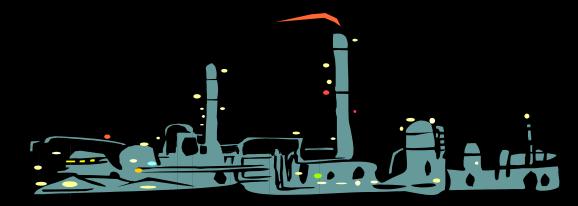


OSI CUSTOMER SOLUTION



Delivering "In-Context" PI Data to Web-Based Plant Applications

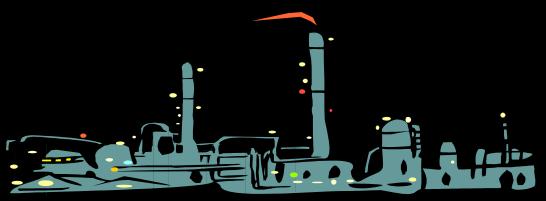
Communications and Workflow Software Designed For The Chevron Salt Lake Refinery



Work Process Challenges...

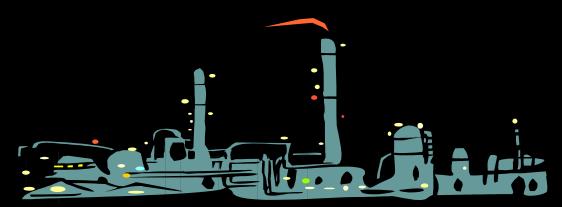
- Operator Shift Turnover
 - Paper log book
 - Limited process data
 - Many paper copies
 - Brief comments only
 - Manual search
 - Expanded distribution
 - Combined Op/Supervisor

- Weekly Product Plan
 - Paper-based system
 - Hand updated
 - Faxed instructions
 - No plan vs. actual
 - No operator feedback
 - No plan archives
 - Plan templates



Chevron Design Criteria...

- Web-based solution
- Microsoft platform
- Seamless PI integration
- Maintainable in-house
- Scalable
- No duplicate data storage
- USER EMBRACE



Shift Turnover Design Considerations

- Intuitive web-based front end
- Need to reduce paper reports
- "In-Context" PI data
- Comprehensive search capability
- Secure, administrative section
- Real-time, management access

Shift Turnover Functionality

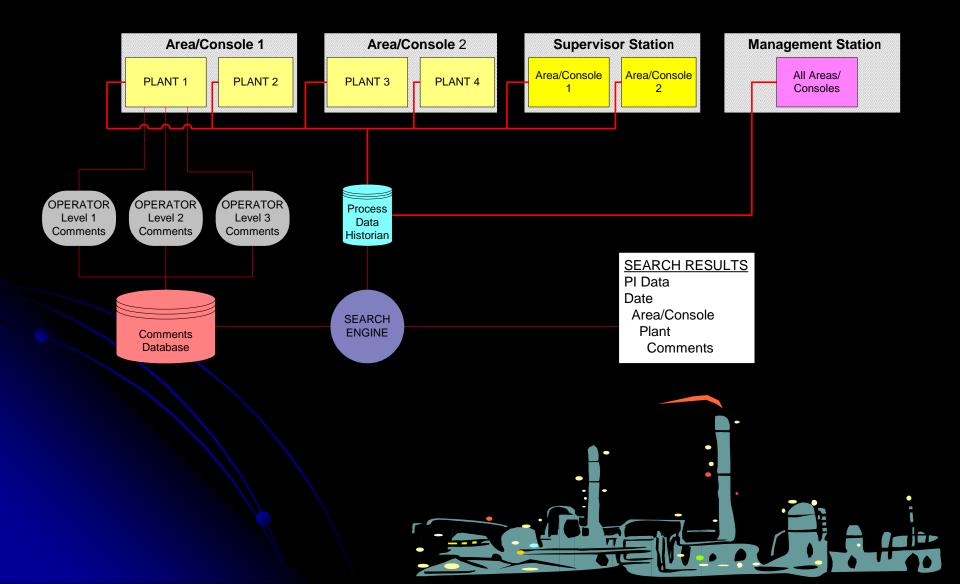
- Crew members enter shift activities
- Goal is knowledge transfer to next shift
- Entries by all levels:
 - Supervisors
 - Board Operators
 - Plant Operators
- Electronic report distribution

Standing Orders Module Functionality

- Straightforward entry and distribution
- Automated archiving
- Revision control
- Operator alerts
- Operator access tracking
- Login-based security



