Delivering ADAS Innovation

AAE Warwick,September 26th, 2012

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ASL Vision – Company background

- ASL Parent established 1989
- ASL Vision 2007
- Based in Lewes, near Brighton (South coast UK)
- Privately owned SME
- Organic growth

- History of Innovation

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ASL Vision – Engineering background

- **Over 1000 Engineering projects completed**
- **Mission Critical**
  - Safety Critical e.g. Air Traffic Control
  - Medical FDA Approval
  - Quality led – robust QMS
- **Software and Hardware development**
- **Turn-key solutions**

- **18 years experience in automotive**

- **ISO9001, Tick-IT**

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ASL Vision – Competencies

- Vision/Image Processing
- Embedded Electronics/DSP
- Camera/Lens modelling

- 60 staff
- 2/3 post-grad

- University collaborations

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ADAS – Sensors

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ADAS – Features

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ADAS – Interconnects

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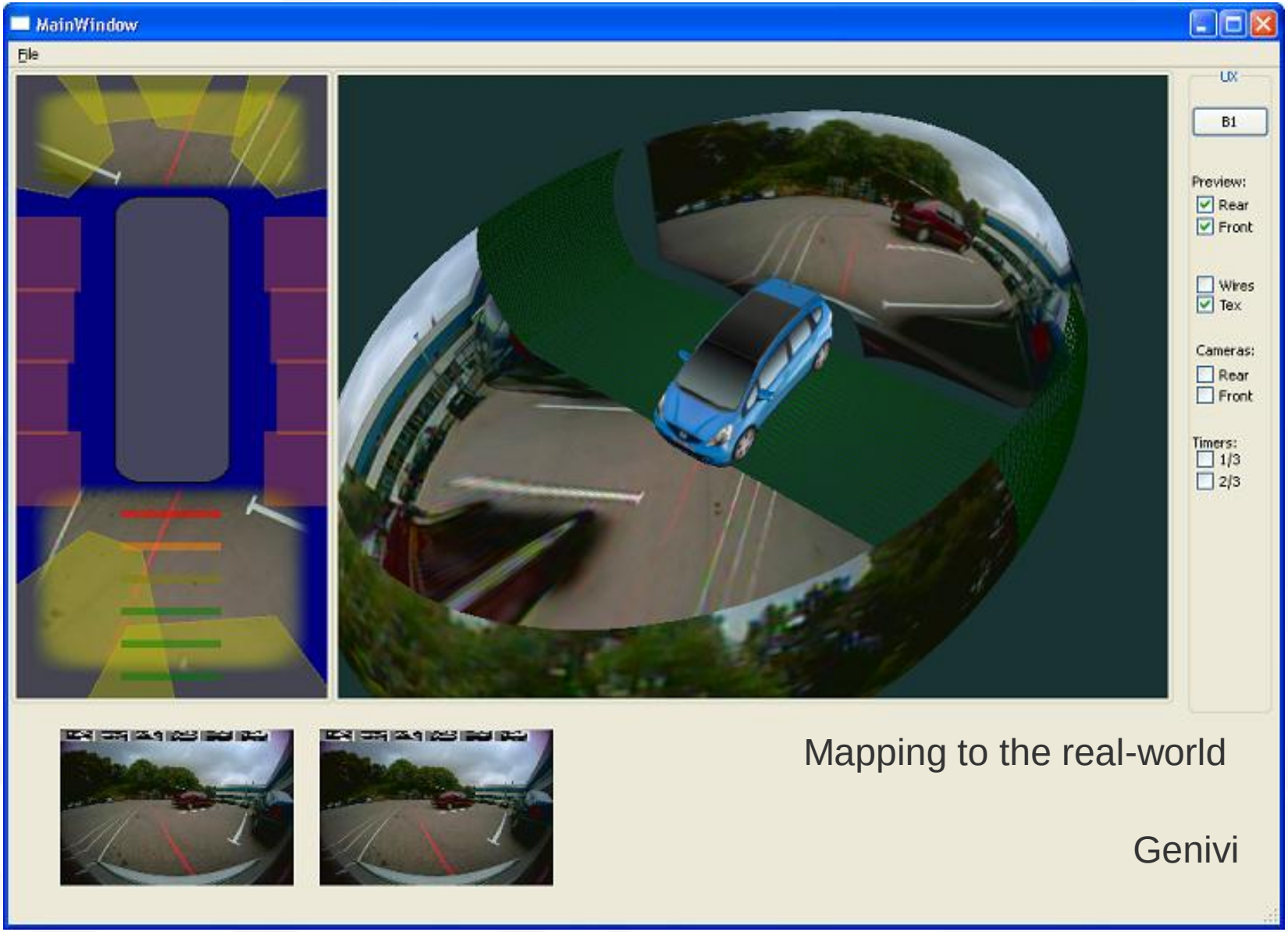
ADAS challenges



