How to Access and Use Turbo Architecture

The AKIA and ARIA turbo architecture files are available on the Iways ITS Architecture webpage. Turbo Architecture free online training is available by visiting the National ITS Architecture website:

http://www.iteris.com/itsarch/html/training/training.htm

Following the instructions on the National ITS Architecture website will direct the user to the National Highway Institute (NHI) website where the user can sign up for the Turbo Architecture training course.

This guide does not provide step-by-step instructions on how to perform tasks in Turbo Architecture. For high level of detail instructions, training for the Turbo Architecture software is available for free online via a sign-up process. For more information on how to receive online training, please refer to the following link:

http://www.iteris.com/itsarch/html/training/turbowebbasedtraining.htm

In addition, the user should be familiar with the overall scope of the architecture. The more the user understands the goals and purposes of the components of the architecture, the easier it is to understand how to use the AKIA Turbo Architecture file.

How is the ITS Architecture organized?

The ITS Architecture consists of two main products: the AKIA report document and the Turbo Architecture database file. The FHWA Rule 940 and FTA National ITS Architecture Policy on Transit Projects identifies components required in ITS architecture development. These components are listed below, along with where to find them within the architecture products.

- Description of the region
 - o Document
 - Section 1.1.1 Description of the Region
 - o Turbo Architecture File
 - A description of the region was not inputted into the Turbo Architecture file. However, the user may choose to do so in the *Start* tab if desired.
- List of stakeholders
- Document
 - Section 3.2 Stakeholder Outreach
 - Turbo Architecture File
 - Stakeholders tab of the respective service area
 - Operational concept

- o Document
 - Chapter 4 Operational Concept
 - Turbo Architecture File
 - Each service area is displayed as separate "Project architectures" that can be selected in the *Start* tab. The best way to examine the operational concept is to output a flow diagram for each service area. Do not mistake the *Ops Concept* tab in Turbo for operation concept in the document. The *Ops Concept* tab is actually for inputting stakeholder roles and responsibilities.

- Agency agreements
 - o Document
 - Chapter 7 Agreements
 - Turbo Architecture File
 - Agreements were not inputted into the Turbo Architecture file. However, there is an *Agreements* tab where agreements can be inputted if desired.
- Functional requirements

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- o Document
 - Appendix C: Functional Requirements
 - Turbo Architecture File
 - *Requirements* tab of the respective service area
- Existing and planned interconnects/flows
 - o Document
 - Appendix D: Architecture (Data) Flows & Flow Diagrams. Chapter 4 Operational Concepts also displays some flows in the diagrams. Chapter 5 Interfaces and Information Exchanges displays the interconnect diagram.
 - Turbo Architecture File
 - Interfaces tab
 - Applicable ITS standards
 - o Document
 - Chapter 6 Standards and Appendix E: Standards
 - Turbo Architecture File
 - *Standards* tab of the respective service area
 - Project sequencing

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- o Document
 - There was no project sequencing in this project.
 - Turbo Architecture File
 - N/A

The AKIA documents can help in understanding the architecture, which will help in using the Turbo file. The AKIA update document is broken up into seven major chapters and five appendices that outline the revamped architecture. These seven major chapters are as follows:

- Chapter 1: Introduction
 - This chapter provides an overview of the update process, including the contents of the report, the description of the region, timeframe, and purposes and objectives.
- Chapter 2: Background
 - This chapter summarizes the past events and projects that lead up to the implementation of the AKIA update.
- Chapter 3: Processes and Outcomes
 - This chapter mainly focuses on the key stakeholders involved in the AKIA update process.
- Chapter 4: Operational Concept
 - This chapter presents the service areas that were tailored from the National ITS Architecture to support the stakeholder needs and regional goals. This includes the architecture flow diagrams and the stakeholder roles and responsibilities in each service area.
- Chapter 5: Interfaces and Information Exchanges
 - This chapter displays an overview of the interconnects and flows used in the AKIA.
- Chapter 6: Standards

- This chapter discusses the standards that may be applicable to the flows identified in the ITS architecture.
- Chapter 7: Agreements
 - This chapter outlines any existing and future agreements within the region that may be required to implement the architecture service areas.

