a long-term resident that you allow to stay for an older rate), then the only way to do it without handling it manually each month is to set up a special rate for them. Since the rates can't apply to an individual, you need to have some other way of indicating that the special rate be applied to them, One way is to set up a special Discount and define a rate for that discount.

Another way to do special rates would be to use an "add-on" rate. They would be charged the base rate along with the rest, but by defining an add-on rate (use it a negative Charge transaction to discount the rate), you can apply a special discount for selected reservations according to a reservation attribute field. There are many "extra" attribute fields that can be redefined for this use. For instance, change the "Close to Diner" attribute to "Grandfathered rate", and make the rate apply to that field. Then just set that attribute to "must have" in the Site Preferences for the reservations to be grandfathered.

Paid-through Filtering

The first thing to do when preparing monthly billing is set the paid-through filter properly. This will always default to the current day, so only reservations that are already due will be included (probably only useful if you run monthly billing every day, or only on the date that every reservation is due.) Reservations will be filtered by their start date if they have no paid-through date. Typically you will set this date to at least a week in advance to bill those coming due, or set it to the end of the month to bill all those due on the 1st. To aid in end-of-month billing, there is a button to automatically set the date to the end of the month.

Options

The options selected here will be remembered each time you use Monthly Billing.

Exclude reservations not yet checked in -- if you don't want to pre-bill monthlies that haven't yet arrived, check this option.

Show synchronized concurrent reservations -- This will allow you to see not only the master reservations to be billed, but also all synchronized reservations. Note that this does not affect which reservations the charges are applied to or printed, but allows you to see the New Charges broken out by site.

Handle synchronized reservations individually -- If this is checked, then charges will be added to each reservation individually (and individual invoices printed) for synchronized reservations. While this is normally not done for short-term reservations (the "master" usually takes the charges for all of the synchronized sites), there is an important reason to do it for monthly billing -- if any of the synchronized sites has meter charges, those cannot be combined into the master so you will need to print separate invoices for those anyway. If synchronized sites are always non-metered (e.g. a storage space) then it would be OK, but otherwise it's recommended that synchronized sites be handled separately for monthly billing.

Editing and Selecting Individual Reservations

There may be times when you see some reservations that shouldn't be billed, perhaps because they're leaving, or perhaps they only pay every 3 months. If a reservation is leaving, or for any reason should not ever be billed monthly again, you should edit the reservation and uncheck its Extended Stay flag. This will remove it from the monthly billing list. To edit a reservation, just double-click on its line in the table, which will open the Reservation Details dialog.

If there are some reservations that shouldn't be billed this time but should be billed in the future, or if you need to print bills for just certain reservations, you can do this by selecting individual reservations in the table. Use Ctrl-Click to select one or more lines. Only those selected will be affected by any of the button functions below the table -- extending, charging, or printing. (If none are selected, then it is assumed you want to use all of them -- there is no need to select them all.)

Extending Reservations Automatically

At some point you may need to extend all of the monthly reservations to keep the site reserved. Depending on how you set the dates initially (see the Monthlies Options under Maintenance | Program Options), you may want to do this every month, or perhaps just extend them for another year at the end of each year. Either way, all you need to do is click the Extend All 1 Month button. You can click it as many times as needed to add additional months -- you will see the Last Night advance for each reservation. Note that this only changes the Last Night for the reservations, not the Blocked date.

If extending a reservation will cause a conflict, an error message will be displayed and that reservation will not be extended (the others will still be extended). You will need to find the conflict and correct before you can extend that reservation.

If a reservation ends on the last day of the month, extending it one month will extend it to the last day of the next month, even if it's a shorter or longer month. However if it ends on any other day of the month, it will extend it to the same day on the next month if possible. (If the next month is too short, it will extend to the last day of that month.

Adding Charges

Once you're ready to add the charges to the reservations (and have confirmed that the New Charges look correct for all of the reservations), just click the Add Charges button. The charges will automatically be added to each reservation and the Current Balance will be updated in the table.

However, if it's necessary for your accounts receivable that you can't add charges yet but you do want to print invoices for next month, then you can use the Pre-print Invoices function (see below). For instance, you may want to pre-print invoices on the 25th of the month to be mailed out, and then come back later to add the charges on the 1st of the month.

