



Guide to Derived Rates

SMS | Host v.21+

Configuring and using Derived Rates in SMS | Host

SMS Document # 1018490, Rev. 1.3

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Introduction

This document provides instruction for the configuration and use of the Derived Rates functionality introduced in v.21 of the ^{SMS} | Host Property Management System.

Derived Rates Overview

SMS | Host's Derived Rates functionality provides an easy way to create new rate structures (headers) that 'derive' their pricing from other rates (Base Rates). This provides several advantages.

- 1. Significantly reduces the amount of time needed to configure and maintain the new rates.
- 2. Easily apply a percentage discount (or increase) to a base rate to create a new derived rate.
- 3. Discount percentages can be applied by season (date range), by day-of-week, by length-of-stay and/or by Room Type.
- 4. Since the Derived Rates' pricing is tied to the Base Rate's pricing, when the Base Rate's pricing changes, so will the Derived Rates' pricing (with the discount % applied).
- 5. Enables you to nest multiple Rates into a new Rate Code.

v.21 Upgrade Considerations

When your property updates to version 21, the derived rates functionality will be enabled by default to the base level (Level 1). This will apply to your live system and demo. Through testing you may find that your property needs more intricate levels of derived rates. See <u>Additional Levels of Derived Rate Rules</u> later in this guide and contact support if you require changes to your Derived Rate Level. Keep in mind that going from basic to more complex levels of derived rates is not a problem. Converting from complex back to basics will have implications on rate setup that properties need to be aware of. This is discussed later on in the guide.

There are a few immediate things to be aware of when your system is updated and Derived Rates are enabled.

- 1) Derived Rates only works in a package item environment and the ability to add price plans, tiers and calendars will be removed from rate headers.
- 2) This setup will be transferred to a package item as part of the update.
- 3) Package items can be individually enabled to allow in a derived rate. This will be controlled by a new setting on each line item.
- 4) The default for this setting will come from the transaction code setup in Guest Codes.

Base Rates vs Derived Rates

For clarification of these terms, as used in this document, a <u>Basic Rate</u> is any rate configured using any of the existing Rate & Package features (i.e. Price Plans, Tiers, Calendars, etc..).

A <u>Derived Rate</u> is a rate that is calculated (adjusted) based upon the value of a Basic Rate. When a derived rate is created, the rate that it is created from (based upon) becomes a <u>Base Rate</u>.

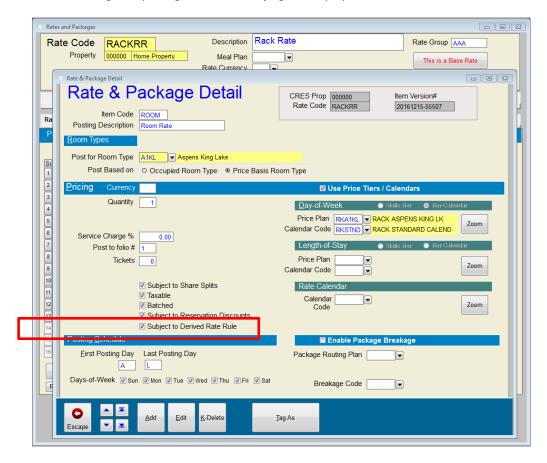
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Derived Rate Configuration

Subject to Derived Rate / Rules Setting

Each detail line item in a base rate can be controlled as to whether the particular detail item may be used in a derived rate. Base rate line items that are not "Subject to Derived Rate Rule" will post in full (no price differential applied). When zooming on a package item the new flag will display as shown below.

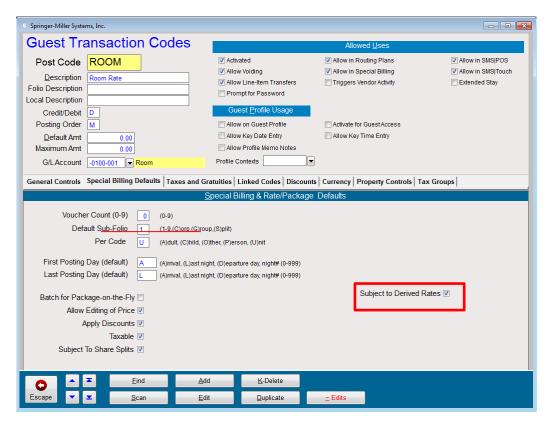


Typically, most Rate Detail Items will be Subject to Derived Rate Rules. There may be an occasional need to set some items as <u>not</u> subject to derived Rate Rules; *for example, Resort Fees or per-occupant based pricing.*

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Guest Transaction Code Configuration

On the Guest Transaction Code there will now be a new setting that allows you to set the default for the **Subject to Derived Rate** setting.