The architecture document also contains appendices that reflect the tables in the Turbo Architecture file:

- Appendix A: Glossary of Terms
 - This appendix provides a list of definitions for words used in the document as well as key words relating to the National ITS Architecture.
- Appendix B: Architecture Flow Definitions
 - This appendix differentiates user-defined flows and default National ITS Architecture flows used in the AKIA. It also provides a description of what the flow entails.
- Appendix C: Functional Requirements
 - This appendix provides the requirements of individual elements within each service area as well as the high-level status of each.
- Appendix D: Architecture Flows
 - This appendix presents the every flow documented in each service area. To aid in the interpretation of the flows, service flow diagrams are provided as well.
- Appendix E: Standards
 - This appendix displays the standards applicable to each service area.

Turbo Database Structure & Components

The Turbo Architecture file contains the physical ITS architecture for the state of Alaska. Use of the software allows for an easy comparison to the Anchorage Regional ITS Architecture (ARIA) and the National ITS Architecture. Any future updates to the National ITS Architecture should result in an update to the Turbo Architecture software to reflect those changes.

As the AKIA was updated, the same sequence outlined by the FHWA for developing an ITS architecture was followed. This process can be reviewed by examining the FHWA Regional TIS Architecture Guidance Document's flow chart:

http://ops.fhwa.dot.gov/publications/regitsarchguide/2procoverview.htm

In the Turbo Architecture software, there are 10 tabs comprising an ITS architecture. These 10 tabs are displayed at the top of the program interface as shown in Figure 1Figure 1.

File	Edit	Tools	Output He	lp						
Sta	irt [Planning	Stakeholders	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreements
				Curre	ent Region: Al	aska Iways Arc	chitecture			

Figure 1. Turbo Architecture Tabs

See below for a quick overview of the 10 tabs in the Turbo Architecture main interface:

- Start
 - This tab is where architectures can be managed within a single file. The user can create a regional architecture and multiple project architectures.

- Planning
 - The planning tab is where the transportation planning process objectives and strategies can be linked to the ITS architecture components. This tab was not used in the AKIA.
- Stakeholders
 - This is the tab where stakeholders are inputted into the architecture. Users can group similar stakeholders performing similar functions into a stakeholder group.
- Inventory
 - o This is where the user can input the ITS elements into the architecture
- Services
 - This tab allows for the user to associate elements inputted in the Inventory tab to National ITS Architecture defined service packages. **This tab was not used in the AKIA.**
- Ops Concept
 - The Operational Concepts tab allows for the user to specific the roles and responsibilities of the stakeholders in the architecture. Users can create project areas that narrow down the responsibilities to specific service packages.
- Requirements
 - This tab is where the user can specify the functional requirements of each architecture element.
- Interfaces
 - This tab is where the architecture interconnects and flows are built from the inputted data in the previous tabs.
- Standards
 - This tab contains a list of standards that apply to the selected flows in the interfaces tab. This list of standards is automatically populated based on the interface tab.
- Agreements
 - Users can input agreements amongst different stakeholder agencies in this tab. This tab was not used in the AKIA.

In summary, only seven out of the 10 available tabs in the software were used in the 2016 AKIA update. Therefore, it is only necessary to view those seven tabs because the remaining three have no information in them. The three tabs not used are the Planning, Services, and Agreement tabs.

Service Areas

Tailored flows were needed for the AKIA in order to reflect the needs of stakeholders in the State. Customizing service packages was not possible due to the lack of this capability in the Turbo Architecture software (version 7.1). A workaround was used to address this issue. Customized individual service areas were created as project architectures instead. By creating each service area as individual architectures, Turbo Architecture was able to display the tailored flows in project architecture flow diagrams.

In addition, the services tab was not used because the benefits of using service packages did not outweigh the work required for the implementation and maintenance of service packages in the AKIA. Creating service areas that consist of flows from varying service packages without using service packages themselves reduces extra steps and simplifies the architecture. By removing this extra layer of complexity, the AKIA becomes easier to use and maintain.

