Analyzing your first planogram

A step-by-step guide

Global Retail Business Solutions
International retail and category management services

Author's note

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Introduction

Creating professional looking planograms is one thing, optimizing the selected assortment and the space allocation another. Even the most experienced space planning experts are scratching behind their ears at times, trying to figure out how their software tools can possibly help them.

That's why we made **Retail Shelf Planner**: a simple to use application that doesn't require you to follow long training courses, or expects you to use it on a daily basis to remember how things work.

In our opinion creating, analyzing and optimizing planograms should be a simple and efficient task. Planogramming software should provide you quick and easy access to insights that help you make sound business decisions. The business challenges are often big enough, so there is no need to also worry about how your software tools work. **Retail Shelf Planner** gives you the features that are needed to make sound decisions in a quick and efficient way, but leaves out all these unneeded extras that only complicate life.

It also offers you a range of options, so that you can tailor your approach to the data that is available to you and the nature of the relationship between you and your trading partners. You can start simple but grow to highly advanced and powerful analyses over time, when more data becomes available and the relationships and levels of trust deepen. An interesting related read is the white paper "*Planogram Data Requirements*" that you'll find on the website as well.

This white paper will guide you in approx. 15 minutes through the powerful analysis and optimization features of **Retail Shelf Planner**.

We trust that you'll find it helpful and are ready to answer any questions you may have after reading it. Send them to info@planograms.eu and we'll get back to you as soon as possible.

Erwin Bergsma
Managing Director

Analyzing your planogram

Both the Express and the Enterprise edition of **Retail Shelf Planner** offer a series of powerful yet easy to use analytical capabilities. These range from quality controls, via reporting on allocated space, facings and historical performance of the selected assortment, to forecasts, inventory modeling and financial simulations.

This document will guide you through the core functionality with a series of examples, explaining how things work, but also what insights you can achieve with them.

The level to which you can go with your analyses depends on the availability of data. The sample planogram used in this white paper includes all the data that is needed to execute the examples in this document. The white paper "*Data requirements for professional planogramming*", available on the website, will provide further explanations on what data is needed for which level of analysis.

We'll be looking at the three types of analysis that **Retail Shelf Planner** offers:

- ✓ Visual analyses of the planogram
- ✓ Financial analyses through a scorecard
- ✓ Reporting and charting

The first two are done inside **Retail Shelf Planner**. For the reporting and charting a seamless link with Microsoft Excel is used.

☞	**Retail Shelf Planner** will print the planogram the way you're looking at it on screen. This means that you can also create hardcopy output of all visual analyses

We believe it's important to realize why you're doing the analyses. Sometimes it's just fun to do, but in general you will be trying to find information to support your plans and help improve your business. The analysis and reporting features of **Retail Shelf Planner** will help you answer questions like:

- ✓ Do my products get their fair share of space ?
- ✓ Are the various segments in the category properly represented in the assortment ?
- ✓ Where can I find space for new products ?
- ✓ How can I avoid out of stocks ?
- ✓ Can I reduce the investment in inventory ?
- ✓ What should I change to improve the margin-mix of the category ?
- ✓ Is the planogram that I made implementable in the stores ?
- ✓ …

The explanations in this white paper are based on the sample planogram "DVD's 2mtr.rsp" that you'll find in the samples directory. (Normally this is "C:\Program Files\GRBS Solutions\Retail Shelf Planner\Sample Files".) Open this planogram and let's get started!

| ☞	Please note that this planogram is just an example. The assortment, grouping of the products, allocation of space and their performance numbers are all randomly made up by us and should therefore not be used as a recommendation or judgment for this category, the products or their suppliers.

Quality Analysis

One thing you want to be sure of is that the planogram you created can actually be implemented in store. Nothing kills your reputation and credibility as fast as sending stores a planogram that can't be executed.

Retail Shelf Planner allows you to do a number of things that aren't possible in reality. The reason for that is that from an efficiency point of view, you sometimes want to be able to "break the rules" while you are building a planogram. E.g. you don't want to have to reduce facings or remove products from the shelves before you can start moving them around. Or sometimes you find it acceptable to break a rule, as the consequences might be small, but the benefits big.