Turnover Application Overview



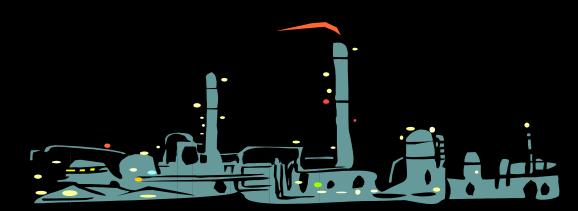
Shift Turnover Application

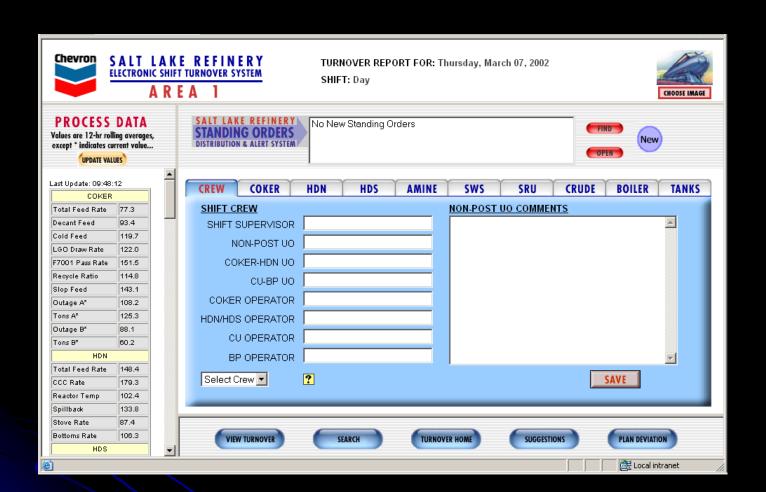


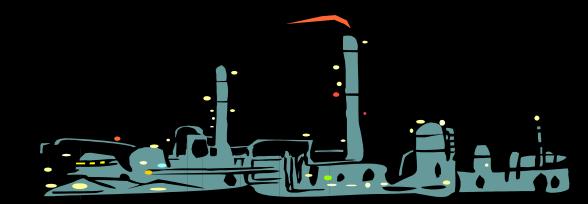
- Splash Page
 - Security enforced by matching logo ID with Area access
 - Supervisor access
 - Standing Order access

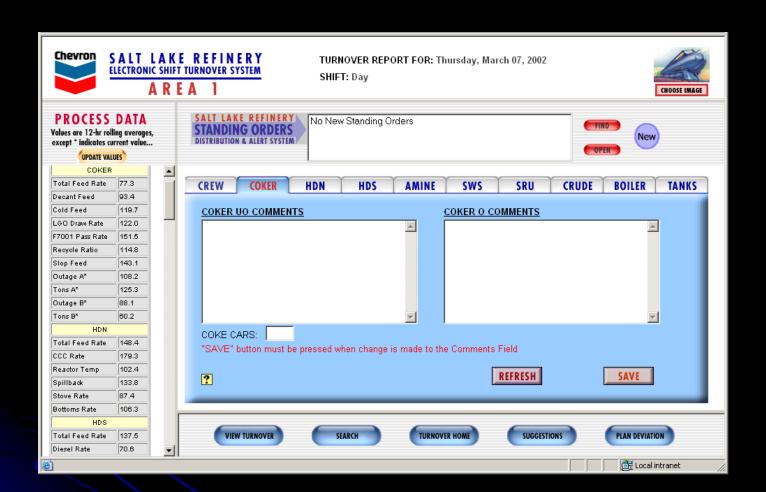


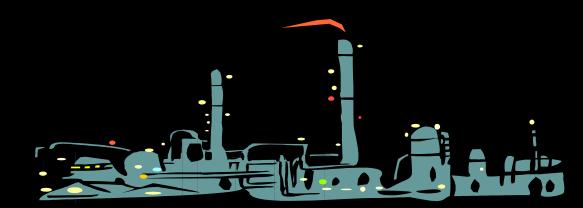
- Navigation
 - Supervisor Access
 - Gateway to Future Functionality