Printing Invoices, etc.

You can print invoices after adding charges, or you can pre-print invoices (show next month's charges without actually adding them to the reservations). You can also print mailing labels and envelopes if needed (these functions will take you to another dialog for printing mailing labels and envelopes, but will not close the monthly billing dialog). As with the other functions, you can select individual reservations to print if needed.

The receipt format will initially default to the selection chosen in File | Printing Options. You can select a different type here, and it will only not only affect this session, it will be saved for future monthly billings (but will not affect other receipts). Thus the default receipt type for monthly billing can be different than the type used for normal receipts. See Receipt Types in the *Working with Transactions* section for details on the different types.

There are 4 options for selecting which transactions will be printed on the invoice:

Print All Transactions -- This prints all transactions for the reservation. For long-term rentals this can grow large quickly, so it may only be appropriate for seasonal or shorter situations.

Print "new" transactions -- If "Print Invoices" is used, this will print only the new charges added here (or transactions from the last session of monthly billing *or* the transaction dialog, if you haven't added the monthly charges yet). If "Pre-print Invoices" is used, it will include the new charges *plus* the transactions from the last session.

Print unpaid/unbalanced transactions -- This is the most common option, and will print any transactions since the last full payment was made. Thus it will also include any previous charges that have not been paid, whether it's overdue charges or charges for the electric meter, etc. Technically it will find the last "zero-balance" point in the transactions and print any after that point. Since the order of the transactions affects this, there may be cases where it doesn't correctly find what you would consider the last paid-in-full point (for instance if a new charge is added before they make a payment for previous charges, without paying for the new charge to zero the balance).

Print transactions starting this date -- This allows you to print transactions added since a given date (including those added on the given date). This is most useful to work around problems of payment order mentioned above. This would be appropriate for monthly billings if you don't want to include past-due charges or other charges added earlier, even if they aren't paid yet (The invoice will always show any previous balance and new balance due, so it would only exclude the transaction detail for previous transactions.

Finishing Up

Once you've printed the invoices and/or added the charges, there's nothing else you need to do -- just Close the dialog until the next billing time. (You may want to print the report with Print List for reference, of course.)

5 Meter Readings

Several changes have been made to the Meter Reading Reports to make it easier to apply meter readings and charges. This section from the manual covers the changes.

Entering Single Meter Readings

You can manually adjust readings from the right-click menu (Site Details) or by double-clicking on any Site Name. This will open the Site Details dialog, where you can enter a new reading. Remember, however, that entering a reading this way will clear the reservation link so you won't be able to use the "View reservation read by" button, and also does not add charges to a reservation.

Select the Add Meter Charges to Reservation option from the right-click menu, or double-click on the old meter reading, to quickly enter a meter reading and have the appropriate charges added to a reservation. This will take you directly to the Transactions dialog with Select Rates opened up to show the appropriate rates definitions for the meter (electric, gas or water as appropriate). If there is only one rate available, that rate will automatically be used and all you have to do is enter the new reading. Just enter the new reading, and press the "Done (auto-close...)" button on the meter reading entry dialog to immediately close the transactions dialog and get back to the meter list. If you need to enter other charges or want to print a receipt immediately, then instead of using the "Done..." button, click Save after entering the new reading. The Transactions / Rates dialogs will remain open.

You can also open the Reservation Details for the site's current occupant by double-clicking the occupant name. You will then be able to use that dialog's New / Edit Transactions button to add a meter charge for that reservation as above (it just takes a few more steps this way).

After entering a reading (or multiple readings), you can use the Print buttons at the bottom to print receipts, envelopes, or labels for all of the reservations with new readings.

Entering Multiple Meter Readings (Batch Entry)

When many meter readings need to be entered and charges applied to reservations, the batch entry method is quickest. Just click on the empty "Batch Reading Entry" column for the site -- the cell will be blue (selected) -- and type the new reading, then press **Enter** or **Tab** to step to the next row. The new readings will remain in this column and will be in a light yellow color.

