

**MagicINFO Analytics**

**Rule Manager**

**User Guide v1.0**

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# Preface

## Users of this guide

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This guideline is intended for rule operators who will create and manage rules.

## Conventions

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This document uses the following conventions:

|                 |  |
|-----------------|--|
| <b>Boldface</b> | <b>Boldface</b> indicates graphical user interface elements, menus, navigation trees and directories within the main text, yet use quotation marks for portal, window, wizard among graphical user interface elements. |
| <i>Italics</i>  | <i>Italics</i> indicates parameter names and values, and titles of other printed references.   |
| Monospace       | Monospace font indicates commands and codes. Use bold monospaced font for names of commands, parameters, registries, scripts, and process. Also use italic monospaced font for variables and parameter values.         |

## Notes and notices

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Notes provide additional information to users such as tips, recommendations, exceptions, and restrictions.

(sample) Make sure to install the 64-bit version of the driver to use the 64-bit version of the ABC statistics software. The 32-bit version of the driver is not compatible with the software.

## Revision History

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| Manual Version | Revised Date | Revised Details |
|----------------|--------------|-----------------|
| 1.0            | 2019. 04. 26 | Created         |

# 1. Getting Started

To play the appropriate content for the surrounding conditions of the display device, you can manage by registering the playback conditions.

"How to use Rule Manager" explains the following topics:

- **Checking the list of rules**  
Explain how to search the rule from rule list
- **Creating rules**  
Explain how to create rules and to set Target/Condition details
- **Executing rules**  
Explain how to execute rules
- **Uploading sales data**  
Explain how to upload and manage sales data for creating sales analysis based rules and analyzing sales effectiveness
- **Viewing sales performance report**  
Explain the report that shows how the ad content triggered by the rule influences sales

Chrome Browser is required. Click the **Analytics** icon on the left menu bar to get started.

\* Analytics icon will be shown when Analytics license is purchased.

## 2. User Role Definition

The role to use Analytics is as follows:

| Role        | Description  |
|-------------|--|
| Rule Author | The role of creating and managing rules. Users with this role must have the Content Manager and Device Manager role. |

# 3. How to use Rule Manager

## 3.1 Checking List of Rules

To check registered rules, complete the following steps:

1. Click **Analytics** on the left menu bar
2. On the search area above the list of schedules, select the search criteria to search for the rule item you want to look up. The list of rules falling under the search conditions will appear. The search criteria include rule name, period and rule status.

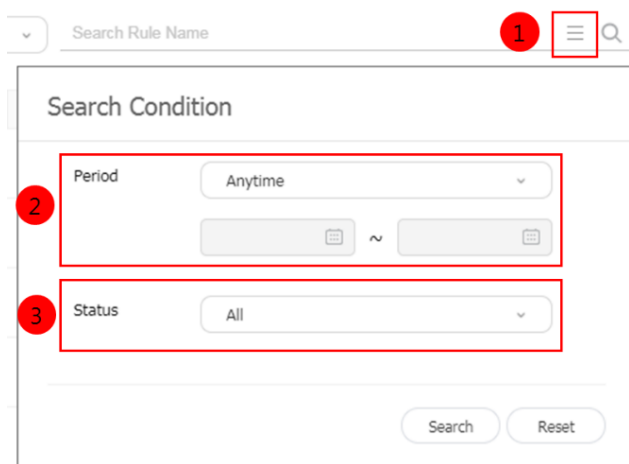


Figure 3-1 Rule Search Conditions

| No. | Item                                 | Description  |
|-----|--------------------------------------|--|
| 1   | <b>Search Condition popup button</b> | Click the button to see the popup for search condition setting.  |
| 2   | <b>Period</b>                        | Set the period of rule application as the search condition. The period option includes Today, Last 7 days, Last 30 days, Custom setting and All. |
| 3   | <b>Status</b>                        | Set the rule status as the search condition. The status option includes Active, Inactive and All.  |

Table 3-1 Rule Search Conditions Description

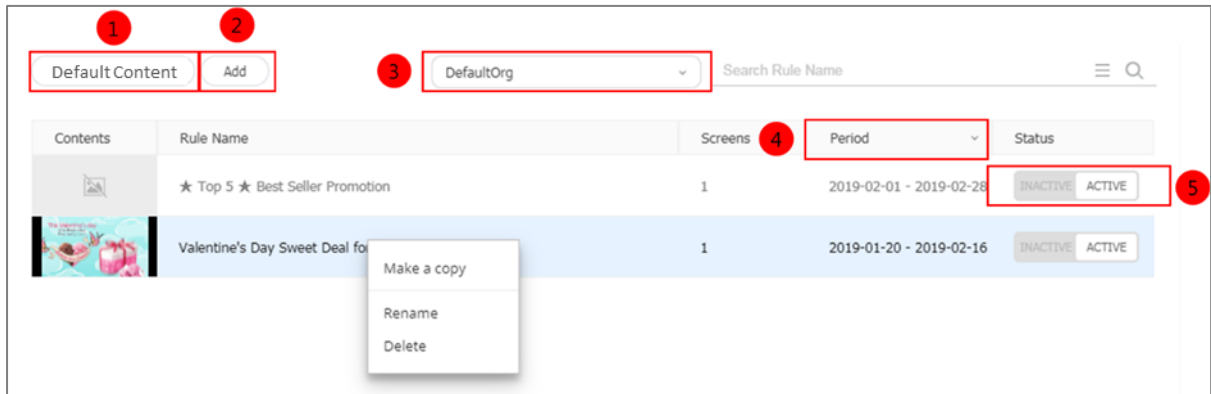


Figure 3-2 Screen For Rule List

| No. | Item                     | Description   |
|-----|--------------------------|---|
| 1   | <b>Default Content</b>   | Set default content on the device group for the case when no rule is triggered. |
| 2   | Add                      | Create a new rule.  |
| 3   | <b>Device Group</b>      | Search the rule list based on the device group where the rule is applied.       |
| 4   | <b>Period Sort arrow</b> | Arrange in descending/ascending order based on the period to applying the rule. |
| 5   | <b>Active/Inactive</b>   | Activate/inactivate the rule.   |

Table 3-2 Items In Rule List Features

On the "Rule list" window, you can perform the following tasks:

- The thumbnail image of rule’s main content is displayed at the very left of the rule list.
- Double-click the rule from the list to view detailed information on the rule.
- Right-click the rule to show the menu. See below for the features of the menu on the right.

| Item               | Description                                  |
|--------------------|--|
| <b>Make a copy</b> | Copy the selected rule to create a new rule. |
| <b>Rename</b>      | Change the selected rule name.               |
| <b>Delete</b>      | Delete the selected rule.                    |

Table 3-3 Right-Click Menu On The Rule List

# Default Content Setting

Default content to play should be set for the case when any rule isn't created or triggered.

