

# Subject: Using the Decision Support System (DSS) Custom Automated Data Delivery (CADD)

Statement: NYISO customers now have the ability to create automated processes through which they may download any data residing in the NYISO DSS system. The data can be downloaded in either Comma Separated Value (CSV) or XML format. This new functionality (CADD) has no effect on the existing ADD system.

## **Details:**

## Summary:

This Technical Bulletin addresses the following topics relating to CADD:

- Creating Documents for CADD.
- Scheduling Documents for CADD.
- System Automation for Data File Retrieval from CADD.

This Technical Bulletin assumes that Users have a valid digital certificate, a DSS account, and are currently logged into the DSS web environment. The table below compares ADD to CADD:

	ADD	CADD
Interactive User Actions	<ul><li>Log in</li><li>Submit a request for a file</li></ul>	<ul> <li>Log in</li> <li>Create a WebIntelligence Document</li> <li>Schedule the Document to be Automatically Refreshed</li> </ul>
When files are available	No files are displayed until ALL files are complete.	Each file is made available as soon as it is created.
Automated System Actions	Scripts to Automate the Machine to Machine download of the data files.	Scripts to Automate the Machine to Machine download of the data files. These scripts must include error-handling logic.

The purpose of this "Technical Bulletin" is to facilitate participation in the NYISO by communicating various NYISO concepts, techniques, and processes to Market Participants before they can be formally documented in a NYISO manual. The information contained in this bulletin is subject to change as a result of a revision to the ISO Tariffs or a subsequent filed tariff with the FERC.



### **Creating Web Intelligence Documents for CADD**

For detailed information on creating documents, please refer to Online Resources for the DSS on NYISO's Market Training website. Below is a brief summary for creating a Web Intelligence document.

1. From within DSS, click on 'Applications' then 'Web Intelligence' in the top navigation bar. (See Figure 1)

#### Figure 1: NYISO DSS Web Intelligence Link

Welcome:	Applications ▼ Preferences Help menu ▼   Log off
Home Documents	Web Intelligence
O Home   O Admin Page	

2. Then select the New document icon. (See Figure 2)

Figure 2: NYISO DSS Web Intelligence New Document Icon

<b></b> 150	Decision Support System	Welcome:	I	Applications •	Preference	s Help men	iu 🔻 🕴 Log off
Home Documents	Web Intelligence 🕫 ቱ 🛛						
Web Intelligence	▼ 🗋 🌮 🔚 ▼   🖧 ▼ Mh   🌮 🖆 🖂 ▼	90 B.		😰 Track 🔹	🖵 Drill 🔹 🎙	Filter Bar	Freeze 🔹 🤅



3. On the 'Create a Document' screen select 'Universe'. (See Figure 3)

Figure 3: NYISO DSS Web Intelligence Create a Document Screen

Create a document	<b>?</b> ×
Select a data source	
No data source Create an empty document	
Select a universe as a data source	
OK	icel

4. On the Universe screen, select a universe to create a query against. (See Figure 4)

Figure 4: NYISO DSS Web Intelligence Select a Universe Screen

Universe	3 \$
elect a universe for the query.	
Available Universes:	🐯 Refresh universe list
Name 🔺	
Cust Sttlmt - Demand Response	
Cust Sttlmt - Invoice Support	
Cust Sttlmt - ISO RTO	
Cust Sttlmt - Loads	
Cust Sttlmt - Loads AncServ	
Cust Sttlmt - Power Suppliers	
Cust Sttlmt - PowerSupplrs AncServ	
Cust Sttlmt - Regulated Transmission Project	
Cust Sttlmt - TCC	
Cust Sttlmt - Transactions	
Cust Sttlmt - Transactions AncSer	
Cust SttImt - Transmission Owners	
Cust SttImt - Virtual Market	
Public Market-Grid and Load Data	
Public Market-Pricing Only	
< III	•
3 Help on selected universe:	
This universe provides access to customer settlements da	ata for NYISO Demand Response
customers (providers and load serving entities). It contain calculation results, the required billing determinants (i.e.	Incentive settlement, Reduction
	OK Cancel



5. In the respective Query panel (See Figure 5), add objects to Result Objects (top right pane) that you want to receive in your file. Users must also include an object in Query Filters (middle right pane) from the "Custom ADD Filters" class.

