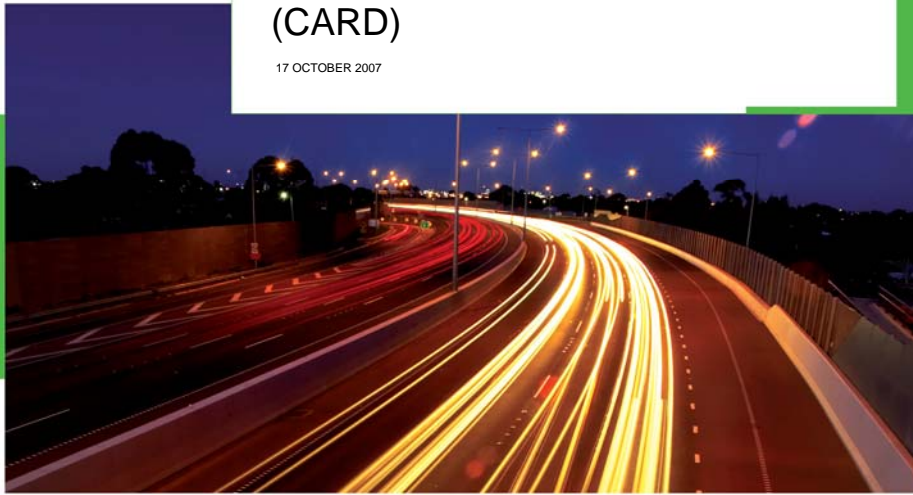


Crash Analyser for Rapid Diagnosis (CARD)

17 OCTOBER 2007



Crash Analyser for Rapid Diagnosis (CARD)

V0.5.0



Crash Analyser for Rapid Diagnosis

Blackspot
 Blacklength
 Run Off Road
 Signalised Intersection?

CrashStats
© VicRoads 2006, 2007
Concept and Software by Daniel Mustata and Robin Marston

Import File **Potential Countermeasures**

Print Inspection Checklist

CARD - Contents

- Background and introduction
- Benefits of CARD
- Software development
- Demonstration
- Summary
- Questions

Benefits of CARD

- Produces a crash factor matrix automatically from VicRoads crash databases
- Improved accuracy of collision diagrams
- Simplifies access to Police crash reports
- Links to VicRoads Map Libraries – GIS
- Generates potential countermeasures by crash type

Benefits of CARD (cont.)

- Calculates BCR based on crash reduction factor
- Team Leaders and Managers have higher confidence in proposed solution
- Assists novice engineers to develop solutions
- Brings these capabilities to Victorian councils

Benefits of CARD (cont.)

Main investigation steps	Manual method			CARD		
	Min	Max	Average	Min	Max	Average
Create a crash matrix	20 mins	2 hr	1hr	0	0	0
Create a collision diagram	30 mins	3 hr	1.5 hr	5 mins	1 hr	30 mins
Total per site		2.5 hr		Total per site		30 mins

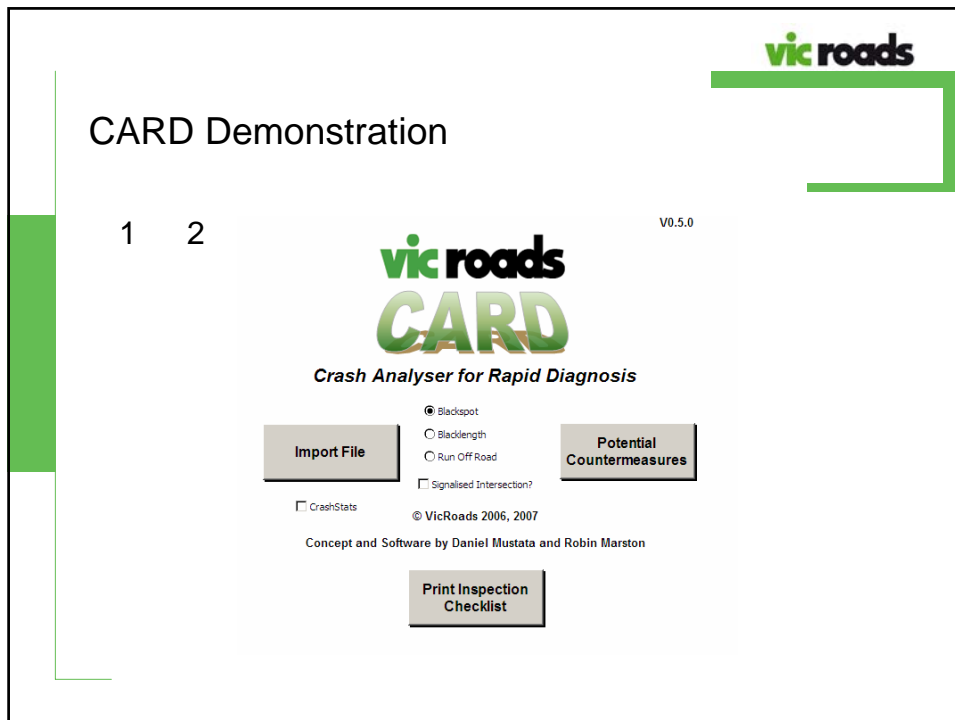
- Overall 80% time saving for an investigation
- VicRoads investigates ≈ **1500** sites per year

CARD Excel - Pros and Cons

- + Rapid development
- + Powerful application framework
- + Rapid prototyping
- + Customisable
- + Not robust to user modifications
- MS Office versions not always compatible
- High disk space usage
- Presentation, Data & Program inseparable
- All Excel features available in interface

CARD Standalone - Pros and Cons

- + Fine-grain control
- + Data separation – querying, new features available to all analyses
- + Maintainability
- + Robust to user behaviour
- + Context-sensitive functionality
- Longer development time



vic roads

CARD Summary

- Developed for faster collision diagram generation
- Links crash databases, Police reports & GIS
 - rapid and simple access to relevant information
- Automatic crash factor matrix from RCIS or CrashStats
- Provides greater accuracy - reduced data transcription
- Improved collision diagram accuracy
- Calculates potential countermeasures, affordability
- Comparisons - quantitative basis for prioritising treatment
- Quality improvements, substantial time savings achieved

Questions?