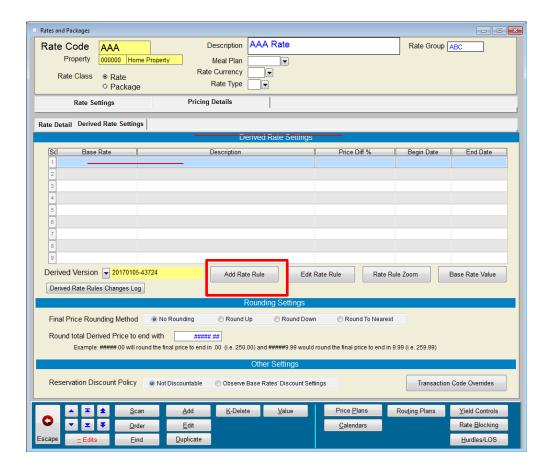


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Derived Rate Rules

Setting up derived rates will be done on a new tab. From the initial rates and packages screen, under the pricing details tab there is a new **Derived Rate Settings** subtab

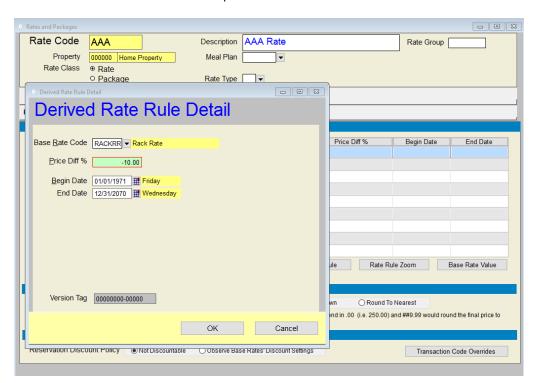
In here, Derived Rates can be configured using one or more Derived Rate Rules. The Derived Rate Rule allows you to specify the derivation rules (+/- pricing adjustment %, the applicable date range etc...).



To add a new Derived Rate Rule; select the "Add Rate Rule" command button.

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The Derived Rate Rule Detail form is opened.



Field	Description
Base Rate Code	Specifies the Base Rate's Rate Code.
Price Diff %	Specifies the price differential percentage that will be applied for this Derived Rate. This can be a discount (negative %) or a price increase (positive %) or neutral (0.00% price difference)
Begin Date	Specifies the beginning occupancy date when the Derived Rule applies.
End Date	Specifies the ending occupancy date when the Derived Rule applies.

When Rate Versioning is enabled, Derived Rate Rules are versioned. This enables you to change the details of the rules without affecting the value of reservations that are already "on-the-books".

Find the base rate code by using the scan list to search or type the rate code directly into the Base Rate code field. Then enter the Price difference percentage and date range. Once completed, Select **OK** or press the page down **[PgDn]** key to save this Derived Rate Rule.

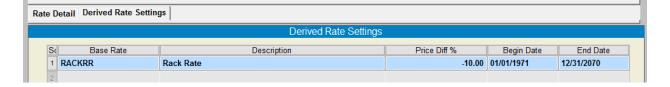
The form will remain open and ready for the next entry. This is done on purpose as it is the same behavior when adding package items. Once the OK button is selected, the rate rule immediately displays on the rate and package setup on the form in the background. When done adding rate rules, select **Cancel** or **Escape** and the button bar will be displayed below your new rate rule.

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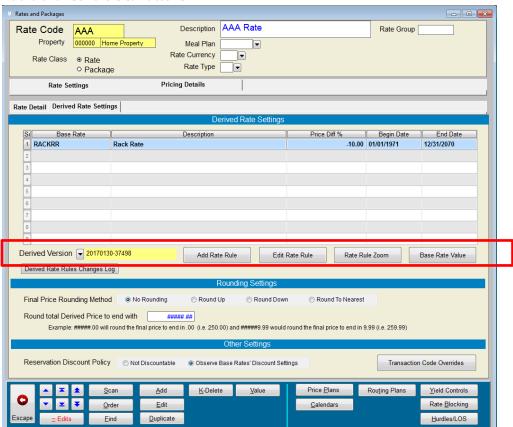
At this point you may add another rate rule, edit the above or mark it for deletion. Note that if marked for deletion it will be immediately removed from the derived rate settings screen once you escape back.

If you are satisfied with your rate rule, select Escape and you will see your derived rate rule added to the Derived Rate Settings screen.



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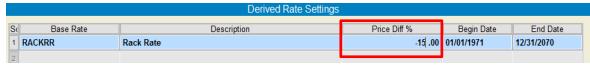
Additional Controls & Buttons



Command	Description
Derived Version	Displays a list of the various versions of the Derived Rate Rules
Edit Rate Rule	Facilitates inline (in the grid) editing of the Derived Rate Rule
Rate Rule Zoom	Displays the Derived Rate Rule detail for the selected row
Base Rate Value	Displays the selected Derived Rate Rule's Base Rate's unadjusted value. This can be very convenient for checking the Base Rate Values while configuring a Derived Rate

You may now fully use and access the four buttons below the rate settings.

- 1) Add will open the add rate rule form again.
- 2) Edit Rate will actually let you modify the settings right on the screen:



From this edit mode you may change the Base Rate, Price diff %, Begin date and End Date. In the screenshot the price Diff % is currently being modified.

