



# Gravity Control

The simplest system for complex  
data search and management

DEVELOPER'S HELP NOTES

# GRAVITY CONTROL DEVELOPER'S HELP NOTES

## 1 Three ways of finding what you are looking for

Before all, an emphasis should be placed on the fact that Gravity Control is designed to be suitable for all sorts of devices but is mainly targeted at tactile ones. Therefore, actions are very user-friendly, intuitive and easy to execute with just a few motions of the pointing device.

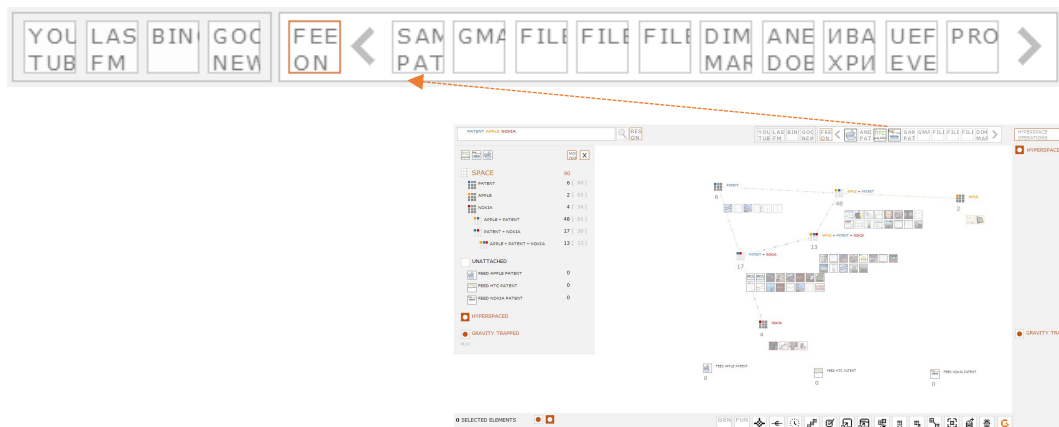
There are three interdependent ways of initiating a search in the Gravity interface. They are based on the different level of user's certainty regarding the desired results of the search and the preferred approach of obtaining them.

### 1.1 Feeds (Objects' attributes)

In Gravity Control files are organized in so-called feeds (one or more objects with similar search criteria). The files inside the feeds can vary in type and source or be from a single type or source depending on user's preference.

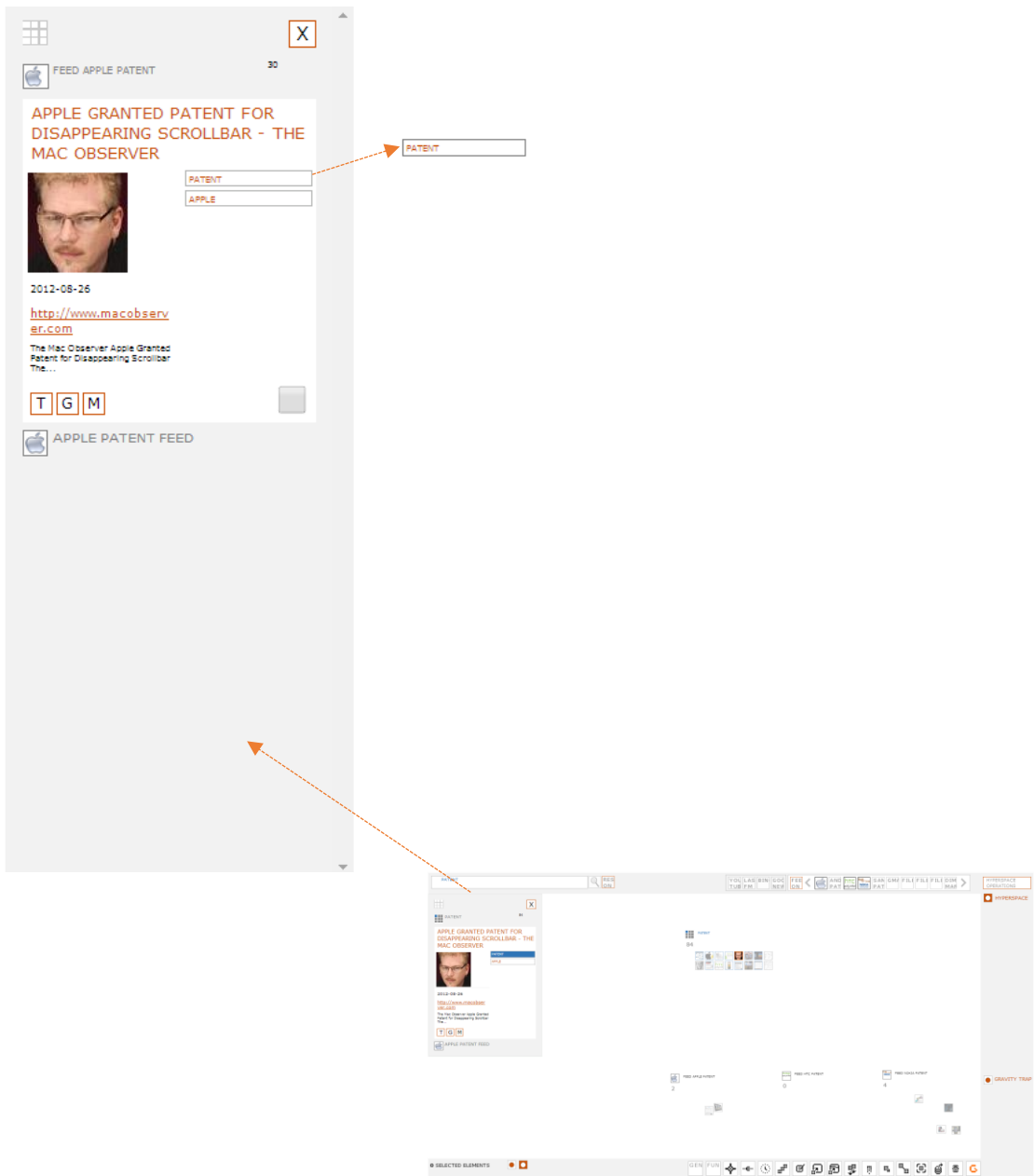
Feeds are stored in the feeds panel on the top right section of the Gravity screen and they are divided into:

- Gravity feeds – these are feeds that have been downloaded onto the Gravity database
- Dynamic feeds – outside databases that Gravity has access to and from via an API



**General approach:** If the user initially has no clear idea of their search objectives but is at least familiar with the area of interest then they would find it more effective to use the feeds approach in Gravity Control. By dragging feeds into the working space and browsing through the attributes of the files they contain, the user will be able to determine more precisely their search criteria and initiate the process.