In the DVD-planogram, add a facing to each of the last product on shelves 1/2, 1/4, and 1/5, like in the example below:
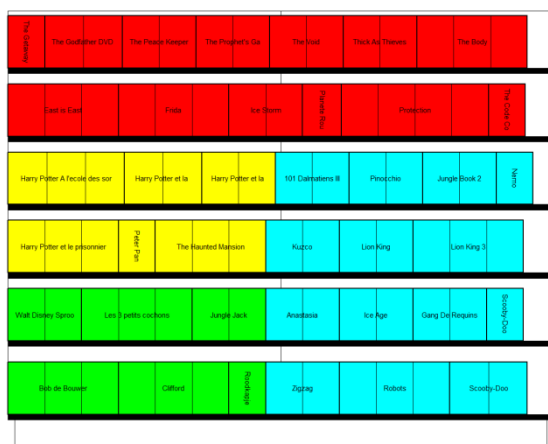
Before
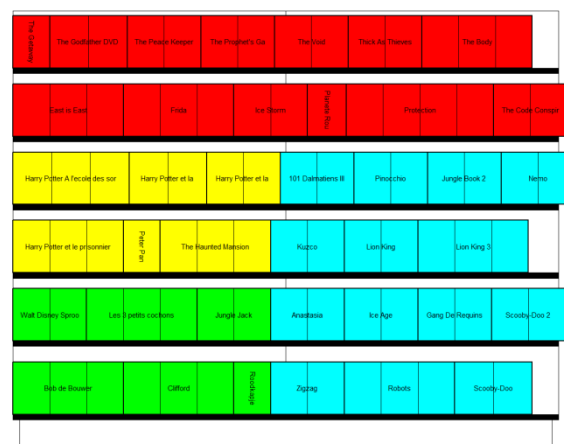
After

We see that the products extend somewhat beyond their shelves, something **Retail Shelf Planner** will consider incorrect.

Select the menu-option View-Merchandising Errors. The planogram's colors will change and it should look like the picture on the right.

Everything that is white, **Retail Shelf Planner** considers correct and implementable. Shelves that are highlighted red indicate a problem on that shelf. Products that are red are the ones creating the problem.

Problems can be for instance:

- ✓ Products overhanging the shelf
- ✓ Products being too deep for the shelf
- ✓ Products intersecting with the shelf above
- ✓ Products intersecting with other products above
- ✓ Product being higher than the shelf's max merch
- ✓ Shelves intersecting with each other

Change the facings back to 1 on the problem products so that we can continue with a valid planogram and then select the menu-option View-Merchandising Errors again to switch it off.

Sales vs. Location Analysis

The next analysis is a visual analysis that in **Retail Shelf Planner** is referred to as Top/Bottom Highlighting.

Select the menu-option Analysis-Highlighting or the button on the toolbar to display the Highlighting dialog.

In the dialog select the option "Top/Bottom Analysis".

Through the settings below you can select if you want to see the top performing products, the bottom performing products, or both groups. You can set the percentages and you can select on which performance field you want to review the products.

Tick both Top and Bottom Performing boxes then select Sales for the Analysis Field, 80% for the top performing and 10% for the bottom performing. Now click OK.

The planogram should look like the picture below. In green you'll see the best performing products that together generate 20% of your sales. The red products are the worst performing that together generate 10% of the sales.
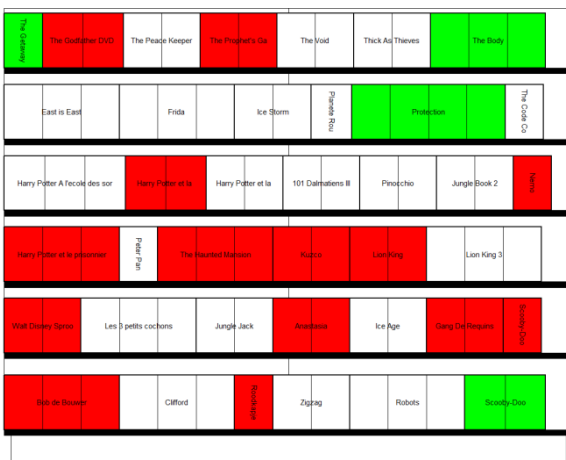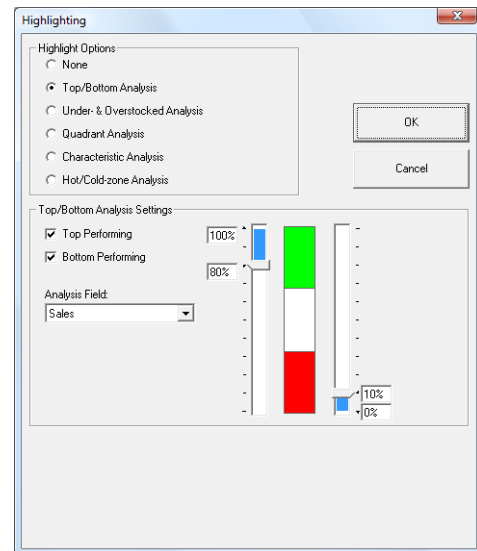
It's interesting to see that in our example the best performing products are on the top two shelves and one on the bottom shelf.

They are not in the center of the section, where you normally would expect your best performing products to be. To the contrary that is where we find quite a few of the worst performing products.

We learn two things from this analysis:

✓ Which products do we need to nurture and keep an eye out for, and
✓ Which products should *potentially* be replaced with others that promise a better contribution to the business.

