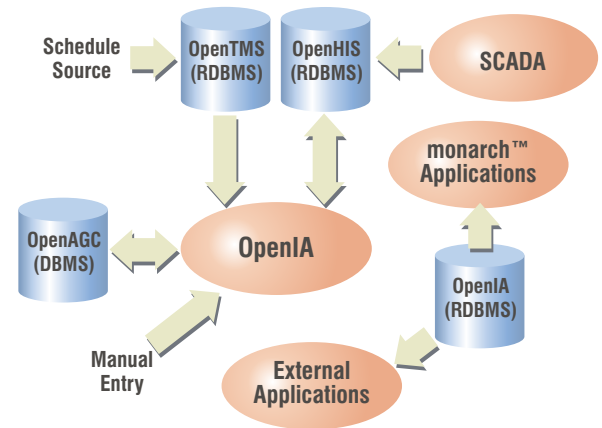


# OpenIA

## Inadvertent Accounting

Inadvertent Interchange, if not accounted for correctly, can significantly affect the bottom-line of Operations in both a financial and compliance sense. The concept is simple: monitor the difference between a net actual and net planned interchange. However, keeping track of the details of the ultimate net can be a daunting task given the potential number of entities and tie points with which energy exchanges are made.

**OpenIA™** provides a Web-based Graphical User Interface (GUI) that is simple and elegant. All net scheduled and actual interchange information is viewed within a single browser window that supports multiple simultaneous view panels. Through this GUI, the user is able to view several layers of the inadvertent situation. A system-level view exposes only an hourly report of the system-wide inadvertent per primary control authority (half-hour and quarter-hour accounting is also supported). More detailed information can be found in reports that summarize the errors on a per-interchange entity and per-tie basis. Information overload is avoided through the use of pre-defined and user-defined views that provide powerful filtering, allowing the user to quickly focus on exchange entities of interest. These same reports can be used to perform manual after-the-fact corrections that are automatically propagated through each forward period's inadvertent value.



OpenIA System Interfaces

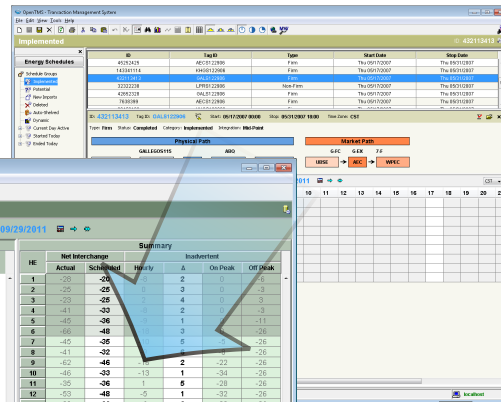
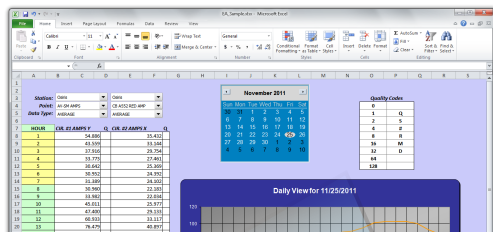
**OpenIA** provides up-to-the-hour inadvertent information to the Automatic Generation Control (**OpenAGC™**) function for real-time implementation of unilateral payback. Additionally, for users who reside in the Western Electric Coordinating Council (WECC) footprint, **OpenIA's** core algorithm is able to compute Primary Inadvertent values that are imposed into the Area Control Error (ACE) equation for a combined effect of inadvertent payback and time error correction.