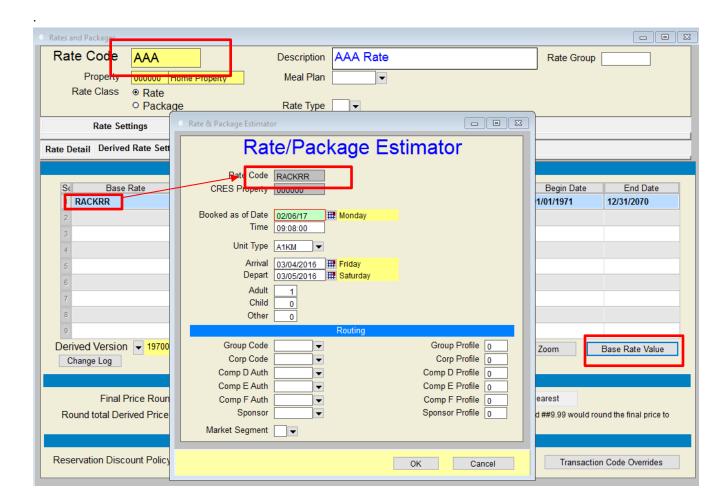
- 3) Rate rule zoom will launch the Derived rate rule detail form for the currently selected item.
- 4) Base rate will allow you to use the value screen to check the base rate values without having to leave this derived rate.

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Rate Values

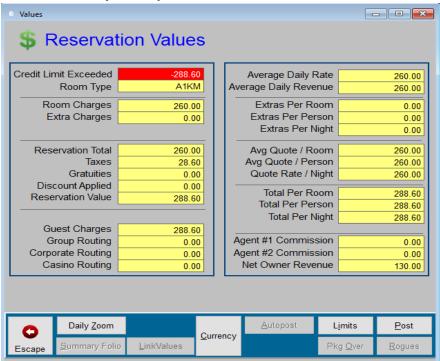
In the example rate, "AAA" rate is derived from the "RACKRR-Rack Rate"

The Base Rate Value command allows you to view the Base Rates' values directly from the Derived Rates screen (without needing to navigate to the Base Rate itself). This provides a convenient way of verifying the Base Rate value.



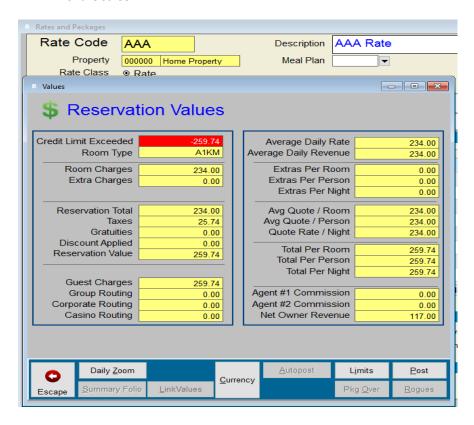
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Base Rate's Value (RACKRR)



Derived Rate's Value (AAA)

Accessing the Derived rate value is the same as before using the \underline{V} alue button on the button bar at the bottom of the screen.

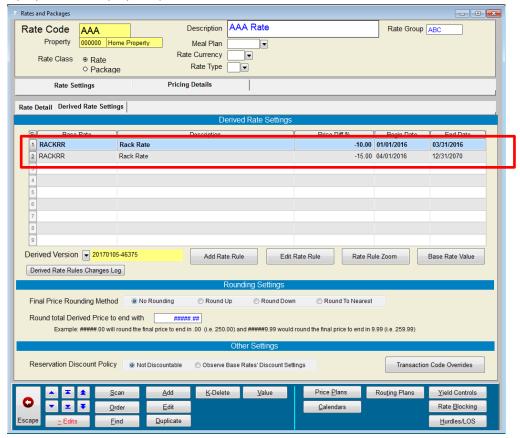


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Applying Seasonal Discounting

As mentioned above; by using the Derived Rate Rules' Beginning and Ending Dates; you can define when the Rule applies.

In the following example, the "AAA" rate will be 10% off RACKRR between 01/01/2016 and 03/31/2016. Between 04/01/2016 and 12/31/2070; the discount will be 15% off RACKRR



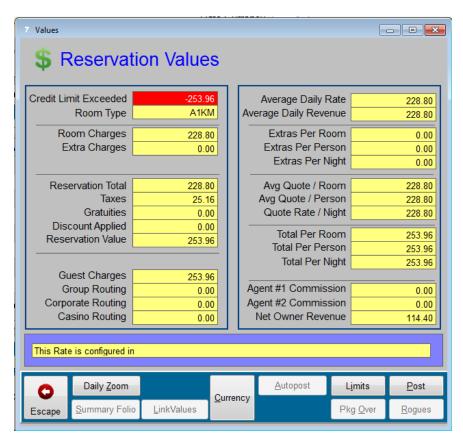
To accomplish the above, simply add a rate rule for the first set of dates and then add another record for the second set.

<u>Caution</u>: When using Seasonal Discounting; it is critical to ensure that the correct dates are covered (usually without date overlap or gaps). All Rules that are in effect for a given date will apply. So, if the Rules' dates overlap, then there may be an unintended doubling effect (where the value is more than intended). On the other hand; if there are gaps, then there may be some nights that are not covered by a Derived Rate Rule which could result in inadvertent comping.