Once all of the batch readings are entered, click the "Add Charges & Update Readings" button. Charges will be automatically applied to each of the current reservation (if there is one for the site), and the site will be updated with the new reading. These steps may be repeated to enter more readings if necessary, just don't close the dialog before printing invoices or else it won't remember which ones need to be printed.

There are two Rates Setup requirements for adding meter charges automatically:

1. There must be one and only one meter rate defined (for that meter type) with the "Ask for meter reading" option that will apply to the current reservation on the current date. If there is more than one, an error will be reported and the reading will not be updated. Note that if you have multiple rates defined with different date ranges, it will use the one that applies to the current date, regardless of the reservation's dates.

2. There may also be one meter rate that does not have the "Ask for meter reading" option. This can be used for a non-multiplying "base rate" that applies each time the meter is read.

After all of the readings are entered (using either the single or multiple method), you can print the invoices for all of the new charges, and also print labels or envelopes if needed. Using these buttons will open the appropriate dialogs to print Batch Receipts or Mailing Labels/Envelopes. Further options for printing can be found in those sections. As long as the Meter Reading report dialog is kept open, it will remember which reservations have new charges to be printed so you can use the print functions multiple times as needed.

Note: Be careful about using batch entry to enter "adjustment" readings or charges for short-term customers -- when using the "Add Charges" function, it will assume that the current reservation in each site should be charged for the meter. So if the wrong customer is already on that site when the readings are entered, the charges will be applied to the wrong reservation. In this case you should find the correct reservation and go through its Transactions / Select Rate(s) to enter the new meter reading. Or if it's just an adjustment with no charges to be applied to a reservation, use the Site Details to enter the new reading.

6 Network Functions

Overview

This Network section only applies if you have purchased a license for networking more than one workstation. You can use the View | Product Authorizations function to see how many workstations your license authorizes you to network. If the number is 1, then you are not authorized for networking.

Network setup parameters and options can be found under Maintenance | Network Functions | Network Setup, while some diagnostic and administrative functions can be found under Maintenance | Network Functions. These are explained in more detail below.

Networking allows Campground Master to run on 2 or more connected computers (workstations). While you can install and run Campground Master on a network (or even on more than one computer) without a networking license, you cannot access the same database at the same time without losing data. The networking functionality is required for the different workstations to communicate their changes to each other and stay synchronized.

Demo Notes:

The sample database ("demo") is not authorized for networking (thus it is safe to load at any workstation and will not affect others). If you have not purchased a license for the networking version, you may request a free 30-day trial license enabled for networking.

To enable networking, you may need a new authorization code for your database. To see how many workstations you're currently authorized to run, see the View Product Authorizations function. (This is under Maintenance in the old 1.3.x versions, and under View in this version)

Setting up for a Network

Setting up Campground Master for networking is very simple, as long as your network meets the requirements. Network setup parameters and options can be found in the menu: Maintenance | Network Functions | Network Setup.

Requirements:

- TCP/IP network -- the workstations must be connected via TCP/IP (which can also be through the Internet)
- Winsock 2 -- the system must support Winsock 2, which has been part of Windows since Windows 98. If you are running Windows 95, you may need to install Winsock 2 in order for the program to run (you will get an error message when starting the program if Winsock 2 is not installed). This can be downloaded from the following Microsoft web site: http://www.microsoft.com/windows95/downloads/contents/wuadmintools/s_wunetworkingtools/w95sockets2/default.asp

- A known IP address for the master workstation -- The master workstation must have a known IP address that can be accessed by the other workstations. If you will be using the internet, this should be a static IP address visible to the internet (to avoid setup changes every time you connect).

- An unblocked port -- you can use any TCP/IP port number you wish, just make sure it's not blocked by any firewall or routers in the system. We recommend a port in the 6000-12000 range, to minimize the potential conflicts with other software.

Master (Server) workstation:

You don't need a separate computer for a server. Any of the workstations can be used as the "master" workstation. This workstation will automatically operate as the Server for the Campground Master network, and all other workstations will operate as Clients. (Internally, they actually run different code depending on whether they are a server or a client.)