Note that we deliberately say "potentially". It will be up to you to decide if replacing the poor performing products makes sense. It could well be that some of these products are there as part of an agreement to carry a full range, to address the needs of a specific set of customers that you don't want to disappoint, or simply the result of a commercial strategy to offer a wide range.

Unit Sales vs. Location Analysis

The next analysis is a visual analysis that in **Retail Shelf Planner** is referred to as Hot/Cold Zone Highlighting.

Select the menu-option Analysis-Highlighting or the button on the toolbar to display the Highlighting dialog.

In the dialog select the option "Hot/Cold Zone Analysis".

All products are ranked from best performing (i.e. Hot) to worst performing (i.e. Cold) and then split in 6 groups.

Select Movement for the Analysis Field. Now click OK.

The planogram should look like the picture below. In red you will see the best performing products and, through the lighter shades of the colors to in dark blue, the worst performing.

This analysis allows you to see if/how the location of products impacts their performance. If you see many "cold" products in the same area, you may want to investigate what's going on.
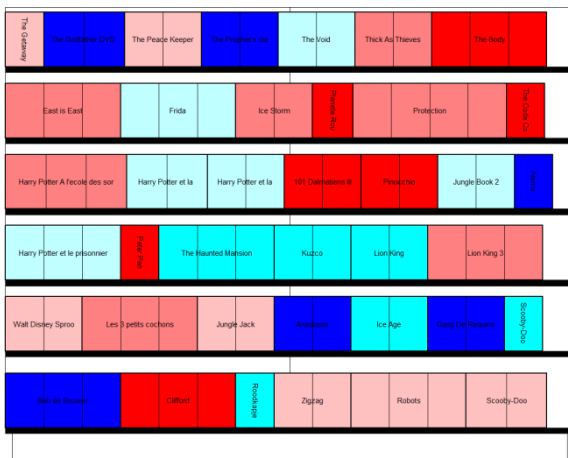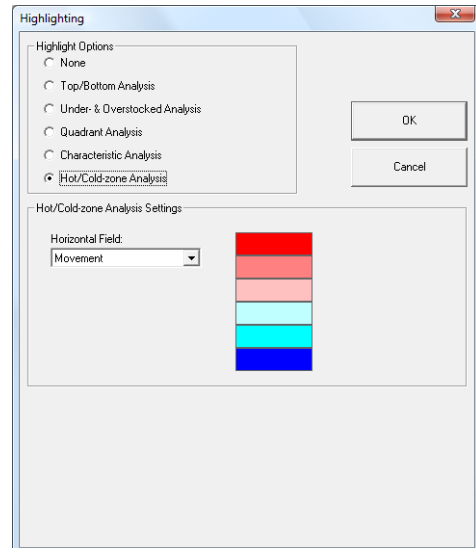
In our example we see that shelves 1/2, 1/3 and 1/4 have a lot of slow moving products that are grouped together.

It may be that the two top-performing products, "101 Dalmatiens III" and "Pinocchio" draw most of the attention away from the other products in that area. It is also interesting to see that the top right area of the section is performing very well.

It is up to you to decide if that's desirable, or if an alternative plan should be developed… Also, if you were to introduce a new product, where would you prefer to have it located ? On shelf 1/3, or in the top right corner ?

☞ | From this analysis we learn if there are "dead" areas in our section. If there are, you can think of reviewing the way you group products, or where you place top-performing products. Or you look at using signage to guide the consumers to the areas that they are currently missing out on.

Applying Trends

Optimizing what has happened in the past doesn't make a lot of sense. Strangely enough this is exactly what a lot of people do when they are working with planograms. All their work is based on historical data only.

We believe that it makes more sense to develop a plan that is ready for what the future will bring us. Therefore we added a simple yet powerful option to include information about trends. It doesn't matter where the data comes from, if you have it for the total category, or for each subcategory, supplier or per brand. **Retail Shelf Planner** has a simple way to get it into the system.

Select Analysis-Apply Trends to display the Apply Trends dialog. With this dialog you can add and remove trend data. Let's apply some trends to our planogram so that our upcoming analyses are even more forward looking.

Select the option Apply Trends and in the dropdown below the field Subcategory and you will see that **Retail Shelf Planner** automatically lists the available subcategories for you. All you have to do is enter the percentages for growth/decline. Enter the following values:

Action	5.2%
Cartoon	4.7%
Kids	-3.1%
Teens	1.5%

When you click OK, **Retail Shelf Planner** will calculate the additional Sales, Profit and Movement for every product in the planogram using the applicable percentage. These values are stored in the fields Trend Sales, Trend Profit and Trend Movement, so that you can use the values in reports and charts as well.
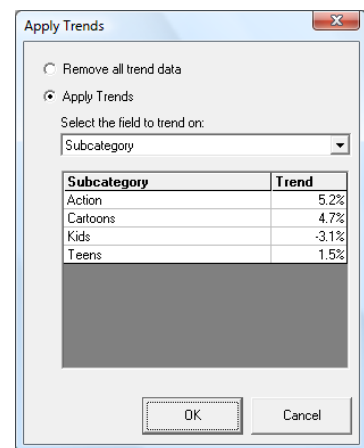
Inventory Analysis

The next analysis is a visual analysis that, in **Retail Shelf Planner**, is referred to as Under- & Overstocked Highlighting.

