Rates Generator

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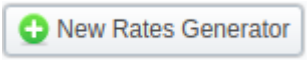
Section overview

Rates Generator is a tool aimed at making rates management more flexible and versatile by allowing setting up specific rules that will be applied to codes and rate tables in general. Additionally, it allows both generating a new rate table for vendors or updating new ones. The section is presented in the form of a table with the following columns:

Screenshot: Rates Generator form

Column	Description
ID	Identification number of a rates generator
Name	Name of a rates generator
Company	Name of a reseller, whom a rates generator belongs to
Description	Additional information about a rates generator

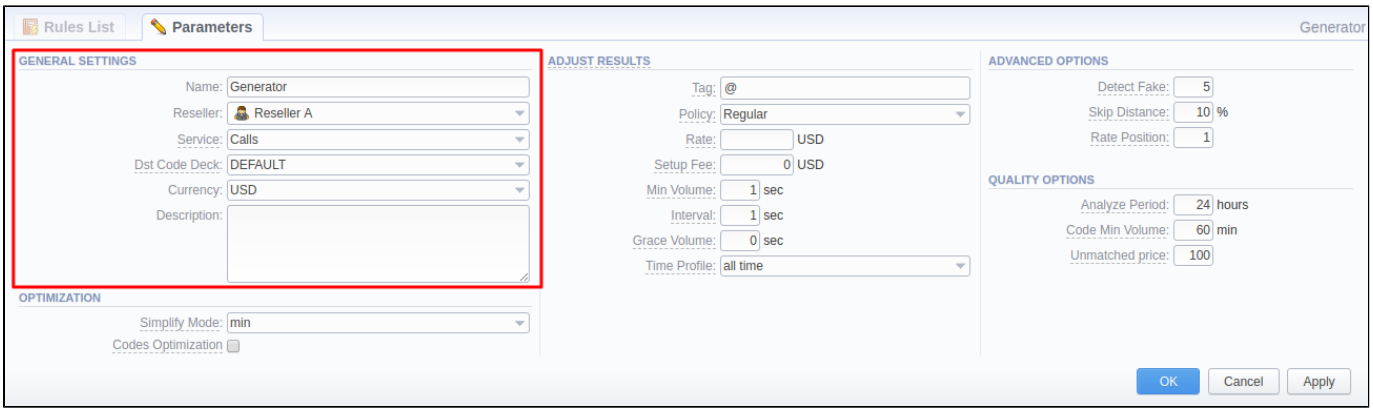
Functional buttons/icons, presented in the section, are as follows:

Button/Icon	Description
	Allows creating a new rates generator
	Allows deleting a rates generator from the system

Creating New Rates Generator

To create a new rates generator, you need to click the New Rates Generator button and a pop-up creation form will appear. It consists of **general** and **additional** settings. The list of general settings includes the following fields:

