

# RoSy PLAN



## RoSy PLAN

On the basis of information from RoSy BASE or another relevant database, and the quite unique dynamic deteriorations model of the system, the module is capable of calculating the optimum maintenance requirement for a whole road network and for individual road sections. In addition, it is capable of calculating and documenting the consequences of inadequate maintenance resulting from, for example, too low a budget. The possibilities of selecting the degree of detail and forms of presentation are almost infinite. And of course can be selected by users themselves

A further feature is that a choice can be made between different types of optimisation models, depending on which type of road network and maintenance financing the system is to be used for.

In its calculations and optimisations, the program presents useful factors such as IRR (internal rate of return), NPV (net present value), B/C (benefit/cost), capital values for asset management, Cost/Benefit, VOC (Vehicle Operation Costs), IRI (International Roughness Index).

Parameters for calculation

By means of district/road no./road name a limitation can be made as to which roads should be selected for the calculations. Wildcards can be used for all fields. This means that 'A\*' can be indicated in the field road name or '?1\*' in the road number field.

|             |                                |  |
|-------------|--------------------------------|--|
| District    | <input type="text"/>           |  |
| Road number | <input type="text" value="*"/> |  |
| Road name   | <input type="text" value="*"/> |  |

|                                   |  |                                 |
|-----------------------------------|--|---------------------------------|
| Start Yr:                         | Periods:                                       | No. of solutions:               |
| <input type="text" value="2003"/> | <input type="text" value="12"/> (1 - 20 years) | <input type="text" value="50"/> |

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RoSy PLAN windows

For asset management the module is applied for generating capital values in connection with opening balance sheets and when valuing the assets of an infrastructure.

The calculation models, parameters and deterioration models applied by the system are based on many years of observations and analysis of distress developments on many types of pavement structures.

### Calculation step by step

Calculation with RoSy PLAN is easy and done by means of a CalcWizard that will guide the user through the various questions asked and considerations to make.

A standard RoSy PLAN calculates for a period of 12 years. The calculation horizon may be defined by the users. The optimum horizon is between 10 to 15 years.

### Reports - tools for optimum maintenance strategies

RoSy PLAN contains a number of standard reports and can be extended with a report generator (Crystal Report), which allows users to define their own reports based on the choices as to traffic forecasts, budget amounts, service levels and goals as to the maintenance standards for the various road classes.

The reports indicate the consequences of the various choices and what the optimum solutions would be with the funds available

#### A calculation in RoSy PLAN step by step:

1. Calculation conditions (user-defined)
2. Sectioning of roads (automatic)
3. Unconstrained budget (automatic)
4. Constrained budget (automatic)
5. Printouts (user option)
6. Adjustment of solutions (optional continuation of Wizard)

#### Defining calculation conditions, selecting roads and filtering

Before starting up a calculation in RoSy PLAN, the calculation conditions must be defined:

Which roads should be included in the calculation?

Which conditions should apply to the calculation? Including calculation periods, starting year for calculation, etc.

Which budget(ies) should be analysed? - and, whether a constrained budget should be applied according to a priority.

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