

Gas Scheduling System That Eliminated Spreadsheets

User Workflow Documentation

Original UI Iteration and Navigation Evolution

This document illustrates the original UI design iteration for the Gas Scheduling System (GSS), showing the evolution from initial wireframes through expanded panels, data export functionality, and left navigation patterns. This foundational design work reduced operator errors by 25% and accelerated daily scheduling workflows by 30%.

WORKFLOW SEQUENCE

Page 2 - Plants/Daily AFS (Available for Sale) Totals - Initial interface design showing plant data organization and daily totals

Page 3 - Expanded Plant Information Panel - This view reveals detailed data entry fields and calculations

Page 4 - Optimizer View - AFS Spreadsheet, CSV Download Selections - Selected export configuration with chosen data fields for CSV download

Page 5 - Optimizer View - Electronic Bulletin Board (EBB) - Plant Volume By Location - EBB integration showing plant volume data organized by geographic location

Page 6 - Traders & Pipes - Daily AFS Totals - Marketing Trader view focused on pipeline nominations and available-for-sale volumes

Page 7 - Traders & Pipes - Daily AFS Totals - Expanded - Marketing Trader panel showing detailed pipeline data and nomination calculations

Page 8 - Gas Scheduling System Left Navigation Task Flow - Task flow documentation showing left navigation structure and user journey paths

Page 9 - Gas Scheduling System Left Navigation - Final UI design with menu structure and screen transitions

DESIGN PRINCIPLES

- Iterative Design - Multiple iterations refining data organization and interaction patterns
- Role Separation - Distinct views for Optimizers (plants) vs. Traders (pipes)
- Data Export - Flexible CSV download with user-controlled field selection
- Navigation Evolution - Progression from initial concepts to refined left navigation structure

IMPACT

Established foundation for 30% workflow acceleration • Reduced cognitive load through clear data hierarchy • Enabled flexible data export for power users • Created scalable navigation supporting future feature expansion

Original UI Iteration and Navigation Evolution

Plants/Daily AFS (Available for Sale) Totals - Initial interface design showing plant data organization and daily totals

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OneSight

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SCHEDULING

LOGGED EVENTS

PLANT PIGGING

OPTIMIZATION

GAS SCHEDULING

CR

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MIDCON

< Tue Oct. 01, 2019 >

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Pipes Plants Daily AFS Monthly AFS

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 EBB Volumes

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 Trader AFS

SAVE

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▼ CHITWOOD

Estimated Residue 35,851	Take in Kind 7,700	Shrink 0	Booster Fuel 2,474	Available for Sale 25,677	Base Load & Term 29,077	Buy -3,400	FOM Imbal -188,748	CurrMo Imbal -46,640	CUM Imbal -235,388
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▼ CIMARRON PLANT

Estimated Residue 34,177	Take in Kind 8,500	Shrink 0	Booster Fuel 677	Available for Sale 25,000	Base Load & Term 30,000	Buy -5,000	FOM Imbal -1,072,522	CurrMo Imbal -94,290	CUM Imbal -1,166,812
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▼ CIMARRON RIVER

Estimated Residue 195,000	Take in Kind 0	Shrink 0	Booster Fuel 0	Available for Sale 195,000	Base Load & Term 104,300	Sell 90,700	FOM Imbal -272,513	CurrMo Imbal -111,053	CUM Imbal -383,566
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▼ CYRIL

Estimated Residue 27,000	Take in Kind 16,000	Shrink 0	Booster Fuel 0	Available for Sale 11,000	Base Load & Term 4,000	Sell 7,000	FOM Imbal 21,279	CurrMo Imbal -38,672	CUM Imbal -17,393
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▼ FOX PLANT

Estimated Residue 0	Take in Kind 0	Shrink 0	Booster Fuel 0	Available for Sale 0	Base Load & Term 0	Buy / Sell 0	FOM Imbal 0	CurrMo Imbal 3,884	CUM Imbal 3,884
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▼ GRADY