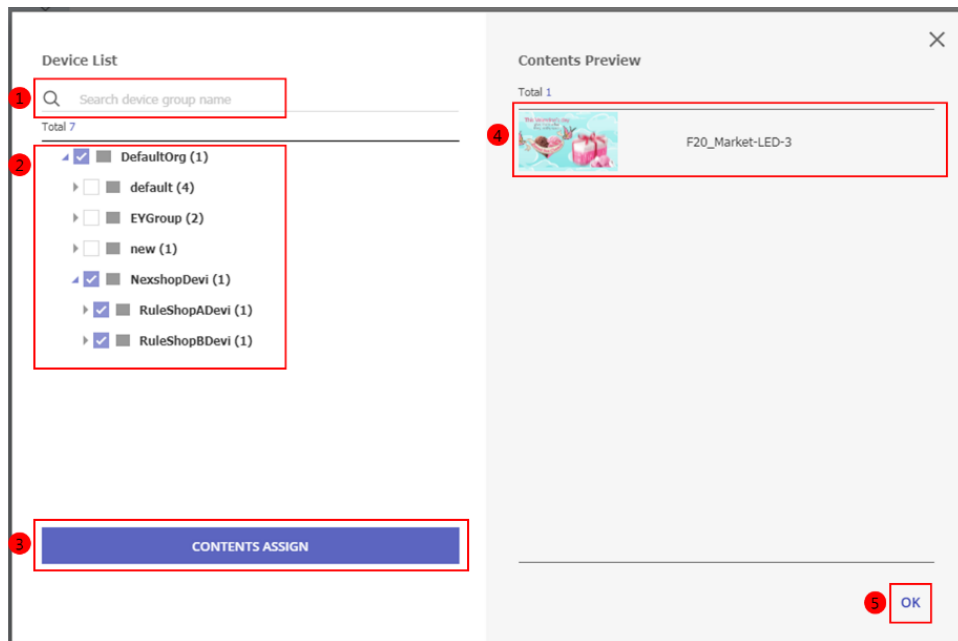


Figure 3-3 Setting Default Content

| No. | Item                       | Description   |
|-----|----------------------------|---|
| 1   | <b>Device Group Name</b>   | Search by name from the list of child device groups                                       |
| 2   | <b>Device Group Select</b> | Select the device group to apply default content  |
| 3   | <b>Contents Assign</b>     | Open the content selection pop-up for selecting the content to assign to the device group |
| 4   | <b>Contents Preview</b>    | Preview the list of assigned content to the selected device group                         |
| 5   | <b>OK</b>                  | Save the setting  |

Table 3-4 Default Content Setting Description



## 3.2 Creating Rules

### Dragging Target/Condition

A rule can be created only by a user who has the Rule Author permission. To create a rule, complete the following steps:

1. Click **Add** button on the top of the screen.
2. On the pop-up window, enter rule name and description and do not use duplicated rule names.

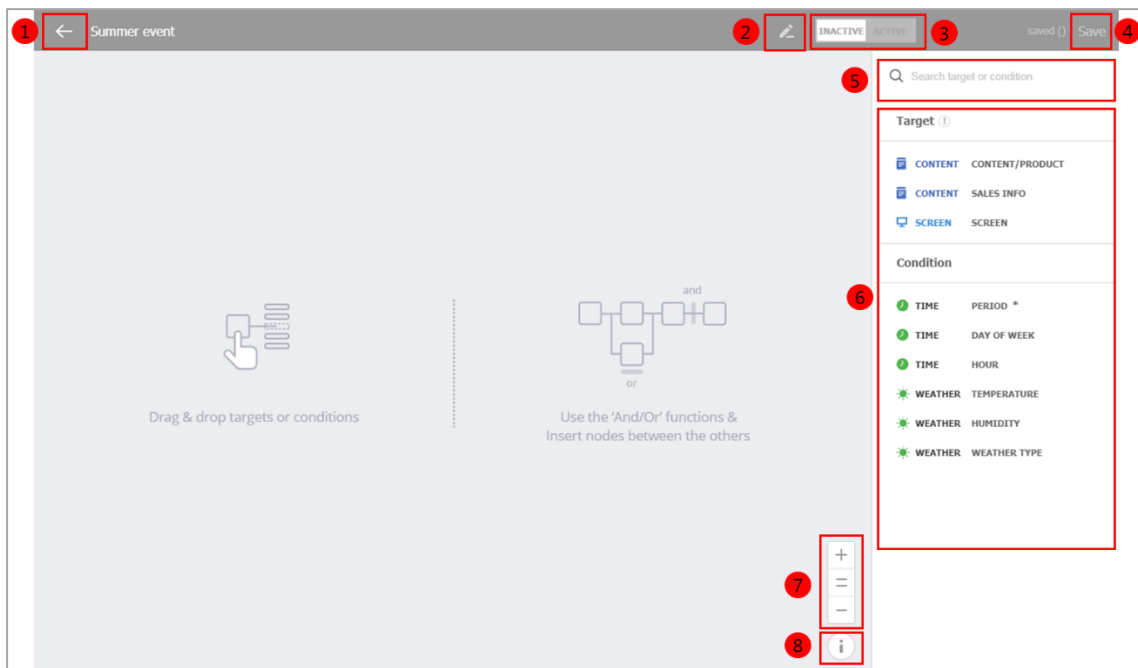



Figure 3-4 Screen for Rule Design

| No. | Item  | Description   |
|-----|---|---|
| 1   | ←   | Click to exit the screen and move to the rule list. |
| 2   |  | Click to see a memo editing screen.                 |

| No. | Item                     | Description   |
|-----|--------------------------|---|
| 3   | <b>INACTIVE/ACTIVE</b>   | A toggle button to Active or Inactive selected rule. When creating the rule, this button is disabled and the status cannot be changed. Once the rule is created, the button is enabled and you can change the status. |
| 4   | <b>SAVE</b>              | Save the rule. The screen moves to the rule list after saving.  |
| 5   | <b>Search</b>            | Search Target or Condition by the name.   |
| 6   | <b>Target, Condition</b> | A Target or Condition to be used in the rule.<br>Create a rule by dragging the list and dropping it on the canvas.  |
| 7   | <b>+/=/-</b>             | On the canvas listing row conditions, click (+) to expand, (=) restore to original, and (-) to reduce.  |
| 8   | <b>!</b>                 | Tooltip pop-up to explain how to create a rule  |

Table 3-5 Rule Design Item Description

3. Drag one from the list of **Target/Condition** on the right and place on above the left canvas.
4. The **Target/Condition** dragged and dropped on the canvas is displayed as rectangular icon shape and the **Target/Condition** area on the right shows the detailed settings screen of the dragged and dropped **Target/Condition**.