Since the master workstation will not have to request locks from other workstations and will operate "offline" automatically if the other workstations are disconnected, you may want the most-used workstation to be the master. It should also be the fastest computer, since it has to do more work (routing all of the changes from each workstation to all other workstations).

Alternatively, you may decide that the master should be a "protected" computer separate from the reservation center, since it's the most important computer to keep running and should have the most reliable network connection. The decision will depend on your environment and whether speed is an issue. Since the master designation can be changed any time through the settings, you can always change it later.

Except for a few maintenance functions that can only be done on the master workstation, all workstations have equal abilities. Only the master workstation can perform the New database function and edit Field Definitions. Also, while any workstation can edit Raw Data Tables and Pick Lists, these should be done on the master workstation whenever possible due to the number of records that need to be locked.

Setup Procedure:

1. Install the Campground Master software on each workstation, and decide which one will be the master.

2. After you have a database set up and authorization code entered on the master, make sure the database is authorized for networking. This can be checked through the View | View Product Authorizations function -- the "Max Workstations" value will be greater than 1 if you are authorized for networking.

3. To make sure that the printer options, tab view options and other settings will be the same on each workstation (especially if you have already been using the program on a single computer for awhile), synchronize the settings for all workstations. This can be done at any time, but doing it before you copy the database to the other workstations will ensure they are set up correctly to begin with. Note that this is essentially a database function and does not require the other workstations to be connected yet -- it simply copies the master's settings to the other workstation's settings in the database. This function is under Maintenance | Network Functions | Synchronize local options to other workstations.

4. Copy the database to each workstation. This can be done using the Backup and Restore functions built into the software, or by manually copying the database file. Do NOT open the database file through the network! If more than one workstation is accessing the same database file, the data will become corrupt. Each workstation should be opening the database from its local hard drive. It's also important that the database have the same name on every workstation. To make sure these conditions are met, use the File | Save As command after loading or restoring the database, select a location on the local hard drive, and enter (or select) the file name you're using for the database.

5. Find the IP address(es) of the master workstation. If you don't know its IP address, you can use the Show IP address(es) function under Maintenance | Network Functions. If it shows more than one address, you will need to figure out which one is for the local network and will be visible to the other workstations. Local network IP addresses often start with 192. The **IPCONFIG** command from a Command Prompt (DOS window) can also indicate the local area network's IP address in Windows NT/2000/XP. In Windows 95, 98, or ME, run the **Winipcfg** program from Start / Run.

6. Decide on a TCP/IP port number. You can use the arbitrary default port (6010), or if that is known to conflict with other software you can change it.

7. On the master workstation, open the database and make sure the Network settings (Maintenance | Network Functions | Network Setup) are set accordingly: The workstation ID should be 0, and the Master ID should be 0. (The master ID can be another number, but this is the easiest way to keep track of it.) The other options are covered later, but all of the check boxes should be checked..

8. On each of the other workstations, open the database (if not already open) and change the network settings accordingly: The workstation ID should be different for each one (1, 2, 3, etc.), the Master ID should be 0, and the Master IP address should be the address from step 5. Note that you may need to use a different master IP address on different workstations, depending on your network setup (use the address visible to that workstation -- for instance the workstations on the LAN may see a different address than a workstation connected through the Internet).

You can also specify various heartbeat frequency, timeout, and other options if you prefer. See the *Network Setup Dialog* section for more details.

If the master workstation is running at the time you perform step 6 for each workstation, you should see it immediately connect after you change the settings and click OK. You're done!

If a connection error is shown, double-check your network settings and refer to the following sections, or contact us for support. If you are running a firewall, try disabling the firewall -- if connection is successful with the firewall disabled, you will need to determine how to enable the selected port for the firewall (consult the documentation for the firewall).

Network Setup Dialog

This function under Maintenance | Network Functions will only be available if you are authorized for networking (more than one workstation), and you're logged in with an Administrator access level. Note that these options are stored in the file ***Campground Master.ini***, so they must be set up separately for each workstation.

The descriptions here give basic information about the options -- for complete information on network functions and options, refer to the other Network Functions sections.