There are seven service areas created as a project architectures within the Turbo database. These seven service areas are labeled as:

- 1) AKIA: Traffic Management
- 2) AKIA: Winter Maintenance
- 3) AKIA: CVO and Freight
- 4) AKIA: Public Transportation
- 5) AKIA: Incident and Emergency Management
- 6) AKIA: Traveler Information
- 7) AKIA: Data Archive

These seven service areas are treated as project architectures and can be accessed in the *Start* tab as shown in Figure 2.

Region to	ays Architer Project		Curre	ent Region: Al	aska Iways /
Regional Alaska Iwa Region to Project 1) AKIA: Tr	ays Architer Project		New	D	elete
Alaska Iwa Region to Project	Project		New	D	elete
Region to Project 1) AKIA: Ti	Project		New	D	elete
Project	raffic Mana		New	D	elete
1) AKIA: TI					
1) AKIA: TI					
		10000000000000000000000000000000000000			
4) AKIA: Pi 5) AKIA: In 6) AKIA: Ti 7) AKIA: D ARIA:Arch ARIA:Arch ARIA:Road ARIA:Tran	VO and Fre ublic Transpicident and raveler Info ata Archive nive Data Se rial Manage	enance eight portation Emergency Man ormation ervices ement tenance and Cor ons			

Figure 2. AKIA Service Areas in Turbo Architecture

In this AKIA update, service areas were created as individual project architectures to create data flow diagrams that were better suited for the stakeholder needs. These project architectures use elements and stakeholders from the overall "regional architecture".

To access a service area, the user selects the service area project architecture from the *Start* tab. Once a service area has been selected from the *Start* tab, every tab that follows it applies to that service area (i.e. the stakeholders tab will only display stakeholders directly involved in that service area).

As mentioned, service areas were used instead of the National ITS Architecture service packages to tailor the architecture to the systems in Alaska. Essentially, these service areas are made up of components of service packages without directly using the service packages themselves. These service areas were created from scratch by adding individual elements and flows. Guidance from the National ITS Architecture website was useful in the creation of service areas from scratch without adding service packages and

modifying them. Users can gain access to information on the National ITS Architecture service packages by referring to the following link: <u>http://www.iteris.com/itsarch/html/mp/mpindex.htm</u>

To access a service area as a project architecture, the user would the user will select Service Area through the *Start* tab as shown in Figure 3.

	Planning	Stakeholders	Inventory	Services	Ops Concep	t Requirements	Interfaces	Standards	Agreement
			Curren	nt Project: 1)	AKIA: Traffic M	lanagement			
Architect	tures					Project Archite	cture Attribut	tes	
Regiona	al					Name			
Alaska	Iways Archite	ecture				1) AKIA: Traff	ic Manageme	nt	
Region	n to Project		New		Delete	Description			
Project									
1) AKIA	A: Traffic Man	agement							
177 11 10	A marne man	agement							
2) AKIA	A: Winter Main	tenance							
2) AKIA 3) AKIA	A: Winter Main A: CVO and Fr	tenance reight				Timoframo			Status
2) AKK 3) AKK 4) AKK	A: Winter Main A: CVO and Fr A: Public Trans	tenance reight	nagement			Timeframe			Status
2) AKU 3) AKU 4) AKU 5) AKU	A: Winter Main A: CVO and Fr A: Public Trans	tenance reight sportation d Emergency Mar	nagement			Timeframe			Status Planned
2) AKIA 3) AKIA 4) AKIA 5) AKIA 6) AKIA 7) AKIA	A: Winter Main A: CVO and Fr A: Public Trans A: Incident and A: Traveler Infr A: Data Archiv	tenance reight sportation d Emergency Mar ormation e	agement			Timeframe Geographic St	cope		
2) AKIA 3) AKIA 4) AKIA 5) AKIA 6) AKIA 7) AKIA ARIA: A	A: Winter Main A: CVO and Fr A: Public Trans A: Incident and A: Traveler Infi A: Data Archiv Archive Data S	tenance reight sportation d Emergency Man ormation re Services	agement				cope		
2) AKIA 3) AKIA 4) AKIA 5) AKIA 6) AKIA 7) AKIA ARIA: A ARIA: A	A: Winter Main A: CVO and Fr A: Public Trans A: Incident and A: Traveler Infi A: Data Archiv Archive Data S Arterial Managi	tenance reight sportation d Emergency Man ormation re Services ement					cope		
2) AKIA 3) AKIA 4) AKIA 5) AKIA 6) AKIA 6) AKIA 7) AKIA ARIA:A ARIA:A ARIA:A	A: Winter Main A: CVO and Fr A: Public Trans A: Incident and A: Traveler Infi A: Data Archiv Archive Data S Arterial Manag Roadway Main	tenance reight sportation d Emergency Mar ormation re Services ement itenance and Cor					cope		
2) AKIA 3) AKIA 4) AKIA 5) AKIA 6) AKIA 7) AKIA ARIA:A ARIA:A ARIA:R ARIA:T	A: Winter Main A: CVO and Fr A: Public Trans A: Incident and A: Traveler Infi A: Data Archiv Archive Data S Arterial Managi	tenance reight sportation d Emergency Mar ormation re Services ement itenance and Cor ions					cope		