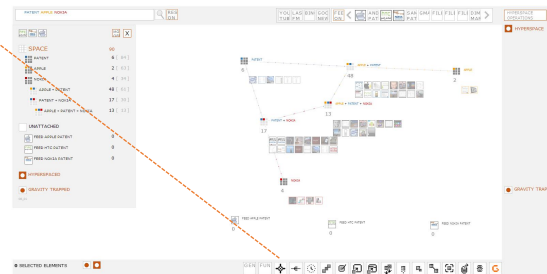
Sometimes you need to see something first to find out that this was what you were looking for.



Feeds.wmv

## 1.2 Predefined classifications

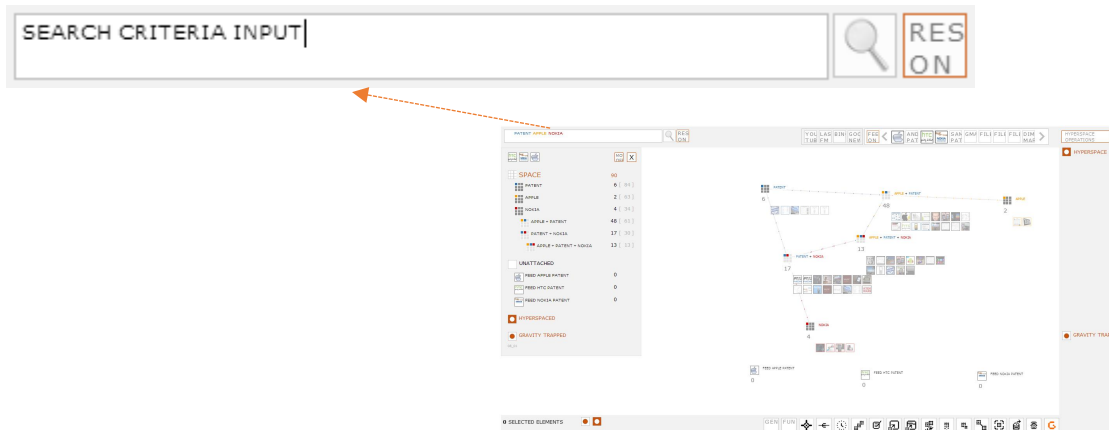
**General Approach:** This is an option to randomly browse through predefined classifications in order to start a search. For instance financial documents, suppliers, movie genres, etc.



### 1.3 A Search bar

A search bar is the common way of searching for something in any search engine or software. Criteria can be directly input into the search bar textbox and the sorting may begin with just one click on the spyglass.

- RES ON/OFF (Results Panel ON/OFF) – a feature that if activated visualizes a results panel and enables the user to select which objects corresponding to the search criteria from all feeds in the system to be loaded or if not activated automatically loads all of them



**General approach:** For all the users who are reluctant to or experience difficulties in adapting new approaches or simply believe they know exactly what they are looking for there is the search bar in Gravity Control.

## 2 The Control Panel

The control panel in Gravity is where one gets all the information about an object, a feed, a grouping point, the SPACE, etc. It is a fundamental part of the method. It displays when the user hovers the pointer over an element (object, feed, grouping point, etc.) or just clicks anywhere in the SPACE for the SPACE Control Panel View. Its main characteristics are:

- Accessible – it is interactive - operations can be executed;
- Can be pinned – if you want it to be fixed in a particular spot
- Interactive attributes – can be dragged out to start a new grouping point
- Informational attributes – give information about the element

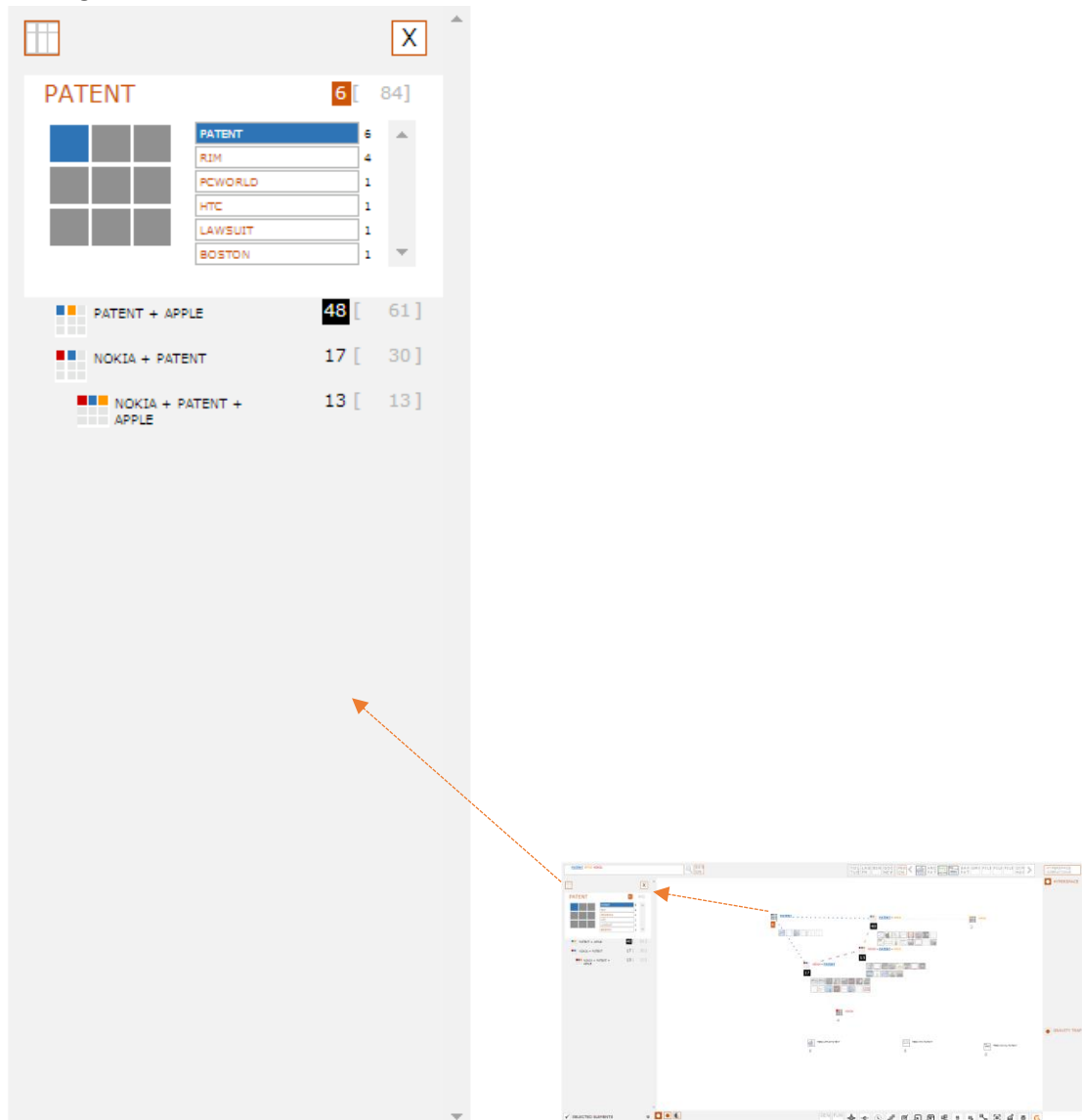
Different control panel views:

- Space Control Panel view

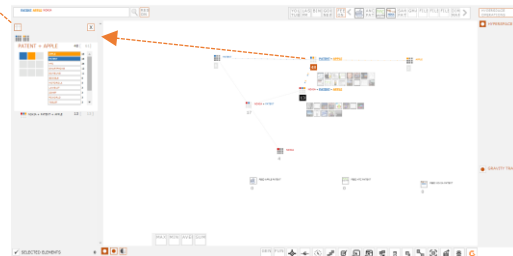
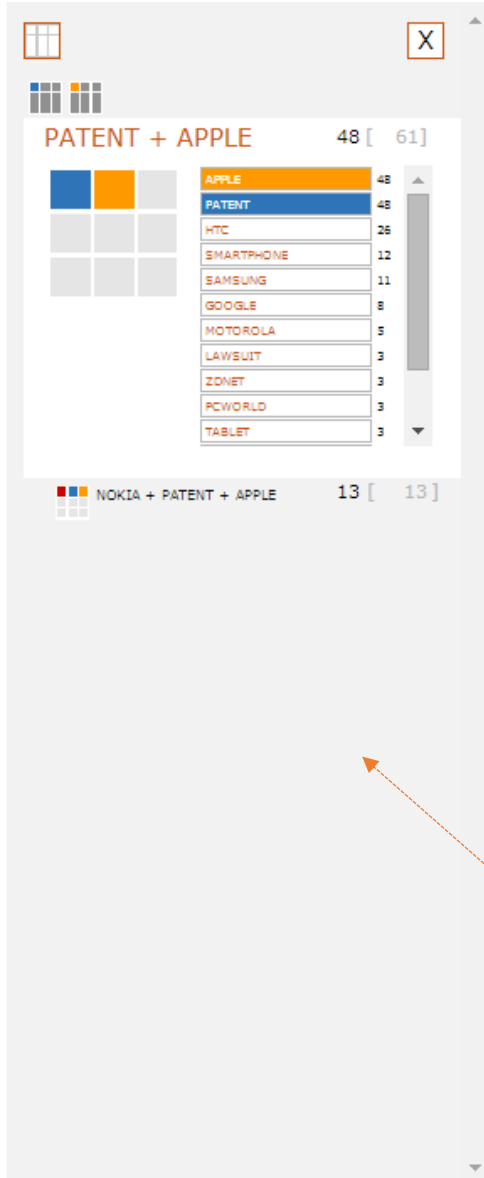
Object	Count	HYPERSPACE	GRAVITY TRAP
SPACE	90		
PATENT	6 [ 84]	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
APPLE	2 [ 63]	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
<b>NOKIA</b>	<b>4 [ 34]</b>	<b>MOV GRC ALL MOV NOT</b>	<b>MOV GRC ALL MOV NOT</b>
PATENT + APPLE	48 [ 61]	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
NOKIA + PATENT	17 [ 30]	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
NOKIA + PATENT + APPLE	13 [ 13]	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
UNATTACHED			
FEED APPLE PATENT	0	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
FEED HTC PATENT	0	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
FEED NOKIA PATENT	0	MOV GRC ALL MOV NOT	MOV GRC ALL MOV NOT
HYPERSPACED			
GRAVITY TRAPPED			

Feed	Date	Title	Num=1	Num=2
2012-09-02	2012-09-02	Is Microsoft Sabotaging Nokia? - Seeking Alpha	0	0
2012-09-03	2012-09-03	Nokia: Start Of A Comeback? - Seeking Alpha	0	0
2012-09-15	2012-09-15	Breaking Down Nokia: Why This Lame Duck Could Double - DailyFinance	0	0
2012-09-20	2012-09-20	Nokia gifts MeeGo patents to Jolla startup - SlashGear	0	0