Connection

Maximum number of workstations authorized -- This value is determined by your authorization (the number of workstations for which you purchased a license. It is not editable.

This Workstation's ID -- Each workstation must have a unique numeric ID, which starts at 0. So for instance in a 5-workstation system, this number will be in the range 0 to 4. The workstation ID will be shown in the caption bar for easy reference.

Nickname -- You can give a workstation a nickname, which will show in the caption bar and is also used in diagnostic messages. This is optional, so you can leave this field blank. The nickname will also be shown in the caption bar.

Master (server) workstation ID -- One and only one workstation is designated as the master, and will be running the server side of the network. This is usually the workstation with the ID of "0", but may be changed if necessary. It's critical that this is the correct ID -- it must be the ID of the workstation at the given IP address!

Master IP address -- This is the IP address of the master workstation (server). This value is not used on the master itself, but all other workstations must have this set properly.

TCP/IP port -- This is the port number used for communicating. All workstations must use the same port number. A number above 6000 is recommended to reduce the change of conflicting with other communications software.

Show "Connecting" progress window -- When this is enabled, a window will automatically open any time the a workstation (excluding the master) is attempting to make connection with the server. This should be left on to server as an indication whenever the connection is lost. (The window will automatically close 5 seconds after a connection is made.) However if the network is unstable and workstations require reconnecting often, this window may be disabled to reduce the annoyance.

Request a database update every time connected -- This can be a dangerous option, so be sure you understand it before using it! When this is enabled for a client, it will request the full database from the server every time it reconnects. This can be useful for seldom-connected workstations, since it may be quicker to get the whole database than to get all of the changes since last connected. However, this also means that any changes made on this client while offline will ***not*** be sent to the master and will be lost. So only use this option if you know that the client never is used offline to make changes.

Timing

Time-out for requests (3 to 300 seconds) -- Enter the number of seconds to wait for a response from the server when communicating (requesting a record lock or sending changes). Typically this should be about 3 to 5 seconds, but for slow (internet) connections you may raise this. It may also need to be raised if you're running a large number of very active workstations.

Remote update refresh delay (0 to 300 seconds) -- This determines how long to wait before the program is considered "idle" and can refresh the screen when an update comes in from another workstation. It does not mean that the data update itself is delayed. The purpose of having a refresh delay is so that the screen doesn't refresh frequently when you're trying to look at something or click on a function. Any time the mouse is moved or clicked, the program is considered "active" and screen refreshes from other workstations will be delayed until activity stops for the indicated number of seconds. If you open and close a dialog or change tab views, the screen will refresh immediately, so an easy way to force an immediate refresh is to click on another tab view and then click back, or to press **F9** for the Search function and then **Esc** to close it.

"Heartbeat" frequency (3 to 300 seconds) -- This time determines how often an "alive" message is sent to the server (or to other workstations from the server). This must be at least 3 seconds to avoid networking bottlenecks. This frequency also determines how often a workstation will check to see if it has been disconnected and will attempt to reconnect automatically (if the auto-start function is enabled). If all workstations are idle, this also serves to keep communications happening on the network, and will affect how frequently the network status indicator changes on the status bar.

Diagnostic Options

Networking Enabled -- Unchecking this option will completely disable all network functions.

Auto-start Networking on program startup (and reconnect if disconnected) -- This should be left enabled for normal operations, but may be disabled to avoid repeated connection attempts for workstations known to be disconnected from the network.

Force Autosave of the database -- The auto-save function under Database options should be enabled, but just in case it's disabled by accident, this function will make sure the database is still saved after every operation. While it's recommended that the database should always be auto-saved after every change, this can cause delays in very active network environments or for very large databases.

Connecting Progress Dialog

Non-master workstations will display this dialog any time a connection to the master is being made or is terminated (either upon starting up, whenever the connection is lost, or if a connection is manually initiated through the network functions). If this becomes an annoyance rather than a benefit, it can be disabled through Maintenance | Network Functions | Network Setup.

During normal startup, assuming the auto-start network option is enabled, this dialog will appear to show the progress. Once a connection is made, the dialog will close automatically after 5 seconds (you will see the countdown). You can also close it immediately by clicking the Close button. Note that this will ***not*** close the connection, just the dialog!

