



Automated Dispatch System (ADS) Enhancements

Operating Systems Improvement (OSI) Project
Independent Release 2022

October 18, 2022

What we'll cover in this presentation



Part 1: ADS Enhancements



- What is changing?

Part 2: Timelines



- Unstructured Market Simulation
- Production date

Part 3: Documentation



- Where to find more information

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There are two enhancements that are being made to ADS

Ability to update/override
existing configuration

Updates to instruction grid

Let's break this down...

OSI ADS Enhancements

UPDATE & OVERRIDE EXISTING CONFIGURATIONS

To access private display profiles, begin by clicking on Configurations

Configurations

Interval	RT DOT/FR	Hourly DOT	Exceptional	Commitment	FMM AS	Hourly AS	Opr Instruction	AS Test
Current Interval	14:25-14:30	14:00-15:00	Active	14:15-14:30	14:15-14:30	14:00-15:00	Active	
Dispatch Interval	14:30-14:35	15:00-16:00	Fixed Max Min	14:45-15:00	14:45-15:00	15:00-16:00	OPR INS	
Received/Status	14:26:19	13:57:39	14:26:19	14:16:46	14:16:55	13:57:54	Idle	Idle

Valid	Res Type	Resource ID	Config ID	DOT Type	SC ID	RT Prev DOT	RT DOT	RT DOT Delta	Current DOT Delta	DOT Start Time	DOT End Time	RTD FRD	RTD FRU	ED Fixed	ED Max	ED Min	Unit Commitment	Commitment Start Time	Commitment End Time	Commitment To Config	FMM Dispatch Energy	Current AS Total	Current Spin	Dispatch AS Total	Dispatch Spin	Dispatch Non Spin	Dispatch Regl Up	Dispatch Regl Down	AS Test Constraint MW	Opr Ins Start Time	Opr Ins Reason	Priority	Base Schedule
GEN				DOT		18.77	18.44	-0.33		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		17.51	12.39	-5.12		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				2	0.00		
GEN				DOT		0.34	0.34	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		8.00	8.00	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		10.83	11.89	1.06		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				2	0.00		
GEN				DOT		5.16	8.73	3.57		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				2	0.00		
GEN				DOT		0.00	0.00	0.00		14:32		0.00	0.00								20.70	0.00	0.00	0.00	0.00	0.00	0.00			3	0.00		
GEN				DOT		0.00	0.00	0.00		14:32		0.00	0.00								46.00	0.00	0.00	0.00	0.00	0.00	0.00			3	0.00		
GEN				DOT		262.45	257.83	-4.62		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				2	0.00		
GEN				DOT		117.18	115.89	-1.29		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				2	0.00		
GEN				DOT		608.01	608.01	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		13.00	13.00	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		20.00	20.00	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		
GEN				DOT		20.00	20.00	0.00		14:32		0.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00				3	0.00		