Screenshot: General settings

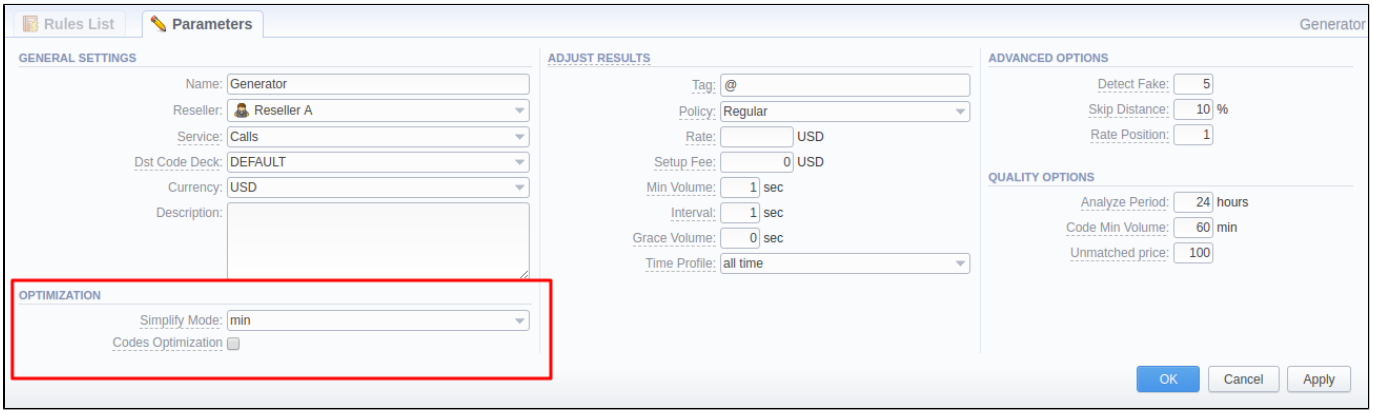


Field	Description
Name	Specify the name of a new rates generator
Reseller	Select the reseller, to whom a newly created rates generator should belong
Service	Choose the service to be applied for the respective rates generator (calls, SMSs, data, etc.).
Dst Code Deck	Select the code deck that will be used to name destination codes in a new price list if the **Adjust Results** option is enabled
Currency	Specify the currency of rates in a new price list
Description	Additional information about a current rates generator

To refine your results, you can use the following additional criteria:

Optimization Options

Screenshot: Rates Generator form/Optimization checkbox



Information Block	Description	
Simplify Mode	It allows applying the same price for all codes inside the same code name by using three options:	
	• ***min***	minimum available price.
	• ***max***	maximum available price.
	• ***avg***	average price of all available.

	Example For instance, if the **USA** code name consists of **3** codes with ***1***, ***5***, and ***6*** **USD** rates, respectively, depending on a chosen option, the results will be:

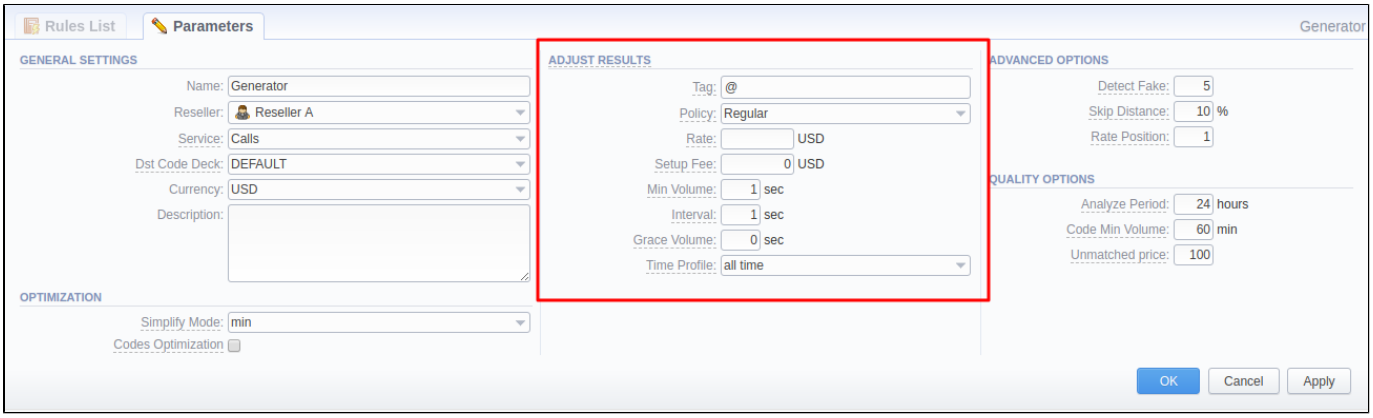
Code	Source Rate		Result Rate for *min*	Result Rate for *max*	Result Rate for *avg*
1201	1	»	1	6	4
1202	5		1	6	4
1203	6		1	6	4

Codes Optimization checkbox	This option allows compressing an imported code range. For example, ***4400-4409*** will be shortened to ***440***. At the same time, ***4400-4491*** will be shortened to ***440, ..., 448, 4490, 4491***.