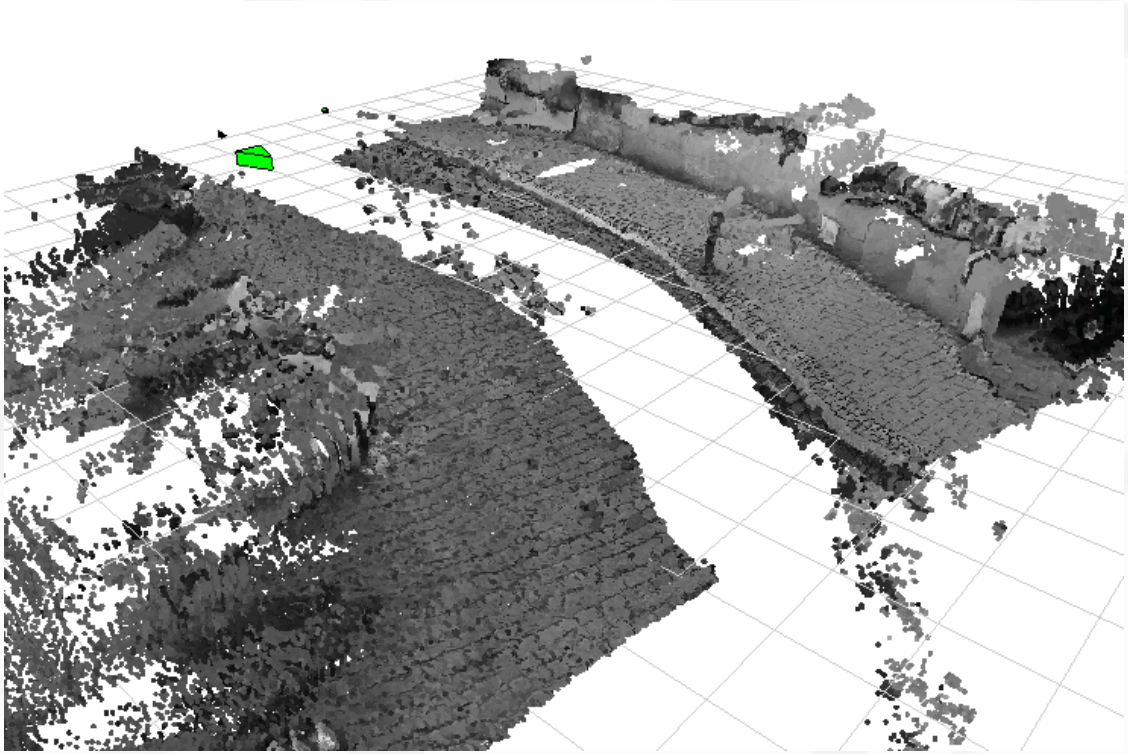
Mapping to the real-world

Genivi

ADAS Challenges

3D reconstruction

Dense SFM



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ADAS evolution

- **n sensors (n increasing)**
- **n! new features ?**

- **Complexity and sophistication rapidly increasing**
  - More signal processing
  - More data (e.g. pixels/resolution from sensors)
  - More challenging applications (dense reconstruction)
  - More data fusion
  - New interconnects
  - More integration of ADAS with other vehicle functions

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ADAS evolution – System Integration

- **How to deliver ADAS innovation?**

- **System Integration**
  - Integration of several complex sub-systems

- **Traditional Customer/Supplier relationship challenged**
  - RFQ, Select Tier1, deliver
- **Domain is too broad**

- **Who innovates the sub-systems?**
- **Who should be the integrator?**
  - Tier 1?
  - OEM?

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ADAS evolution – Efficiency

- **How to deliver ADAS innovation efficiently?**
- **Proprietary Complex Systems investment heavy**
- **Need re-use**
- **Need Plug-Ins**
- **Need industry-wide co-ordination**
  - OEM, Tier1, Tier2, Silicon, Universities

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Thank you

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