If a disconnect or network error is detected, for instance due to network errors or if the master workstation is shut down, the Connection dialog will automatically appear to show that it has been disconnected. If a connection is not in progress or already established, the "Connect to Server" button will be enabled. You can click this to attempt a connection any time. However if auto-start is enabled, it may automatically start reconnecting immediately, or after the "heartbeat" time. Once it's connected you can again wait for the 5 second timeout or close it at any time (even if it's not finished connecting -- it will continue even with the dialog closed).

If a connection cannot be made, the dialog will show an error after a few seconds. Again, you can either wait for the heartbeat to reconnect automatically, click Connect to reconnect immediately, or Close the dialog and let it work on its own.

If your workstation is disconnected and auto-start is not enabled, you can use the Connect to Server function under Maintenance | Network Functions to initiate a connection (which will also show Connecting dialog).

Other Network Functions

There are several functions under Maintenance | Network Functions that can be used when diagnosing network problems or for maintenance. These are only available for operators with Administrator access.

Network Setup... -- This opens the Network Setup Dialog for setting various network options.

Synchronize local options to all workstations -- This is used to copy this workstation's "local" settings to all other workstations. This will copy this workstation's settings to all other workstations' settings in the database, and of course send the changes to each workstation. It can be done on the master even if the other workstations aren't connected -- the changes will be synchronized just like other database changes when the workstation is reconnected. Use this with care if there is any reason that other workstations might require different settings. The local settings include: Printer Options, all tab view options (from their Option buttons), tab view default site filters, and default settings for Reports (meter lists, occupancy report, etc.).

View Network Diagnostics Window -- This will open either the Net Client or Net Server diagnostics window (depending on whether this is the master workstation or not). Unlike most other dialogs in Campground Master, this diagnostics window can be left open while you work. Actually, the window always exists and is functioning (recording messages), it's just hidden unless you view it.

Show IP address(es) for this workstation -- This is just a utility function for determining the IP address of the master workstation, and will show all known IP addresses for this computer. This may be a single address or multiple addresses, depending on your network setup (e.g. one address may be visible to the internet and another visible to the LAN).

Connect to Server -- For non-master workstations, this will initiate a connection if it's not already connected to the master. A Connecting Progress Dialog will be shown (if it's not disabled in Maintenance | Network Functions | Network Setup).

Disconnect from Server -- For non-master workstations, this will immediately disconnect from the master. If you have the auto-start option enabled, you will be given an option to disable this option so it will stay offline (until the next connection is made manually).

Work Offline -- If this is a non-master workstation, you must specifically select this function to enable offline changes. You must also first Disconnect from Server if not already disconnected. Once working offline, changes can be made at will. They will be logged, so that when you reconnect to the server, the changes will be transmitted to the server to synchronize the database.

However, working offline is **not completely safe**! Even though it will synchronize the changes, there are limits to what can be synchronized. For instance, since locks cannot be acquired for changes, it's possible that a change you make will conflict with a change made by another operator. The results of this are unpredictable -- either change may take precedence depending on internal circumstances, but usually the earlier change will be kept because by the time your change arrives, the value has been changed already. Previous values are compared as an integrity check, so if the value is different than your previous value, your change will be ignored. Obviously it's also possible that a record has already been deleted before your changes are received (though this is rare). In general, record additions are safe because each workstation uses unique record ID's.

Force view to rebuild/refresh -- If all goes well you should never need to use this function, since the views (Rack, Arrivals, etc) should update automatically whenever a change occurs on any workstation. However if a change doesn't seem to be showing up on the Rack or other tab view, try using this function. This will rebuild some internal indices and refresh the view to make sure that it shows all reservations properly. If it still doesn't seem to be correct, then you may need to request a total database refresh.

Request a total database refresh -- A non-master workstation can request that the entire database be refreshed. This might be needed if log files become corrupt preventing resynchronization, or if the workstation has been offline so long that logs no longer contain all of the changes needed. (Generally these are detected automatically and a full refresh will be done as needed -- however this function is provided just in case things don't seem to be synchronizing correctly.) Note that this can cause significant delays at the master as well as this workstation while the database is being transmitted, so use only when workstation activity is minimal.