This analysis is based on the statistical inventory model that is available in the Enterprise edition. That model replicates the consumer activity around the section as well as the logistical constraints that you're dealing with. You will find more details on this in a separate white paper. For this analysis it's enough to know that the calculations are based on restocking the shelves once a week, and the requirement that each product should have at least enough space to fit 1.25 times the units per case.

Select the menu-option Analysis-Highlighting or the button on the toolbar to display the Highlighting dialog.

In the dialog select the option "Under & Overstocked Analysis".

Through the settings below you can select if you want to review understocked products, overstocked products, or both. In addition you can set your own percentage criteria for how you define under and overstocked.

Select all options as in the picture on the right. Also, we will define extremely understocked at 20% or more short, understocked as between 0% and 20% short, overstocked as between 10% and 20% too much, and extremely overstocked as 20% or more too much inventory.

Now click OK.
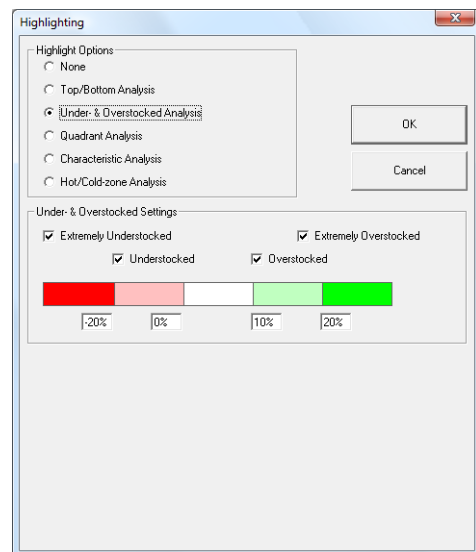
The planogram should look like the picture on the left.

The red products indicate that you are not providing enough stock on shelf to satisfy the consumer's needs and thus missing sales. It is also possible that you're not meeting minimal logistical requirements.

In green we see products that have too much stock on shelf. For instance shelf space that could be better used for other products and money tied up in excess inventory that could be invested in a better way.

We learn from this analysis where we have potential inventory problems in our section. The insights from this analysis can lead to:

- ✓ Better allocation of shelf space leading to more sales through reduced out of stocks
- ✓ Reduction of money invested in inventory
- ✓ Review of logistical conditions such as restocking moments, restocking frequency, etc.

Financial Scorecard

The next analysis builds upon the previous analysis. It translates the inventory challenges that we saw in the previous section into numbers. It is a scorecard analysis that in **Retail Shelf Planner** is referred to as Evaluations.

Select the menu-option Analysis-Evaluate or select the button on the toolbar. **Retail Shelf Planner** will show the Evaluate dialog as in the picture below:
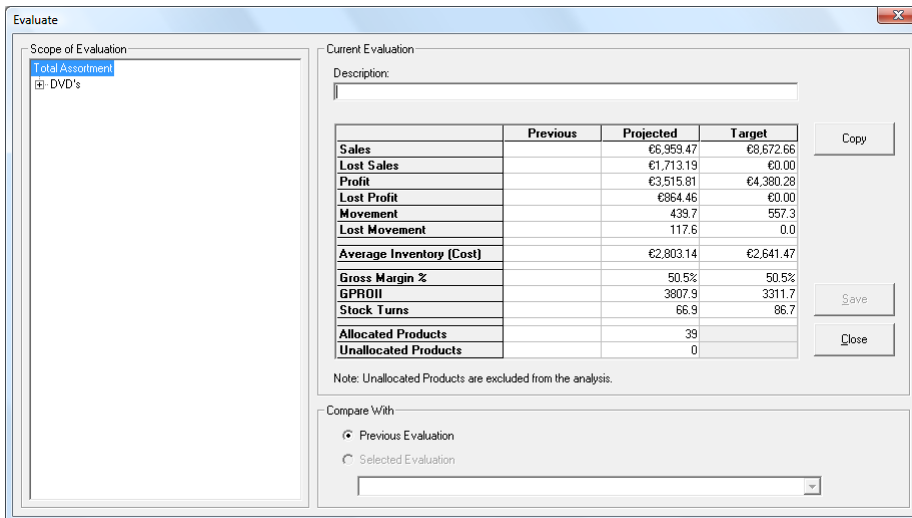
For a number of KPI's (Key Performance Indicators) you will see what the forecasted results are (the Projected column) and what it could be if every product was given exactly the required shelf inventory to satisfy the consumer's needs (the Target column).

