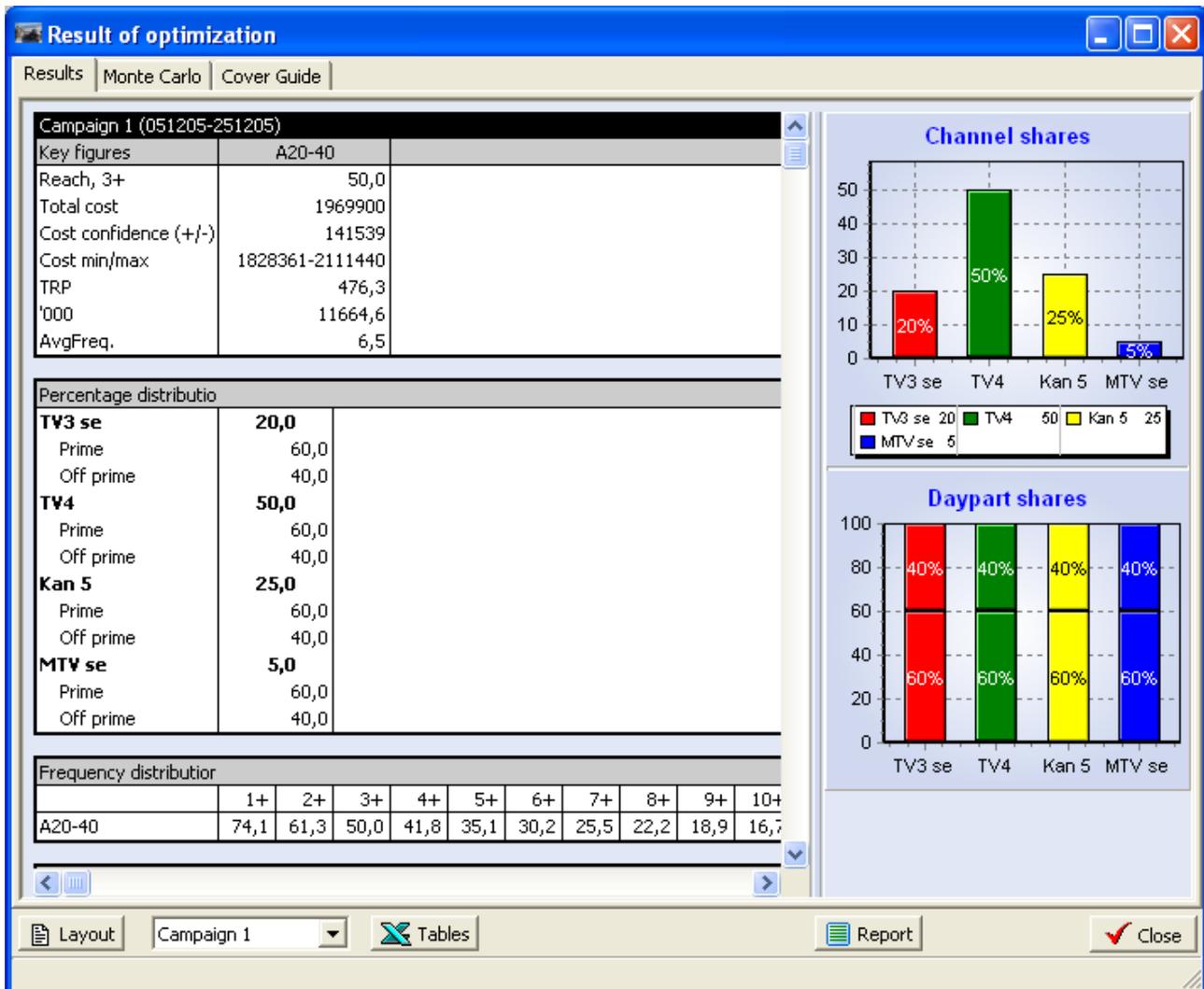


# k2 K2 Optimizer

Strategic channel/daypart optimizer



K2 is a strategic channel/daypart optimizer based on a combination of genetic- and hill climbing algorithms. It uses an empiric approach to ensure that the optimized result is realistic and achievable. Working on genetic algorithms allows K2 to quickly and efficiently search through a large solution space, ensuring that an optimal solution is found.

