NOMAD Mobility:
Providing Real Time GPS Location Solutions

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Background

Transportation Group
• Travel Surveys

Time-Use Group
• Time Use Surveys

Geographer
• Geomatics Toolkit
  • GPS
  • Google Maps
  • Spatial Analysis

GPS-Assisted Prompted-Recall
Space-Time Activity Surveys

Real-Time Asset Tracking and Management System
The Halifax STAR Project

- Conducted by the Time-Use Research Program at Saint Mary’s University in partnership with Halifax Regional Municipality (HRM).
- Developing the intellectual, hardware and software solutions for the collection and analysis of a GPS-assisted household activity survey.
- Collecting activity diary information from more than 2,000 households across HRM between May 2007 and May 2008.
- Results can be used to examine policies and projects that impact our economy, our environment, and social policy.
Synova Group – Britech Information Systems

- **NOMAD Surveyor** – a fully integrated computer assisted telephone interview (CATI) system
- **NOMAD Analyst** – provides access to real time data and post processing on multiple intermediate copies of database prior to creation of final dataset
- **NOMAD GeoProcessor** – provides batch processing and 3D visualization of geographic data
- **NOMAD Mobility Server** – …
NOMAD: Mobility Server

- GPS Data Capture
- Real time data transfer
- Real time visual display
- Real time integration with NOMAD Surveyor
- Store & forward data transfer
- Built in battery life management
- Built in Stop analysis and recording
- Built in data encryption
- Remote update and unit configuration
- Supports Cellular Data Networks
- Supports Cellular SMS Networks
- Supports both GSM and CDMA networks
- Each unit can be configured with numerous parameters
- ChartMyWorld.com
Illustration:

GPS Collection, Encryption & Transmission

Data Processing & Visualization
Chart My World - website
Chart My World – asset display
Chart My World – configure settings

- **Unit Label:** Devin
- **Icon:** [http://www.diecastfun.com/sitebuilder/images/first.png](http://www.diecastfun.com/sitebuilder/images/first.png)

**Active Schedule (Monday to Sunday):**
- **Monday:**
- **Tuesday:**
- **Wednesday:**
- **Thursday:**
- **Friday:**
  - Time: 7:00:00 AM to 10:00:00 PM
- **Saturday:**
  - Time: 8:00:00 AM to 10:00:00 PM
- **Sunday:**
  - Time: 7:00:00 AM to 10:00:00 PM

**FTP Upload Frequency:** 30 minutes (121 to disable)

**Fix Frequency:** 2.5 seconds

**Records/File:** 180 records

**Wake time:** 90 seconds

**Sleep time:** 1000 seconds

**Stop radius:** 100 feet

**Step time:** 120 seconds

**Upload Battery Status:**
- Option to check for updates every: 30 minutes (50000 or more to disable)
- **SMS Upload Frequency:** 0 seconds (0 to disable)
Chart My World – view track - map
Chart My World – view track - satellite
Chart My World – view track - zoom
GPS-Assisted Prompted-Recall Data Collection
Other Applications

- Transit Scheduling
- Military Exercises
- E911 Applications
  - Search and rescue
- Courier Applications
  - Real-time dispatch
  - Bar-code scanning
  - Signature capture
Thank You

Saint Mary’s University
www.smu.ca

Britech Information Systems Ltd.
www.britech.ns.ca

Time Use Research Program
www.stmarys.ca/partners/turp/main.html

Halifax STAR Project
www.halifaxSTARproject.ca