Estimated Residue 700	Take in Kind 0	Shrink 0	Booster Fuel 0	Available for Sale 700	Base Load & Term 700	Buy / Sell 0	FOM Imbal 14,413	CurrMo Imbal 4,547	CUM Imbal 18,960
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▼ HANSFORD

Estimated Residue 0	Take in Kind 0	Shrink 0	Booster Fuel 0	Available for Sale 0	Base Load & Term 0	Buy / Sell 0	FOM Imbal 0	CurrMo Imbal 0	CUM Imbal 0
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Expanded Plant Information Panel - This view reveals detailed data entry fields and calculations

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Pipes

Plants

Daily AFS

Monthly AFS

EBB Volumes

Trader AFS

SAVE

CHITWOOD

Modified: Oct. 04, 2019 10:50am MDT

By: Sharon Sanchez

Imbalance Volumes

Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
35,851	7,700	0	2,474	25,677	29,077	-3,400	-188,748	-46,640	-235,388

Comments

Enogex

Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
0	0	0	0	0	0	0	4,728	0	4,728

NPGL MC

Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
16,277	2,200	0	0	14,077	14,077	0	-193,476	0	-199,561

OGT

Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
19,574	5,500	0	2,474	11,600	15,000	-3,400	0	-40,555	-40,555

CIMARRON PLANT

Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
34,177	8,500	0	677	25,000	30,000	-5,000	-1,072,522	-94,290	-1,166,812

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195,000	0	0	0	195,000	104,300	90,700	-272,513	-111,053	-383,566

CYRIL

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Optimizer View - AFS Spreadsheet, CSV Download Selections - Selected export configuration with chosen data fields for CSV download

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CIMMARON R

Estimated Residue

195,000

CYRIL

Estimated Residue

27,000

FOX PLANT

Estimated Residue

0

GRADY

Estimated Residue

700

HANSFORD

Estimated Residue

0

KINGFISHER

Estimated Residue

0

CUM Imbal

-235,388

CUM Imbal

-1,166,812

CUM Imbal

-383,566

CUM Imbal

-17,393

CUM Imbal

3,884

CUM Imbal

18,960

CUM Imbal

0

Take in Kind

0

Shrink

0

Booster Fuel

0

Available for Sale

0

Base Load & Term

0

Buy / Sell

0

FOM Imbal

0

CurrMo Imbal

0

CUM Imbal

0

Trade AFS Spreadsheet Choices

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✓ KF Spire Breakout

✓ CRP-Ladder Creek AFS

✓ SOK-Okarche AFS

✓ NHC AFS

✓ Sherhan-Tolar-Rock Creek AFS

MIDCON

✓ Ozona-Sonora AFS

✓ SENM AFS

✓ WTX AFS

PERMIAN

✓ LaGloriaGPPlains AFS

✓ WXDEINTThomp AFS

GULF COAST

✓ Rockies AFS

ROCKIES

✓ ETGS AFS

ETGS

Clear All

Select All Regions

DOWNLOAD .CSV

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Original UI Iteration and Navigation Evolution

Optimizer View - Electronic Bulletin Board (EBB) - Plant Volume By Location - EBB integration showing plant volume data organized by geographic location

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Modified: Oct. 04, 2019 10:50am MDT By: Sharon Sanchez

Imbalance Volumes

Estimated Residue 35,851

Comments

Enogex

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NPGL MC

Estimated Residue 16,277

OGT

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CIMARRON PL

Estimated Residue 34,177

CIMMARON R

Estimated Residue 195,000

CHITWOOD

Imbalance Date: Oct. 01, 2019

Enogex

Loc. 0001	Loc. 0002	Loc. 0003	Loc. 0004	Loc. 0005	Loc. 0006	Loc. 0007	Loc. 0008	Loc. 0009	Loc. 0010	Total
-438,000	000	000	000	000	000	000	000	000	000,000	-438,000

NPGL MC

Loc. 0001	Loc. 0002	Loc. 0003	Loc. 0004	Loc. 0005	Loc. 0006	Total
000	000	000	000	000	000	000