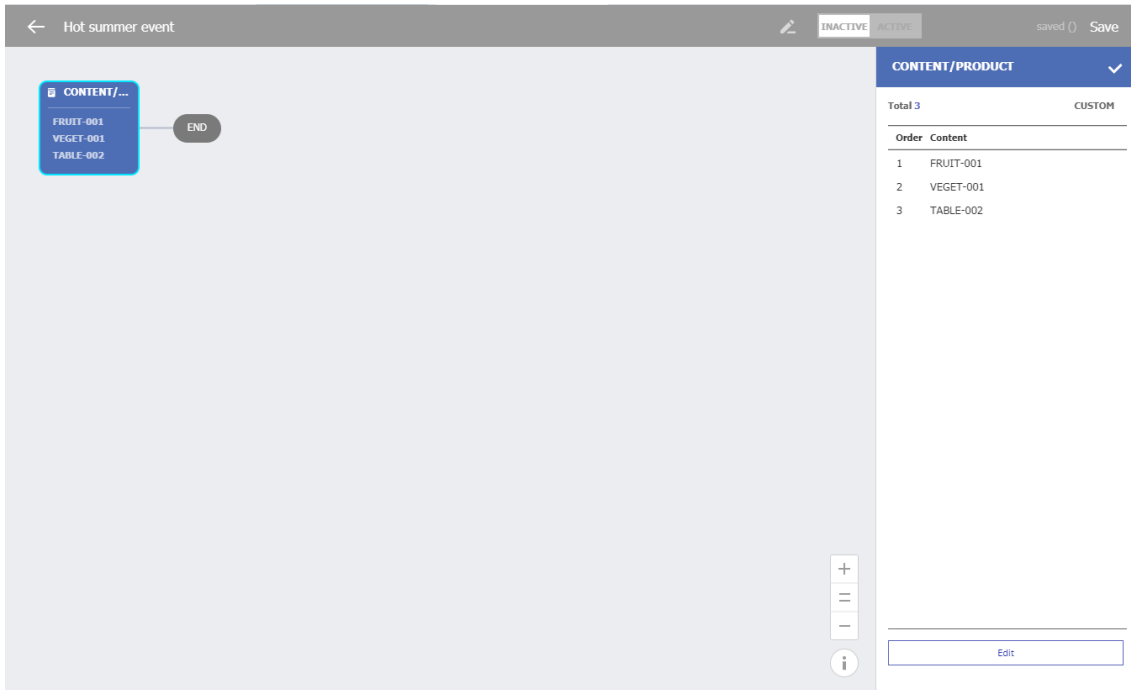


Figure 3-5 Rule Canvas

5. If one rectangular icon is created, an **END** icon is additionally created at the end and the two icons are connected by a line.
6. Then you can place a **Target/Condition** above the connected line or below the **Condition** icon.
7. **Target** and **Condition** have the following types:

| Target Name | Description   |
|-------------|---|
| SCREEN      | Set the display device to apply the rule.                       |
| CONTENT     | Set the content to play under a set condition.                  |
| SALES INFO. | Set the condition for the content based on sales data analysis. |

Table 3-6 Target Description

| Condition Name | Description   |
|----------------|---|
| PERIOD         | Set the period to apply the rule.                                 |
| DAY OF WEEK    | Set the day of week to apply the rule.                            |
| HOUR           | Set the hour to apply the rule.                                   |
| HUMIDITY       | Set the humidity conditions.                                      |
| TEMPERATURE    | Set the temperature conditions.                                   |
| WEATHER TYPE   | Set the weather type conditions.<br>(Sunny, Cloudy, Rainy, Snowy) |

Table 3-7 Condition Description

**Note:**

The **Target Content** and the **Device** are mandatory and duplicated use is not possible.  
Also, the list indicated with an asterisk (\*) in the Condition area is mandatory.

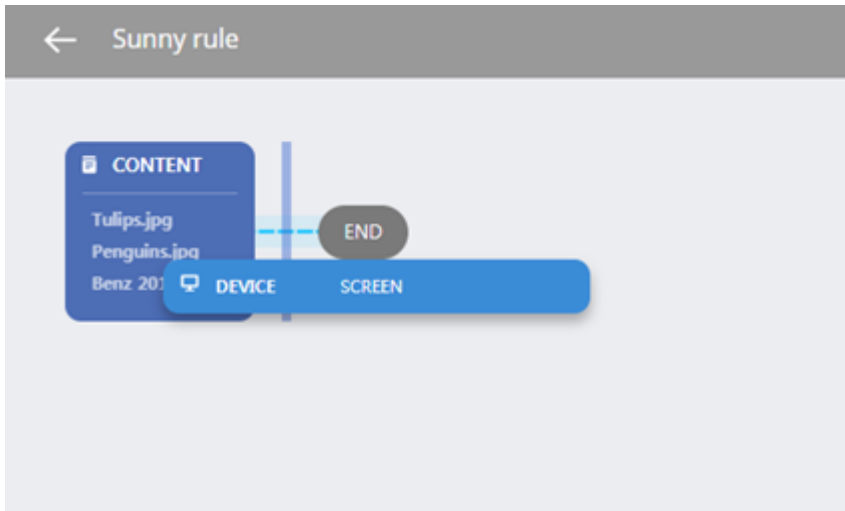


Figure 3-6 Dragging the Target/Condition

8. A **Condition** can be placed in between or at the bottom of the conditions as shown in the area indicated in the figure below. Placing it to the side sets it as an AND condition and placing at the bottom sets it as an OR condition.



Figure 3-7 Placing Conditions

9. If you click **Target/Condition**, a detailed setup screen appears on the right.

## Detailed Settings by Target/Condition

If you drag and drop the conditions to the canvas, a screen to set up detailed information by each condition

appears on the right. If you enter a detailed value by each condition and click above the canvas or check the button, the set details are displayed on the Condition icon above the canvas.

## Target: Setting the display device group

Select the display device group to apply the rule to. The processes to set the detailed screen (device group) information are as follows:

1. If you drag and drop a **SCREEN**, a screen for detailed settings will appear on the right..

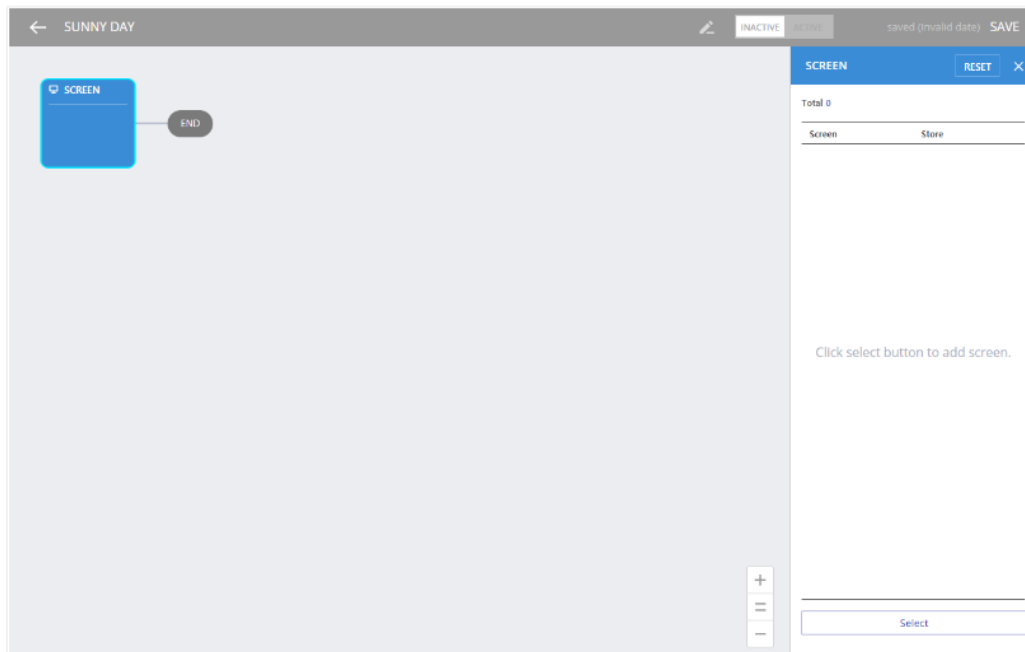


Figure 3-8 SCREEN Details

1. Click the **SELECT** button and a screen for device group selection will be displayed.

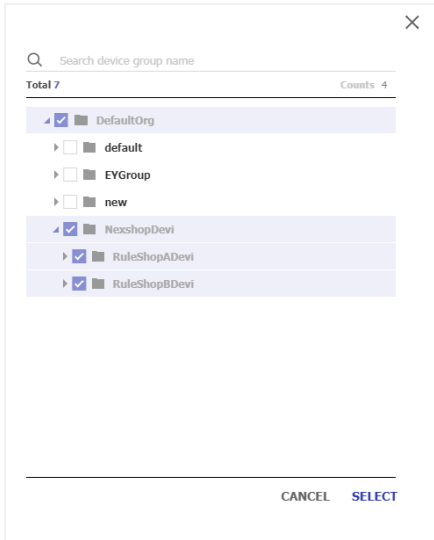


Figure 3-9 Device Group Selection Pop-up

2. You can view the list in the device group tree and also can search by name.
3. Select a display device to apply rules to and click the **SELECT** button. Then the pop-up window will close.

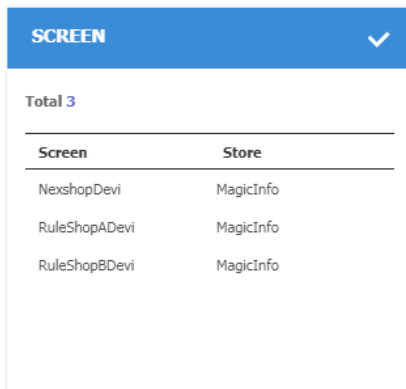


Figure 3-10 Screen (Device group) List

4. Selected display device is added.
5. Once the selection is complete, click the (V) button or click the canvas area to finish.

## Target: Setting content

1. If you drag and drop a **CONTENT**, a screen for detailed settings will appear on the right. If you click the **SELECT** button just like **SCREEN**, the screen to select content will be displayed. Image type or Video type

content from MagicINFO Server that content is uploaded using **MagicINFO Content** menu, is displayed in the content list.

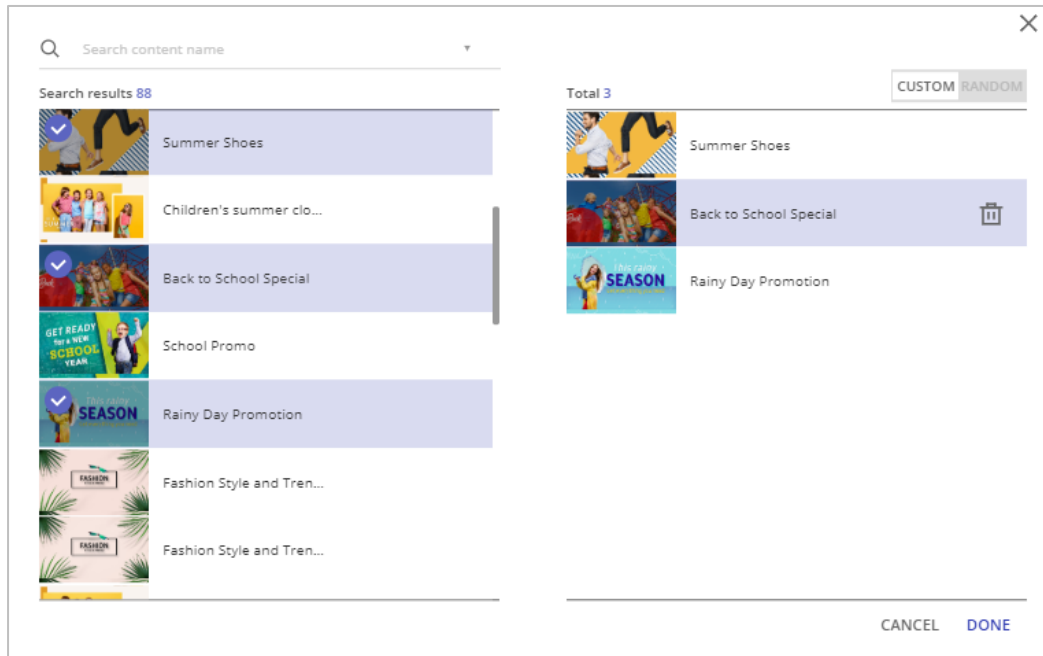


Figure 3-11 Selecting CONTENT Pop-up

2. You can search by content name or tag.
3. Click **CONTENT** on the left list to add it to the list in the right selection area. Hover over the added list and the Delete button will appear.
4. Set the play order of the content. Choose from either **CUSTOM**, which selected by the user, or **RANDOM** which is randomly selected.
5. In the **CUSTOM** state, you can change the order by clicking and dragging a content in the selection area and moving it to the desired location

## Target: Setting sales data based content

Use the sales data to play the content matching the result of sales ranking analysis by product category, time, weather, etc. The time and weather conditions are identical to the time and weather conditions used at the time of creating the rules.