Figure 3. Accessing a Service Area

Accessing Stakeholders

1) In the **Start tab**, select the Service Area you want to modify stakeholders for. In the AKIA, Service Areas are presented as **Project Architectures**:

Start - Planning	Stakeholders	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreemen
		C	urrent Project: 1)	AKIA: Traffic Manage	ement			
Architectures				Project Archite	cture Attributes			
Regional				Name				
Alaska Iways Architecture				1) AKIA: Traff	ic Management			
Region to Project		New	Delete	Description				
Project								
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight								
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance	/ Management			Timeframe		Stat	us	
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight 4) AKIA: Public Transportation 5) AKIA: Incident and Emergency 6) AKIA: Traveler Information	r Management			Timeframe			us nned	
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight 4) AKIA: Public Transportation 5) AKIA: Incident and Emergency	y Management			Timeframe Geographic S	cope			
()AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight 4) AKIA: Public Transportation 5) AKIA: Incident and Emergency 6) AKIA: Traveler Information 7) AKIA: Data Archive ARIA:Archive Data Services ARIA:Arterial Management					cope			
AKIA: Traffic Management AKIA: Winter Maintenance AKIA: CVO and Freight AKIA: Public Transportation AKIA: Public Transportation AKIA: Incident and Emergency AKIA: Incident and Emergency AKIA: Araveler Information AKIA: Araveler Information AKIA: Araveler Data Services					cope			

2) Once the Service Area has been selected, click on the **Stakeholders tab**:

Start	Planning	Stakeholders <	ventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreements
				Current Project: 1)	AKIA: Traffic Manage	ment			

3) Once you have selected the **Stakeholders tab**, the stakeholders belonging to that Service Area should appear. These are listed under the **Project Stakeholders** tab to the left:

Stakeholders Project Stakeholders	Autoselect	Stakeholder Attributes Name
		ADOTPF
ADOTPF/ Information Systems and Services Divisi	n	Description
ADOTPF/ Transportation Data Programs and Regio Sombined/ DMS Owners and Operators Combined/ Law Enforcement Agencies Sombined/ Public Sector Agencies Sombined/ Traffic Signal Owners and Operators Public or Private Sector Agency/ Public/ Travelers	nal Highway Data Sections	Generic element that includes Central, Northern, and Southcoast regions.
State of Alaska/ Division of Homeland Security and	Emergency Management	Stakeholder Group
		Included In
		Combined/ Public Sector Agencies

Accessing Architecture Elements

1) In the Start tab, select the Service Area of interest.

Start Planning Stal	akeholders	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreeme
		C	urrent Project: 1) A	AKIA: Traffic Manage	ement			
Architectures				Project Archite	cture Attributes			
Regional				Name				
Alaska Iways Architecture				1) AKIA: Traff	ic Management			
Region to Project	ſ	New	Delete	Description				
Project								
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight 4) AKIA: Public Transportation				-				
1) AKIA: Traffic Management 2) AKIA: Winter Maintenance 3) AKIA: CVO and Freight	agement			Timeframe		Stat	tus	

2) Once the Service Area has been selected, click on the **Inventory tab**:

Start	Planning	Stakeholders	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreements
				Current Project: 1)	AKIA: Traffic Manager	ment			

3) Once you have selected the **Inventory tab**, the elements belonging to that Service Area should appear. These are listed under the **Project Elements** tab to the left:

Current P	roject: 1) AKIA: Traffic Management	
Elements Project Elements	Element Attributes Name	
Center/ 3rd Party Traveler Information Services Center/ 511 (phone and web)	Center/511 (phone and web) Type	
Center/ 511 Internal Reporting	Normal	-
Center/ ADOTPF Regional Traffic Office Genter/ Information Systems and Services Division	Stakeholder Status (Current Project)	
Center/ Law Enforcement Dispatch	ADOTPF/ Information Systems and Services Division	-
Center/State Emergency Operations Center (SEOC)	Description	
Center/ Statewide/Regional Transportation Operations Centers Center/ Traffic Control Field/ Automatic Traffic Data Recorders Field/ Bluetooth and WiFi Sensors	511 Travel in the Know is a service to help travelers access continually updated travel information via phone and internet.	^ +
Field/ Cameras	Selected Subsystems/Terminators All Subsystems/Terminators	
Field/ Dynamic Message Signs Field/ Pre-emption and Priority Systems Field/ Traffic Detectors Field/ Traffic Dispan Controllers Field/ Traffic Optications Field/ Traffic Optications Field/ Traffic Optications	Information Service Provider (Subsystem)	

Accessing Architecture Flows

1) Within a Service Area, you can create Turbo's Flow Diagrams. In the **Start tab**, select the Service Area you want to create a flow diagram for.

Start	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreement
	C	urrent Project: 1)	AKIA: Traffic Manage	ement			
Architectures			Project Archite	cture Attributes			
Regional			Name				
Alaska Iways Architecture			1) AKIA: Traff	c Management			
Region to Project	New	Delete	Description				
3) AKIA: CVO and Freight 4) AKIA: Public Transportation 5) AKIA: Incident and Emergency Management			Timeframe		Stat	us	
6) AKIA: Traveler Information					Plan	ned	
			Geographic Se	cope			
7) AKIA: Data Archive							
7) AKIA: Data Archive ARIA:Archive Data Services ARIA:Arterial Management ARIA:Roadway Maintenance and Construction							
7) AKIA: Data Archive ARIA:Archive Data Services ARIA:Arterial Management ARIA:Roadway Maintenance and Construction ARIA:Transit Operations							
7) AKIA: Data Archive ARIA:Archive Data Services ARIA:Arterial Management ARIA:Roadway Maintenance and Construction							

2) Once the Service Area has been selected, click on the **Output menu**, then click **Diagrams...**:

Start Plann	Filtering	Ctrl+F	Services	Ops Concept	Requirements	Interfaces	Standards	Agreements
	Element Selection	Ctrl+E	Project: 1) A	KIA: Traffic Man	agement			
Architectures	Diagrams	Ctrl+D		Project Arc	hitecture Attribute	8		
Regional	Reports	Ctrl+R		Name				
Alaska Iways Archit	Tables	Ctrl+T		1) AKIA: Tr	affic Management			
Region to Project	Web Pages Document	Ctrl+W)elete	Description				

3) The **Diagrams window** will pop up. You can create several types of diagrams here. We will focus on the Flow Diagram. To create a Flow diagram for your Service Area, select the **Flow** option under **Diagram Type**:

Diagram Type	Filters
 Interconnect 	Elements
Flow	Settings
Saved Diagram Size	Preview
000,430	Batch
	Close

- 4) Once you have selected the Flow option, the other options become available. Most of these other options you won't need to use. If you just want to create a flow diagram for your entire Service Area, skip to **step 5**). There are three main options we can go over:
 - a. **Filters**: This option allows for you to change what is shown in your flow diagrams. You filter out your diagram to show different **Entities** (Classes and Types). You can also filter by different **Interconnects**, such as Center to Center connections only. Another option is to only show certain types of **Flows** such as existing or planned only. Finally, you can filter to show only certain **Service Packages**, which won't apply to the AKIA with no Services Packages.

