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Farradyne

To:	Stephanie Rossi, Puget Sound Regional Council
From:	Jason Stribiak, Telvent Farradyne
Date:	December 4, 2008

Subject: PSRC Regional ITS Architecture Turbo Database Update for ATM and Tolling.

Per Phase 3, Task 12.1 of the Active Traffic Management Project, the PSRC electronic Regional ITS Architecture Turbo Database file has been updated to include Active Traffic Management and Electronic Tolling concepts pertinent to the region. Per your request we have obtained the most recent Regional ITS Architecture Turbo Architecture database file from the consultant that previously updated the file. This file was named "kcdot.tbo", and subsequently renamed to "PSRC ITS Architecture_Updated for ATM and Tolling 112608.tbo". Modifications made as a result of this project have been made within this file, and preserved within it as a Project ITS Architecture named "WSDOT Active Traffic Management Project Architecture" (hereafter referred to as the ATM Project Architecture). Although the ATM Project Architecture was developed within the PSRC's electronic Regional ITS Architecture Turbo database, it is not part of the Regional ITS Architecture until it is merged with it. To complete the update, the ATM Project Architecture must be merged with the Regional ITS Architecture.

As the agency responsible for holding and maintaining the PSRC Regional ITS Architecture database file, the action of merging the ATM Project Architecture with the Regional ITS Architecture is best left to PSRC. It is recommended that the PSRC review the ATM Project Architecture, and if making no further modifications, complete the merge by selecting the ATM Project Architecture and clicking the "Project to Region" button within the Turbo interface (See graphic on next page). This will upload the results of the project architecture so it is fully included within the main Regional Architecture, and in doing so completing the update.   If you would like we can complete this action for you.

For your review, a summary of recommendations and changes made to the PSRC electronic Regional ITS Architecture Turbo Database file are outlined below. In some cases, changes were a result of suggestions made by stakeholders and are not directly associated with the project. In most instances, this involved adding ITS elements that exist today but have not been previously captured within the Turbo database. This helped preserve knowledge of ITS activity occurring within the region, although not directly impacting the ATM or Tolling aspects of the Project Architecture.

1.   A new project architecture "WSDOT Active Traffic Management Architecture" was added to the Regional ITS Architecture database. This project architecture is representative of all the stakeholders and ITS elements associated with Active Traffic Management and Tolling in the Puget Sound Region.

2.   The ATM Project Architecture will add the following new stakeholders to the Regional Architecture. A complete listing of all ITS stakeholders associated with the ATM Project ITS Architecture can be viewed by selecting the stakeholders tab within the Turbo Architecture interface.

- ICM Corridor Cities/Counties (stakeholder group)
- States

Select WSDOT Active Traffic Management Architecture by clicking on it.

To merge the Project Architecture with the Regional Architecture click this button
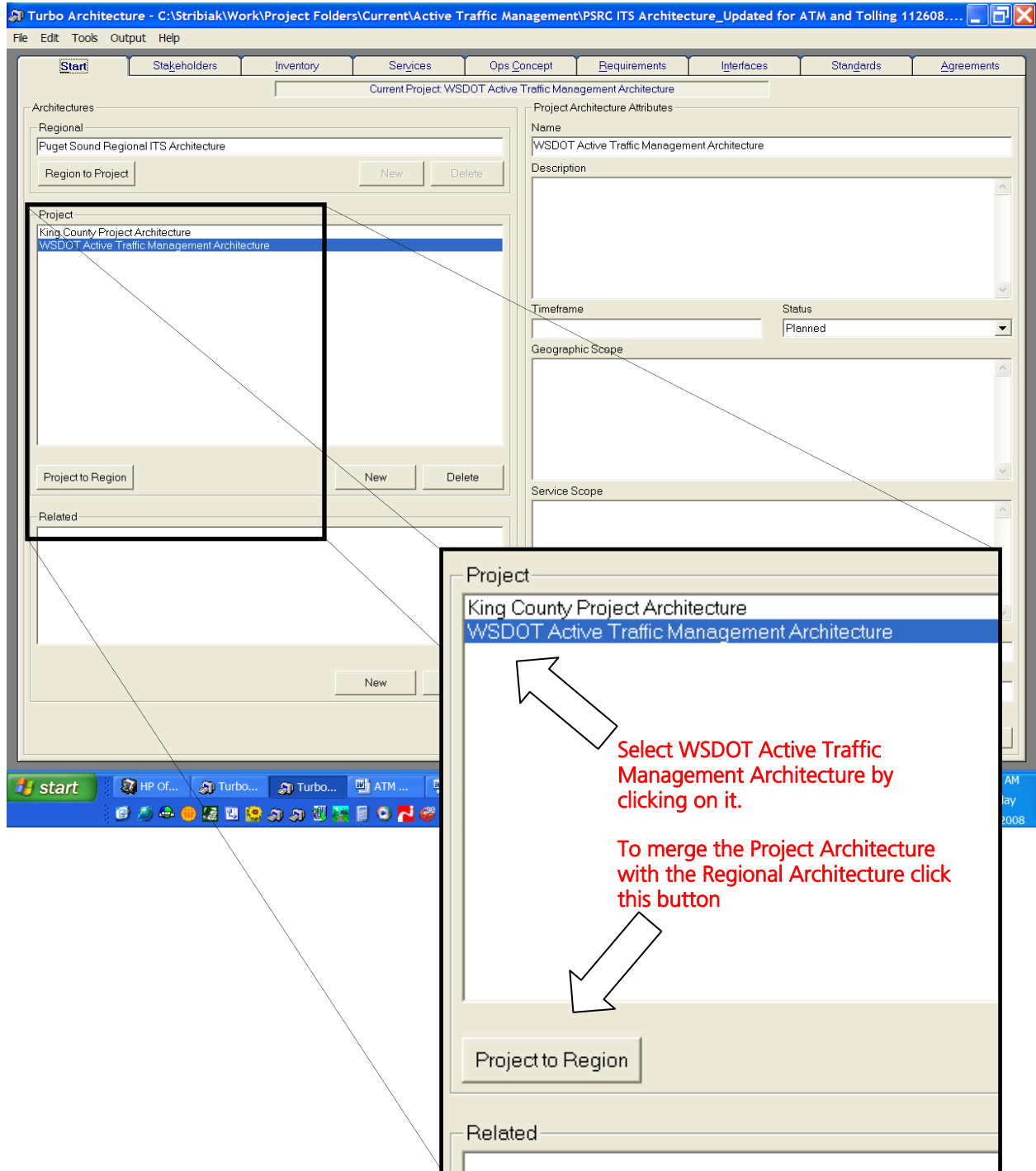
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3. The ATM Project Architecture will add the following new element instances to the Regional Architecture. Element instances allow a user to define more detailed information for a project architecture that are still traceable to an ITS element already defined in the Regional Architecture. For example, the PSRC Regional Architecture defines a "WSDOT ITS Field Devices" element. All element instances listed below fall under the parent element "WSDOT ITS Field Devices". A complete listing of all element instances that fall under the "WSDOT ITS Field Devices" element and other elements can be viewed by selecting the Inventory tab within the Turbo Architecture interface.