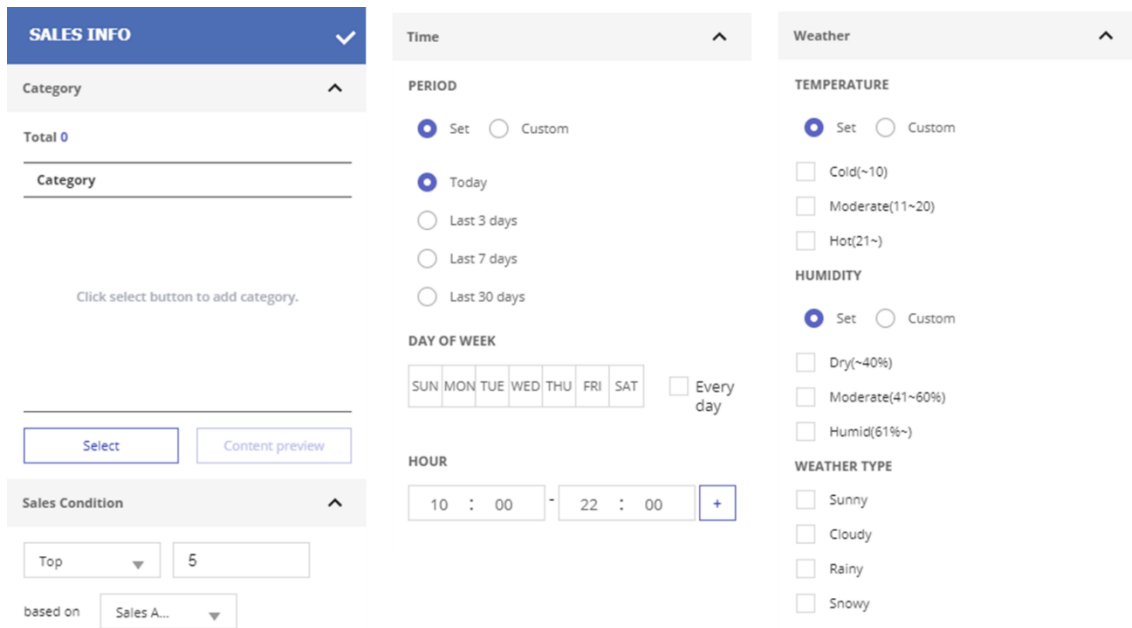


Figure 3-12 Setting Sales Data based Content

## Condition: Setting time conditions

There are three time conditions: period, day of the week, and time.

### 1. Period condition

Set the period of rules being applied. To select the period, click on the calendar icon and select the dates or directly type in the dates.

### 2. Day of the week condition

Set the day of week of when rule will be applied. To select the day of week, select the corresponding icons as shown below.

### 3. Time condition

Set the time interval of when rule will be applied.



The figure shows three adjacent configuration panels, each with a green header and a 'RESET' button with a close icon.

- PERIOD:** Shows a date range from 07-08-2018 to 07-08-2018.
- DAY OF WEEK:** Shows a row of days: SUN, MON, TUE, WED, THU, FRI, SAT. TUE and THU are highlighted in blue.
- HOUR:** Shows a time range from 10 : 00 to 22 : 00, with a plus sign button to the right.

Figure 3-13 Setting Period/Day of Week/Hour

## Condition: Setting weather conditions

There are three types of weather conditions: humidity, temperature, and weather type. Weather information is based on the location where the device is installed. To use weather information, the latitude / longitude of the device location must be set in the **Map Location** on the **MagicINFO Device** menu.

**Note:**

It is recommended to set the same value among the devices in the same group due to rules are executed by device group. If you set different information for each device, one of them will be randomly selected to get the location information of the device group.

### 1. Humidity

The figure shows two adjacent configuration panels, each with a green header and a checkmark icon.

- Left Panel (Setting):** Shows 'Setting' selected with a radio button. Below are three checkboxes: 'Dry(~40%)', 'Moderate(41~60%)', and 'Humid(61%~)'. All are currently unchecked.
- Right Panel (Custom):** Shows 'Custom' selected with a radio button. Below is a 'between' dropdown menu, followed by two input boxes containing '0', a minus sign, another '0', and a percent sign. A plus sign button is to the right.

Figure 3-14 Setting Humidity condition

- a. To select from the predefined humidity sections, click Setting. You can select more than one

humidity section.

- b. To customize humidity sections, click Custom.
- c. Click add (+) button to add more sections.

## 2. Temperature

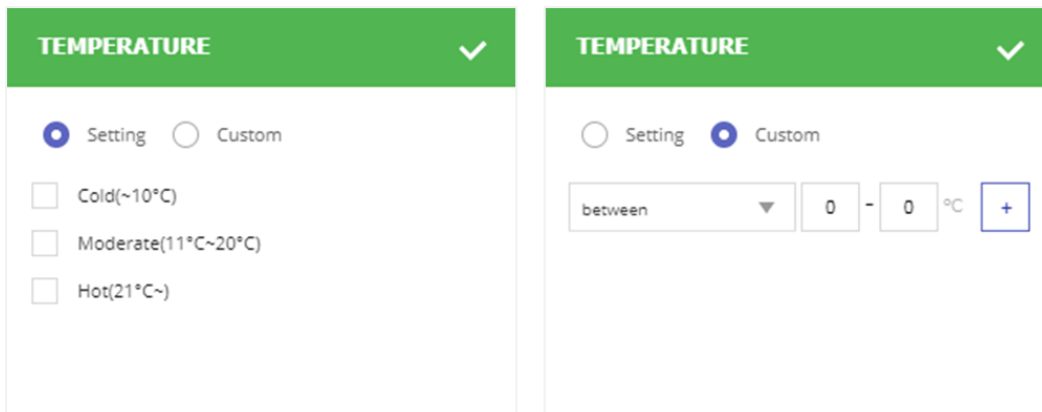


Figure 3-15 Setting Temperature Condition

- a. To select from the predefined temperature sections, click Set. You can select more than one temperature section.
- b. To customize temperature sections, click Custom.
- c. Click the add (+) button to add more sections.

## 3. Weather type condition

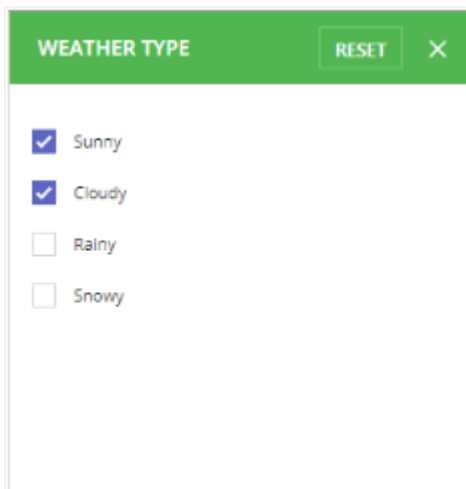


Figure 3-16 Setting Weather Type Condition

- a. Predefined weather types are displayed on the screen.
- b. Select from the weather type to set as the rule condition. You can select more than one weather type.

## 3.3 Executing Rules

If you create a rule and click **ACTIVE** button, the rule is activated. Then, DataLink service needs to be created to bring content information that rule provides. The DataLink service requests the content lists to display for device group at each call cycle set.

The rule-based content playback is carried out by the following procedure:

- Activating rules
- Creating DataLink content
- Creating schedules

### Activating Rules

Click **ACTIVE** for the created rule.