Start Server (allow connections) -- if the server has not been started, use this function to start the server (master workstation only).

Stop Server (work offline) -- This function for master workstations is similar to the Work Offline function, but in this case it will stop the server completely so all workstations will be disconnected.

Clear all record locks -- This master workstation function will immediately clear all record locks for ***all workstations***. This can be useful if a workstation becomes disconnected before releasing its locks (during editing), and a record it had locked needs to be edited by another workstation. However, you should make sure that all other workstations are in an idle state (no dialogs are open) when you do this, otherwise it could unlock records that really should still be locked. An alternative would be to stop the server before clearing locks. When you restart the server, all workstations will re-request locks for records currently being edited. Likewise, any time the software is closed, all locks are automatically removed.

Net Client Diagnostics Dialog

This dialog can be opened on non-master workstations to view the activity on the network and perform a couple diagnostic functions. This dialog may be left open while working in the program (though it will stay on top unless it's minimized), or closed/hidden at any time.

This function is available only to operators with Administrator access, and is available through Maintenance | Network Functions | View Network Diagnostics Window.

Network settings are shown for reference -- to change them, you must use the Maintenance | Network Functions | Network Setup function.

The large window will show status messages, indicating messages received and sent by this workstation. It will not show activity from any other workstation. In general, this can be used to see if it's getting and sending "Alive" messages, see the results of record lock requests, changes sent and received, and error messages. Sequence numbers are shown where appropriate, for comparison to logs if needed.

If you want to see the Alive messages, you must check the "Include details" box. (Unchecking this will help minimize the messages shown and allow easier inspection of the messages.) Also, when details are included you will see the details of every change transmitted or received, in the same format as the log.

By default the message window will hold 100 lines. You can increase this if necessary, however this can dramatically affect the speed and possibly cause networking problems due to extra delays (up to about 1000 lines should be tolerable without problems). Note that the number of lines will still be saved even if the window is closed / hidden (so the messages are still there when it's opened again. However, once the program is closed it will revert to 100 lines to avoid adverse effects.

To verify that things are connected properly, you can Ping the server or Send a test message. Just click the Ping button to verify the connection and to see how fast it responds. You will see a response with a number of milliseconds. Anything under 100 ms is good for a LAN, and anything under 500 ms is good for an internet connection.

If you send a test message, it will go to the server and then be re-broadcast to all other workstations, and will appear in their network diagnostic windows.

Net Server Diagnostics Dialog

This dialog can be opened on master workstations to view the activity on the network and perform a couple diagnostic functions. This dialog may be left open while working in the program (though it will stay on top unless it's minimized), or closed/hidden at any time.

This function is available only to operators with Administrator access, and is available through Maintenance | Network Functions | View Network Diagnostics Window.

Most of the functions are the same as the Net Client Diagnostics Dialog, but the server has a few additional functions.

The server diagnostics will show each of the workstations connected (by nickname if they have nicknames set up). You can Ping them all at once or individually, or forcefully disconnect one or all of them. (Remember that they will automatically attempt to reconnect if they have the auto-start network option enabled.) To completely disconnect and not allow reconnection, click the Stop button to stop the server.

If you see a Start button instead of Stop, that means the server is currently stopped. The server will not automatically restart (even if auto-start is enabled) if you stop it manually. To restart the server and wait for client connections, click the Start button.

How Networking Works

This section describes in detail how the real-time networking functionality in Campground Master works. It may be helpful to understand what's going on behind the scenes, to get a better idea of why some things work the way they do.

Real-time Networking

Each workstation will have its own copy of the database, both on the hard disk and in RAM memory. This allows each workstation to operate quickly and independently when viewing data, running reports, etc. This also allows workstations to be operated offline if necessary -- though not recommended in general, this allows operation even if the network is down, or for instance if you want to do some reports offline. Note that non-master workstations can only work offline if the <u>Work Offline</u> function is specifically selected (administrator access is required for this).