## K2 Optimizer

As a new generation optimizer K2 offers features that makes it realistic and user-friendly:

- Variable cost - Share allocation and seasonality to be taken into account
- Multiple campaigns scenario – optimization on total budget spend across the year
- Verification of output as an optimal result

Optimization can be done on 3 criteria:

- Optimal reach on a rating goal
- Optimal reach on a fixed budget
- Fixed reach goal

K2 works on raw data calculating to market standard. All channels and demographics are available.

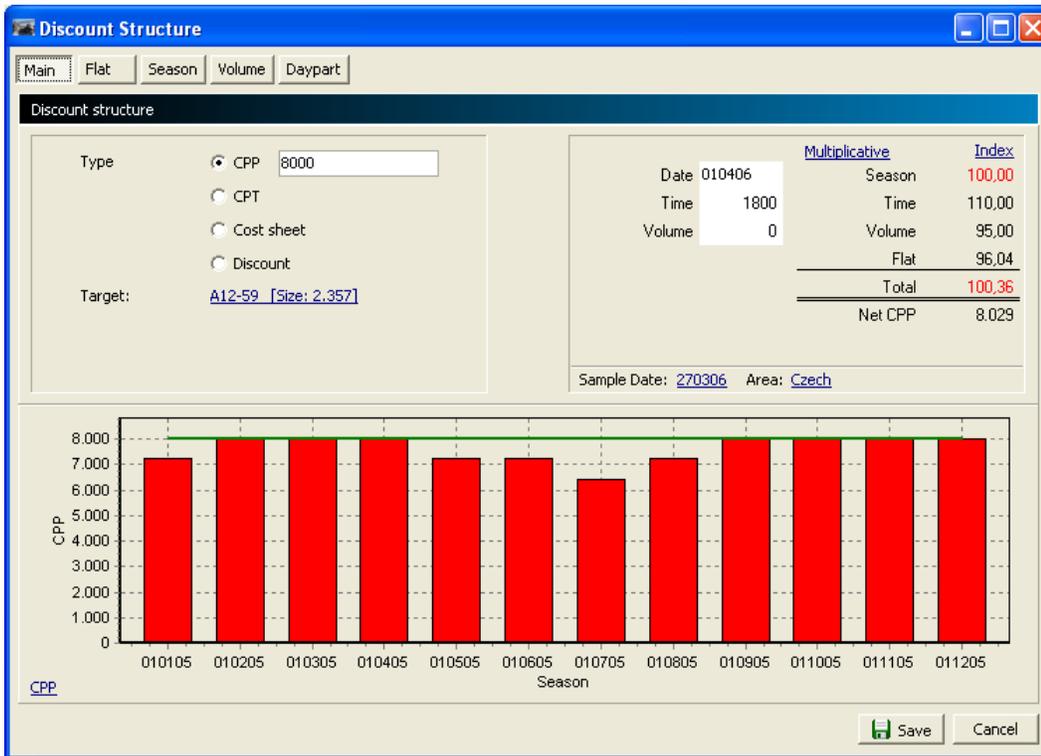
Dayparts are user defined and a number of filters and constraints are available, such as channel- and daypart constraints and excluding/including certain programmes.

This allows the user to define the parameters for the solution space in which K2 will search for the optimal solution.

### **Variable cost:**

The cost structure makes it possible to enter a rate card cost. To replicate an annual deal with a broadcaster the user can enter flat discounts, seasonality index, volume discounts and day part indexes compared to average daily cost, thereby producing a dynamic net cost that will change depending on the seasonality and share allocation to a channel.