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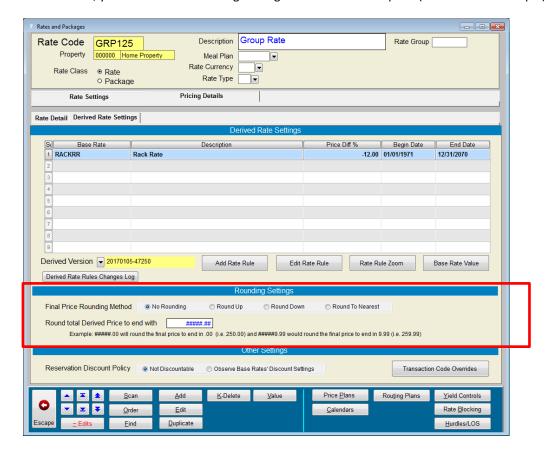
Rounding Settings

In certain cases, depending of the Base Rate value and the applied discount percentage, the Derived Rate Price may be an odd amount. For example, 12% off of the RACKRR rate of 260.00 would result in a derived rate price of 228.80



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In such cases, you can use the Rounding Settings to 'round' out the price (to 229.00 for example)



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Option	Description
Final Price Rounding Method	No Rounding – With this setting no rounding will be applied
	Round Up – With this setting the price will always be rounded up to the 'end with' setting.
	Round Down - With this setting the price will always be rounded down to the 'end with' setting.
	Round to Nearest - With this setting the price will be rounded normally to the 'end with' setting.
Round total Derived Price to end with	This setting allows you to set the desired ending digits for the Derived Rate. The "#" character indicates the positions that should not be affected.
	Some examples:
	#####.00 would round the amount to end in .00 (for example 229.00 or 228.00) ####0.00 would round the amount to end in 0.00 (for example 220.00 or 230.00) #####.99 would round the amount to end in .99 (for example 229.99 or 228.99) ####9.99 would round the amount to end in 9.99 (for example 229.99 or 239.99)

<u>Note</u>: Rounding only applies to the Derived Rates elements. If the rate also uses standard Rate Detail line items, the rounding is only applied to the derived amount.

<u>Caution</u>: Changes to Derived Rates' Rounding Settings are not versioned. Making changes to these settings will affect the values of on-the-books reservations.

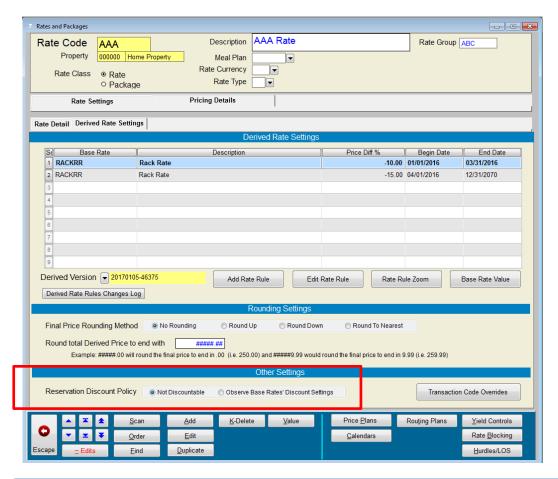
For example, with these settings below the rate value will now display 229.00 for the A1KM room type



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Reservation Discount Policy Settings

The Reservation Discount Policy settings allow you to control whether additional discounting will be applied to the Derived Rate if the Reservation's Discount% field is used. For example, since the "AAA" Rate is already discounted; you may not want the Reservation's Discount % field to apply an additional discount (double discounting)



Setting	Description
Not Discountable	With this setting, the Reservation's Discount % will never be applied to the Rate (no additional discounting allowed regardless of the Base Rate Details' Discountable settings)
Observe Base Rate's Discount Settings	With this setting, the Reservation's Discount % will be applied to the Derived Rate.
	The configuration of the Subject to Reservation Discounts setting on the Base Rate's elements will determine which items are discountable.

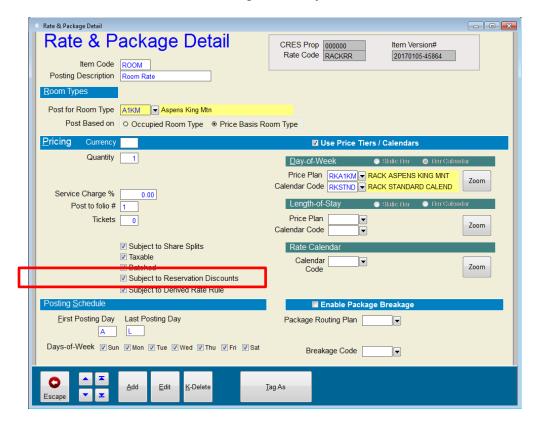
<u>Caution</u>: Changes to Derived Rates' Reservation Discount settings are not versioned. Making changes to these settings will affect the values of on-the-books reservations.