Summary	Entities	Interconnec	ts Flows	Service Packages
	Filter Stat	us		
	Entities Interconnects Flows Service Packages		Off	
			Off Off	
			Off	

b. **Elements**: This option is essentially another filter. This allows for you to only show certain elements in your diagram.

er/ 3rd Party Traveler Information Services er/ 511 (phone and web) er/ 511 Internal Reporting er/ JADDTP Regional Traffic Office er/ Information Systems and Services Division er/ Law Enforcement Dispatch er/ State Wergency Operations Center (SEOC) er/ Statevide/Regional Transportation Operations Centers
er/ 511 Internal Reporting er/ ADDTPF Regional Traffic Office er/ Information Systems and Services Division er/ Law Enforcement Dispatch er/ State Emergency Operations Center (SEOC)
er/ADOTPF Regional Traffic Office er/ Information Systems and Services Division er/ Law Enforcement Dispatch er/ State Emergency Operations Center (SEOC)
er/ Information Systems and Services Division er/ Law Enforcement Dispatch er/ State Emergency Operations Center (SEOC)
er/ Law Enforcement Dispatch er/ State Emergency Operations Center (SEOC)
er/ State Emergency Operations Center (SEOC)
er/ Statewide/Regional Transportation Operations Centers
er/ Traffic Control
Automatic Traffic Data Recorders
Bluetooth and WiFi Sensors
Cameras
/ Dynamic Message Signs
Pre-emption and Priority Systems
/ Traffic Detectors
Traffic Signal Controllers
inator/ Driver
cle/ General Public Vehicle

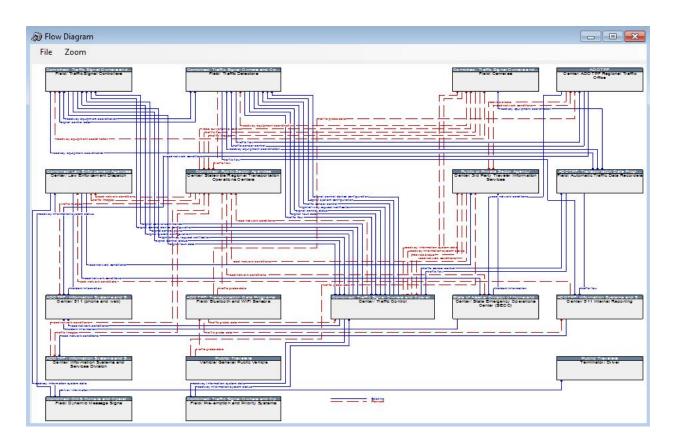
c. **Settings**: This option allows you to adjust the visuals of your diagram. You can change the shape and color of your elements, stakeholders, and flows. Additionally, you can change the line type of your flows.

Diagram Settings	×	Diagram Settings	X
Shapes Lines	Edit Shape Style and Color Shape Style Rectangle	Shapes Lines Diagram Lines	Existing' Style
Transportation Element with defined functions Stakeholder Transportation Element with no defined functions	Rectangle Include Stakeholder Title Title Background	Planned	
Communications Element	OK Apply Close		OK Apply Close

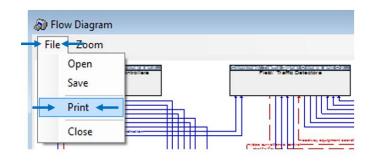
5) It is recommended that the Saved Diagram Size pulldown be changed to either Scale – Large or 1280x1024. This will allow for your diagrams to be printed more clearly on large sheets of paper if desired. Once that has been selected, click on Preview to generate your flow diagram:

Diagram Type Subsystem 	Filters
 Interconnect 	Elements
Flow	Settings
Saved Diagram Size	Preview
Scale - Large 🔻	Batch

6) Your generated flow diagram will look something like this:



7) To save/print your flow diagram you can either **Save** your flow diagram (it will generate your flow diagram into an image file) or you can **Print** your flow diagram. If you have a program that can read .PDF files, it is recommended you choose the Print option to both save and print the flow diagram. PDFs are easier to deal with in terms of sharing your diagram and printing. Click on the **File menu** at the top of the screen and then the **Print** option:



8) If you have a .PDF viewer that allows you to print to it, it should show up under the Name dropdown menu. Select your .PDF viewer and then click **OK** to save to .PDF:

Name:	PDF-XChange Printer 2012	Properties
Type: P	leady IDF-XChange 5.0 IDF-XChange5	Print to file
Print range All Pages	from: to:	Copies Number of copies: 1
Selection		123 123 Collate

9) Finally, name your new .PDF of your flow diagram and save it at your desired location. You now have a .PDF of your flow diagram for easy viewing and sharing.