Adjust Options

The ***Adjust Results*** section enables results adjusting by data from a currently selected **Code Deck**. It means that the number of codes in your **source rate table** (specified in rules after a new rates generator is created) **must be equal** to the number of codes in your Code Deck. If your Code Deck has only 5 codes, but a rate table has 10, those extra codes, that are not specified in a selected Code Deck, will be removed from a generated rate table. On the other hand, if your Code Deck has 15 codes, but a rate table has only 5, 10 extra codes will be added to a generated rate table with parameters, specified in this information block. A detailed example is provided in the table below.

Screenshot: Adjust Results information block



Field	Description
Tag	Specify a tag that will be applied to new rates, if such were created by a rates generator. Let's leave the default @ tag
Policy	Select the policy (regular or additive) that will be applied to code(s), presented in a code deck, but not in a source rate table. For example, **Regular** policy
Rate	Define a rate for codes, which are present in a code deck but missing in a rule's source rate table. For example, ***7.5 USD***
Setup Fee	Define a setup fee for a new rate(s). For example, ***8 USD***
Min Volume	Indicate minimum volume for a new rate(s). ***6 sec***, for instance
Interval	Specify the interval for a new rate(s). For example, ***2 sec***
Grace Volume	Determine grace volume for those rates. For example, ***2 sec***
Time Profile	Define a time profile for a new rate(s). For instance, leave the default **all time** profile

Example

Let's say our DEFAULT code deck contains **5** codes: ***1201, 1202, 1203, 1204, 1205***. But our source rate table has **4**: ***1201, 1202, 1203,*** and ***1205***. If in the ***Adjust Results*** you specify the above-mentioned fields with respective parameters, a new rate table, created by a rates generator, will consist of **5** codes: ***1201,1202, 1203, 1205*** with their **original parameters** and a new ***1204*** code with the following ones:

Field	Value
Code	1204
Code Name	According to DEFAULT code deck
Rate	7.5
Setup Fee	8
Min Volume	6
Interval	2
Grace Volume	2
Time Profile	all time
Tag	@
Policy	Regular

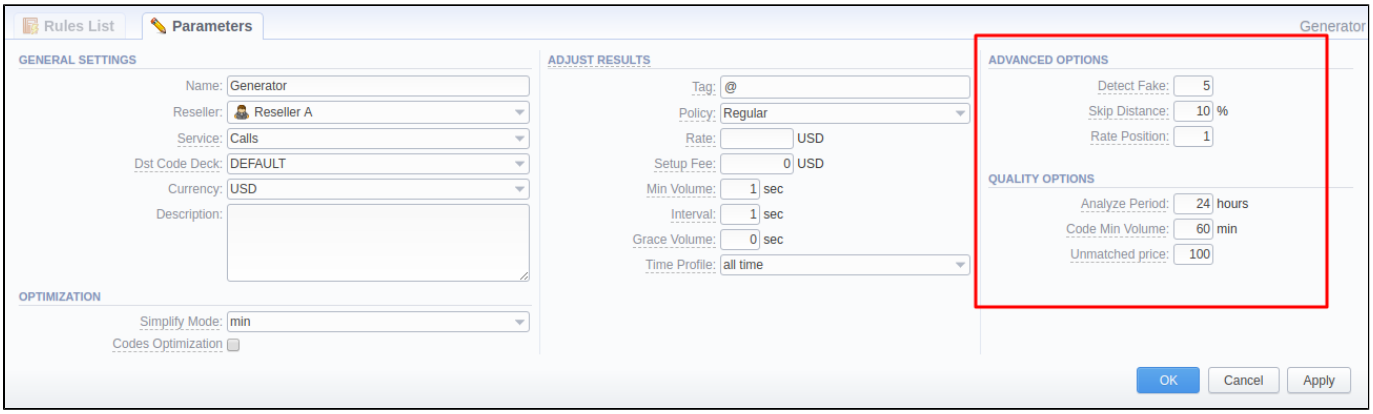
If a source rate table misses **more than 1 code** from the selected code deck, all added codes will have **identical parameters**, specified in the respective fields above.