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Reservation Discounting example

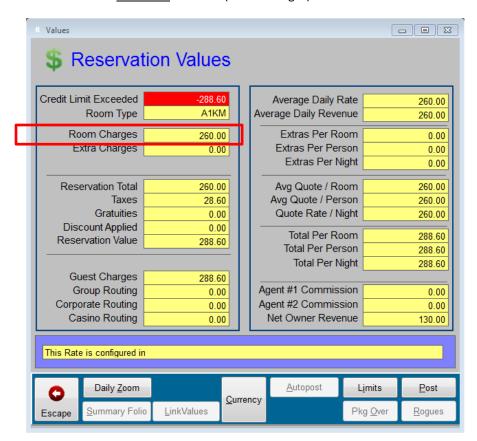
In the following example, the Rate Code "AAA" is derived from the "RACKRR" Base Rate

The Rate Detail on the Base Rate is configured as Subject to Reservation Discounts



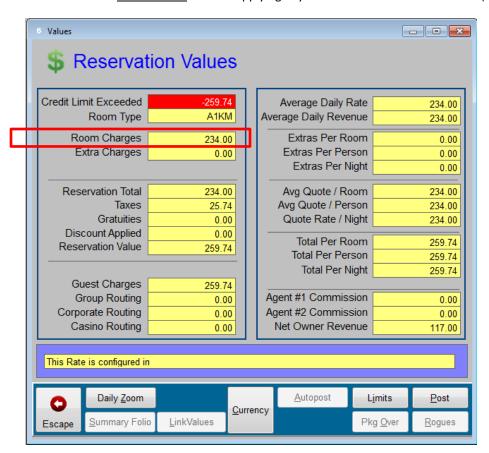
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The value of the Base Rate is 260.00 (Room Charges)

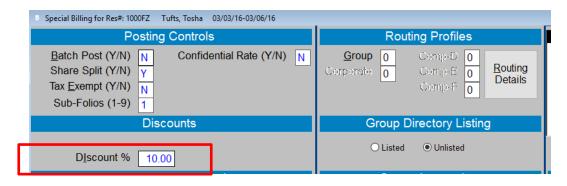


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The Value of the <u>Derived Rate</u> without applying any Reservation Discounts is 234.00 (RACKRR – 10%):



In this example, a reservation is using the "AAA" rate and that reservation also has a Discount % (in Special Billing).

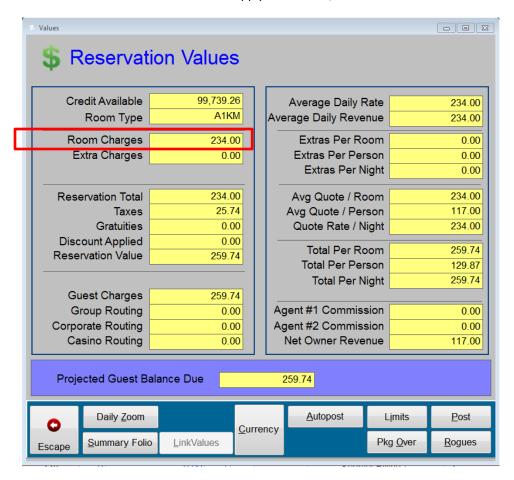


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If the "AAA" Rate is configured as "Not Discountable"



Then the Reservation Discount will not apply to this Rate; the value will not be affected:

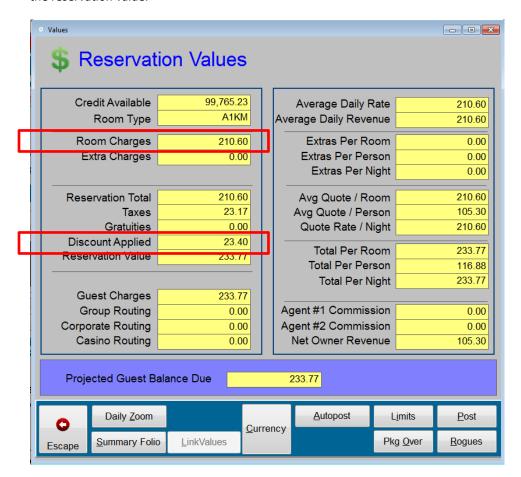


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If the "AAA" Rate is configured to "Observe Base Rates' Discount Settings"



In this example, the Base Rate's detail is configured to allow discounting; an additional 10% discount will be applied to the reservation value.



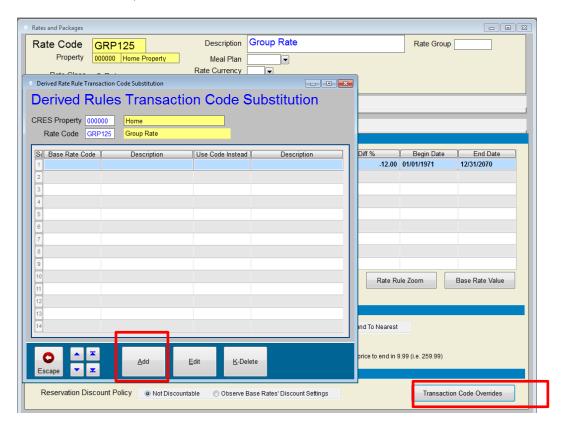
If the Base Rate's detail were configured with "Subject to Reservation Discounts" as unchecked; then additional discounting would never apply for the Derived Rates regardless of the Discount Policy setting.

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Transaction Code Overrides

Some properties use different Transaction Codes for transient, group and corporate revenue tracking. For example, they may use the code "ROOM" for transient lodging and "ROOMGR" for group lodging revenue. These properties can use the Transaction Code Overrides feature to substitute transaction codes on some of their derived rates.