# K2 Optimizer



## Filters & constraints:

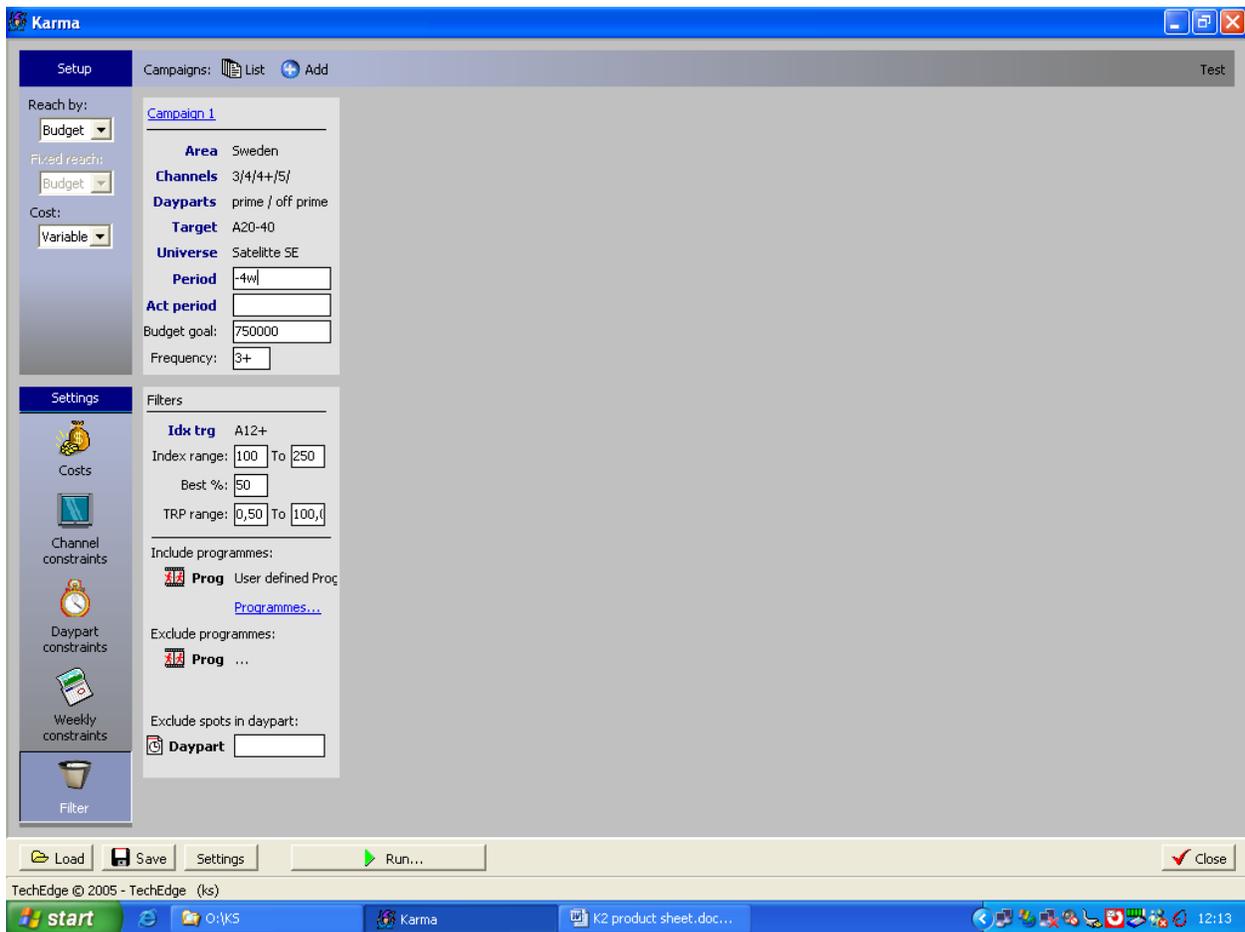
K2 includes the following constraints:

- Channel constrains – restriction to a certain minimum or maximum share
- Daypart constraints – individual dayparts by channel
- Weekly constraints – allowing for simulation of implementation strategy

K2 includes the following filters:

- Filter on affinity index in breaks
- Excluding breaks above/below a certain rating level
- Including/excluding certain breaks in programmes
- Excluding spots in a certain daypart

# K2 Optimizer



## Multiple campaign scenarios:

K2 allows you to optimize on multiple campaigns across the year using different reference periods and cost appropriate for the season.

# K2 Optimizer

**Setup** Campaigns: Test

Reach by:

Fixed reach:

Cost:

Campaign 1	Campaign 2	Campaign 3	Campaign 4	Campaign 5
Area: Sweden				
Channels: 3/4/4+/5/				
Dayparts: prime / off prime				
Target: A20-40				
Universe: Sateilitte SE				
Period: -4w	Period: 05m8	Period: 05m6	Period: 05m4	Period: 05m2
Act period:	Act period: 06m8	Act period: 06m6	Act period: 06m4	Act period: 06m2
Budget goal: 750000				
Frequency: 3+				

**Settings**

Filters

Idx trg: A12+

Index range:  To

Best %:

TRP range:  To

Include programmes: Prog User defined Prog [Programmes...](#)

Exclude programmes: Prog ...

Exclude spots in daypart:

Buttons: Load Save Settings Run... Close

TechEdge © 2005 - TechEdge (ks)

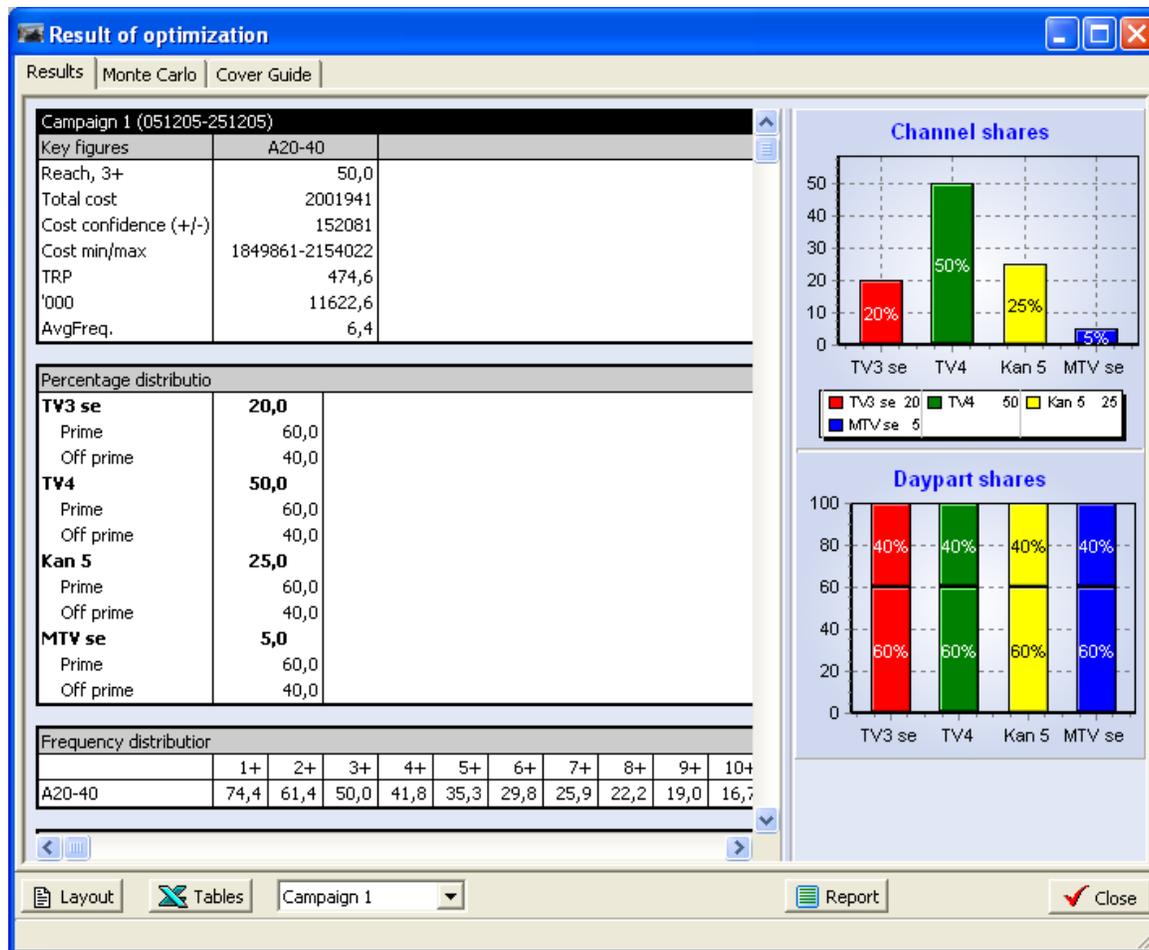
Taskbar: start O:\KS Karma K2 product sheet.doc... 12:14

