Supporting the European ITS Framework Architecture

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Session TP42 – Open System Architecture and Design
Tuesday, October 15, 15:30 - 17:00

FRAME Projects - Background

- Derived from KAREN Project:
  - Funded by EC through 4th Framework Programme
  - Developed European ITS Framework Architecture:
    - Released in November 2000
    - Developed from previous European ITS Architecture work
    - Sometimes called the “Framework Architecture”

- Two FRAME projects currently active:
  - Both started in Summer 2001:
  - Funded by EC in 5th Framework Programme
  - Support Framework Architecture
FRAME Projects – Current Projects

• FRAME-NET – responsible for:
  – Framework Architecture User Forum
  – Support for Framework Architecture deployment
  – Studies of Impact, Multimodal extensions, etc.

• FRAME-S:
  – Training Courses in Architecture deployment
  – New versions of Framework Architecture:
    • Updates covering changes in ITS services
    • Maintenance releases
  – Framework Architecture tools:
    • Navigation (Browsing) Tool
    • Selection Tool

• Results available from FRAME Web Site
http://www.frame-online.net/

FRAME Project Relationships

FRAME Projects
FRAME-Net
Acceptance Group
Project Team
FRAME-S
Project
FRAME Board
Proposed Activities
Approved Activities
FRAME Web Site
Validated updated versions of the Framework Architecture for endorsement
User Feedback
Requests
Training Material
Training Courses for other users
Training Courses
FRAMES Project
Framework Architecture updates
New Framework Architecture release
User Feedback
Requests
Framework Architecture
Validated updated versions of the Framework Architecture for endorsement
Interface with the outside world (Public Domain)
Training Courses
Framework Architecture available to users
Training Courses for other users
Validation of updated versions of the Framework Architecture
Training Courses for other users
FRAME Training Workshops – Target Audiences

- **Transport Executives**
  - Those who provide high-level advice to decision makers
  - Those who make the decision themselves

- **ITS Engineers**
  - Those who support the decision making process with technical data
  - Those who produce the specifications for Calls for Tender
  - Those who supply ITS equipment

- **Two Workshops provided**

FRAME Training Workshops – Workshop 1

- **Title:** Planning a Modern Integrated (Road) Transport System using ITS Architectures
- **Explanations provided for:**
  - Why ITS Architectures are needed
  - The benefits of ITS Architecture development
  - The risks if ITS Architectures not developed
  - For ITS Architecture development:
    - The work needed
    - The people involved
- **Audience –** Transport Executives and ITS Engineers
- **Duration –** 1 day
FRAME Training Workshops – Workshop 2

- **Title:** Creating & Using ITS Architectures
- **Covers using the Framework Architecture:**
  - To create customised Architectures
  - Uses Case Study to provide course work
- **Includes discussion sessions on creating:**
  - Organisational Viewpoint
  - Deployment and Migration Plans
  - Impact Analysis
  - System & infrastructure specifications
- **Audience** – ITS Engineers
- **Duration** – 2 days

FRAME Training Workshops – Case Studies

- **Choice of four available:**
  - Traveller Information (trans-national)
  - Urban Traffic Management
  - Public Transport Management
  - Freight and Fleet Management
- **Workshop hosts choose subject**
- **Objective** – to teach ITS Architecture use not particular system creation
FRAME Training Workshops – Programme

- First two Workshops already complete:
  - VIKING (Scandinavia)
    - 3 days in September
    - Over 30 attendees
  - ARTIST (Italian)
    - 3 days in October
    - Over 10 attendees
- Problems with:
  - Attendees wide skill &knowledge range
  - Translation – ITS is a “specialist” area!
- Future Workshops planned for:
  - Austria (November)
  - The Czech Republic (December)
  - More Workshops in 2003

European ITS Framework Architecture – Future Development

- New Versions of Architecture planned for January 2003 (V2) & January 2004 (V3)
- Updates must relate to Services already available:
  - Extend or modify
  - Delete or clarify
- Updates described using Request Forms:
  - Available from FRAME Web Site
  - Instructions & User guidance also available
- Update Requests sent to FRAME contact point: info@frame-online.net
European ITS Framework Architecture – Update Process

- **FRAME-NET Project**
  - Submit Update Requests
  - Update Requests received at FRAME Info Point
  - Update Requests logged, numbered
  - Assessment results reviewed to select those to be included in updates for next version
  - New Version of Framework Architecture released through FRAME Web Site

- **FRAME-S Project**
  - Framework Architecture Users
  - Update Request Assessment Dialogue
  - Update Requests assessed for:
    1. Work Required to implement
    2. Impact on Framework Architecture
    3. Implementation Resource requirements
  - Selected Update Requests implemented to produce new Version of Framework Architecture
  - New Version of Framework Architecture released through FRAME Web Site

- **European ITS Framework Architecture – Configuration Management**

  - **Framework Architecture development must be carefully managed because:**
    - Already being used as basis for National Architectures
    - Users can add extra elements to their Architectures
  
  - **Basic principles:**
    - No existing items can be modified & then re-used
    - New items must fit into existing structure
  
  - **Users must manage their own ITS Architectures:**
    - FRAME cannot take account of all User changes
    - Users need to keep FRAME informed of changes
European ITS Framework Architecture
– Navigation & Selection

• Navigation (Browsing) provides the user with:
  – Interactive way of studying:
    • Functional Viewpoint
    • User Need to Function relationships
  – Uses “standard” Internet Browser

• Selection enables user to:
  – Create ITS Architecture from Framework Architecture
  – Selection of Functions driven by User Needs
  – Sub-systems created by allocating Functions to locations

• Provided by separate mechanisms
Selection Tool currently being developed:
- Will be interactive user interface
- Produces “selected” Architecture or System in a database for import into other tools

Users have freedom to create their own Framework Architecture sub-set:
- Both Functional & Physical Viewpoints
- Begin by selecting the required User Needs

Users will have to:
- Draw their own diagrams
- Add new User Needs and Functions themselves
Conclusions

- FRAME Training Workshops provide:
  - Understanding of ITS Architectures
  - Benefits of use + risks of non-use
  - Knowledge to deploy ITS Architectures
  - Ability to create specific Architecture & Systems

- FRAME supports Framework Architecture deployment through:
  - Updates to expand service coverage
  - Browsing access to the Framework Architecture
  - Ability to develop ITS Architectures & Systems to suit specific deployments

- Everything based on European ITS Framework (or KAREN) Architecture
Thank you for listening

http://www.frame-online.net/