Unlike most networked database applications, Campground Master operates as a real-time system. When changes are made at one workstation (reservations added, dates changed, etc.), those changes will be immediately sent to all other workstations so that they will be up to date. If the changes affect the current tab view, the screen will be updated immediately to reflect the changes, just as if they were done at each workstation (subject to a refresh delay setting, which can be used to prevent numerous screen refreshes when the workstation is in use).

Naturally it's important to keep changes synchronized and to prevent two workstations from making different changes to the same information at the same time. This is achieved through three mechanisms -- record locks, sequence numbers, and logs.

Record Locks

Before any changes can be made to a record in the database, it must be "locked" by the workstation. All locks are requested through the master workstation (which also acts as the network server). If a record is already locked by another workstation, then the lock request will be denied, and the operator at that workstation will be informed that it can't be edited. If the lock is granted, then editing proceeds normally. For the most part this is transparent to the operator as long as there is no conflicting locks, except for a small delay when requesting the lock (e.g. before the editing dialog is opened).

Once the editing is complete, the changes are sent to the master workstation for distribution to the other workstations, and the locks are released so other workstations can edit the record if needed. If a workstation gets disconnected or goes down while it has records locked, these locks will be "stuck" in the master workstation -- but they will be cleared automatically when the workstation comes back online, or they can be manually cleared at the master workstation by an administrator function.

Sequence Numbers

Whenever changes are made, they are tagged with a sequence number and logged, as well as sent to the master workstation. If changes are missed for any reason, the gap in sequence numbers will be detected. The master workstation will request any missed changes from a workstation and will make sure they are applied in the correct order. Likewise, the master makes sure that a workstation is up to date before allowing it to lock any record, so that data integrity is maintained. Sequence numbers are checked often (along with the "heartbeat"), so a change missed due to network problems (extremely rare, but possible) will be quickly detected and corrected.

The other benefit of logging changes with sequence numbers is that it can allow automatic synchronization after a workstation has been offline. For instance, if you could call in to your network via the internet from home, all changes since the last time your home workstation was connected will be synchronized automatically. Likewise, you could work offline (preferably after getting synchronized), then call in to the network -- all of your changes will be downloaded to the master and the database will be synchronized.

If a workstation cannot be synchronized for any reason, there is a fail-safe mechanism -- the entire database can be transferred from the master to a workstation. This will be done automatically if the master can't find all of the changes needed by a workstation (e.g. if the log file becomes corrupt due to a computer crash), or it can be done manually any time if the workstation doesn't seem to have the correct data. Note that this can only be done ***from*** the master workstation -- if a client workstation, rather than the master workstation, is determined to have the only "good" copy of the database, then it must be transferred manually to the master and then synchronized to the other clients.

Logs

Sequence numbers indicate when changes are missed, but in order for a workstation to "catch up" on missed changes, they must be logged so that they can be retrieved. Each workstation maintains log files of all changes, both for its own workstation and for all other workstations. Thus if changes are requested for a specific range of sequence numbers, it can read them from the log and send them to the requesting workstation. If the log entries for the requested sequence numbers can't be found, the only recourse is to refresh the entire database -- this will be done automatically when needed, but can cause a significant delay. Therefore make sure that history logging is enabled and that disk space doesn't run out.

A new log file will be started each day, and named according to the database name, date, and workstation ID. Log files are automatically deleted after a specified number of days to keep disk space to a minimum, but you should keep logs for at least 7 days if possible. Another reason to keep logs for a longer period is that they can serve as a complete audit trail. Every single change to the database is recorded, and every entry has the date, time, and operator responsible for the change. The logs are in tab-delimited text format, so they can be examined if necessary (some knowledge of the database structure is required). In addition, network problems could be diagnosed by comparing the logs of different workstations.

You can optionally log record locks and unlocks as well as the changes. While this is not required for any functionality (and in fact will make other functions slower and use more disk space), it can be useful for diagnostic purposes if a software bug is suspected. In general, you can leave this option turned off.

Finally, one great side-benefit of the logs is the ability to completely recover after a crash, even if the crash destroys the database. As long as the log files are intact (for at least one workstation), you can restore from a previous backup and have Campground Master automatically re-apply all changes made since the backup was made.