Attention

Please note, if you don't specify the ***Rate*** field in the **Adjust Results** option, new rates for missing codes **won't be added** to a new rate table

Advanced & Quality Options

Screenshot: Advanced and Quality Options information block



The Advanced Options information block is designed to resolve cases when rates generator rules are created for different source rate tables that share certain identical codes. By specifying the following fields, you can configure what will the rate system use for these codes:

Field	Description
Detect Fake	Enable detection of fake rates if at least a specified number of rates is present in all source rate table, specified in generator rules.
Skip Distance	A percentage value of the difference between the average rate value and a particular rate from all rates, used for the ***Detect Fake*** operation.
Rate Position	Define what rate from a total amount of rates left after ***Detect Fake*** operation will be used for certain code. Rates are ordered from the cheapest to the most expensive. Thus, if you specify 1, The system will use the cheapest rate, if 2 - the second cheapest, and so on.

Example

Let's say we have **4** rules in our rates generator, each with a different source rate table. Each rate table has a rate for the ***1201*** code, but with different prices in USD:

Rate Table Name	Rate
RT 1	0.98
RT 2	0.2
RT 3	1.1
RT 4	1.7

In **Advanced Options** of rates generator settings, we've specified values, seen in the screenshot above. It means that the system will pick **all 4** rates for the ***1201*** code and execute the following actions:

1. Count an **average rate** for all 4 rates that equals ***0.99 USD***.
2. Count the interval of **15%** for an average rate of 0.99 USD that is between ***0.85 USD*** and ***1.13 USD***. Then, the system will compare all rates and skip ***1.7 USD*** rate from **RT 4** and ***0.2. USD*** rate from **RT 2**.
3. Since the ***Rate position*** field value is ***2***, the system will pick **the second cheapest rate** for this code that is ***1.1*** from **RT 3** and apply it as a basic rate for ***1201*** code in a new rate table, created by a rates generator.

The Quality Options information block contains additional parameters for more precise rate generation, based on the Summary Report. The system will analyze the report taking into account a specified time interval, specified in a report, minimum event value for codes, specified in generator rules, as well replace rate values for unmatched codes, and will generate a new rate table or update an existing one including these parameters. The information block consists of the following fields:

Field	Description
Analyze Period	Define a number of hours to analyze the **Summary Report** for. For example, ***24 hours***
Code Min Volume	Define a minimum event volume for certain code. For example, ***60 min*** for the **Calls** service
Unmatched Price	Define a price for all codes that do not satisfy quality parameters (***Code Min Volume*** value). For example, ***100 USD***
Example	For example, you created a new rates generator and set up **3** rules for the following codes: ***1201***, ***1202***, ***1205*** with ***1.5***, ***2.5***, and ***5.5 USD*** rates, respectively. In the Quality options, the respective parameters are the same as indicated in an example (see screenshot above). If you click **Create Rate Table** or **Update Rate Table** buttons on May 16th, at, i.e., 3:25 PM, the rates generator will run a Summary Report with the following parameters:

Field	Value
Period	May 15, 15.25 PM - May 16, 3:25 PM
Code	1201, 1202, 1205
Total Volume	60

Subsequently, a report showed that the billed volume for ***1201*** code is **79** mins, ***1202*** - **49** mins, and ***1205*** - **61** mins. As a result, a newly generated rate table will contain the following data:

Code	Old Rate		New Rate
1201	1.5		1.5
1202	2.5	»	100
1205	5.5		5.5

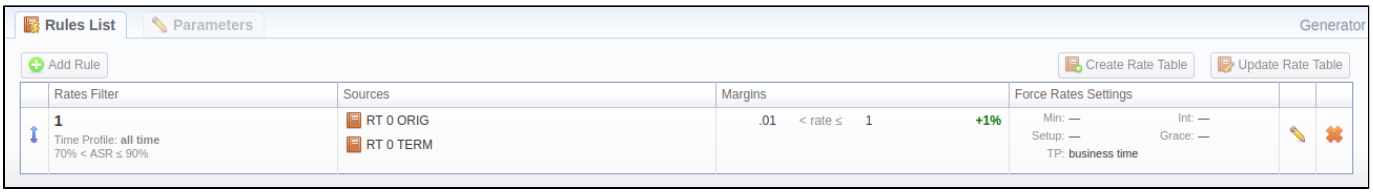
Attention

If you want to use **Quality Options** for Rates Generator, you have to define a **Terminator** as a Source for a Rates Generator's rule.