# K2 Optimizer

## Output:

The output numerically and graphically displays the achievable reach and rating level.

- Reach & daypart split numerically and graphically
- Average cost by campaign, channel and daypart
- Full frequency table
- Reach build and planning curves
- Sensitivity analysis displaying the effect of constraints.



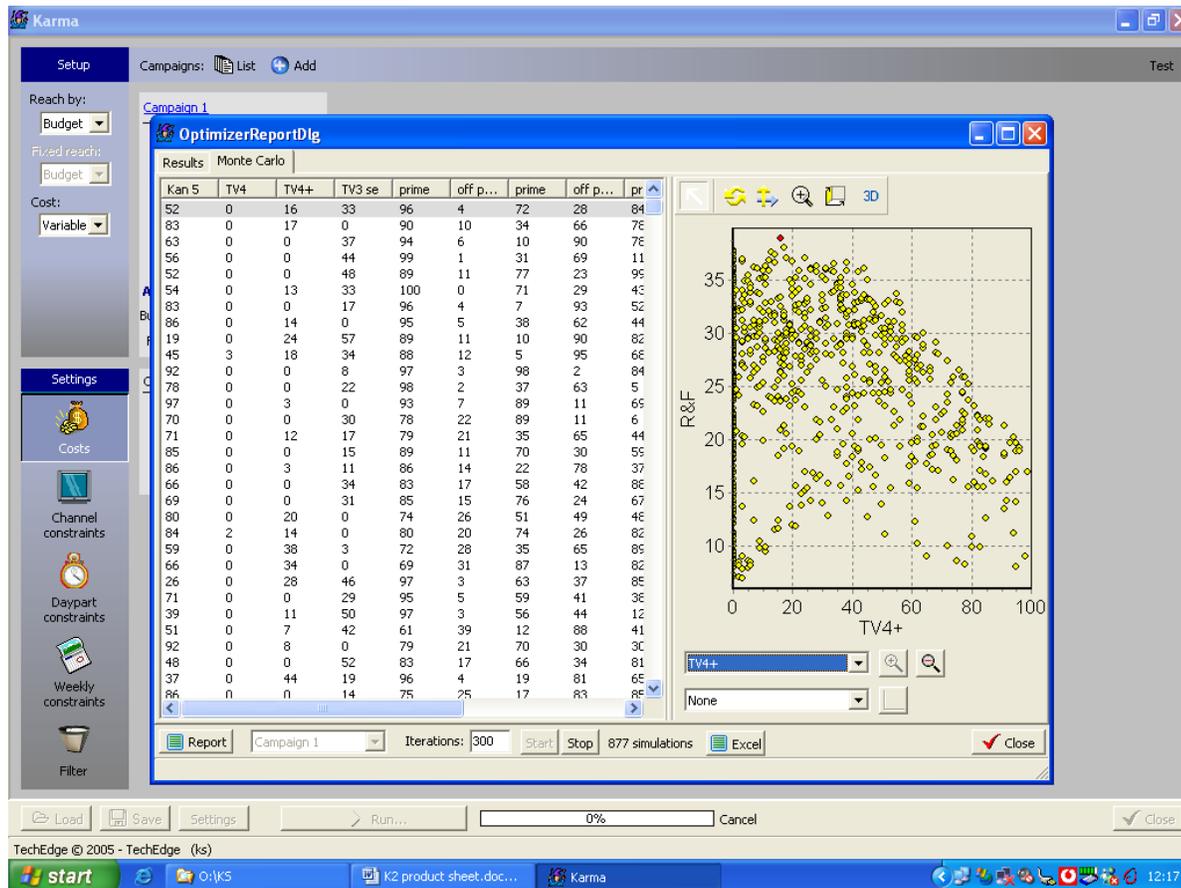
# K2 Optimizer

## Verifying the result as optimal:

As part of the output it is possible to run Monte Carlo algorithms that randomly test different channel/daypart splits on empiric data.

Given the necessary time Monte Carlo algorithms can search through the entire solution space and compare the results to the channel/daypart split found by the genetic algorithm, thereby verifying if the genetic algorithm did find the optimal channel/daypart split.

The Monte Carlo Algorithms will also display the “share plateau” for a certain channel. It is also possible to enter user defined channel/daypart splits and compare the achievable results with the optimized results



# K2 Optimizer

## Cover Guides

The screenshot displays the 'Result of optimization' window in the K2 Optimizer software. The window has a blue title bar and a menu bar with 'Results', 'Monte Carlo', and 'Cover Guide'. The main content area is divided into two sections: 'Buildup Cover Guide' and 'Planning Cover Guide'.

**Buildup Cover Guide:** This section includes a 'TRP buildup: Campaign 1 (A20-40)' table. The table has columns for TRP (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400, 420, 440, 460, 474.6) and ratings (1+, 2+, 3+, 4+, 5+, 6+, 7+, 8+, 9+, 10+). The values represent the TRP for each rating level.