In the example we see that as a result of out-of-stocks, we lose out on nearly 120 potential unit sales, which means we're missing more than € 1700 in revenue. As a result we are missing out on almost € 900 in profit. (Note that these numbers are per store per week. Please also note that the currency symbol will follow what is in your own computer settings under you Regional and Language Options)

We also see that the inventory is about 5% over its target. However, from the previous numbers it's clear that we have invested our money in the wrong stock!

The other thing we learn is that we can seriously improve our stock turns from selling the average inventory 67 times per year to 87 times.

What we do now is type the text "Initial situation total category" in the Description textbox and click the Save button. This will store this analysis, allowing us to use it as a comparison for further analyses. You will notice that the column "Previous" that was empty before, now has become the column "Selected" and is filled with the values.

Click on the plus-sign next to DVD's in the "Scope of Evaluation" area on the left. It will expand to show you the 4 subcategories in the section. Click on each of the subcategories. You'll notice that the segment "Action" is responsible for over 50% of the lost sales and that the segment "Kids" has the smallest sales problems but is nearly 40% overstocked.

Optionally you can save each of these Evaluations and use them for comparisons later too. Also, you can click the plus-sign next to each subcategory to "drill-down" to each individual product.

Click the Close button to go back to the planogram.

Optimize Facings

While we are in the Highlight Under & Overstocked Analysis view, move your mouse cursor over the first green product on shelf 1/3, "Harry Potter et le prisonnier d'azkaban". You'll notice in the statusbar that **Retail Shelf Planner** gives you information about the inventory of this product: Facings: 3 / Total Units: 21 / Required Units: 13. Now decrease the facings to 2. You'll notice that the product turns white as we have given it the correct amount of stock.

On that same shelf, decrease the facings of the product "The Haunted Mansion" to 1. You will notice that at 1 facing it's still seriously overstocked as 7 units is too much on a required total of 5 which in turn means it is 40% overstocked. Now change the product in between them, "Peter Pan", to 4 facings.

If you now go back to the Evaluate dialog you will notice that we have improved our unit sales by 17, resulting in approx. € 260 more revenue and approx. € 140 more profit. At the same time we have shaved some € 30, approx. 1.1%, from our average inventory investment.

We could be manually optimizing the facings of all products this way but a more efficient way would be to let **Retail Shelf Planner** do it for you. Select the menu-option Analysis-Force Minimum to assign the correct number of facings to all products. Afterwards, the planogram will look like the picture below:
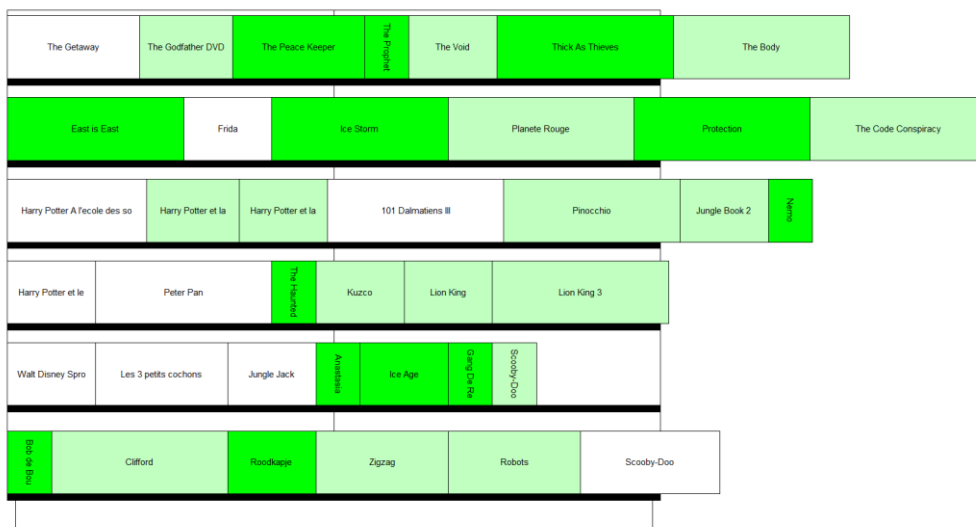
The conclusion is that except for shelf 1/2 we are running out of space on all shelves. We have to reconsider our approach. The main options we could be looking at would be:

- ✓ Accepting out of stocks
- ✓ Reducing the number of SKU's in the assortment
- ✓ Reviewing the units per case, if that is the limiting factor
- ✓ Restocking the shelves more often
- ✓ Changing to deeper shelves that allow for more inventory per facing
- ✓ Increase the overall space allocated to this category

Use Undo to return to the original layout for the next analysis.

Quadrant Analysis

Most of the time we well have to do with the space that is assigned to the category, and we'd be reluctant to reduce the assortment. So we will end up having to accept some out of stocks. But for which products is this acceptable ?

The quadrant analysis, sometimes also referred to as the Boston Matrix, is a good tool to help you with decisions like this. It allows you to do a visual analysis comparing two variables. **Retail Shelf Planner** offers the choice of many fields but most of the time you would want to use margin and unit sales.