Rules List Tab

When your rates generator has been created, you need to specify its rules. The Rules List tab consists of all rules, created for a target rates generator and is presented in the form of a table with the following columns:

Screenshot: Rules List Tab



Columns	Description
Rates Filter	Code or Code Name, used in this rule
Sources	Rate Tables or Terminators Names that serve as sources for this rule
Margins	Amount of margin that will be applied to a rate if specified margin parameters are met
Force Rates Settings	Additional information on a rate: ***Setup Fee, Grace Volume,*** etc.

List of functional buttons, presented in the tab, includes:

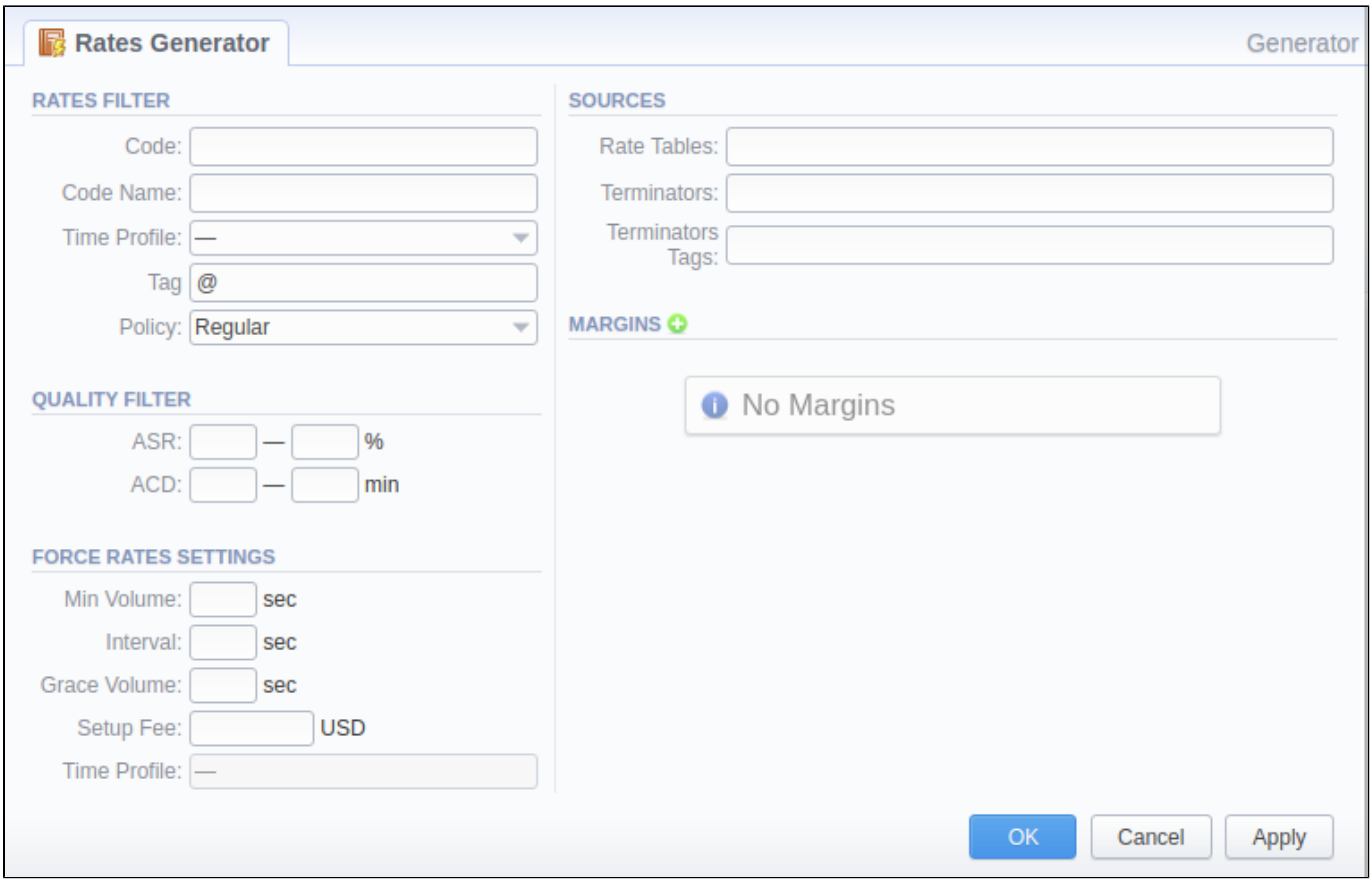
Button/Icon	Description
Add Rule	Allows creating new generator rules
Create Rate Table	Allows creating a new rate table with data from respective rules that will be added to the **Rate Tables** section
Update Rate Table	Allows updating a target rate table(s) with data from respective rules