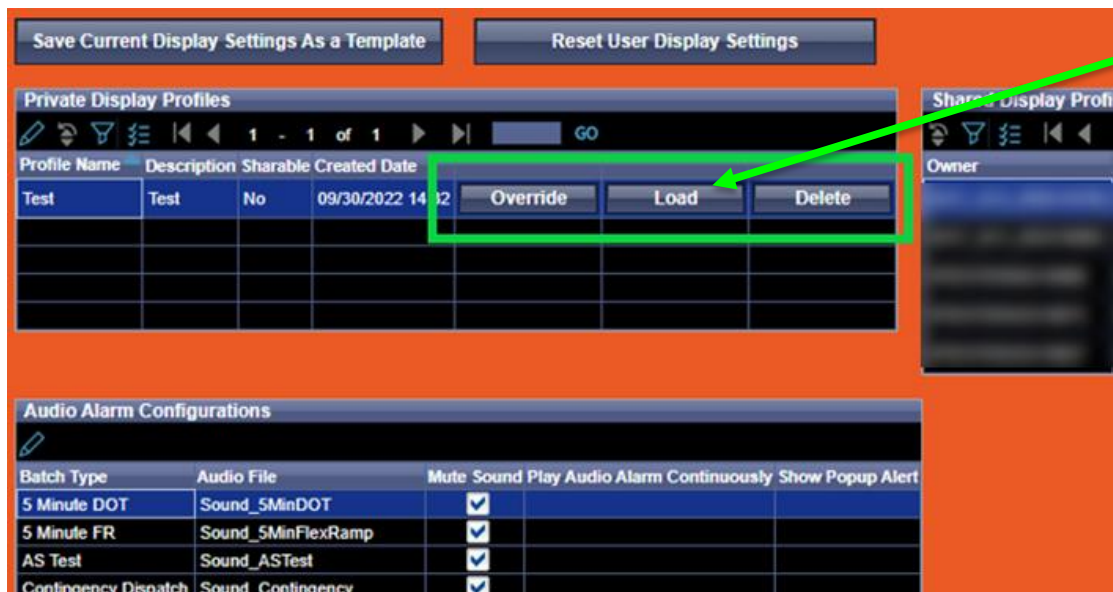
Trajectory Plot

Instructions - Resource ID

Valid	Instruction Type	Accept DOT	Accept Status	Award MW	ED Energy Code	Instr MW	Min Accept	Self Sched MW	Sched MW	Start Time	End Time	Prev Goto	Response	From Config Id	To Config Id
FRD						0.00				14:45	15:00				
FRU						0.00				14:45	15:00				
DOT		18.44				18.44				14:32		18.77			
FRD						0.00				14:30	14:45				
FRU						0.00				14:30	14:45				
FRD						0.00				14:30	14:35				
FRU						0.00				14:30	14:35				
DOT		18.77				18.77				14:27		18.80			
FRD						0.00				14:25	14:30				
FRU						0.00				14:25	14:30				
DOT		18.80				18.80				14:22		18.82			
FRD						0.00				14:20	14:25				
FRU						0.00				14:20	14:25				

The Configurations section allows ADS users to view, load, delete and now override private display profiles.