		Tie Lines						Summary						
		Green Line			Orange Line			Net Interchange			Inadvertent			
HE		In	Out	Net	In	Out	Net	Actual	Scheduled	Hourly	Δ	On Peak	Off Peak	
1		-20			-18	-20	10	-10	-28	-20	-8	2	0	-6
2		-23	10	-13	-25	13	-12	-25	-25	0	3	0	-3	
3		-25	13	-12	-25	14	-11	-23	-25	2	4	0	3	
4		-35	14	-21	-33	13	-20	-41	-33	-8	2	0	-3	
5		-32	9	-23	-36	14	-22	-45	-36	-9	1	0	-11	
6		-46	18	-28	-48	10	-38	-66	-48	-18	3	0	-26	
7		-33	10	-23	-35	13	-22	-45	-35	-10	5	-5	-26	
8		-36	13	-23	-32	14	-18	-41	-32	-9	6	-6	-26	
9		-48	14	-34	-46	18	-28	-62	-46	-16	2	-22	-26	
10		-33	10	-23	-33	10	-23	-46	-33	-13	1	-34	-26	
11		-25	13	-12	-36	13	-23	-35	-36	1	5	-28	-26	
12		-33	14	-19	-48	14	-34	-53	-48	-5	1	-32	-26	
13		-39	13	-26	-43	13	-30	-39	-33	-6	6	-32	-26	
14		-46	14	-32	-36	14	-22	-54	-36	-18	0	-50	-26	
15		-33	10	-23	-48	10	-38	-61	-48	-13	2	-61	-26	
16		-36	13	-23	-35	13	-22	-45	-35	-10	3	-68	-26	
17								0	0	0		-68	-26	
18								0	0	0		-68	-26	
19								0	0	0		-68	-26	
20								0	0	0		-68	-26	
21								0	0	0		-68	-26	
22								0	0	0		-68	-26	
23								0	0	0		-68	-26	
24								0	0	0		-68	-26	

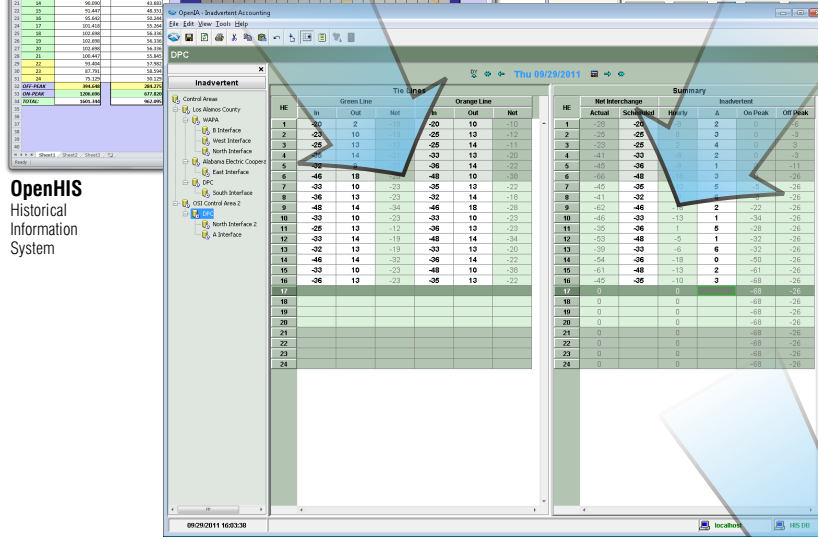
Continued...

Significant features of **OpenIA** include:

- Seamless integration with **OpenTMS™** (Transaction Management System) to retrieve schedule interchange values. Changes to schedules within **OpenTMS** can be propagated to **OpenIA** as after-the-fact adjustments
- Seamless integration with **OpenHIS™** (Historical Information System) to retrieve tie line accumulations from history at a configurable number of minutes past the top of each hour, half-hour or quarter hour
- A unified GUI that pulls information from multiple sources (**OpenTMS** and **OpenHIS**) into a single view. The GUI also allows for manual adjustments and, in the case of meter correction, accumulator values are updated back to **OpenHIS**
- Support for the calculation of Primary Inadvertent quantities, as required by the WECC
- Automatic delivery of inadvertent information to **OpenAGC** for real-time implementation of corrections. Deliveries are made at the top of each hour, half-hour or quarter-hour and in response to manual corrections that effect the current period's information
- Support for on- and off-peak time period considerations, including the definition of holidays



**OpenTMS**  
Transaction Management System



**OpenHIS**  
Historical Information System

**OpenAGC**  
Automatic Generation Control

## OpenIA Inadvertent Accounting



Product specifications in this document are subject to change without notice.