**Planning Cover Guide:** This section includes a 'Campaign 1 (A20-40)' table. The table has columns for Cost (A20-40) (0, 50000, 100000, 150000, 200000, 250000, 300000) and ratings (1+, 2+, 3+, 4+, 5+, 6+, 7+, 8+, 9+, 10+). The values represent the cost for each rating level.

On the left side of the 'Buildup Cover Guide' section, there are several controls:
 

- By Day
- By week
- By rating
- TRP interval:
- Start Cost:
- Step Cost:
- End Cost:
-

At the bottom of the window, there is a 'Report' button, a dropdown menu set to 'Campaign 1', and 'Copy', 'Save', and 'Close' buttons.

An extensive cover guide section displays both build up cover guides and planning cover guides.

## K2 Optimizer

### Technical information

K2 is a highly self maintained piece of software. K2 run directly on a windows file server, and there are no local installation of the system. That limits maintainence to the actual server installation as the users only need a shortcut of the single K2 executable file to run the software.

K2 use a proprietary custom database driver and everything is compiled statically into the binary executables. No DLL's or installation scripts are required. This way, K2 is completely isolated from any other systems on the network. It will not be affected by any additional software installations, and will not affect any existing software.

K2 runs on Windows 95, 98, 2000, ME and XP - and will be updated to support future versions of Windows. K2 does not run on non-Windows platforms.

### Further Information

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