Load



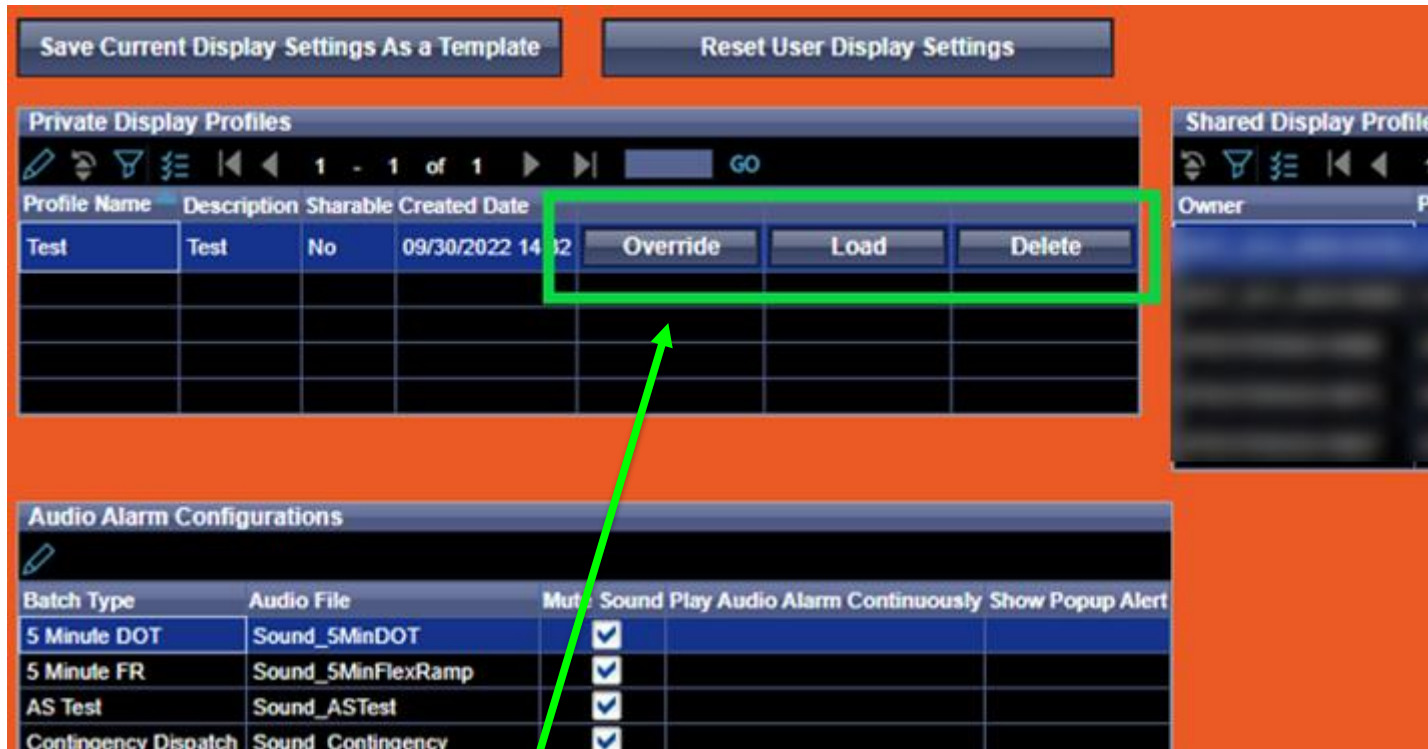
The screenshot shows the ADS Configurations interface. At the top, there are two buttons: "Save Current Display Settings As a Template" and "Reset User Display Settings". Below these is the "Private Display Profiles" section, which contains a table with columns: Profile Name, Description, Sharable, and Created Date. The table has one row with the following data: Profile Name: Test, Description: Test, Sharable: No, Created Date: 09/30/2022 14:32. To the right of the table are three buttons: "Override", "Load", and "Delete". A green box highlights these three buttons, and a green arrow points from the "Load" button towards the text on the right. Below the "Private Display Profiles" section is the "Audio Alarm Configurations" section, which contains a table with columns: Batch Type, Audio File, Mute, Sound Play, Audio Alarm Continuously, and Show Popup Alert. The table has four rows with the following data: Batch Type: 5 Minute DOT, Audio File: Sound_5MinDOT, Mute: [checked], Sound Play: [checked], Audio Alarm Continuously: [checked], Show Popup Alert: [checked]; Batch Type: 5 Minute FR, Audio File: Sound_5MinFlexRamp, Mute: [checked], Sound Play: [checked], Audio Alarm Continuously: [checked], Show Popup Alert: [checked]; Batch Type: AS Test, Audio File: Sound_ASTest, Mute: [checked], Sound Play: [checked], Audio Alarm Continuously: [checked], Show Popup Alert: [checked]; Batch Type: Contingency Dispatch, Audio File: Sound_Contingency, Mute: [checked], Sound Play: [checked], Audio Alarm Continuously: [checked], Show Popup Alert: [checked].

To load a template:

1. click "Load"
2. close the **Configurations** window
3. click **refresh** button within the ADS UI



Updates allowing ADS users the ability to Update/Override existing configuration



Allows for users to **override current configuration** *without having to create a new template or profile.*

Once edits have been made to a current template, click the Override button

Override

The screenshot shows a software interface with an orange header. At the top, there are two buttons: "Save Current Display Settings As a Template" and "Reset User Display Settings". Below this is a section for "Private Display Profiles" with a table containing one row: "Test", "Test", "No", "09/30/2022 14:12". To the right of this row are three buttons: "Override", "Load", and "Delete". A green box highlights the "Override" button, and a green arrow points from it towards the right. Below the "Private Display Profiles" section is a section for "Audio Alarm Configurations" with a table containing four rows: "5 Minute DOT", "5 Minute FR", "AS Test", and "Contingency Dispatch".