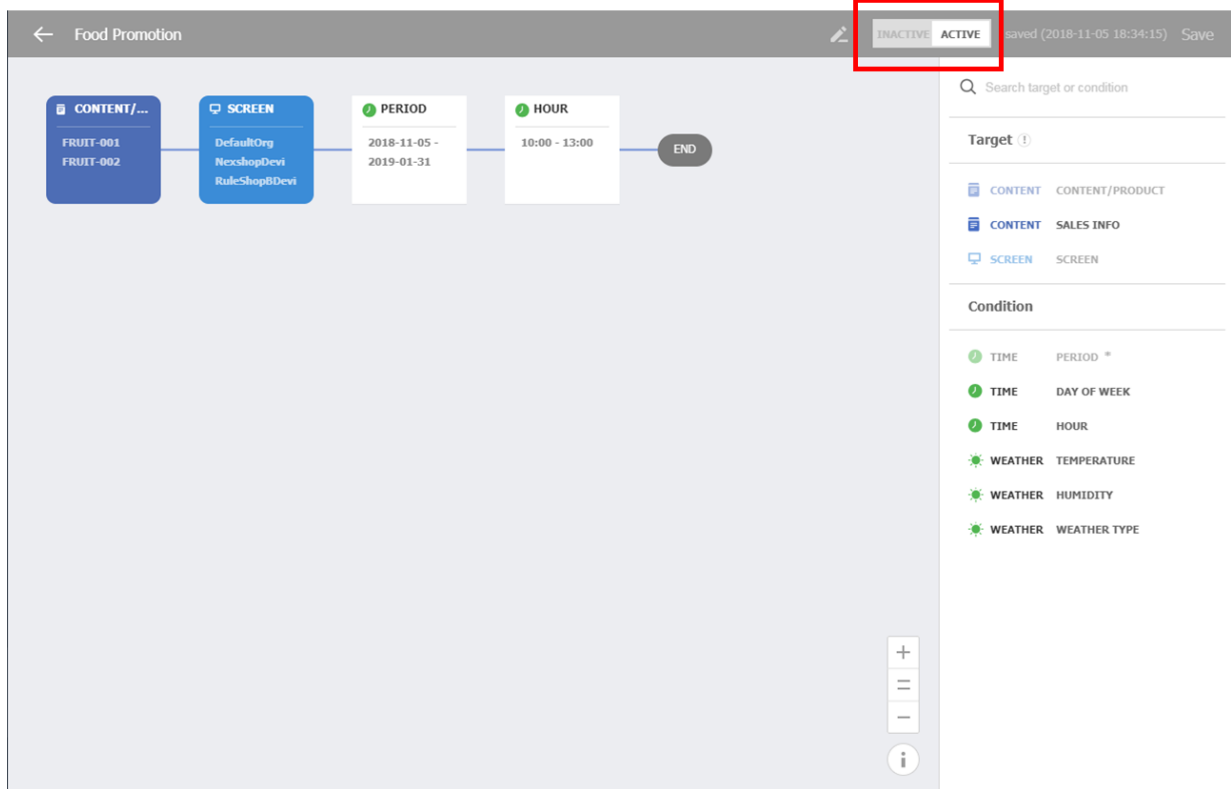


Figure 3-17 Activating Rules

## Creating DataLink Content

Refer to **Configuring DataLink** and **Creating content** in MagicINFO Web Manual.

Route: Products > MagicINFO Server > User Guide > Content > Making content > Configuring DataLink

(<http://displaysolutions.samsung.com/docs/pages/viewpage.action?pageId=2065253>)

## Creating Schedule

Create a schedule using the DLK content created in the previous step. Set the created schedule to the device group to which the rule is applied.

## 3.4 Uploading Sales Data

The sales data of each store are collected not only to be used as rule conditions, but also to analyze how sales have been affected by an advertisement.

The screenshot shows a web interface for uploading sales data. It includes a 'Template Download' button (1), a 'DefaultOrg' dropdown menu (2), an 'Excel Upload' section with an 'Add File' button (3) and an 'Upload' button (4). Below this is a 'Data List (2)' section with 'List Download' (5) and 'Delete' (6) buttons. A search bar (7) is located to the right of the data list. The data list itself contains two rows of sales data with columns for Invoice number, Sales Date, Type, SKU, Quantity, Sales Amount, Currency, Category, Sales Person, Customer, and Remark.

| Invoice number | Sales Date        | Type  | SKU | Quantity | Sales Amount | Currency | Category | Sales Person | Customer | Remark |
|----------------|-------------------|-------|-----|----------|--------------|----------|----------|--------------|----------|--------|
| 2              | 018-09-12 00:00:0 | SALES | 2.0 | 2        | 2.00000      | 2.0      | 2.0      | 2.0          | 2.0      | 2.0    |
| 3              | 018-09-13 00:00:0 | SALES | 3.0 | 3        | 3.00000      | 3.0      | 3.0      | 3.0          | 3.0      | 3.0    |

Figure 3-18 Uploading Sales Data

| No. | Item                             | Description   |
|-----|----------------------------------|---|
| 1   | <b>Template download</b>         | Download a registration form containing sales data in Excel file. |
| 2   | <b>Select a registered store</b> | Select a store to register the sales data.                        |
| 3   | <b>Add file</b>                  | Select a sales data file (Excel) to be registered.                |
| 4   | <b>Upload</b>                    | Upload the selected sales data.                                   |
| 5   | <b>List download</b>             | Download the searched sales data in Excel file.                   |
| 6   | <b>Delete sales data</b>         | Select and delete sales data.                                     |
| 7   | <b>Search sales data</b>         | Search sales data with a keyword.                                 |

Table 3-8 Uploading sales data description

## 3.5 Viewing Sales Performance Report

Sales Performance Report shows how the ad content triggered by the rule influences sales with various data such as traffic count, weather, time & day, payout data, etc. Sales data must be uploaded to view the report.