🔁 Query Panel	@ ×
📅 Add Query 👻 🔲 🤯 😭	Run Query 🔊 Close 🔻
🔆 Universe outline	🖪 Result Objects 🥂 X 🕺 🕨 🕨
Master perspective  Master perspective  Type here to filter on the tre  Type here to filter on the tre Type here to	Interval Day-Version Org Name Gen Name W Day DAM Energy Stimnt: Gen (\$) Day DAM Loss Stimnt: Gen (\$) Day Total DAM Stimnt: Gen (\$) Aury Filters Aury Carlos Aury Carlos Aury Carlos Aury Carlos
<ul> <li>✓ All Bill Days Loaded Today</li> <li>✓ All Bill Days for Cur Mo Load Today</li> <li>✓ All Bill Days for Cur Mo Load Today</li> <li>✓ All Bill Days for Latest Invc Mnths</li> </ul>	
<ul> <li></li></ul>	
E Peport Objects      Query 1	Type a text to filter the values

Figure 5: NYISO DSS Web Intelligence Query Panel Screen

- 6. After adding all of your objects to Result Objects and a Date type object to Query Filters, click the Run Query button on the top right of the Query Panel. (See Figure 5)
- 7. Confirm that the output contains the rows and columns that you want to receive in the file to be downloaded.
- 8. Save the document to your Favorites Folder. Close the document.



#### Scheduling Documents for retrieval via CADD

9. Navigate to your 'My Favorites' folder. From within DSS, click on 'Documents' in the top navigation bar. (See Figure 6)

#### Figure 6: NYISO DSS Documents Tab

Decision Support System	Welcome:	Applications  Preferences Help menu  Log off
Home Documents     Home Documents		Web Intelligence

10. Select 'My Documents' and then select the 'My Favorites' folder (See Figures 7a and 7b)

<b>_</b> [5	Decision Support System	
Home Docume	ents	
View - New	Organize 🔻 More Actions 🝷 Details	
My Documents		
Folders		
🗄 💼 Public Fold	lers	

Figure 7a: NYISO DSS My Documents

Figure 7b: NYISO DSS My Favorites





11. Right mouse click on the Web Intelligence report that you want to schedule. Then select 'Schedule' option from the menu list. (See Figure 8).

#### Figure 8: NYISO DSS Schedule Option

Decision Support Syste	m	Welcome	: hartkel1	Applications   Pr	eferences Help	menu 🔻   Log off
Home Documents						
View • New • Organize • More Actions • Details	;					
My Documents		Title 🔺		Туре	Last Run	Instances
Wy Favorites Wy Favorites Inbox Wy Alerts Subscribed Alerts	1	test CADD	View Propertie View Line View Met	is eage tapedia Terms		0
Emersonal Categories			Modify Schedule Mobile Pr	roperties		
			Categorie	es nt Link		
			New Organize Details	>		



12. The 'Schedule' Screen will be displayed. Select 'Instance Title'. Enter the report title. The report title **MUST** include the text string (CADD) somewhere in the title name. (See Figure 9a)

Schedule – test CADD		$2 \equiv \times$
<ul> <li>Schedule</li> <li>Instance Title</li> <li>Recurrence</li> <li>Prompts</li> <li>Formats</li> <li>Caching</li> <li>Events</li> <li>Scheduling Server Group</li> <li>Destinations</li> </ul>	Instance Title [test CADD (CADD)	Cancel
	< <u>III</u>	•

Figure 9a: NYISO DSS Schedule CADD Instance Title Selection

13. Select 'Recurrence' (See Figure 9b) for the desired report refresh frequency (i.e. Daily, Weekly) and select the preferred run time.

Figure 9b: NYISO DSS Schedule CADD Recurrence Selection

Schedule   Instance Title   Recurrence   Formats   Caching   Events   Scheduling Server Group   Destinations     Schedule     Schedule     Cancel	redule – test CADD 🖇 🚍 🕅	\$
	Schedule Instance Title Recurrence Formats Caching Events Scheduling Server Group Destinations	



14. Select 'Prompts' (See Figure 9c) if your report contains prompts. You must set the prompts prior to scheduling.

Schedule – test CADD		? ⊑	$\times$
<ul> <li>Schedule         <ul> <li>Instance Title</li> <li>Recurrence</li> <li>Prompts</li> <li>Formats</li> <li>Caching</li> <li>Events</li> <li>Scheduling Server Group</li> <li>Destinations</li> </ul> </li> </ul>	Prompts Modify values for: test CADD Select Gen Name or enter * for all Gen * Names		
	Schedule Can	cel	-

Figure 9c: NYISO DSS Schedule CADD Prompts Selection

15. Select 'Formats' (See Figure 9d) and click the Web Intelligence check box.

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Figure 9d: NYISO DSS Schedule CADD Formats Selection
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Schedule – test CADD	? ⊟ ×
<ul> <li>Schedule         <ul> <li>Instance Title</li> <li>Recurrence</li> <li>Prompts</li> <li>Formats</li> <li>Caching</li> <li>Events</li> <li>Scheduling Server Group</li> <li>Destinations</li> </ul> </li> </ul>	Formats  Output Format  Web Intelligence Microsoft Excel Adobe Acrobat Comma Separated Values(CSV) Plain Text  Schedule Cancel  Cancel