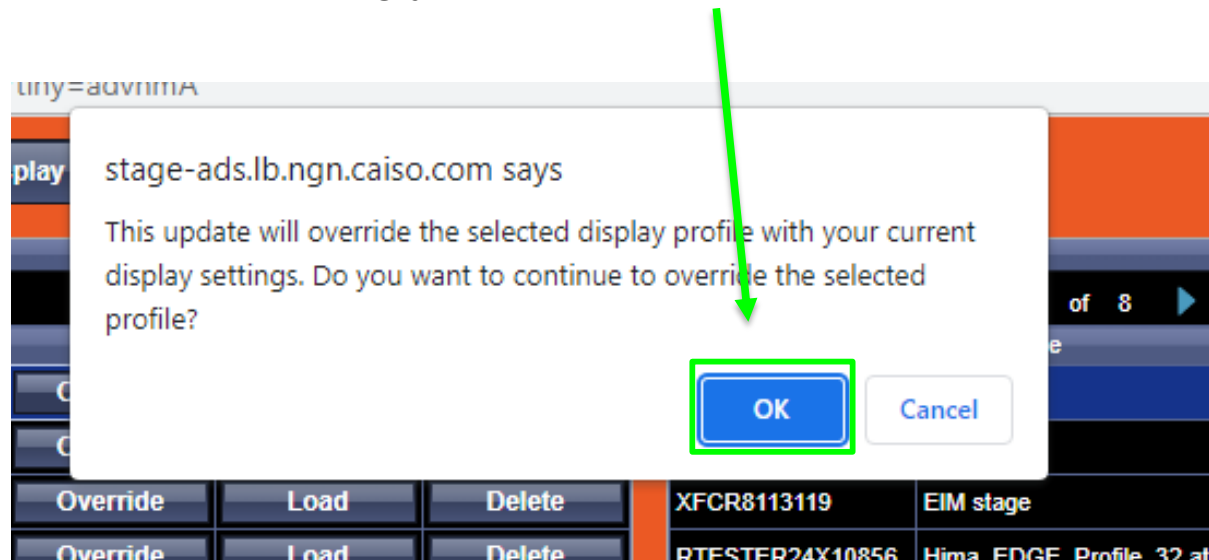
Profile Name	Description	Sharable	Created Date	Override	Load	Delete
Test	Test	No	09/30/2022 14:12	Override	Load	Delete

Batch Type	Audio File	Mute	Sound Play	Audio Alarm	Continuously	Show Popup Alert
5 Minute DOT	Sound_SMinDOT	<input checked="" type="checkbox"/>				
5 Minute FR	Sound_SMinFlexRamp	<input checked="" type="checkbox"/>				
AS Test	Sound_ASTest	<input checked="" type="checkbox"/>				
Contingency Dispatch	Sound_Contingency	<input checked="" type="checkbox"/>				

To override a current template, click "Override"

You must accept changes to have override take effect.

After you have made your changes and you hit the Override button, you will receive a pop-up requesting you to click 'OK' to confirm






OSI ADS Enhancements

INSTRUCTION GRID UPDATES

Additional color scheme added for commitment instructions

Valid	Instruction Type	Accept DOT	Accept Status	Award MW	ED Energy Code	Instr MW
	Startup					33.38




Valid	Instruction Type	Accept DOT	Accept Status	Award MW	ED Energy Code	Instr MW
	ED Fixed	0.00			PTEST	0.00
	Shutdown					0.00
	DOT	10.00				10.00