- WSDOT ATM Variable Speed Limit and Lane Control Signs
- WSDOT Highway Advisory Radio
- WSDOT Lane Control Signs
- WSDOT Ramp Meters
- WSDOT Travel Time Signs
- WSDOT Variable Speed Limit Signs

4. The ATM Project ITS Architecture will add the following new ITS elements to the Regional Architecture. A complete listing of all ITS elements selected as being applicable to the ATM Project Architecture can be viewed by selecting the Inventory tab within the Turbo Architecture interface.

- Local City and County Traffic Management Centers
- State Departments of Licensing
- Transit Management Centers
- WSDOT Freeway Data Accumulator
- WSDOT Shoreline TMC Achieve

5. The ATM Project Architecture will add the following new Market Packages to the Regional Architecture. A complete listing of all Market Packages selected as being applicable to the ATM Project Architecture can be viewed by selecting the Services tab within the Turbo Architecture software program.

- ATMS04: Freeway Control
- ATMS05: HOV Lane Management
- ATMS10: Electronic Toll Collection
- ATMS18: Reversible Lane Management
- ATMS21: Roadway Closure Management

6. The ATM Project Architecture will add the following user defined architecture flows to the Regional Architecture.

- toll traffic images_ud

In addition to the above user define architecture flow; the ATM Project Architecture will add several other standard architecture flows to the Regional Architecture. A summary of these interfaces is best viewed within the Turbo interface by clicking the interfaces tab, and viewing the columns "In Region" and "Include" (See graphic on following page). The boxes in the column "In Region" that are checked indicate architecture flows and interfaces currently reflected in the Regional Architecture (note: this is the as-is condition and does not reflect interfaces added from the ATM Project Architecture). The boxes in the column "Include" that are checked indicate flows and interfaces that

are included in the ATM Project Architecture. Once the project architecture is merged with the Regional Architecture the interfaces checked in the "Include" column will be merged with those already in the Regional Architecture. Upon completing this action, the checked interfaces in the column labeled "In Region" will match that of the "Include" column.

7. Lastly, a recent trend for ITS Architectures is to develop a dedicated, interactive website. The PSRC Regional Architecture is quite large and users may benefit from an interactive website, as it would increase accessibility to the architecture and allow users to access specific information faster. However, if developing an interactive website is not feasible, you may want to consider including the Turbo output within the body of the hardcopy document (with appropriate re-organization and formatting as necessary to be part of the larger document). I would consider the material that currently exists within the appendix of the hardcopy document to be the "meat" of the document. Moving it to the body of the document will make it more visible to readers.

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If you have any questions about the Turbo Architecture Database, or modifications made as a result of developing the ATM Project Architecture, please do not hesitate to contact me at (630) 897-9830, or Jason.stribiak@telvent.com.