Comprehensive Tool for Road Operators in the Czech Republic
VARS BRNO a.s.

Provides services in

• Data collection on roads and rivers
• SW development
• ITS SW systems
• ITS complex deliveries
• GIS and Asset Management systems
• Smart City solutions
Regions in Czechia

- New customer in 2015
- Operate 2nd and 3rd class roads
- 14.500 km of 2nd class
- 34.000 km of 3rd class
- SFDI investments
- Seek for system supporting them as road owner and operator
Customer needs

- Reliable data collection
- Localized interactive browsing of collected data
- View of the geographical context
- Rich map view of processed values
- Interactive work with maintenance strategies
- Colorful reports
- Data sources for money holders
- Interconnection with other maintenance tools
- Complementary work with inventory data
Data collection

- Mission preparation
- Network and precision
- LCMS
- Data loads and archiving
- Data matching and localization
Data assessment

- Localization challenges
- Global database scheme
- Linear referencing
- Defect automated and manual assessment
- Condition data processing
- Data mining tools
- Data precision
Data publications

- Using Web AppBuilder
- Bespoke widgets
- Rich graphics
- Interactive application for browsing of collected data
- Integration with map and video
- Problems of network versions
Asset management tools

- Web publication client
- Web editing client
- XML based flexible structure
- MongoDB exchange with ArcGIS Server
- Mobile client
Maintenance schemes

- Proposed maintenance schemes
- Interactive browsing
- Time dependent views
- Budgeting scenarios
- Editing tool
- Prioritization tweaking
- Reporting on technologies, extends, condition distribution etc.
Link to maintenance tools

- Field management tools
- Inspections
- Defect collection
- Work order support
- Mobile clients
- Workflow management
- Warranty database
Statistical and financial reports

- Rich charting support
- Georeports
- Reporting and printing
- Dashboards
Compact cloud service

- Portal solution
- Complex system
- Data and map services
- Hosted solution
- GIS and linear referencing
- Centralised data model
- Individualised applications
- User preferences
- Communication support
Related activities - waterways

- Data collection – river bed, sediments
- Hydrological models
- Maps elaboration
- On-line data exchange
- Notices to skippers
Related activities - airports

- Tools for defect collections
- Visual inspections
- Machine survey
- Web and mobile client
- Data exchange with GIS and workflow management
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