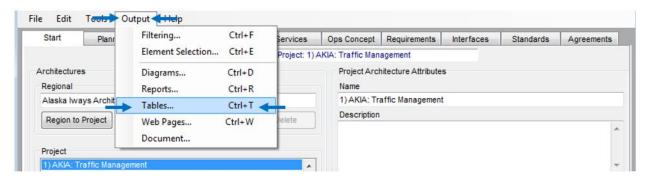
Accessing Tables

Tables can also be output from the Turbo Architecture software based on the data inputted. To output a table, the user would have to select *Tables* from the *Output* menu. Tables that can be created are listed below with tables included in the architecture in bold:

- Architecture Summary
- Change Log
- Planning
- Stakeholders
- Inventory
- Services
- Operational Concept
 - o Roles and Responsibilities Tables in Chapter 4
- Requirements
 - Functional Requirements Tables in Appendix C
- Interconnects
- Interfaces
 - o Architecture Flow Tables in Appendix D
- Flow Definitions
- Standards
 - o Standards Tables in Appendix E
- Standard Group Definitions
- Agreements
- Status Values
- Subsystems and Terminators
- 1) In the **Start tab**, select the Service Area you want to create a table for.

Start	Planning	Stakeholders	Inventory	Services	Ops Concept	Requirements	Interfaces	Standards	Agreement
			C	urrent Project: 1)	AKIA: Traffic Manage	ement			
Architectures					Project Archite	cture Attributes			
Regional					Name				
Alaska Iways Arch	hitecture				1) AKIA: Traffi	c Management			
Region to Project	7		New	Delete	Description				
Region to Project			New	Delete					
Project									
1) AKIA: Traffic Ma	lanagement				<				
2) AKIA: Winter Ma									
3) AKIA: CVO and	f Freight								
3) AKIA: CVO and 4) AKIA: Public Tra	Freight ansportation	Management			Timeframe		Stat	us	
3) AKIA: CVO and	I Freight ansportation and Emergency I	Management			Timeframe				
3) AKIA: CVO and 4) AKIA: Public Tra 5) AKIA: Incident a 6) AKIA: Traveler In 7) AKIA: Data Arch	I Freight ansportation and Emergency I Information hive	Management						us nned	
3) AKIA: CVO and 4) AKIA: Public Tra 5) AKIA: Incident a 6) AKIA: Traveler II 7) AKIA: Data Arch ARIA:Archive Data	I Freight ansportation and Emergency I Information hive a Services	Management			Timeframe Geographic So	cope			
3) AKIA: CVO and 4) AKIA: Public Tra 5) AKIA: Incident a 6) AKIA: Traveler li 7) AKIA: Data Arch ARIA: Archive Data ARIA: Arterial Mana	I Freight ansportation and Emergency I Information hive a Services lagement					cope			
3) AKIA: CVO and 4) AKIA: Public Tra 5) AKIA: Incident a 6) AKIA: Traveler li 7) AKIA: Data Arch ARIA:Archive Data ARIA:Arterial Mana ARIA:Roadway Ma	I Freight ansportation and Emergency I Information hive a Services lagement laintenance and					cope			
3) AKIA: CVO and 4) AKIA: Public Tra 5) AKIA: Incident a 6) AKIA: Traveler li 7) AKIA: Data Arch ARIA: Archive Data ARIA: Arcterial Mana	I Freight ansportation and Emergency I Information hive a Services agement aintenance and rations					cope			

2) Once the Service Area has been selected, click on the **Output menu**, then click **Tables...**:



3) The **Tables window** will pop up. You can create several types of tables here. Click on the **Select Table dropdown menu** to select the table you want to generate:

1				Filters
Architecture Summai \$ Change Log Planning Stakeholders Inventory Services Operational Concept Requirements Interfaces Interfaces Row Definitions Standards Standard Group Defi		S	elected Colum	
Agreements Status Values Subsystems and Ter	minators			
Status Values Subsystems and Ter Select Action	minators Save to File	0.00	en Application	

4) After selecting the table you want to create, you can choose which columns Turbo will generate for that table. The columns available are unique to each table. We will focus on the tables presented in the AKIA report. Below is the list of tables used in the AKIA report and what is needed to generate them:

a. Architecture Flows Table (labeled as the Interfaces table in Turbo): These tables exist in Appendix D of the AKIA report. These tables summarize all of the flows that is included in your selected Service Area, including the source element, the flow name, the destination element, and the status of that flow. To create this table, you need to have flows "Included" in the Interfaces tab. Here are the columns selected to generate the tables in the AKIA:

Interfaces	Filters
2. Select Columns Available Columns	Selected Columns
Comment	Source Element Flow Name Destination Element Project Flow Status
3. Select Action	

b. **Flow Definitions Table** (also labeled as **Flow Definitions** table in Turbo): These tables exist in Appendix C of the AKIA report. These tables provide the National ITS Architecture definitions of each flow used in the Service Area. To create this table, you need to have flows "**Included**" in the Interfaces tab. Here are the columns selected to generate the tables in the AKIA:

Flow Definition	15	•	Elements
Select Columns			Filters
Available Colur	nns	Selecte	d Columns
Row Kind Futuristic Flow Type Replaces		Image: Power of the second	ame escription
. Select Action	Save to File	Open App	lication
. Create Output			

c. **Functional Requirements Table** (labeled as the **Requirements** table in Turbo): These tables exist in Appendix B of the AKIA report. These tables summarize what each element can do in the Service Area. To create this table, you need to have the Requirements tab completed for the elements in the Service Area. Here are the columns selected to generate the tables in the AKIA:

Requireme	nts	•	
(Filters
Select Colum	ins		
Available C	olumns	Selected	Columns
Entity Nam Functional FA User D Requireme	Area Description efined	> Element Functio Require	nal Area
Status		>>	
Req User I		<	
Select Action	Save to File	💿 Open App	lication

d. Roles & Responsibilities Table (labeled as the Operational Concept table in Turbo): These tables exist in Section 4 Operational Concept of the AKIA report. These tables summarize the roles and responsibilities of each stakeholder within the Service Area. To create this table, you need to have the Ops Concept tab completed for the Service Area. These roles and responsibilities are manually entered by the maintainer for each stakeholder in the Ops Concept tab. Here are the columns selected to generate the tables in the AKIA:

Operational Concept	-
	Filters
. Select Columns Available Columns	Selected Columns
RR Area Name RR Area Description	> Stakeholder RR Description RR Status
. Select Action	<
 Save to File 	Open Application
Create Output	

e. **Standards Table** (also labeled as the **Standards** table in Turbo): These tables exist in Appendix E of the AKIA report. These tables summarize the applicable USDOT ITS Standards for each flow in the Service Area. To create this table, you need to have flows "**Included**" in the Interfaces tab. Here are the columns selected to generate the tables in the AKIA:

Standards	▼ Filters
. Select Columns	
Available Columns	Selected Columns
Group Standard Version	Document ID Standard Title Standard Title Standard Type User Defined Source Element Destination Element Row Name <
9. Select Action Save to File 9. Create Output	Open Application

5) Once you have selected the columns for your table, you can select to either Save to File or Open Application. Select the action you want then click on the type of output you want. You can choose between Word, Excel, or Text. It is recommended that you choose the Word output if you are updating the AKIA report. This allows for you to easily copy and paste the tables into the report:

Standards	Filter	rs
Select Columns	<u></u>	
Available Columns	Selected Columns	
Group Standard Version	SDO Document ID Standard Trije Standard Trije User Defined Source Element Flow Name	
Select Action	Open Application	

6) Once you've clicked on your desired Output, Turbo will either Save your file to a location of your choosing, or open the file based on the type of output you've selected. You have now successfully generated a table.