You can change an order of rules with the help of the icon. Simply click on it and drag-and-drop it to the desired place.

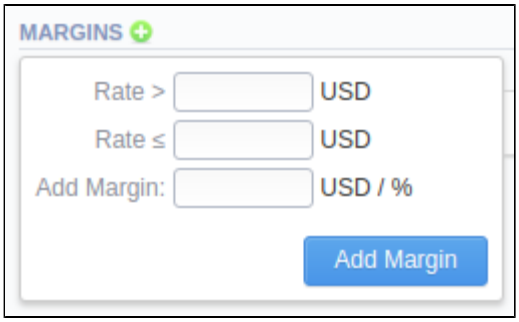
Creating New Rules

To create a new rule, you need to click the **Add Rule** button. In the opened creation form (see screenshot below), specify the respective fields and click **OK** . A new rule will be added at the top of the **Rules List** tab:

Screenshot: New rule creation form



Information Block	Fields and Description	
Rates Filter	Basic parameters of a new rule	
	• ***Code***	Indicate a code for a current rule. Use the **** (asterisk)*** symbol for all codes. If a code is specified, the ***Code Name*** field is inactive and vice versa
	• ***Code Name***	Specify a respective Code Name for this rule
	• ***Time Profile***	Select a time profile for codes that will be picked from sources
	• ***Tag***	Specify a tag for a current code of a rule
	• ***Policy***	Choose a respective policy (regular/additive)
Quality Filter	Set quality parameters of your rule here **Attention** Please be advised that these parameters work in combination with **Quality Options** in generator settings. It means that if **ASR, %** is set to ***85-95***, when a rates generator creates a **Summary Report**, it will analyze codes not only by their volumes, indicated in the ***Code Min Volume*** field, but also if their ASR complies with the value, indicated in the ***ASR, %*** field. The same behavior is expected for the specified ***ACD, min*** field	

	• ***ASR, %***	Specify ASR ranges for target code that are checked in a Summary Report by the rates generator
	• ***ACD, min***	Specify ACD ranges for target code that are checked in a Summary Report by the rates generator
Force Rates Settings	Specify additional parameters that must be noted when picking destinations from sources: • ***Setup Fee*** • ***Min. Volume*** • ***Interval*** • ***Grace Volume*** • ***Time Profile***	
Sources	Select one or multiple sources for picking data for a new price list	
	• ***Rate Tables***	Specify source rate tables
	• ***Terminators***	Specify vendors (termination clients) for this rule
	• ***Terminators Tags***	Specify vendors' tags for this rule
Margins	By clicking on the icon, you can add a margin to a respective rate.  If the rate for an indicated code is within the range of rates, defined in the ***Rate>*** and ***Rate*** fields, a margin (specified in respective currency or %) will be applied to this rate. Add the ***%*** symbol to the ***Add Margin*** field value to indicate that a margin is in percent.	

Tip

Section rules abide by the following priority: the top placed rule is picked first, and if some of the lower priority rules are able to provide the same codes, those codes will be ignored.