OGT

Loc. 0001	Loc. 0002	Loc. 0003	Loc. 0004	Total
000	000	000	000	000

Total CurrMo Imbalance

-438,000

CUM Imbal -235,388

CUM Imbal 4,728

CUM Imbal -199,561

CUM Imbal -40,555

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Traders & Pipes - Daily AFS Totals - Marketing Trader view focused on pipeline nominations and available-for-sale volumes

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OneSight PRODUCERS SCHEDULING LOGGED EVENTS PLANT PIGGING OPTIMIZATION GAS SCHEDULING CR									
MIDCON < Tue Oct. 01, 2019 > Pipes Plants Daily AFS Monthly AFS									
▼ CEGT									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
700	0	0	0	700	700	0	14,413	4,547	18,960
▼ CIG									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
0	0	0	0	0	2,800	-2,800	0	-47,311	-47,311
▼ ENOGEX									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
77,305	77,305	0	0	0	0	0	-62,655	-20,907	-83,562
▼ NGPL MC									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
16,277	2,200	0	0	14,077	14,077	0	-193,476	-6,085	-199,561
▼ OGT									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
152,964	39,600	0	14,964	98,400	92,800	5,600	45,996	-61,946	-15,950
▼ ONEOK WESTEX									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
74,000	0	0	0	74,000	60,000	14,000	12,269	-36,053	-23,784
▼ PEPL									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
567,908	18,908	90,000	0	459,000	449,300	9,700	-523,378	-407,203	-930,581

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Traders & Pipes - Daily AFS Totals - Expanded - Marketing Trader panel showing detailed pipeline data and nomination calculations

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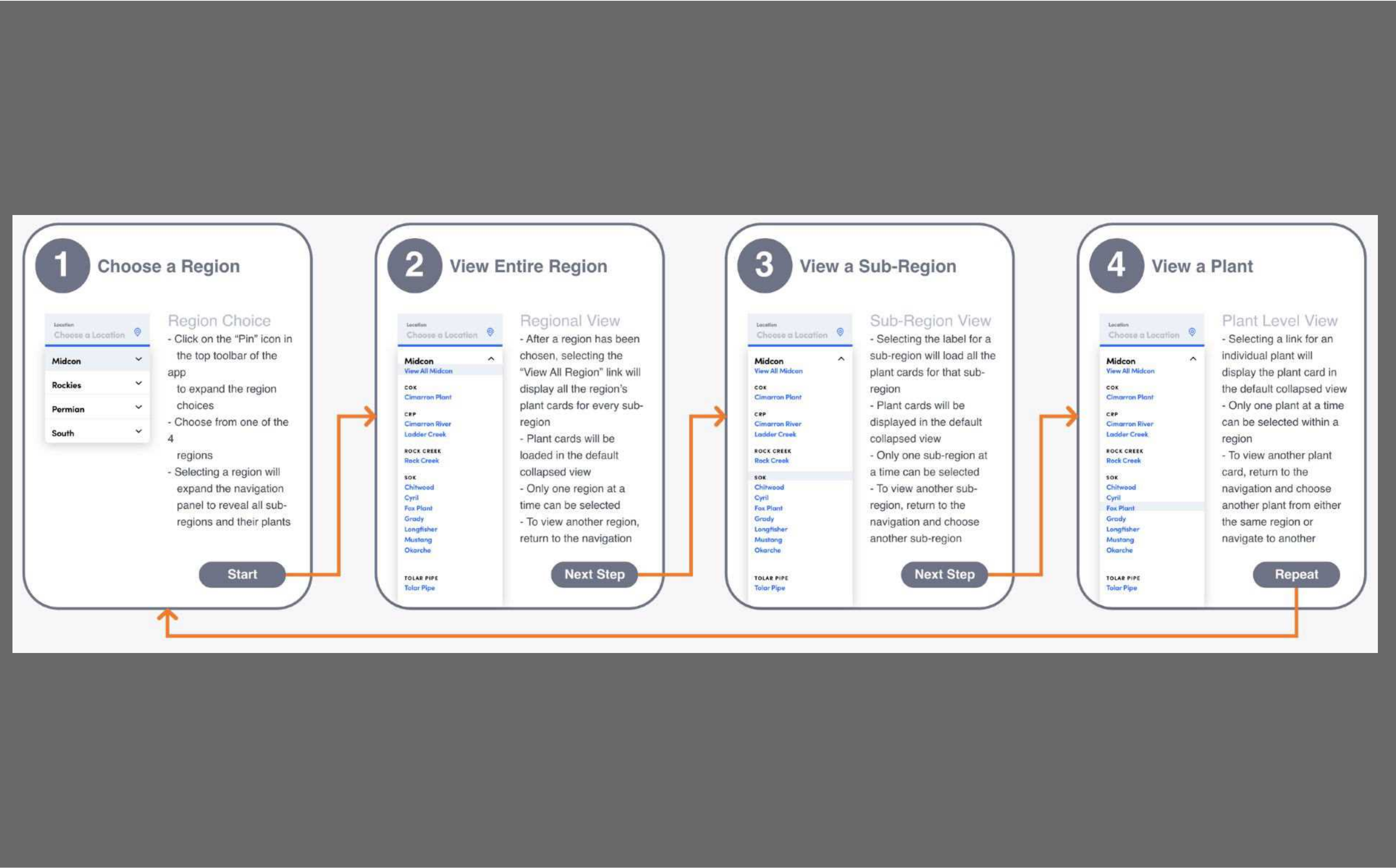
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700	0	0	0	700	700	0	14,413	4,547	18,960
▲ CIG Modified: Oct. 01, 2019 6:34am MDT By: Sharon Sanchez Imbalance Volumes									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
0	0	0	0	0	2,800	Buy -2,800	0	-47,311	-47,311
LADDER CREEK									
Estimated Residue	Take in Kind	Shrink	Booster Fuel	Available for Sale	Base Load & Term	Buy / Sell	FOM Imbal	CurrMo Imbal	CUM Imbal
0	0	0	0	0	2,800	Buy -2,800	0	-47,311	-47,311
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Gas Scheduling System Left Navigation Task Flow - Task flow documentation showing left navigation structure and user journey paths