- Starting Point Control Panel view

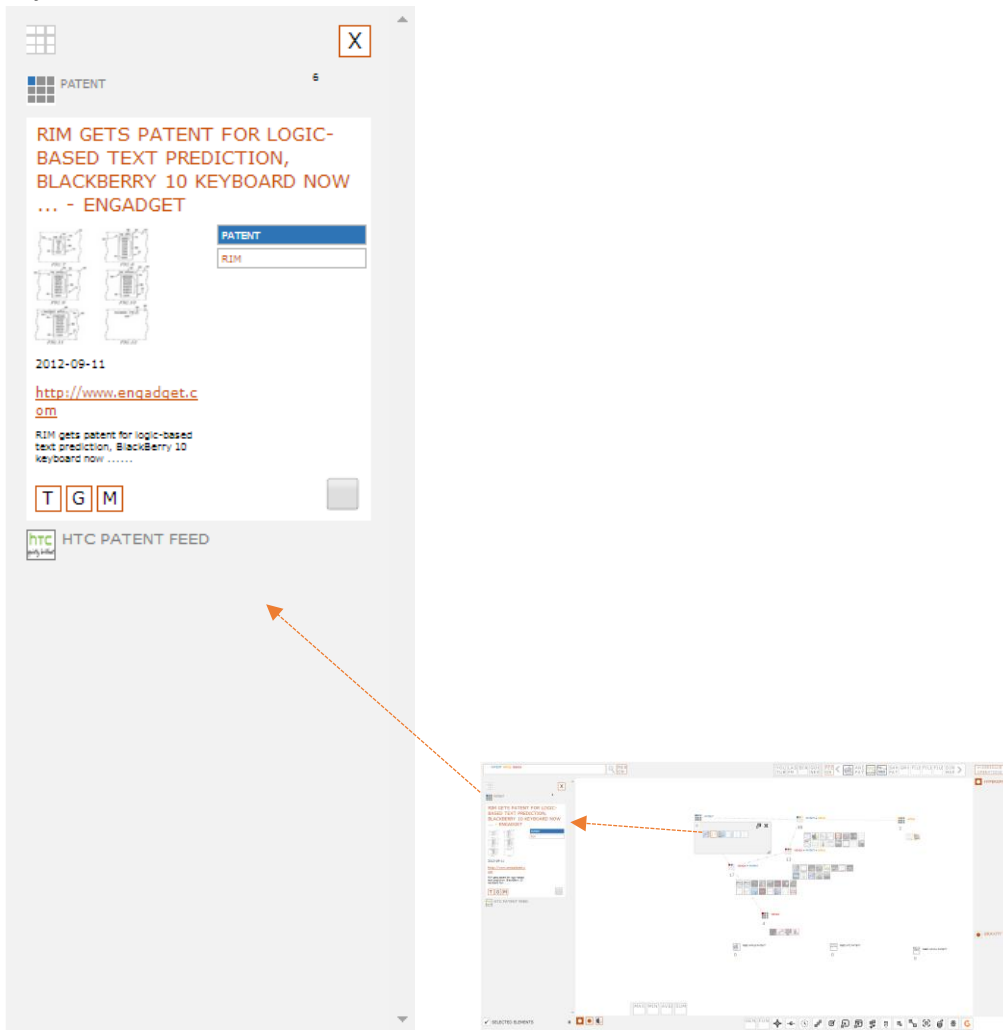


- Resultant Point Control Panel view





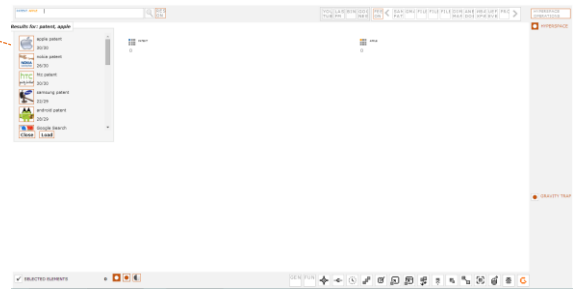
- Object Control Panel view



- Feeds Results Control Panel view

Results for: *patent, apple*

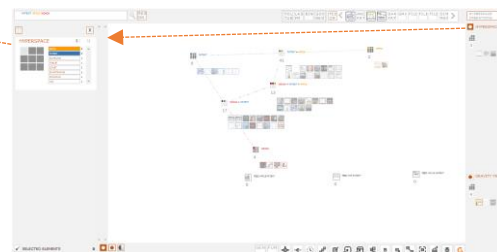
	apple patent	30/30
	nokia patent	26/30
	htc patent	30/30
	samsung patent	22/29
	android patent	28/29
	Google Search	
<b>Close</b>	<b>Load</b>	