Select the menu option Analysis-Highlighting or the button on the toolbar to display the Highlighting dialog.

In the dialog select the option "Quadrant Analysis".

Through the settings below you can select which fields you want to use on the axis and if you want to measure each product against the overall category average, or a fixed number.

Select Gross Margin % as the horizontal field and Movement as the vertical field. For both select Average as the calculation method.

The four quadrants show the colors that will be assigned to the products and how the criteria will be applied.

Now click OK. The planogram should look like the picture below.
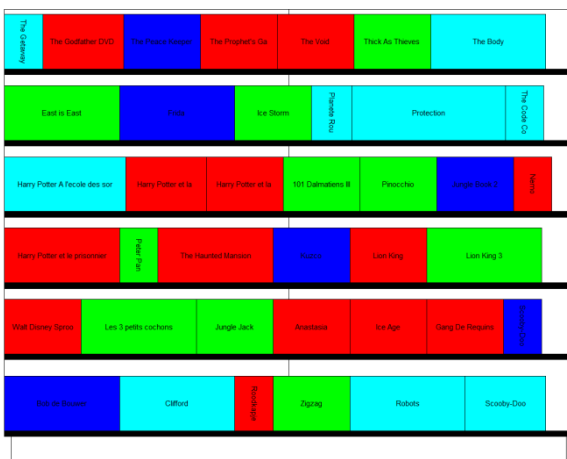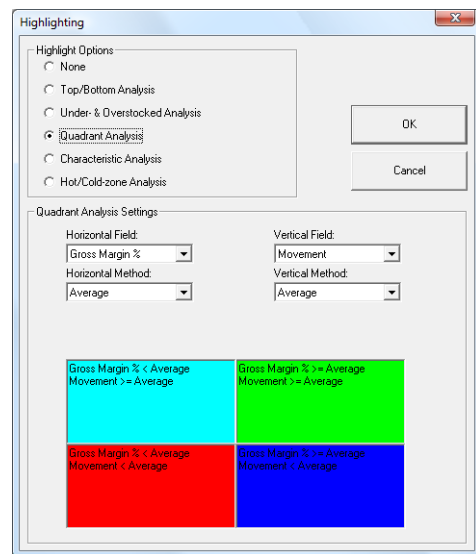
✓ Green, the **Stars**. Both margin and unit sales are above average. Products that we should nurture and ensure they have all the space they need.

✓ Dark blue, the **Question Marks**. Above average margin, but unit sales needs to improve. Products that we should try to sell more of, maybe by giving them prime positions.

✓ Aqua, the **Cash Cows** or **Traffic Builders**. High volume, but below average margins. Important products to get people into the store and in front of the category but should get lower quality locations.

✓ Red, the **Dogs** or **Problem Children**. Both volume and margin below average. Have a good look to see if you want to continue to keep them occupying valuable shelfspace.

☞ We learn from this analysis where products with different performance profiles are located in the section. Using that information we can:

✓ Ensure the most important products get the space and location they deserve
✓ Find ways to drive sales of high margin products
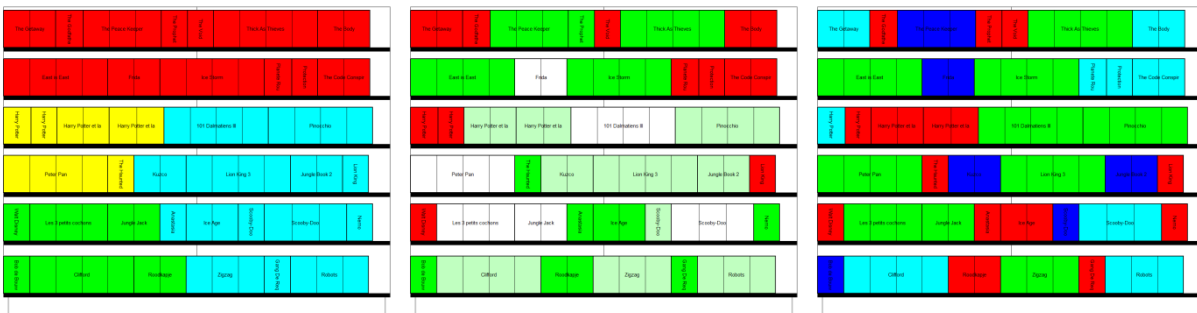✓ Identify products that potentially should be rationalized

Putting it all together

We can improve the planogram by switching between the various highlights, changing facings and moving products within their blocks to optimize space usage. With some puzzling you could come to an end result like the pictures below:

The scorecard below compares the initial situation for the total category with the forecast of our proposal.

When comparing the forecast with the target, we see that we've not yet reached full optimization, but compared to the initial situation we've made some serious improvements:

The lost unit sales are reduced by 27%, giving us quite a few more happy customers that will be able to buy what they are looking for. As a result it will give the revenue a € 470 boost (+6.7%), and increases the profit by approx. € 275 (+7.9%). In addition, average inventory decreases by almost 6% and the margin mix of the category increases by 0.6 percent point. All in all a pretty positive result.