### Condition Setting and Result Summary

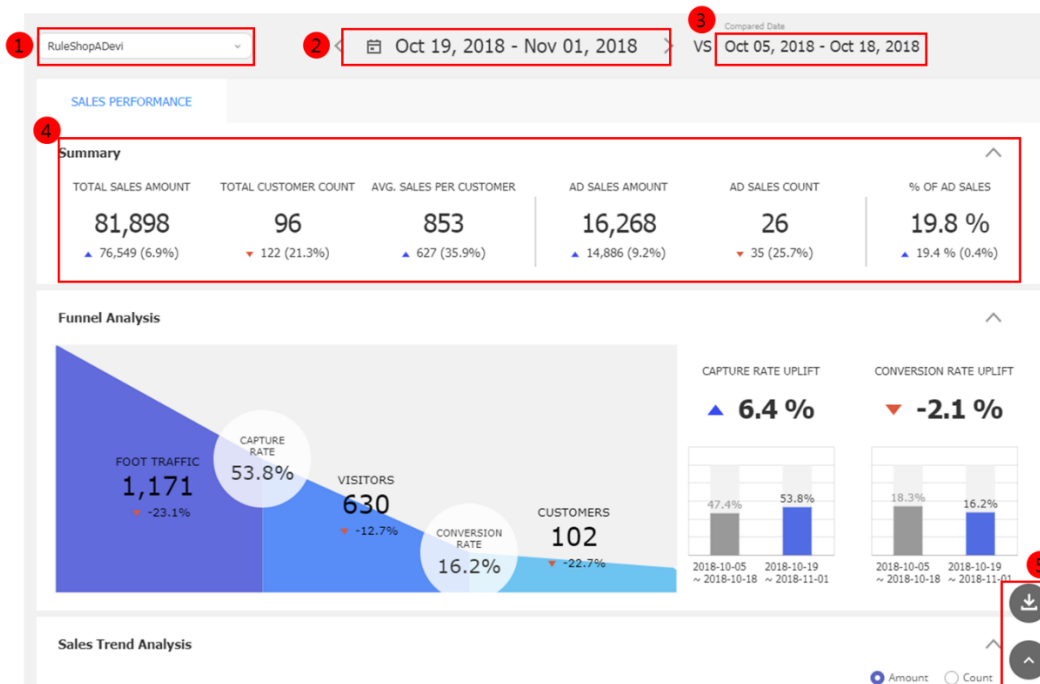


Figure 3-19 Sales Performance Report Top

| No. | Item                        | Description   |
|-----|-----------------------------|---|
| 1   | <b>Store (Device Group)</b> | Select the Device Group where the Store license is issued.  |
| 2   | <b>Date Range</b>           | Select date range to search.  |
| 3   | <b>Compared Date</b>        | Date range to compare.  |
| 4   | <b>Data Summary</b>         | Total sales amount, customer count (= number of invoices), average sales per customer, ad product sales amount, ad product sales count, ad product sales ratio (out of total sales) and the change rate of each information between the period. |

| No. | Item                                 | Description   |
|-----|--------------------------------------|---|
| 5   | <b>Excel Download/Move Screen Up</b> | Data from Sales trend analysis, Ad performance analysis, time & day analysis, weather analysis can be downloaded as an excel file.<br>Click [ ^ ] button to move screen up. |

Table 3-9 Sales Performance Report Top Description

## Funnel Analysis

Funnel Analysis for the selected store provides people traffic in front of store, store visits, customers, capture rate, conversion rate and the change rate.

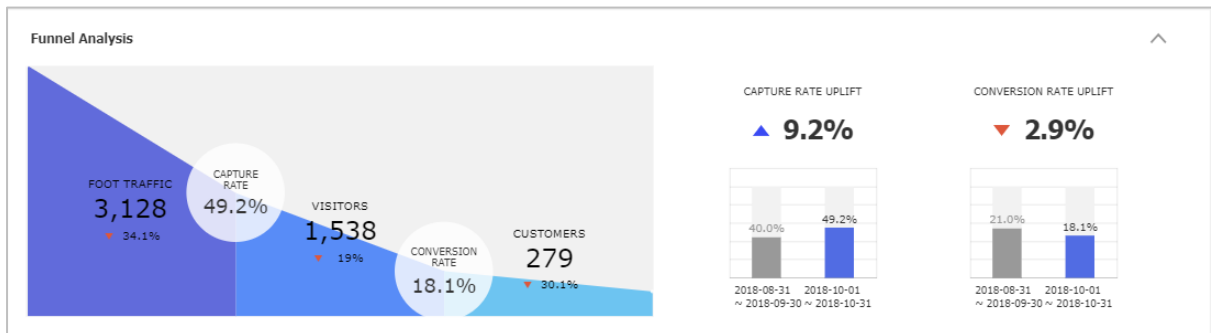


Figure 3-20 Funnel Analysis

Note:

Funnel Analysis chart is shown to only for the users who purchased Behavior Sensing Solution.

## Sales Trend Analysis

Sales Trend Analysis provides sales trend for the selected period and the ratio of ads to non-ads sales.

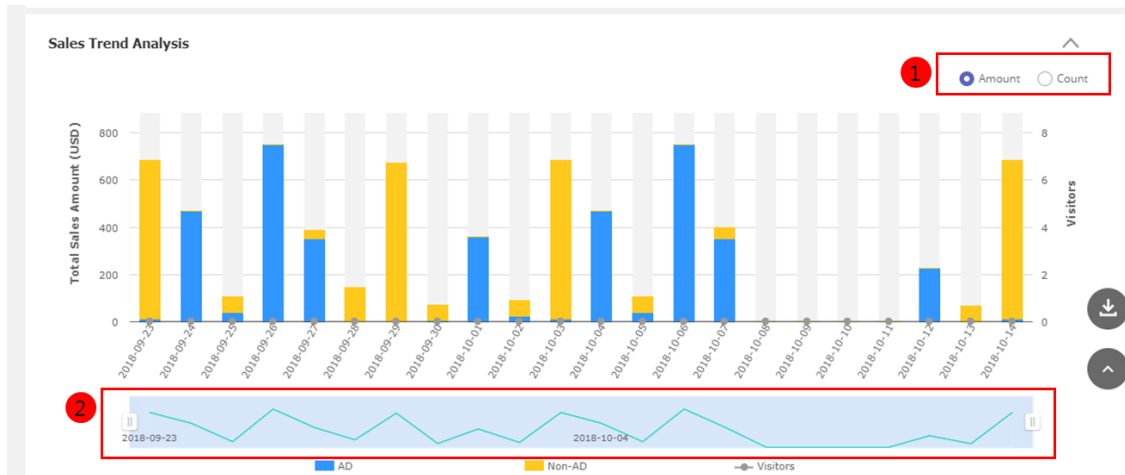


Figure 3-21 Sales Trend Analysis

| No. | Item                    | Description   |
|-----|-------------------------|---|
| 1   | Sales data value        | Select sales amount or sales count.                                       |
| 2   | Period adjustment panel | Adjust the range of the period by moving the icons on the left and right. |

Table 3-10 Sales Trend Analysis Description

## AD Performance Analysis

AD Performance Analysis shows the total sales ranking of the products associated with the ad content played by the rule, the sales change rate and the summary of playback history.



