

## Meeting Notes

**Subject:** UTMC Suppliers Forum – Data Objects Working Group – Meeting 1 – Session 1

**Date:** 25.07.2003

### Attendees:

Gary Umpleby	(Mott MacDonald)	UTMC29 Lancashire CC	(Chair)
Jim David	(Mott MacDonald)	UTMC29 Lancashire	
Stephen Corlett	(Thales)	UTMC29 Reading BC	
Brian Robinson	(Peek)	UTMC29 York	
Mark Bodger	(Siemens)	UTMC29 Reading BC / Stratford / Lancashire CC	
Brendan Mason	(Tenet)	UTMC29 Stratford / York	
Gareth Tilley	(Centaur Consulting)	Representing UTMC Programme Management	
Janet Ansell	(Siemens)	UTMC29 Reading BC / Stratford / Lancashire CC	
Denis Tate	(Peek)	UTMC29 York	

### Action Items:

- **Definitions**
- **UTC Objects**
  - UTC Link = The Link in the CDB that has UTC as the source (may or may not be SCOOT enabled)
  - Traffic Signals Data Object = Node Object
  - Route Data Object = Route Object
  - Link Type Object (Support Object)
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- **Geographic Network Objects**
  - Network Node Object = Node Object
  - Network Link Object = Topological unit that define a transport network
  - Geometry Object
  - Network Junction Object
  - Network Road Element Object
  - Network Turn Object
  - Network Zone Support Object
  - Network Route Support Object = Route Object
  - Network Junction Type Support Object
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- **Issues**
  - Ambiguity exists when "link references" are made – does the "Link Reference" = UTC or Network
  - Importance of Network Link is that it is needed not just for visualisation but also for analysis – i.e. I am at X,Y and therefore associated with Network Link Z which has the following attributes for speed, flow, pollution .....
  - If a customer does not want a geographical approach then enforcing Network Objects may result in a lot of unnecessary work ?
  - Need a method of relating non-traffic data (eg. bus) with traffic data (for example journey times)
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  - Ordnance Survey have introduced the ITN Data Network based on their Master Map initiative – this includes waterways and may in the future include rail networks
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- **Tenet**
  - UTC is one part of whole system – does not support sufficient rest of network
  - Objects can be associated with a network link
  - UTC Links are associated with the underlying network
  - UTC Link is a topological unit
  - Reference UTC links to the underlying network
  - Traffic Signal Object is used - no issues
  - UTC Route Data Object
  - UTC Link is both dynamic real source of information and trying to be topological at the same time
  - TSDO is a valid object but using as a Node ?
  - Route Data Object is attempting to do too much – should it really be a Journey Time Object ? Wrongly named ? To define a JT you need a Route
  - 4 systems based on this approach

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- **Thales**
- Reading operates only with the UTC Objects – n/w defined by TSDO and UTC Links between them – mapped to UTC database
- No Geo N/W objects used
- No requirement for a geographic front-end
- Now a requirement to incorporate bus and train information – in particular the bus routes do not map onto the SCOOT n/w easily. Reqtd identified to map onto the geographic ne/w to correlate bus and traffic information (eg. bus running times influencing traffic management measures)
- Thales therefore see the benefit of having an underlying topographical network defined
- **Thales = Link references are to UTC Links**
- 1 system based on this approach (small software element)
  
- **Peek**
- UTC Link Data Object + Detector Data Object + Traffic Signals Data Object implemented
- **Link references are to Network Links**
- Nomenclature for Links = UTC but Link References are to the underlying Network
- Cost of UTMC must not be more than UTC (in principle)
  
- **Siemens**
- Operate with UTC Objects
- Limited support for some of the N/W objects through Warwick – cross-reference between UTC Route Object and the N/W Route Object
- Primary requirement = must be easy to implement a UTC system on to a CDB
- LAs will need an easy (cost effective) path to take up UTMC – therefore must have a strong correlation between UTC and CDB
- Link Data Object – Siemens have used the Link Travel Time attributes both for SCOOT and ANPR links
- Systems implemented = 15 COMET Systems = UTMC CDB (including 2 UTMC Demonstrators = Warwick and Reading) + all UK UTC systems to enable connection to a UTMC CDB & Parking Guidance Systems
  
- **PIPS**
- Need Location and Validity
- Should there be a separate ANPR Object ?
- Do we need to see all the raw data ?
- Systems = 2 UTMC Demonstrators (Warwick and Lancashire)
  
- **Mott MacDonald**
- OSCAR approach adopted – using shape file (holds geometry ....)
- Decision taken = Link definition in the CDB would be OSCAR – used in the Incident Management System
- Hit problems when met with the SCOOT Link
- Created separate table to convert SCOOT Link to an OSCAR Link – this enabled congestion to be pinpointed on the map
- Same problem encountered in Lancashire Demonstrator – gain used SCOOT to OSCAR mapping
- In Lancs needed SCOOT data for CORDEN – at the moment no need for tie-up between SCOOT and OSCAR
- Have only used the UTC Link Data Object
- Route Data Object used for the PIPS Journey Time System
- Everything is linked to OSCAR Links
  
- **The “Technically Correct” Solution Approach v “Finding a Solution from where we are”**
- We cannot leave as is – too much ambiguity
- We cannot drop either the UTC Link Data Object or the Network Link Data Object
- We are therefore faced with “merging” the two “Link Types” with the introduction of a “Functional Link” (Transport Link) for example, ANPR and Public Transport
  
- **“Finding a Solution from where we are”**
- Do we have a Generic Link Object that supports all transport modes or separate Link Objects for each mode ?
- A Generic Link Object would require the whole Object would need to be updated if one mode needed to change
- This could be avoided by having a number of support objects for each link type for dynamic data associated with the link type
  
- **Transport Link**
- = a path between two transport measurement points
- Made up from an ordered list of n Network Links (a path between 2 co-ordinates) in a sequence
  
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