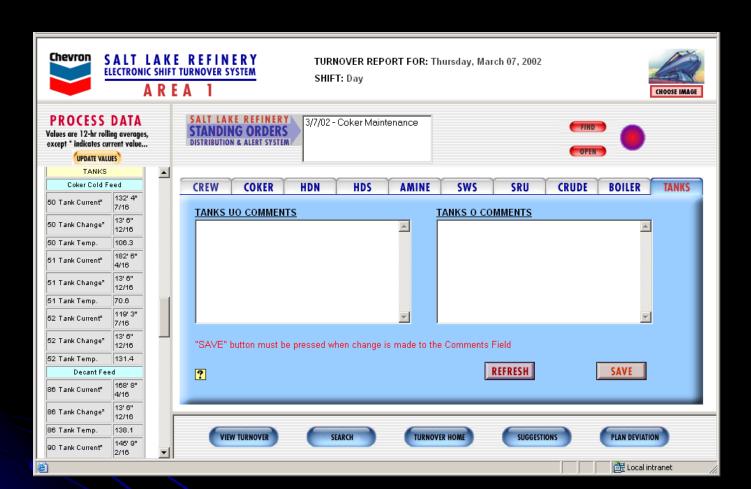


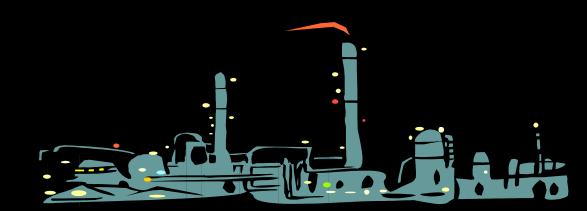


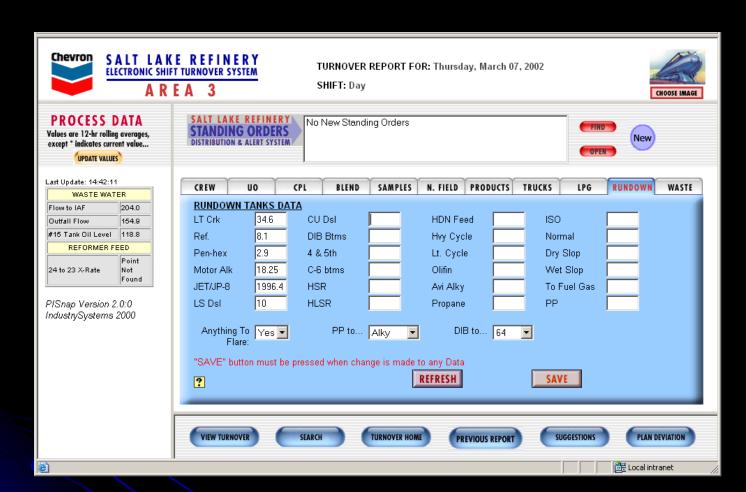


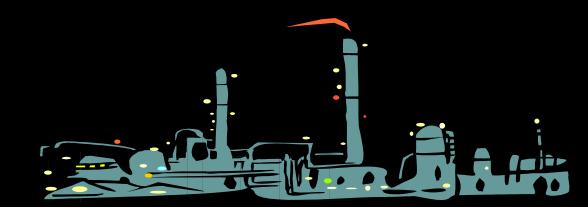


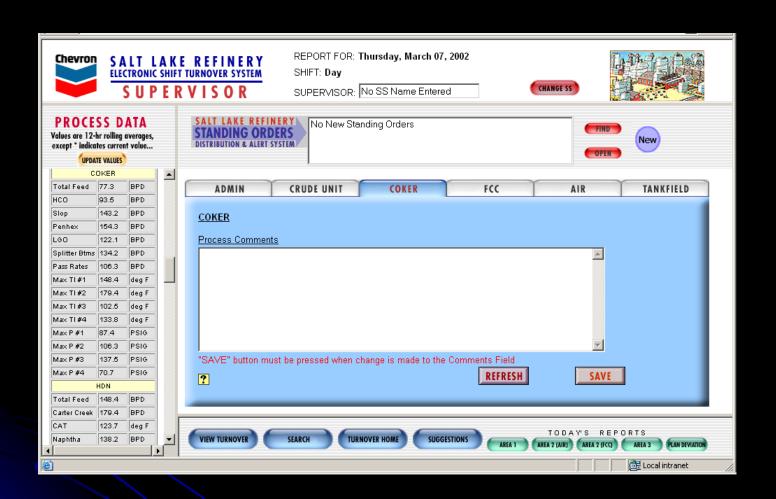


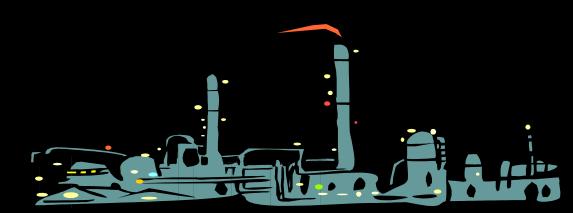


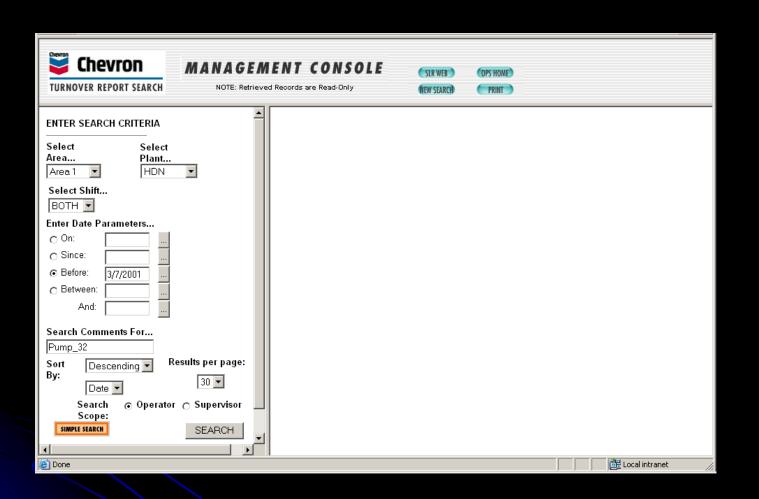


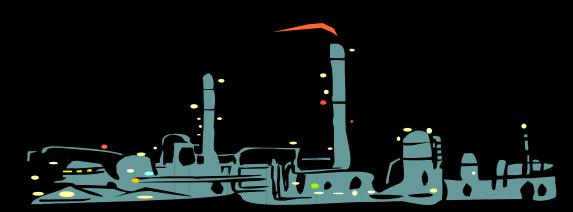














MANAGEMENT CONSOLE

SLR WEB

OPS HOME

TURNOVER REPORT SEARCH

NOTE: Retrieved Records are Read-Only

NEW SEARCH

PRINT

Found 1821 records.

E) Done

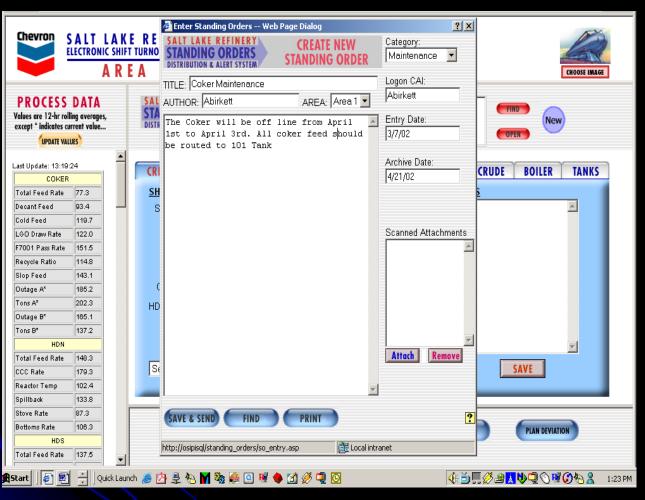
Prev 1 2 3 4 5 6 7 8 9 10 Next

Date	Shift	Агеа	Plant	Comment	SS Rpt.	
10/25/01	Day	1	Coker	Here are comments~Here are O comments		
10/25/01	Day	1	TF	Tank comments~Tank comments O	<u>ss</u>	
10/25/01	Day	1	Boiler	Boiler comments~Boiler comments O	<u>ss</u>	
10/25/01	Day	1	Crude	Crude Comments~Crude O Comments	<u>ss</u>	
10/25/01	Day	1	SRU	SRU Comments~SRU O comments	<u>ss</u>	
10/25/01	Day	1	sws	SWS Comments~SWS O Comments	<u>ss</u>	
10/25/01	Day	1	Amine	Amine Comments~Amine O Comments	<u>ss</u>	
10/25/01	Day	1	HDS	HDS Comments~HDS O Comments	<u>ss</u>	
10/25/01	Day	1	HDN	HDN Comments~HDN O Comments	<u>ss</u>	
6/5/01	Day	1	Coker	This is a coker unit operator comment and we hope that this s	<u>ss</u>	

