MDRP: Mobile Imaging, Rosetta Phone, and Light-Weight Visual Analytics for In-Field Analytics

• Personnel: Mireille Boutin
• External Partners: Next Wave Systems
• Goal - Enable an individual with no prior knowledge of a foreign language to translate foreign text, in real time, with no network connection
• Approach:
  • Develop real-time, light-weight software
    • Deploy on commercially available, hand-held devices equipped with built-in cameras
    • Network connection not needed
  • Challenges: computational and memory limitations, built-in camera with low light and heavy noise
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Outcomes

• Developed a recognition methodology for languages in various character sets
• Focused on text found in road signs and documents
• Development platforms: Nokia N900, iPhone
• Extend the functionality to European languages and to documents
  • Deliver a set of light-weight tools for domain specific Spanish word recognition
  • Evaluate the performance of these tools