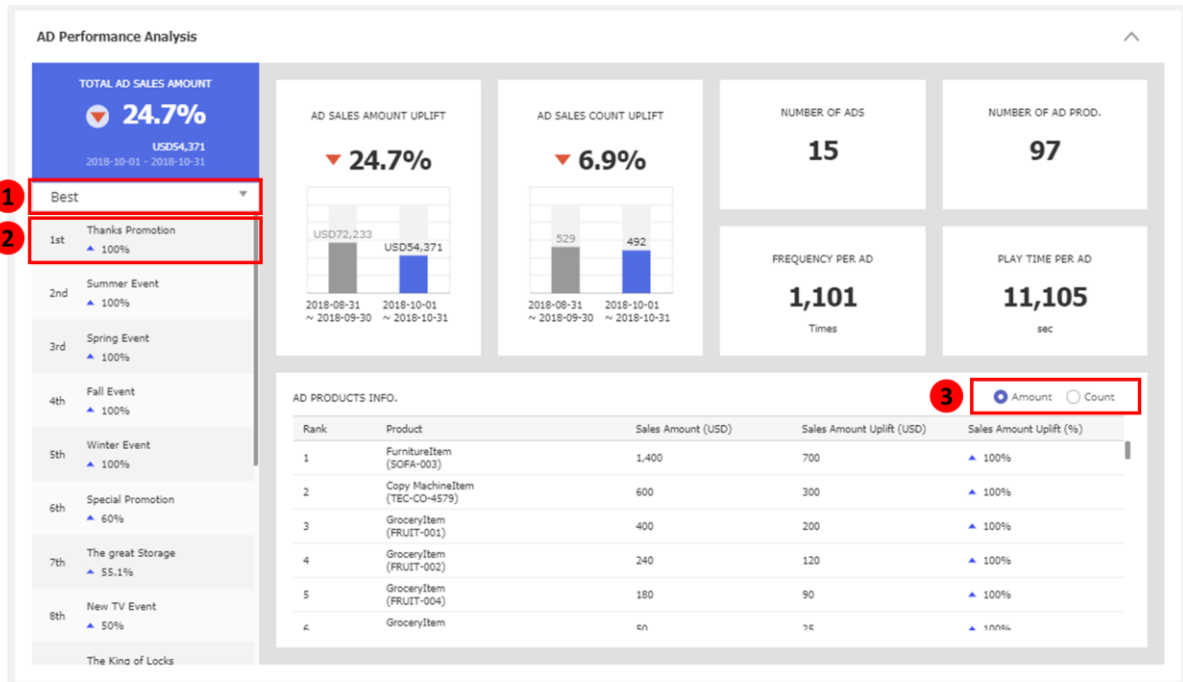


Figure 3-22 AD Performance Analysis

| No. | Item                       | Description   |
|-----|----------------------------|---|
| 1   | <b>Ranking data</b>        | Select Best or Worst to view ranking.   |
| 2   | <b>Ranking Information</b> | Content name and the sales change rate of the product associated with the content by rank |
| 3   | <b>Sales data value</b>    | Select sales amount or sales count.   |

Table 3-11 AD Performance Analysis Description

## Time & Day Analysis

Time & Day Analysis shows sales index in color according to legend by time of day and day of week based on sales average data of advertised products. The index is the relative figures of sales by Time&Day based on average hourly sales during the period selected and it explains how much or little sales were compared to the average sales.

\* Index = (Average Hourly Sales per Time&Day / Average Hourly Sales of Period Selected) \* 100

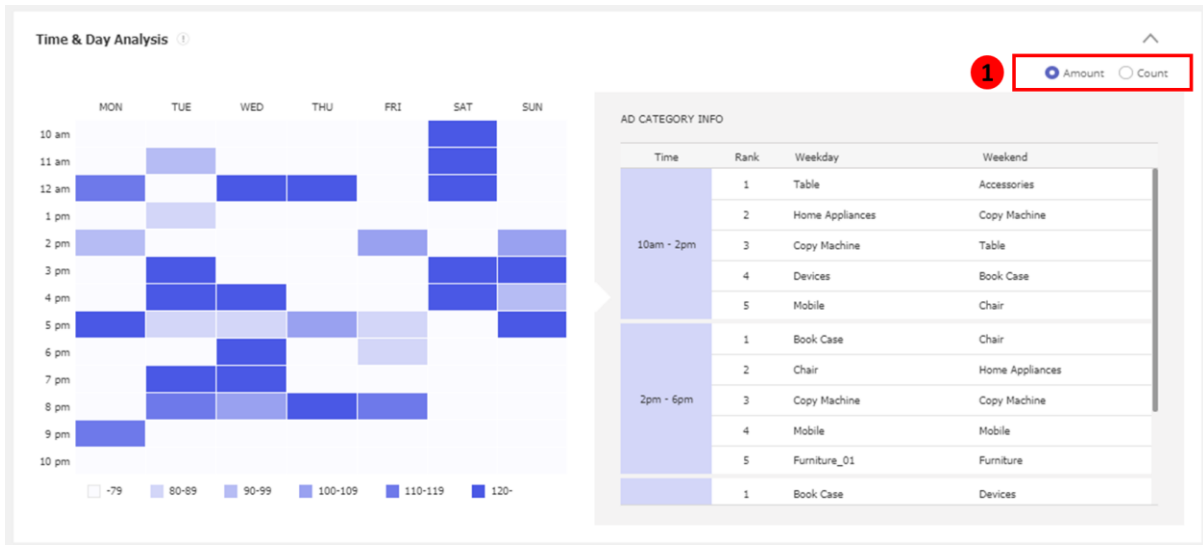


Figure 3-23 Time & Day Analysis

| No. | Item             | Description                         |
|-----|------------------|-------------------------------------|
| 1   | Sales data value | Select sales amount or sales count. |

Table 3-12 Time & Day Analysis Description

## Weather Analysis

Weather Analysis shows the sales index by weather type, temperature section and humidity section based on sales average data of advertised products. The index is the relative figures of sales by weather based on average hourly sales during the period selected and it explains how much or little sales were compared to the average sales.

\* Index = (Average Hourly Sales per Weather Condition / Average Hourly Sales of Period Selected) \* 100

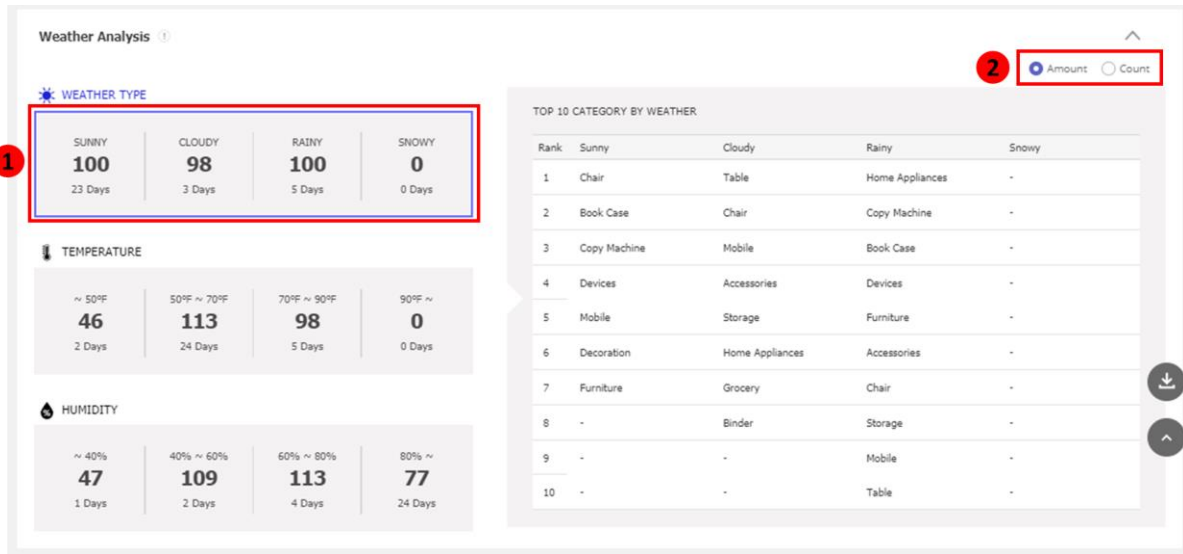


Figure 3-24 Weather Analysis

| No. | Item                     | Description  |
|-----|--------------------------|--|
| 1   | Sales index and duration | Sales index and number of days the condition fits. |
| 2   | Sales data value         | Select sales amount or sales count.                |

Table 3-13 Weather Analysis Description