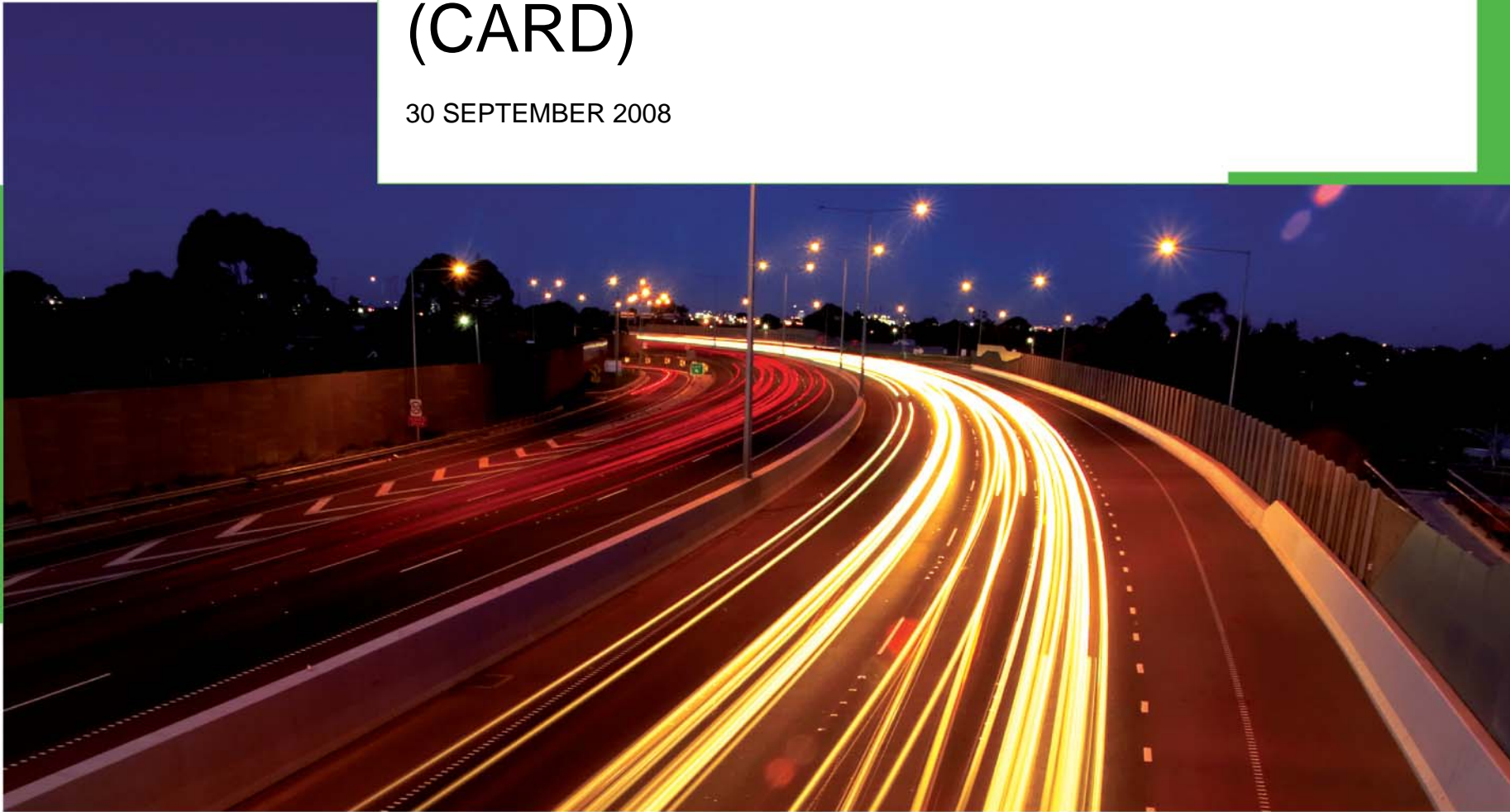


Crash Analyser for Rapid Diagnosis (CARD)

30 SEPTEMBER 2008



Crash Analyser for Rapid Diagnosis (CARD)

V0.6.2



Crash Analyser for Rapid Diagnosis

<input type="checkbox"/> CrashStats	<input checked="" type="radio"/> Blackspot <input type="radio"/> Blacklength <input type="radio"/> Run Off Road <input type="checkbox"/> Signalised Intersection?	
Import File		Potential Countermeasures
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Concept and Software by Daniel Mustata and Robin Marston		
Print Inspection Checklist		

CARD - Contents

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

Benefits of CARD

- Produces a crash factor matrix automatically from RCIS or CrashStats – VicRoads crash information systems
- Improves operator ability to create accurate collision diagrams
- Simplifies access to Police crash reports
- Links to VicRoads Map Libraries – GIS
- Automatically generates potential countermeasures based on crash type

Benefits of CARD (cont.)

