



FIRMSuite®

BUSINESS RULES SYSTEM PARAMETERS USER MANUAL

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BUSINESS RULES

FIRM Suite keeps you informed about the usage rate of your equipments. First of all, usage thresholds (called "business rules" in FIRM Suite) must be defined and associated with a severity level. Then, the user can view at a glance if the usage rate of an equipment is critical or not and proceed accordingly.

****Due to the dual platform, some business rules configuration has to be defined from the FIRM Legacy interface and others from the Skynet interface. ****

FIRM Legacy interface	Skynet interface
Power Plant usage	
Rectifiers Usage	
Battery usage	Battery Replacement, Battery Cell - Conductance, Battery Cell – Impedance, Battery Cell – Intercell
Fuses/Breakers, Distribution Bays, Electrical Distribution Panels	
Service Entrance Usage	
Generators Usage	
Inverters Usage	
Transformers Usages	
UPSs Usages	
Transfer Switch Usages	
Busbars Usages	
Power Factor Correction Equipments Usages	
Circuit Protections Usages	
	Current usage, Heat Dissipation, RU Usage, Rack Capacity usage

BUSINESS RULES IN FIRM LEGACY

The "Business Rules" page contains a tab for each type of equipment. Each tab is similar: the purpose is to create the different business rules of a type of equipment and, if required, to choose the equation that will be used to calculate the usage rate of this equipment. To choose the equation that will be used for calculating the usage rate of an equipment type (choosing an equation applies to certain equipment types only):

1. In the "Configuration" menu of FIRM Administration, click "Business Rules".



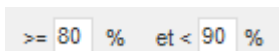
2. Click the radio button that corresponds to the equation of your choice and/or specify a K constant (if required). A K constant could be useful to adjust a calculation according to a level of risk.

For distribution bay, the equation is specified in Fuses/Breakers tab. A fuse/breaker usage corresponds to the load current value that has been read. If no value has been read, the fuse/breaker usage will be calculated according to the value specified in the "K Constant" field of a distribution bay. By default, this value is 0.67.

3. In the appropriate tab, click the "Add Business Rule" link.

Note: If you define business rules for the FIRM Distribution module, the tab that will interest you will be "Distribution Bays".

4. Enter a significant name for the business rule (e.g. **80% <= U < 90%** to name a rule that contains the equipment used at more than 80 % of their capacity without exceeding 90 %).
5. Enter the appropriate percentages in the "Condition" section. For example:



6. Associate a severity level with the business rule (e.g. normal, minor, critical). These severity levels are configurable and must have been previously defined in the "Severity Colors" page of the "Configuration" menu.

Note that each level is associated with a color. Each time that the results (e.g. usage rates) are displayed in the FIRM Suite pages, they are accompanied by those colors. Information tracking is then easier.

7. Add a comment (optional).

8. Click "Save Business Rule".

BUSINESS RULES IN SKYNET

To add a new rule:

#	Name	Description	Greater than (%)	Less than or equal to (%)	Select gravity	Color
1	Good String	No cell identified as failed	80	90	Level 01	Green
2	String About to Fail	Quantity as Failed/Total cells	0	90	Level 08	Yellow
3	String Completely Failed	Quantity as Failed/Total cells	90		Level 10	Red

1. In the "System Parameters" menu of FIRM Settings, click "Business Rules".
2. In the appropriate tab, click the "Add Business Rule" link.
3. Enter a significant name for the business rule (e.g. **80% <= U < 90%** to name a rule that contains the equipment used at more than 80 % of their capacity without exceeding 90 %).
4. Enter a description (optional).
5. Enter the appropriate percentages in the "Greater than and Less than or equal to" columns.
6. Associate a severity level with the business rule (e.g. normal, minor, critical). These severity levels are configurable and must have been previously defined in the "Severity Colors" page of the "System Parameters" menu.

Note that each level is associated with a color. Each time that the results (e.g. usage rates) are displayed in the FIRM Suite pages, they are accompanied by those colors. Information tracking is then easier.

7. Click on the save icon in the menu.

To delete a rule

1. Click on the delete icon of the rule that needed to be deleted.
2. Adjust the percentages in the "Greater than and Less than or equal to" columns.
3. Click on the save icon in the menu.

To disable a business rule:

The screenshot shows the 'SYSTEM PARAMETERS' page in the FIRM Suite. The 'Battery Replacement' tab is selected. A table lists three business rules. The 'Color' column shows the status of each rule: 'ON' (green), 'DANGER' (yellow), and 'OFF' (red). The 'OFF' button is highlighted with a red box.

#	Name *	Description	Greater than (%)	Less than or equal to (%)	Select gravity	Color
1	Good String	No cell identified as Failed		0	Level: 01	ON
2	String About to Fail	Quantity as Failed/Total cells	0	50	Level: 08	DANGER
3	String Completely Failed	Quantity as Failed/Total cells	50		Level: 10	OFF

Disabled a business rules remove the colored representation displayed in the FIRM Suite page.

ON: The business rule is enabled.

OFF: The business rule is disabled.