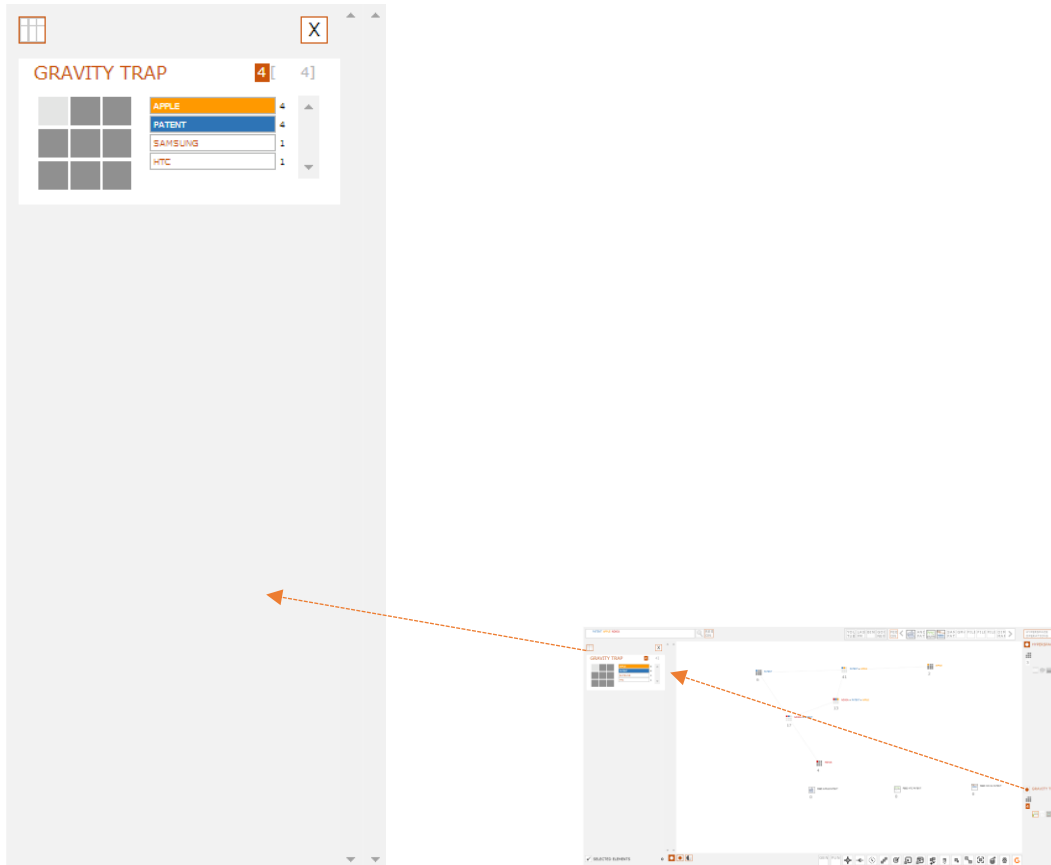
- Hyperspace Control Panel view

HYPERSPACE

APPLE	3
PATENT	2
SAMSUNG	1
TABLET	1
ZONET	1
SMARTPHONE	1
PCWORLD	1
HTC	1



- Gravity Trap Control Panel view



- Feed Control Panel view

TOTAL 30  
LOADED 30  
REMAINING 0

FEED nokia patent  
No objects

SPACE 30

PATENT	1	6
NOKIA	4	4
NOKIA + PATENT	15	17
NOKIA + PATENT + APPLE	10	13

UNATTACHED

FEED nokia patent  
SPACE 30  
UNATTACHED



ControlPanelDemo.wmv

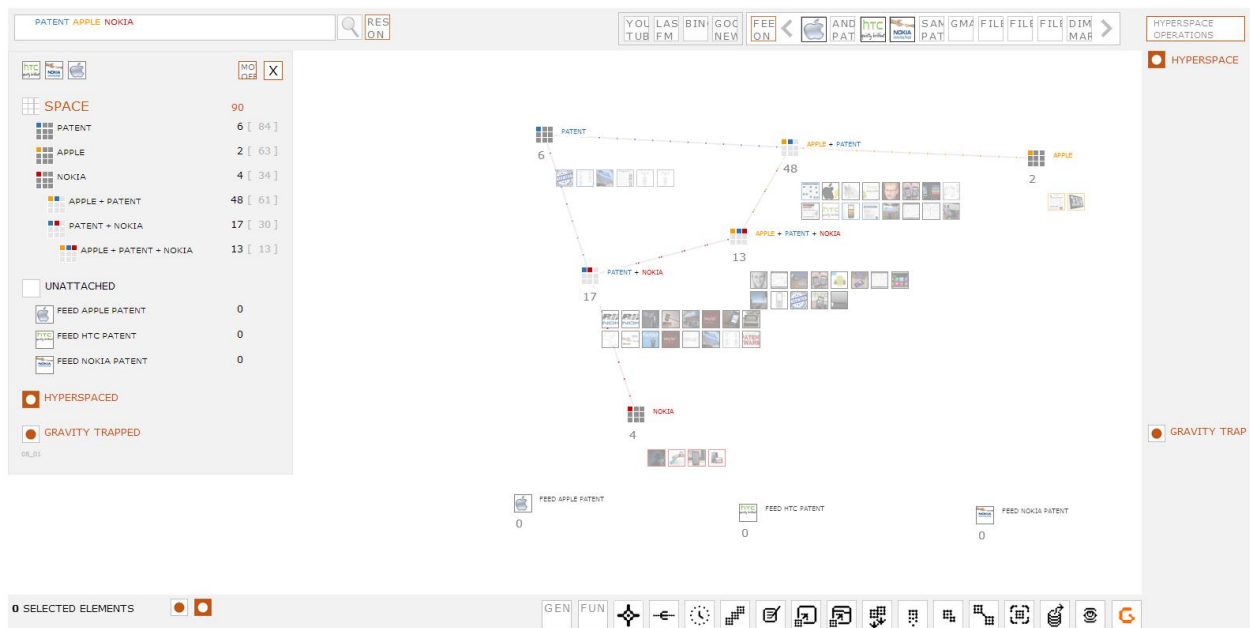
### 3 The Spaces

There are three major so-called “SPACES” in Gravity Control:

1. The workSPACE
2. The Hyperspace
3. The Gravity trap

#### 3.1 THE workSPACE™

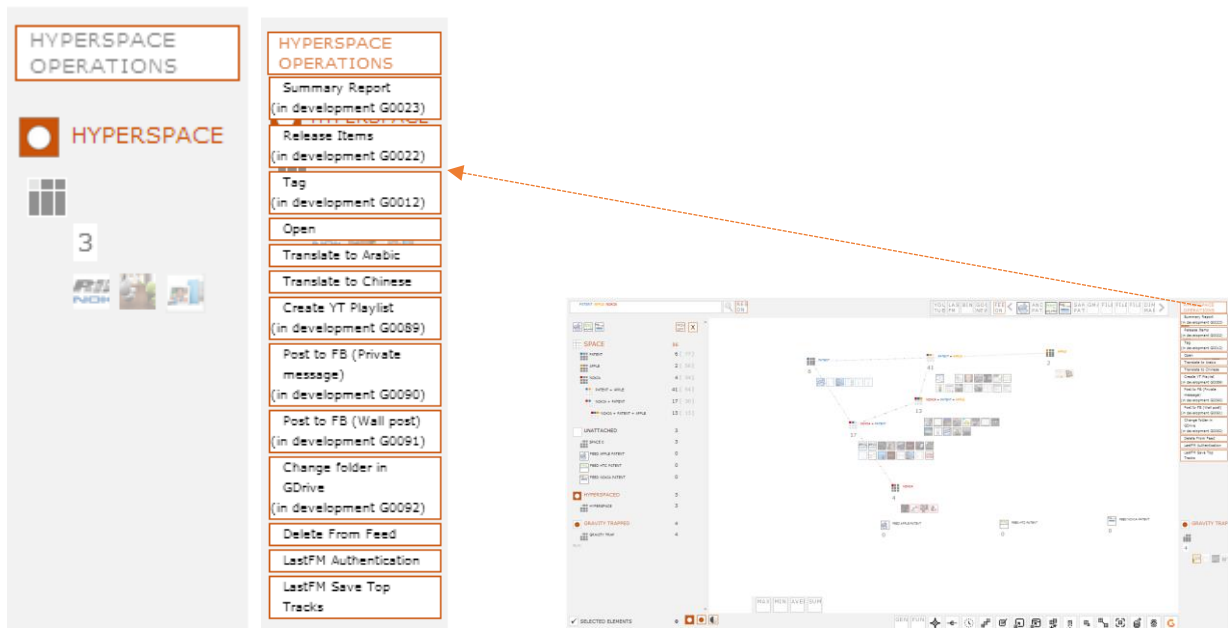
This is the field where all operations with data files are performed including searching, sorting and managing.



Gravity Control in action

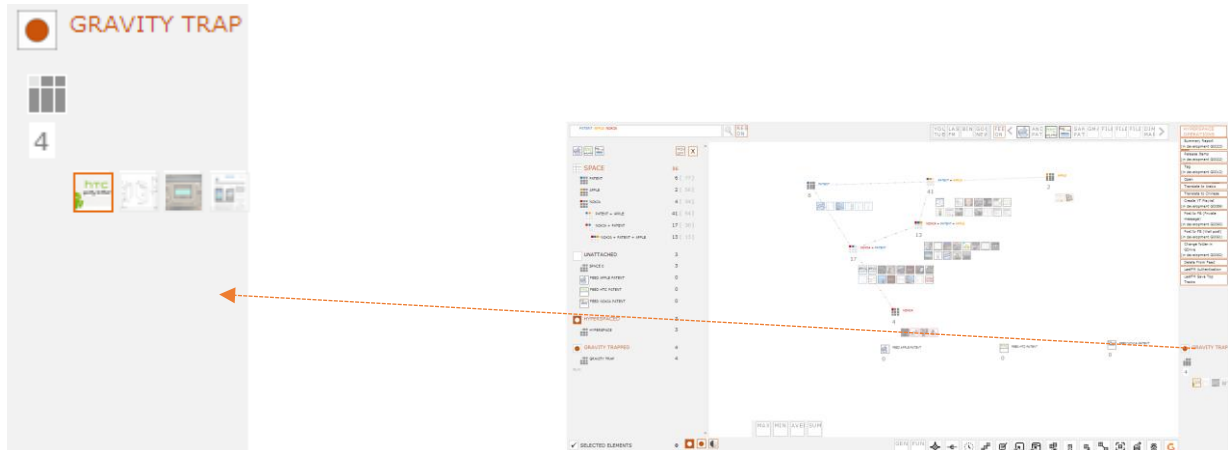
### 3.2 THE HYPERSPACE™

A space designated to operate with objects from different containers.