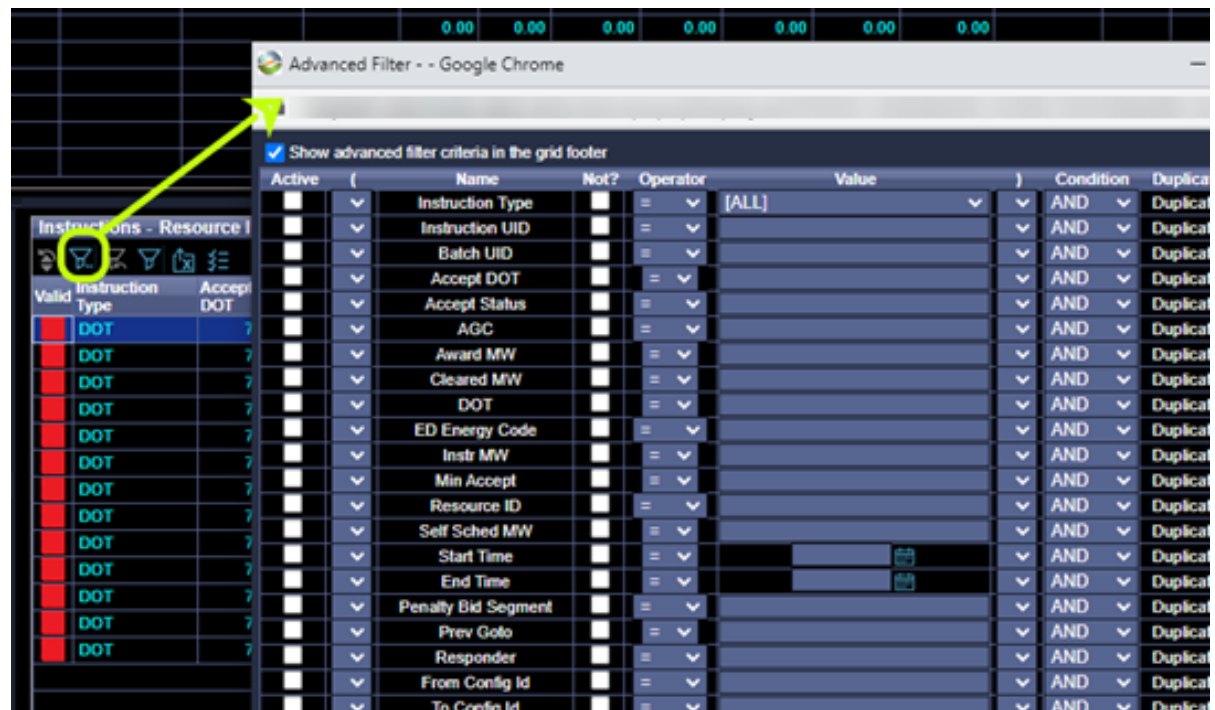
-  Start-up
-  Shutdown
-  Transition

Valid	Instruction Type	Accept DOT	Accept Status	Award MW	ED Energy Code	Instr MW	Min Accept	Self Sched MW	Start Time	End Time	Prev Goto	Responder	From Config Id	To Config Id
	IEEA			0.00		0.00		0.00	11:15	11:30				
	Transition					18.70			11:00	11:15				
	IEEA			0.00		0.00		0.00	11:00	11:15				

To view changes once implemented, go to browser settings and clear cache/cookies.

Commitments will now display in their associated colors.

-  Start-up
-  Shutdown
-  Transition



Active	Name	Not?	Operator	Value	Condition	Duplicate
<input type="checkbox"/>	Instruction Type	<input type="checkbox"/>	=	[ALL]	AND	Duplicate
<input type="checkbox"/>	Instruction UID	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Batch UID	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Accept DOT	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Accept Status	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	AGC	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Award MW	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Cleared MW	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	DOT	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	ED Energy Code	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Instr MW	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Min Accept	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Resource ID	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Self Sched MW	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Start Time	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	End Time	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Penalty Bid Segment	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	Prev Goto Responder	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	From Config Id	<input type="checkbox"/>	=		AND	Duplicate
<input type="checkbox"/>	To Config Id	<input type="checkbox"/>	=		AND	Duplicate

Advanced filtering now available in the Instructions grid of the ADS UI

Instructions - Resource ID

Valid	Instruction Type	Accept DOT	Accept Status	Award MW	ED Energy Code	Instr MW	Min Accept	Self Sched MW	Start Time	End Time	Prev Goto	Responder	From Config ID	To Config ID
	FRU					0.00			14:45	15:00				
	FRU					0.00			14:45	15:00				
	DOT	18.44				18.44			14:32		18.77			
	FRU					0.00			14:30	14:45				
	FRU					0.00			14:30	14:45				
	FRU					0.00			14:30	14:35				
	FRU					0.00			14:30	14:35				
	DOT	18.77				18.77			14:27		18.80			
	FRU					0.00			14:25	14:30				
	FRU					0.00			14:25	14:30				
	DOT	18.80				18.80			14:22		18.82			
	FRU					0.00			14:20	14:25				
	FRU					0.00			14:20	14:25				

Instructions

OSI ADS Enhancements

WHAT IS THE TIMING?


Implementation timeline

External Business Requirements Specification (BRS):

Update v1.1 Published – August 12, 2022

Production activation:

Effective date October 27, 2022



A SendGrid message will be sent to all registered ADS users



Unstructured Market Simulation:

October 18 - 27, 2022



Bi-weekly Market Sim meeting info available in ISO website calendar

OSI ADS Enhancements Reference

WHERE CAN I FIND MORE INFORMATION?

Reference Material

- ADS User Guide:
 - <http://www.caiso.com/Documents/AutomatedDispatchSystemADSUserGuide.pdf>
- Technical Specifications and other ADS documentation located on the [ISO's Developer Site](#)



Thank you for your participation!

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