# « ALIZE-LCPC Routes » SOFTWARE LICENSE AGREEMENT

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# BY SIGNING BELOW, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT

### Done in duplicate, of which one to be returned to us signed

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# Technical specification – software for back calculation

Software adapted for:

- back calculation of structural pavements (measures from FWD, deflectometers, etc.)

- mechanical analysis of complex-loaded multi-layered structures (roads, harbour, airport or others).

Backcalculation and design software is used to bearing capacity of pavement and assessment of pavement design. Software is used to determination elastic moduli and bearing capacity of pavements by processing and analysis of the measured deflection using the falling weight deflectometer and assessment of new pavement design.

# **Technical parameters**

- Use for the diagnostics and design of flexible, semi-rigid and rigid pavement
- Operates in OS Windows
- Uploading of measurement data from files in format FWD plus some formats delivered by other manufacturers
- Possibility to select geophones used for backcalculation
- Automatic backcalculation of pavement layers modules, stress and strain values (for each point separately)
- Iterative method, which approximates the theoretically calculated deflection curve and the measured deflection curve
- The theoretical basis for backcalculation of modules from the measured deflection curve is linear elastic layered half space (including the subgrade)
- Inserting the 4-10 layers of pavement construction except subgrade
- Setting the parameters of all layers including subgrade the number, thickness, Poisson's ratio, an initial modulus of elasticity, maximum and minimum acceptable value of modulus of elasticity
- Number of geophones: min 7
- All required information regarding geophone distances and plate size are read from the data files.
- The software displays the replacing errors of the measured deflection curve and theoretical deflection curve
- Possibility for user defined exports to Microsoft Excel, ASCII
- Possibility to define design traffic by importing load and wheel configurations (special load with min. 100 wheel definition of loads and vertical computation profiles)
- Determination of the stresses and strains created in the road materials by the traffic loads of each layer mechanical and graphical expression of results 2D and 3D
- Parametrical calculation (thickness, modulus of elasticity E, layers bonding)
- Possibility to addition and adjustment road materials inventory



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