### 3.3 THE GRAVITY TRAP™

A space where the user can place any objects that are not currently needed in the workspace.

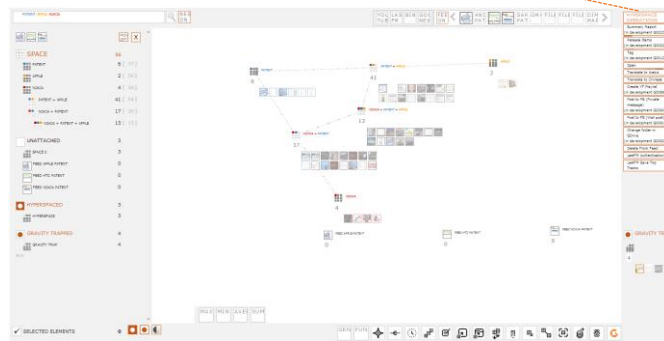


## 4 Now, let us do something with those files.

### (The operations)

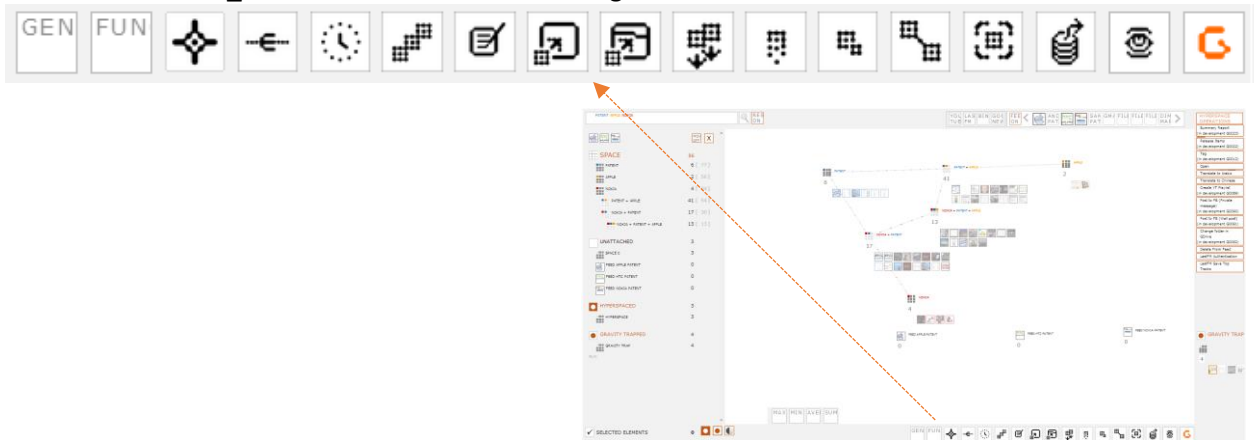
Operations in Gravity could be categorized as:

- **Hyperspace Operations** – usually designed in accordance to the type of data files used in the specific application



- Application Control Operations, **Impact on Gravity systems™** - Improved operations with the capability of being dragged and dropped on objects or whole Gravity systems including the whole working SPACE.
  - FUNC – MIN, MAX, AVERAGE, and SUM – mathematical operations with numeric parameters of the data objects loaded in Gravity. Display of minimum, maximum or average value and sum of the values.
  - REPORT – creating reports with the option of print or export in CSV, pdf formats
  - Full list of all Application Control Operations some of which still under development to be transformed into Impact on Gravity systems but currently executable via click:
    - 06\_01 – Genesis - opens the Settings panel
    - 06\_02 – FUN - executes various mathematical functions
    - 06\_03 – Event Horizon - activates event horizon on click/ deactivates event horizon on second click
    - 06\_04 – Timeline - activates timeline on click/deactivates it on second click
    - 06\_05 – Arrange - different types of arrangements of objects in grouping point containers
    - 06\_07 – Report - creates a report with the option of printing, saving in PDF/CSV formats
    - 06\_08 – Load Session - loads previously saved session
    - 06\_09 – Save Session - saves the current session
    - 06\_10 – Clear Containers - clears all currently active containers in the work plane
    - 06\_11 – Release - releases all objects in the containers and they are then positioned in the bottom of the work plane
    - 06\_12 - Labels - places an icon on all the objects based on type - i.e. Google news, YouTube video, etc.
    - 06\_13 – Clear Lines - hides the lines between the grouping points

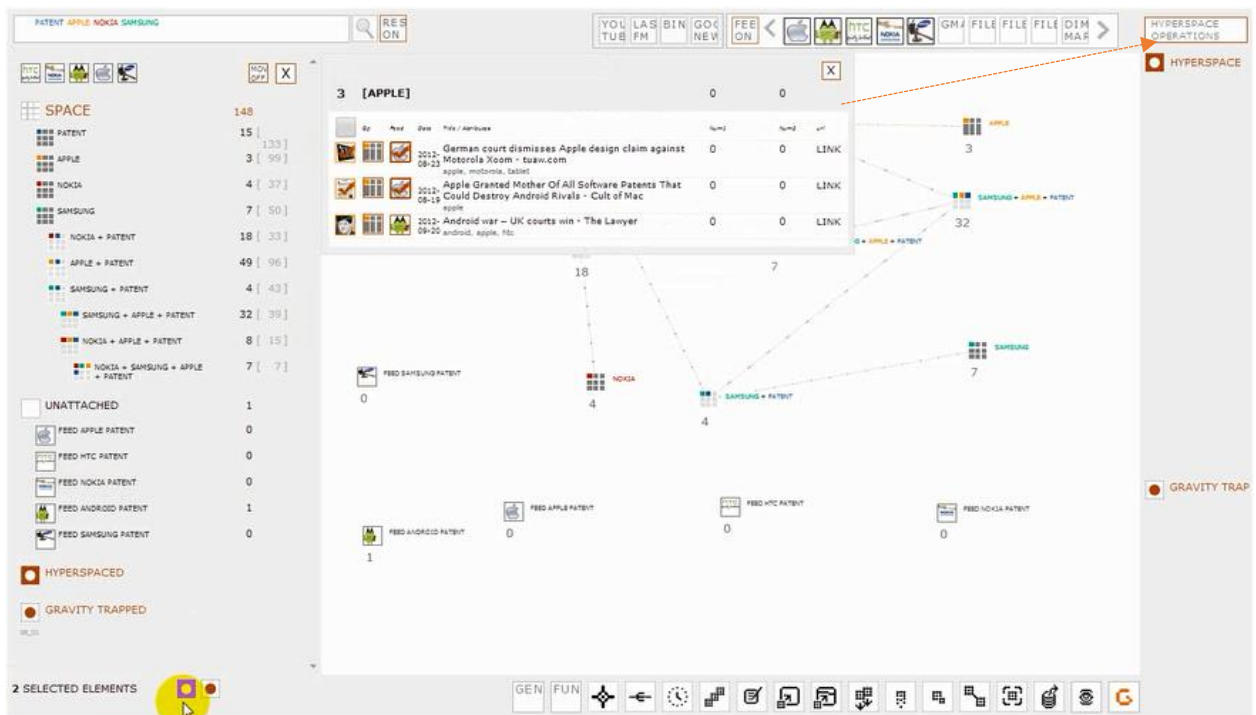
- 06\_14 – Background - option to place a background image
- 06\_15 – Dynamic Grouping - verifies all feeds loaded for objects containing the search criteria and loads them
- 06\_16 – Compact View - displays/hides objects in containers
- 06\_17 – G button - executes sorting