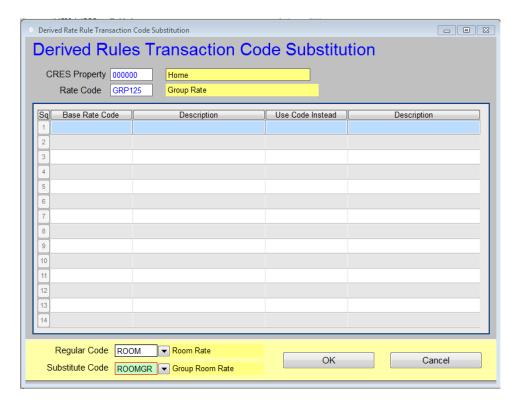
To access this feature, select the Transaction Code Overrides command button from the Derived Rate Settings subtab.



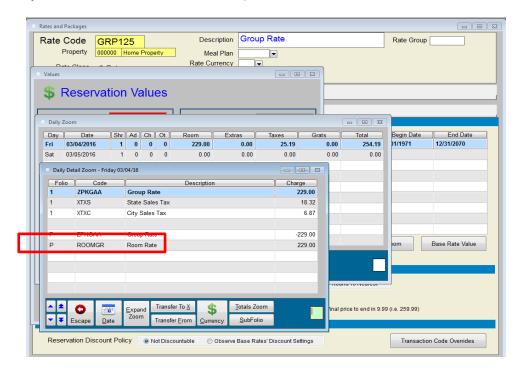
Use the Add command to add transaction code overrides.

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A list of the Transaction Codes that are used on the Base Rates will be displayed. Select the code that is to be overridden and then select the substitute transaction code.



The following image of the Value Zoom-Zoom screen shows how the override takes place (i.e. ROOMGR is used instead of ROOM which is used on the Base Rate).



The substituted transaction code will be used for all routing evaluations.

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Package Breakage

When derived rates are used with a base rate that includes package breakage items, the derived rate will also inherit the base rates' package entitlement (i.e. Usage Limits). Usage limits are not discounted by derived rates. Package breakage gain/loss will be computed as the difference between the Derived Rates' package allocation amount (which may be discounted according to how the Derived Rate Rule was configured) and the actual consumption. Breakage always posts with the breakage code that is configured on the base rate.

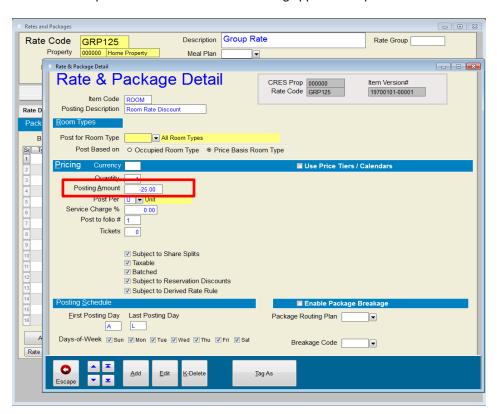
Example

For example, if the Base Rate has a FOOD item with a posting amount of 100.00 and allows consumption up to 120.00; if the guest uses 110.00; the breakage would be -10.00 (100.00 - 110.00). If another Rate is derived from this Base Rate, and applied a 25% discount; then the FOOD item would post as 75.00. If the guest using the Derived Rate consumes 110.00; the breakage would be -35.00 (75.00 - 110.00).

Derived Rates and Traditional Rate Hybrids

Traditional Rate/Package Detail may also be added to Derived Rates. This can be very useful for adding items to the Derived Rate that are unique to the Derived Rate and not contained in the Base Rates; for example, a group baggage handling fee. This is also useful for adding flat amount discounts; for example, 25.00 off.

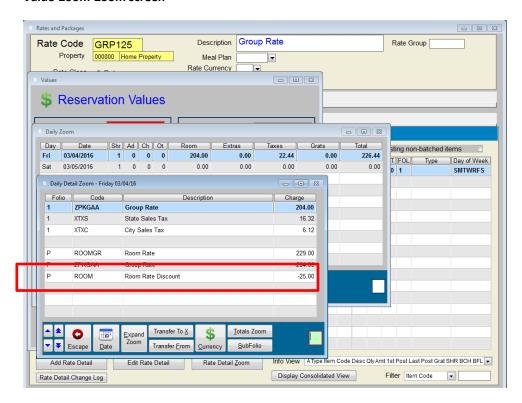
Here's an example of a Flat Amount Discount being applied on top of a derived rate:



The above example uses a flat amount in the **Posting Amount** field. You may also use rate tiers, rate calendars and any of the other posting features and controls as necessary.

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Value-Zoom-Zoom screen

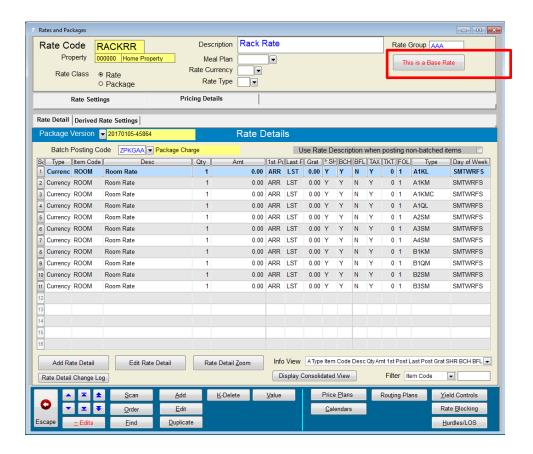


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Base Rates

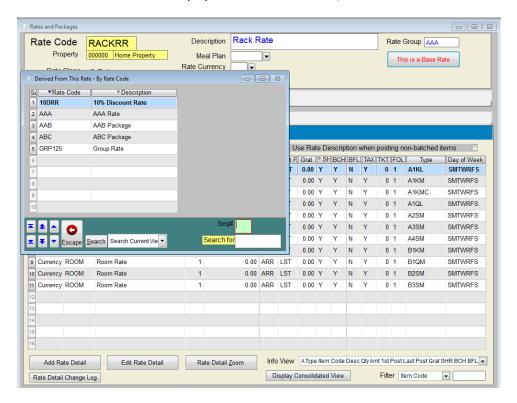
A Rate automatically becomes a Base Rate when another Rate is derived from it.