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Gas Scheduling System That Eliminated Spreadsheets

Original UI Iteration and Navigation Evolution

Gas Scheduling System Left Navigation - Final UI design with menu structure and screen transitions

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MIDCON	▼
ROCKIES	▼
PERMIAN	▼
SOUTH	▼

Default
All Nav Panels
Closed

MIDCON	▼
ROCKIES	▼
PERMIAN	▼
SOUTH	▼

OnHover /
OnClick - Midcon

MIDCON	▼
View All Region	
COK	Cimarron Plant
CRP	Cimarron River Ladder Creek
NHC	Natl Helium Shrink Acct
ROCK CREEK	Rock Creek
SOK	Chitwood Cyril Fox Plant Grady Longfisher Mustang Okarche
ROCKIES	▼
PERMIAN	▼
SOUTH	▼

Midcon Open
OnHover /
OnClick - Rockies

MIDCON	▼
ROCKIES	▼
ROCKIES	Lucerne Lucerne II Mewbourn Mewbourn 3 OConnor OConner 2 Roggen
PERMIAN	▼
SOUTH	▼

Rockies Open
OnHover /
OnClick - Permian

MIDCON	▼
ROCKIES	▼
PERMIAN	▼
View All Region	
OZONA	ElDorado Ozona Sonora SWOzona OConnor
SENM	Artesia Avalon Eunice Howard Offload Linam Ranch Zia II
WTX	Goldsmith Pegasus Rawhide Plant Robert Ranch
SOUTH	▼

Permian Open
OnHover /
OnClick - South

MIDCON	▼
ROCKIES	▼
PERMIAN	▼
SOUTH	▼
View All Region	
CIPCO	Cipco
EAGLEFORD	DCPIN Thompsonville DCPIN Three Rivers Eagle Plant Giddings Golaid Plant Lagloria Tetco Wilcox
EAST TEXAS	Crossroads Eastrans
MOBILE BAY	MBPP
TOLAR	Tolar

South Open