- Automatically calculates the BCR based on crash reduction factor
- Team Leaders and Managers have a higher degree of confidence before approving a solution
- Assists novice engineers with developing solutions
- Brings these capabilities to Victorian councils

Benefits of CARD (cont.)

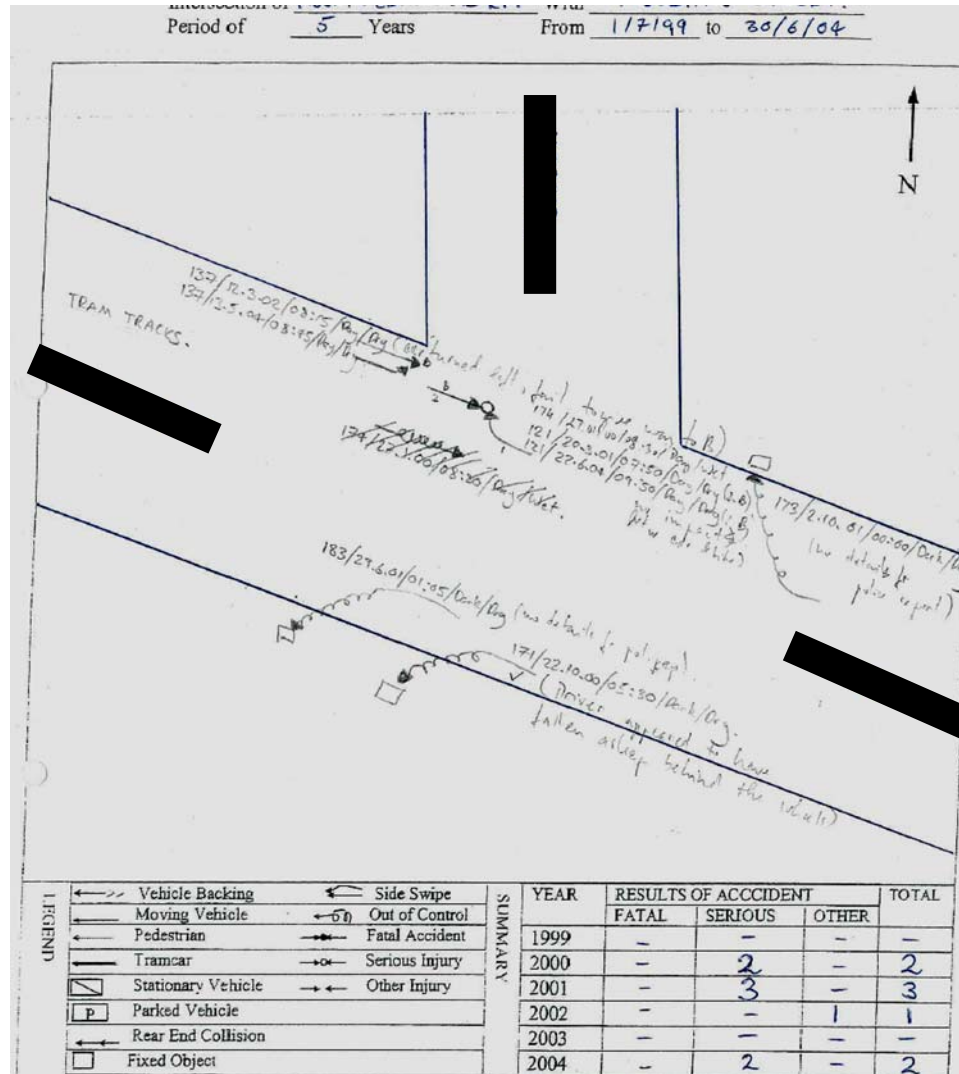
Main investigation steps	Manual method			CARD		
	Time			Time		
	Min	Max	Average	Min	Max	Average
Create a crash matrix	20 mins	2 hr	1hr	0	0	0
Create a collision diagram	30 mins	3 hr	1.5 hr	5 mins	1 hr	30 mins
	Total per site		2.5 hr	Total per site		30 mins

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

CARD Excel Pros and Cons vs Standalone

- + Rapid prototyping
- + Customisable
- + All Excel features available in interface
- MS Office versions are not always compatible
- Presentation, Data & Program inseparable
- Not as robust to user behaviour

Manual Collision Diagram



CARD Demonstration

V0.6.2



Crash Analyser for Rapid Diagnosis

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Summary

- CARD is being developed within VicRoads for faster collision diagram generation.
- CARD links to crash databases, Police reports and GIS to provide rapid and simple access to relevant information
- Produces crash factor matrix automatically from RCIS or CrashStats
- Provides greater accuracy owing to reduced transcription of data.
- Calculates potential countermeasures and proposed treatment affordability
- Improved ability to create accurate collisions diagrams
- Collections of multiple sites can be compared to give a quantitative basis for prioritising sites for treatment.
- Alongside quality improvements, substantial time savings are achieved through the use of CARD.