Base Rates are indicated by a red "This is a Base Rate" labeled button displayed on screen (as shown below).



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Selecting the "This is a Base Rate" command; displays a list of the Rates that are derived from this Base Rate. Selecting a rate code from the list will display the selected Rate Code/header.



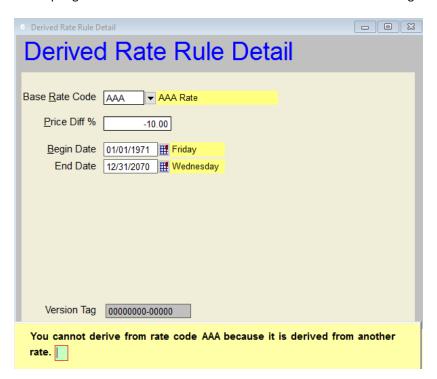
<u>Caution:</u> Since Derived Rates inherit their pricing from the Base Rates, the Base Rates are extremely critical. If a Base Rate is deleted; all Rates that are derived from it will lose that portion of their value. This will impact the value of past and current reservations. If you try to delete a Base Rate, the following warning displays:

WARNING: Other rates are derived from this rate. Deleting this rate will affect the value of the derived rates. Are you sure you want to delete this rate $\underline{\underline{Yes}}$ $\underline{\underline{No}}$? (Y/N)? $\underline{\underline{N}}$

Note: Derived Rates only allows one level of derivation; meaning that you may not derive from a Derived Rate (the Base Rate cannot also be a derived rate).

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Attempting to use a derived rate as a base rate will result in the following message.



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Additional Levels of Derived Rate Rules

For organizations that need more complex Derived Rate Rules, additional capabilities (Derived Rate Levels) may be enabled. These additional capabilities come with additional complexity in managing your rates as well. SMS recommends changing Derived Rate Levels to activate these additional features only if needed.

<u>Note</u>: These additional capabilities may be activated by contacting your SMS Support office and requesting that they change your Derived Rate Level configuration.

Derived Rate Rules by Day-of-Week and Length-of-Stay, Level 2

When this activated, Derived Rate Rules allow additional controls/conditions to be applied by DOW and LOS



Option	Description
First Night	This setting determines the first night of the stay that the rule applies to
Last Night	This setting determines the last night of the stay that the rule applies to
Days-of-Week	These settings determine which days-of-week the rule applies to

The DOW and LOS controls are applied in conjunction with each other and in conjunction with the Begin and End dates. All conditions must be true in order for the rule to apply.

<u>Note</u>: In general, Derived Rates may be used in the Channel Manager. However, the Channel Manager does not currently support LOS-based rates. This also applies to Derived Rates. This means that in order to be used in the Channel Manager, all rate elements on both the Base Rate and the Derived Rate must be Arrival – Last (no LOS variations). <u>Derived Rates pricing by LOS is not currently compatible with Channel Manager rate distribution.</u>

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Use Case - 5th Night 50% Off

The following Rules illustrate how the length-of-stay (First and Last) controls can be used to configure a Derived Rate that offers 50% on the 5th night

Derived Rate Settings								
S	Base Rate	Description	Price Diff %	First Night	Last Night	Begin Date	End Date	Day of Week
1	RACKRR	Rack Rate	0.00	Α	4	01/01/1971	12/31/2070	SMTWRFS
2	RACKRR	Rack Rate	-50.00	5	5	01/01/1971	12/31/2070	SMTWRFS
3	RACKRR	Rack Rate	0.00	6	L	01/01/1971	12/31/2070	SMTWRFS

In the above example:

The first rule (line# 1) applies beginning on the Arrival night thru the 4th night (A to 4) and will post the full RACKRR value (not discounted).

The second rule (line# 2) applies beginning on the 5th night and also ends on 5th night (5 to 5). This will post the 50% discounted RACKRR value.

The third rule (line# 3) applies beginning on the 6th night thru the Last night (6 to L). This will post the full RACKRR value (not discounted).

Note: The above is one way to configure an Nth discounted or free promotion (there are other ways)

Use Case - Tuesdays 50% Off

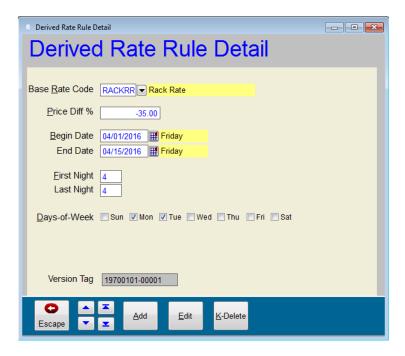
The following Rules illustrate how the day-of-week controls can be used to configure a Derived Rate that offers 25% discount on Tuesdays.