However, we are still suffering a lot of out of stocks primarily in the Action segment which is the fastest growing subcategory. In addition our changes reduced the space we originally allocated to the "Teens" and "Kids" segments and we no longer have the clear straight blocking between the "Kids", "Cartoons" and "Teens" segments. The big question: is this still within acceptable borders of our commercial policy and merchandising philosophy?

This is the continuing balancing act when optimizing a planogram: financial targets vs. commercial strategy. We also call it the battle between science and art. Despite all of their power, the analysis features in **Retail Shelf Planner** can't give you straight answers to solve this battle as there are simply none. What **Retail Shelf Planner** can do though is give you the ability to look at the category from a number of different perspectives so you can evaluate each of your options to come to the optimal conclusion for each specific situation.

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Reports & Charts

Closely linked with analysis are reports and charts. Apart from using these to report the final results, you can also use them during the analysis phase. **Retail Shelf Planner** offers a seamless link to Microsoft Excel, a tool that also offers a number of powerful analysis capabilities.

Select <u>A</u>nalysis-<u>R</u>eports or the button on the toolbar.
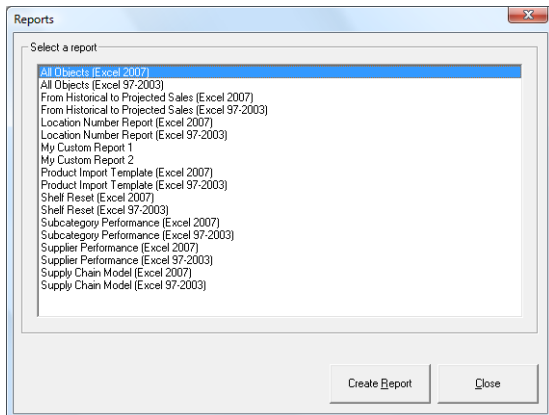
The Reports dialog lists all available reporting templates.

Creating the report/analysis is as simple as selecting the template and clicking the "Create Report" button.


☞ **Retail Shelf Planner** supports multiple versions of Excel. To be able to save the results of their new features, Microsoft introduced a new file-format for the 2007 version. It's for this reason that every template is available in two different formats.

When creating a report you should pick the template for the Excel-version that you have. When in doubt, pick the 97-2003 version of the template as Excel's latest version should also support that format.

Basic Concept

Select the All Objects template. (See the information box above for an explanation of the different versions.)

Click the "Create Report" button. **Retail Shelf Planner** will export all information behind the planogram to Excel so that you can further analyze and report on it. Which data is exported is driven by the tabs in the template. The names of the possible tabs can be seen in the picture below:
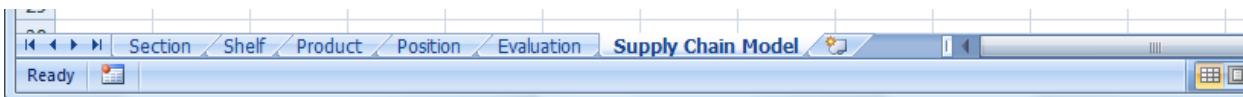
Have a look at the Products tab and notice that there are some 75 fields you can use to report/analyze.

Reports & Charts, continued

Efficiency

This approach provides you with all the information behind the planogram and opens up a world of opportunities to analyze and report. However, it's probably not the most efficient use of your time if you have to create every report/analysis from scratch every time. Therefore it's also possible to use pre-set templates.

Go back to **Retail Shelf Planner** and select the "Subcategory Performance" template and click the "Create Report" button. You will notice that the result is quite different. Without any further work, you are looking at a nicely formatted scorecard with a number of performance details for each subcategory.

Subcategory Performance
Performance, Shares & KPI's by Subcategory

Subcategory	SKUs	Projected					Shares						KPI's			
		Sales	Profit	Units	Avg. Inventory	Lineal Space	SKUs	Sales	Profit	Units	Avg. Inventory	Lineal Space	Margin	ROI	Sales/Mtr	Profit/Mtr
Action	13	€3,089.86	€1,560.56	175.4	156.6	379.4 cm	33.3%	39.9%	39.8%	36.0%	31.9%	33.3%	50.5%	9.97	€8.14 /mtr	€4.11 /mtr
Cartoons	14	€2,800.13	€1,426.33	167.5	187.2	420.6 cm	35.9%	36.2%	36.4%	34.4%	38.1%	36.9%	50.9%	7.62	€6.66 /mtr	€3.39 /mtr
Kids	6	€933.74	€483.44	75.3	84.0	189.0 cm	15.4%	12.1%	12.3%	15.5%	17.1%	16.6%	51.8%	5.75	€4.94 /mtr	€2.56 /mtr
Teens	6	€914.98	€448.78	68.5	63.2	151.3 cm	15.4%	11.8%	11.5%	14.1%	12.9%	13.3%	49.0%	7.10	€6.05 /mtr	€2.97 /mtr
	39	€7,738.70	€3,919.10	486.7	491.0	1140.3 cm	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.6%	7.98	€6.79 /mtr	€3.44 /mtr