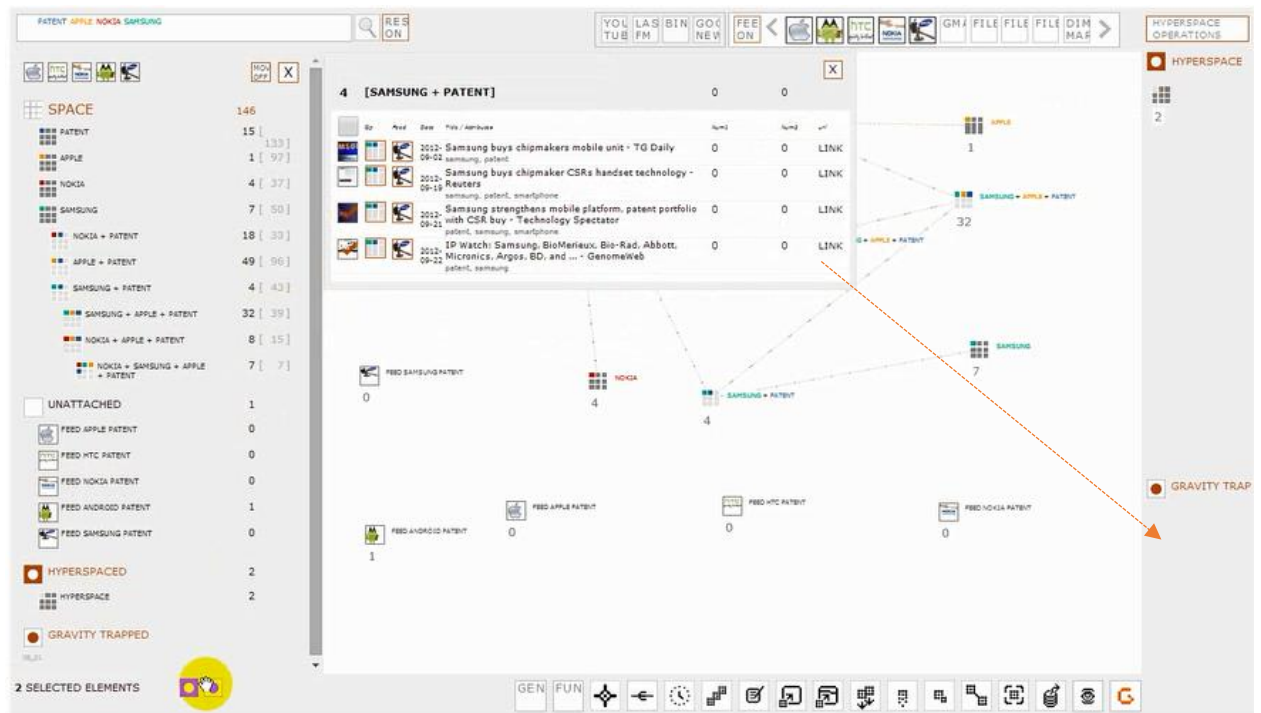
- SPACE operations – these include any sort of manipulation of files in the working SPACE – moving grouping points around
- Branch operations – accessible via the control panel with a secondary panel specifically developed for that purpose
  - Move to Hyperspace™ - sending objects either above or below a certain point in a tree of grouping points to the Hyperspace™
  - Move to Gravity Trap™ - sending objects either above or below a certain point in a tree of grouping points to the Gravity Trap™
- **Gravity internal report feature** – offers extra capabilities
  - Selection of objects of interest
  - Review of objects and ability to drag attributes from there onto the workSPACE
  - Dynamic grouping for the specific grouping point
  - Option to open a report in a new window



## Examples of Gravity Internal Report features:



Forwarding of files to the Hyperspace via Internal Gravity Report feature



Forwarding of files to the Gravity Trap via Internal Gravity Report feature

## 5 Color coding

What is color coding in Gravity Control™?

Gravity Control™ uses colors to help distinguish easily between grouping points. When criteria are formulated by the user, each of them is assigned a different color from a predefined color list.

The color codes appear in all places where the criterion can be viewed under three basic forms.