Derived Rate Settings								
Si Base Rate Description Price Diff % First Night Last Night Begin Date End Date Day of Week								
1	RACKRR	Rack Rate	0.00	Α	L	01/01/1971	12/31/2070	SM WRFS
2	RACKRR	Rack Rate	-25.00	Α	L	01/01/1971	12/31/2070	Т

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<u>Caution:</u> The use of DOW and LOS controls can be very powerful but can also add complexity and potential for configuration errors. As mentioned above, the Derived Rate Rules will only be applied when ALL of the conditions are true.

For example; the following rule will only apply for occupancy nights between 04/01/16 and 04/15/16 <u>AND</u> only on the reservation's 4th night <u>AND</u> only on Monday and Tuesday.

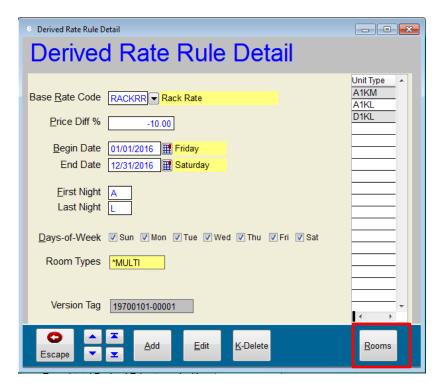


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Derived Rate Rules by Room Type, Level 3

When this activated, Derived Rate Rules allow additional controls/conditions to be applied by Room Type (in addition to DOW and LOS controls described above)

When this capability is enabled, the Derived Rate Rule Detail screen displays a "Rooms" command



The Rooms command allows you to select the Room Types for which the Rule Applies. In the above example, the Rule applies to Room Types: A1KM, A1KL and D1KL.

<u>Caution:</u> As mentioned above, the Derived Rate Rules will only be applied when ALL of the conditions are true. The level of complexity increase dramatically when this feature is enabled.

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Switching Derived Rate Levels

It is imperative to be aware of the system impact when switching from an enhanced derived rate level back to the basic.

- Derived rate rule with specific unit types on it:
 When switching from level three down to two or one, each item is reset to include all unit types. So each line item will now include all room types which can end up charging each room multiple times.
- 2) Derived rate rule with days of Week:
 - a. When switching from level three down to two, these settings are retained and values do not change.
 - b. When switching from level three down to one, the rule is reset to include all days of week. Just like the rooms situation above, each line item now includes all days of the week which can over charge.
- 3) Derived rate rule with LOS restrictions (Frist Night and Last Night):
 - a. When switching from level three down to two, these settings are retained and values do not change.
 - b. When switching from level three down to one, these settings are retained and values do not change although this area is not displayed on the form anymore. SMS would recommend removing these and using being and end dates prior to this switch.

Channel Management

In general, derived Rates may be used in the Channel Manager. The Channel Manager does not currently support LOS-based rates. This also applies to Derived Rates. This means that in order to be used in the Channel Manager, all rate elements on both the Base Rate and the Derived Rate must be Arrival – Last (no LOS variations). **Derived Rates pricing** by LOS is not currently compatible with Channel Manager rate distribution.

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Converting your Existing Rate Strategy to begin using Derived Rates

Many rate strategies have BAR (Best Available Rate) or RACK at the center with other rates deriving from BAR (i.e. 10% off BAR; 20% off BAR; etc..). If you are configured in a similar manner, you've probably needed to set up a combination of Price Plans, Tiers and perhaps Calendars for each pricing level. To begin using Derived Rates, you may decide to start fresh and create an entirely new set of Rate Codes. Or, you may prefer to keep using your existing Rate Codes, but convert rates to Derived Rates where appropriate.

The following outlines a process for manually converting your current rate structures to take advantage of ^{SMS}|Host's derived rates functionality.

<u>Note</u>: This process may vary from organization to organization. You should plan to test the process in a "demo" (non-production) environment.

1. First, verify that Rate Versioning is enabled.

The following setting in Miscellaneous Rates and Defaults (F, L, U 2) should be set to Generate or Ask User:

Always (G)enerate Version, (U)pdate Existing Version or (A)sk User (G\U\A)? G

The following setting in Miscellaneous Rates and Defaults (F, L, U 2) should be set to "N"

When Generating First Rate/Pkg Item, stamp it with Start of Time? (Y/N) N

- 2. Identify the Rate Code that will converted
- 3. Temporarily Deactivate the Rate code
 - o So that it cannot be booked while you are in the process of converting it to Derived Rates
- 4. Add the appropriate Derived Rate Rules
 - O At this stage, the value of the rate should be doubled because the rate value is referencing both the original rate detail configuration as well as the Derived Rate configuration
- 5. Delete the old Rate Details (Generating a new Rate Version)
 - It is critical to generate a new Rate Version so that existing reservation values are not affected. Existing
 reservations will still be referencing Rate Versions that reference the original rate configuration (Plans and
 Tiers, etc...). It is also critical to not delete the related Plans, Tiers and Calendars
- 6. Verify the Rate Values for several dates
- 7. Reactivate the Rate Code