Similarly when you click on the "Performance" and "Bubble" tabs you have ready-to-use charts.
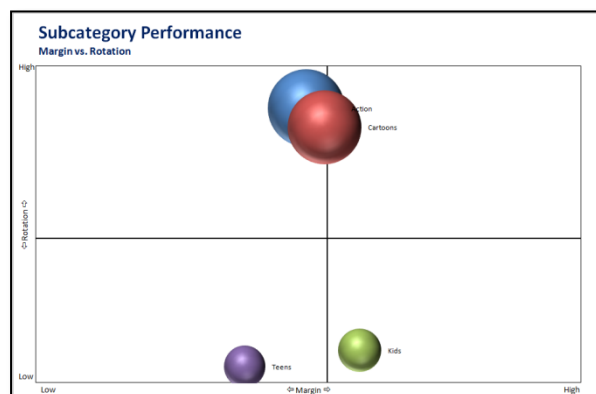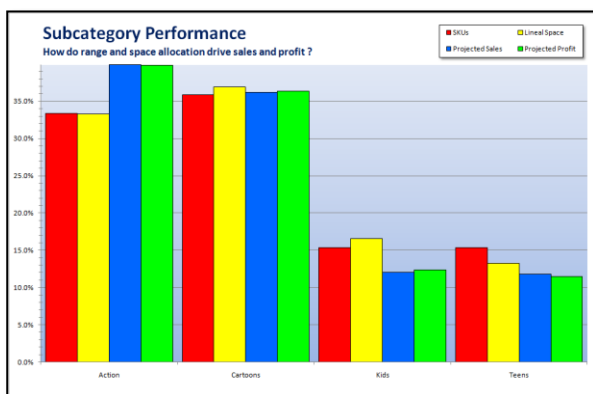
The Supplier Performance template takes a similar approach but grouped by supplier.

Standard vs. Tailor Made templates

Depending on your requirements, you can use the standard templates, or define your own. The power of Excel's features and functions allow you to create professional reports and charts that are tailor made for your business. With its VBA programming language, that is supported in the **Retail Shelf Planner** templates, you can even think about linking to external systems with e.g. market research information. The possibilities are literally endless.

☞	The creation of tailor made Excel templates can be done by yourself (if you're an Excel expert), your IT department or a third party like us. Choose which option is best for you.

Congratulations, you have completed your tour through the analysis capabilities of **Retail Shelf Planner** !

Availability of features

The table below lists which features are available in which version of **Retail Shelf Planner**:

Feature	Express edition	Enterprise edition
Quality Analysis	✔	✔
Top/Bottom Analysis	✘	✔
Hold/Cold Zone Analysis	✘	✔
Applying Trends	✘	✔
Inventory Analysis	✘	✔
Evaluations / Scorecard	✘	✔
Quadrant Analysis	✘	✔
Reports & Charts	✔*	✔

* Reporting and charting in the Express edition is possible on assortment, space allocation and historical performance, but exclude the financial projections that are calculated by the inventory model in the Enterprise edition.

About the author:

Erwin Bergsma is a Dutch national with an international mindset. He has an extensive background in the retailing industry that started back in the 1980's with a regional chain of bookstores in the Netherlands. Later he worked in the buying and merchandising department of Albert Heijn, the largest Dutch grocery-retailer.

During a 14 year career in consulting, account management and marketing with the global market information specialist A.C.Nielsen he built up an in-depth knowledge in the areas of data analysis, Category Management, floorplanning, spacemanagement and assortment planning. Having had local positions in the Netherlands, as well as European and global Marketing positions, Erwin has a broad understanding of the differences and similarities of retailing in many parts of the world.

In 2005 he founded Global Retail Business Solutions, providing specialist software applications and consulting services to companies in the FMCG and CPG business.

Over the years he has worked with many retailers and suppliers, ranging from relatively small locals to large multinationals, in virtually all distribution channels, including Food, Drug, Do-It-Yourself, Convenience, and Mass Merchandising, providing him with a unique and multi-faceted view on the retailing business.

Global Retail Business Solutions is a Belgium based company with 20 years of experience in data analysis, Category Management, assortment-, floor- and space-planning. Our software and services are delivered directly and through partners to clients around the globe.

In those 20 years we worked with hundreds of local and international retailers and suppliers in Food and Non-Food, guiding them in the implementation and successful use of specific software applications supporting their sales, marketing, buying and merchandising departments.

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www.planograms.eu / www.schappenplannen.nl / www.schappenplannen.be