16. Select 'Destinations' (See Figure 9e) and select BI Inbox in the drop down box. Move user name from Available Recipients to Selected Recipients using the right arrow. Click the 'Schedule' button

Cebadula	Destinations				
schedule	Desunation:				
Instance Title	BI Inbox				
Recurrence	Keen an instance in the history				
Prompts	Use default settings				
Formats					
Caching	Available Recipients:			Selected Recipients	
Events		Find Title			×.
Cabadulian Canua Canua	La A Harry Link	Title A	Full Name		_
Scheduling Server Group	User List		T un Manie		
Destinations	🕀 🏜 Group List	No	Items	<b>—</b>	
	Target Name: Use Automatically Generated Nam Use Specific Name Add File Extension Send As: Shortcut Copy	ne Add Pla	iceholder 💌		
				Schedule	lanc

Figure 9e: NYISO DSS Schedule CADD Destinations Selection

17. The User will be shown the instances for that document (at the time the document is scheduled only one instance will exist). (See Figure 10)

Figure 10: NYISO DSS Schedule Instances Screen

/iew	v * Organize * Ser	nd 🔹 🛛 More Actions 👻					
7						🍣 🛛 🕅 🔺 📘 of 1	E.
	Instance Time 🔻	Title	Status	Created By	Туре	Parameters	
2	Nov 24, 2015 9:12 PM	test CADD (CADD)	Success		Web Intelligence	*	1



## System Automation for Report Retrieval from CADD

Once the documents are scheduled, and being delivered to the User's BI Inbox on a recurring basis, Market Participants may retrieve the contents of those documents through automated/ third party systems rather than through the interactive browser interface. The following describes the automated processes.

Since access to the DSS application requires authentication via the use of digital certificates, an application program will need to handle the exchange of web server and client certificates that occurs as part of the handshake before an SSL connection is established during automated processes. Use of a particular certificate store or client certificate will also require special processing.

Participants may programmatically access the DSS Inbox CADD File interface. To do so, the application will need to issue a 'GET' or 'POST' HTTP request to the upload/download program at the following URL:

#### https://dss.nyiso.com/dss/login.jsp?user=\*\*\*\*&pass=\*\*\*\*&automated=3

Market Participants should use their actual DSS userid and password in the place of user=\*\*\*\*&pass=\*\*\*\*

Use of the 'POST' request method is recommended to avoid the limitations on content length that occur with the 'GET' request. Use of uppercase in the request verb is also recommended.

The above URL will return a comma delimited list of Document Ids, Document Names, Document Size (equal to zero \*retained for backwards compatibility), Document Type, Date that the contents were generated, and an error message if one exists. Examples of results of above link are below:

417433,PS-Daily Results,0,wid,09/11/2015 21:38, 417446,LSE-Daily Results,0,wid,09/11/2015 21:58, 417729,Trans-SCD Results,0,wid,09/10/2015 03:01, 417732,LSE-SCD Results,0,wid,09/09/2015 18:21,

To retrieve the individual file content for each document, the automated process must extract the Document Names and Document IDs from the list provided by the url above, and substitute them into the following URL:

https://dss.nyiso.com/dss/scripts/dssCADDRetreiveFile.jsp?ID=\*\*\*\*\*&fileName=\*\*\*\*&fileType=xxx



FileType must also be specified. Replace xxx with either XML or CSV (File Type is case sensitive).

To delete the documents from the Inbox after retrieving their contents, use this URL:

## https://dss.nyiso.com/dss/scripts/dssCADDdeleteFile.jsp?ID=xxxxx&fileName=xxxxxx

where ID is the Document ID and fileName is the document name.

All Users should note that after retrieving their files, they must log-out of the automated environment with the following URL:

#### https://dss.nyiso.com/dss/scripts/dssADDAutomationLogout.jsp

#### **Other Important Notes:**

- 1. After downloading files in XML format, do not use the tag names or the object ids to identify each data column. Tag names and object ids have the potential to change without notice. Use "Index" number for identifying columns within the data.
- 2. After downloading files in CSV format, do not use column headers to identify each data column, as they have the potential to change without notice. Use the position of the data column to identify columns within the data.
- 3. The files will all be in zipped format and must be unzipped by each User's automation routine.
- 4. If including Org Name as one of the objects in the Web Intelligence document, use the object titled: Org Name – Custom ADD. This object will remove the commas from the Org Name so it will not interfere with the parsing of the comma separated values files.

This Technical Bulletin is not currently expected to be incorporated into a NYISO Manual/User Guide.