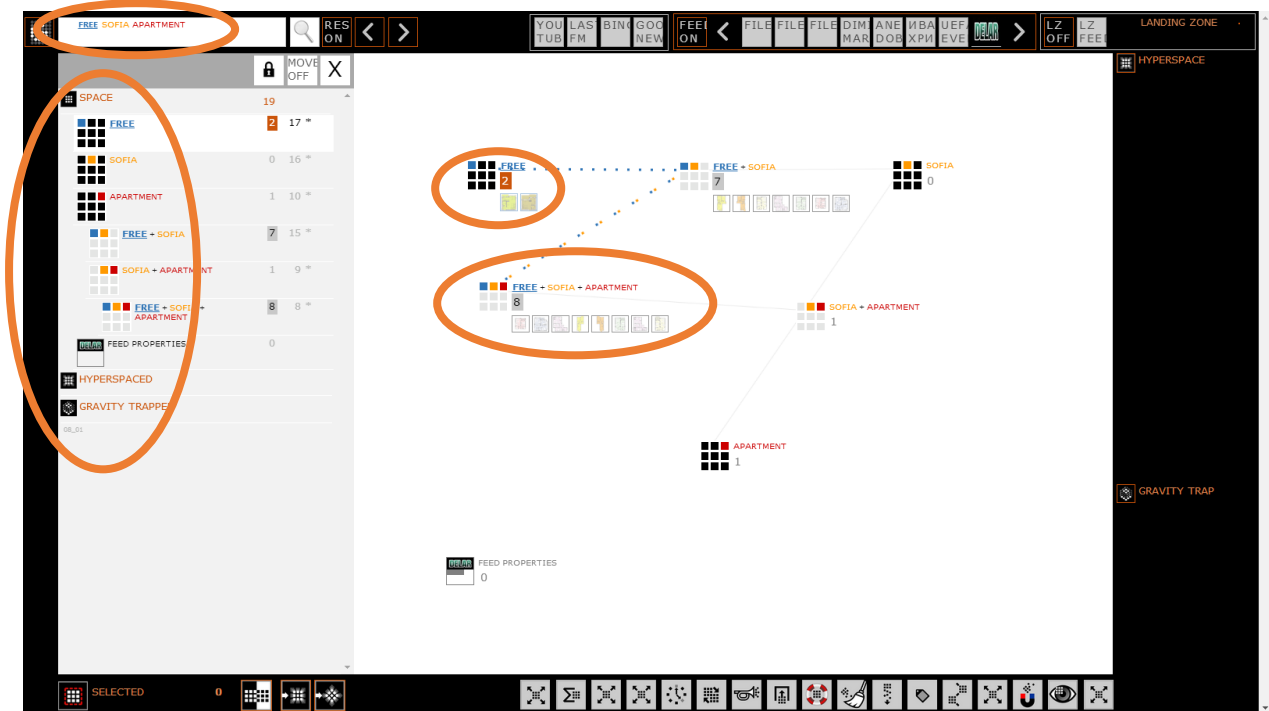


Figure 1 Color coding in Gravity Control™

### 5.1 Font Color of Headings and Titles

Criteria appear in textual form all across Gravity Control™ - in grouping point and control panel titles, in the search bar, in object lists, in attribute lists. Some of those are interactive and others are informative. When grouping criteria are active on the work space, their code colors appear in all situations where they are used or mentioned. Thus making it easier for the user to find specific portions of information in all features of the interface.

### 5.2 The Grouping Point Grid Icon

While object and feeds can be represented by different images extracted from the data enclosed, The Grouping Points (GPs) are represented by a color coded summary of the grouping criteria used in them. It is structured as a 3 by 3 square grid allowing for the representation of up to 9 criteria. Note that this limitation is only applicable to the icon representation. There is no current limit in the number of criteria that can take part in the formation of the logical expression within a GP.

### 5.2.1 Primary Grouping Points

Primary GPs are the ones that represent a single criterion – either typed in the search bar or dragged to the Workspace from a Control Panel. They have a dark grey base with single colored squares. In the beginning of the search the colors are also assigned a position within the grid. This position remains constant for the color across all resultant GPs, too.



Figure 2 Grid Icon of Primary Grouping Point

### 5.2.2 Resultant Grouping Points

Resultant GPs contain combinations of criteria bound in a logical expression. They are represented by pale gray base with a respective number of colored squares.

The colors for individual criteria are kept consistent with the ones used in initial GPs. The Positions of those colors within the grid are also retained.



Figure 3 Grid Icon of resultant Grouping Point

## 5.3 The connection lines

When forming a Gravity System on the Workspace, Gravity Control™ connects related GPs on adjacent levels. In order to have a connection line, the more complex logical expression must contain all the criteria active in the less complex GP.

In this case the line is marked with the colors of the common criteria.

## 6 Color Code Instances

### 6.1 In the Search Bar

Active criteria are shown in the Search Bar regardless of whether they were typed in it or extracted from one of the Control Panels (CPs). As seen in the screenshot.



Figure 4 Search Bar

## 6.2 On the Work Space

In Grouping Points (GPs) the color code can be found in two places

- In the Grouping Point Heading
- In the Grouping Point Icon
- In connection lines

In the grid icon the criterion is assigned not just a color but also a position that does not change across resultant GPs. The reason for this is to facilitate the user in finding the criterion of interest quickly. Especially in the control panels.

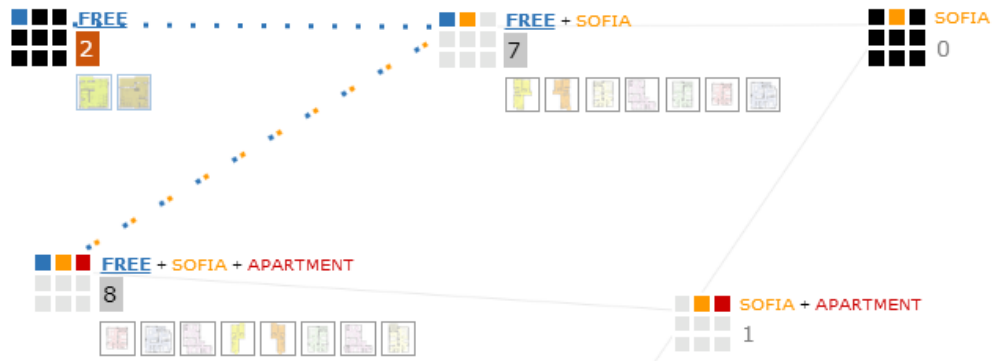


Figure 5 Gravity System

## 6.3 In Control Panels

Color coding is a prominent feature throughout the variations of the control panels.

- In the Work Space Control Panel
- In the Grouping Point Control Panel
- In the Object List Panel
- In the Object Panel

SPACE	19
FREE	2 17 *
SOFIA	0 16 *
APARTMENT	1 10 *
FREE + SOFIA	7 15 *
SOFIA + APARTMENT	1 9 *
FREE + SOFIA + APARTMENT	8 8 *

Figure 6 Workspace Control Panel

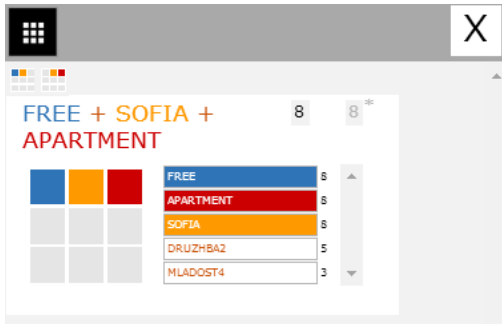


Figure 7 Grouping Point Control Panel

Obj	Floor	Date	Title	Num1	Num2
8 [FREE + SOFIA + APARTMENT]				447250	0
		2012-07-25	Druzhiba apartment 01	45000	0
		2012-07-25	Druzhiba apartment	45000	0
		2012-07-25	Mladost apartment	53500	0
		2012-07-25	Mladost apartment	93750	0
		2012-07-25	Mladost apartment	45000	0
		2012-07-25	Druzhiba apartment 45	45000	0
		2012-07-25	Druzhiba apartment 45	45000	0
		2012-07-25	Druzhiba apartment 46	75000	0

Figure 8 Object List



Figure 9 Object Control Panel