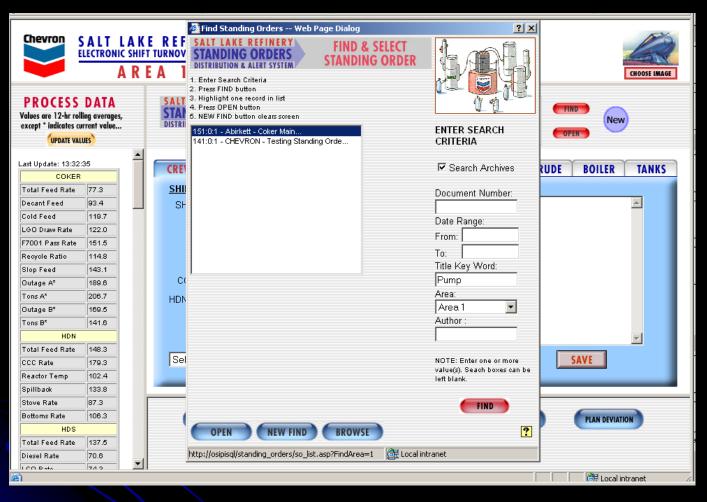
AREA 1 TURNOVER REPORT FOR: Thursday, October 25, 2001 - Day CREW: B NON-POST UO CREW Shift Supervisor Bob Jones This is a non-post UO comment Non-Post UO Harry Grey Coker-HDN UO CU-BP UO Coker Operator HDN/HDS Operator Bill Bummer CU Operator BP Operator COKER Total Feed Rate COKER O COKER UO 77.2 Here are comments Here are O comments Decant Feed 93.4 Cold Feed 119.7 LGO Draw Rate 121.9 F7001 Pass Rate 151.4 Recycle Ratio 114.7 Slop Feed 143.1 Outage A* 164.8 Tons A* 181.9 Outage B* 144.7 Tons B* 116.9 Coke Cars: HDN HDN O HDN UO Total Feed Rate 148.3 HDN Comments HDN O Comments CCC Rate 179.3 102.4 Reactor Temp 133.7 Spillback Stove Rate 87.3 Bottoms Rate 106.2

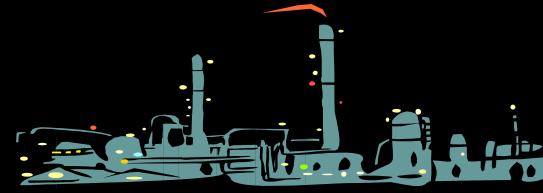


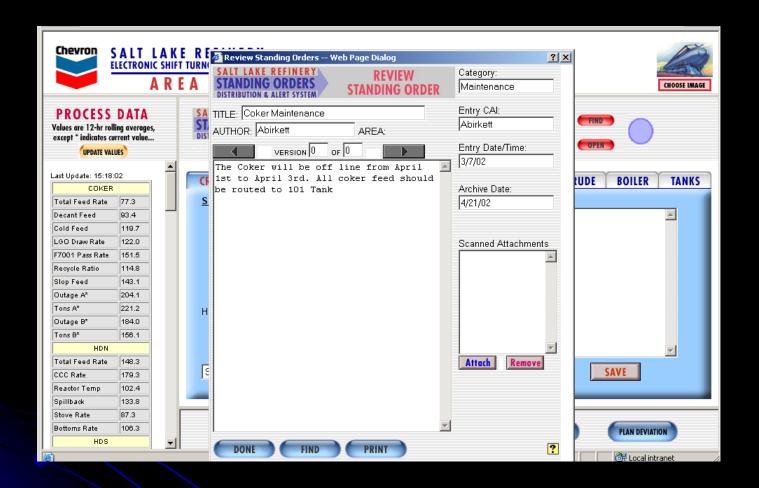
₫∰ Local intranet

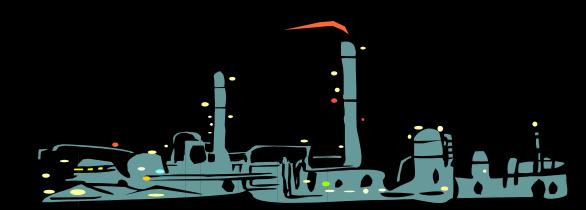






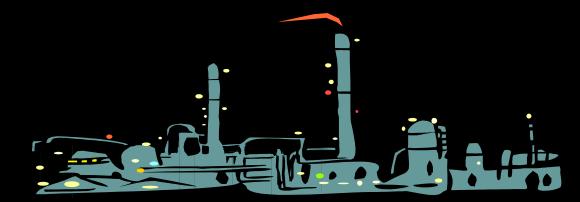






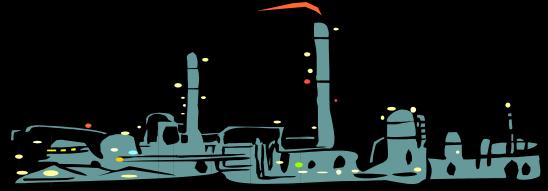
Turnover Application System Benefits...

- Big increase in comment frequency and volume
- Greater operator buy-in and "ownership"
- Significant reduction in Turnover communications errors
- Increased comment legibility
- Refinery-wide distribution

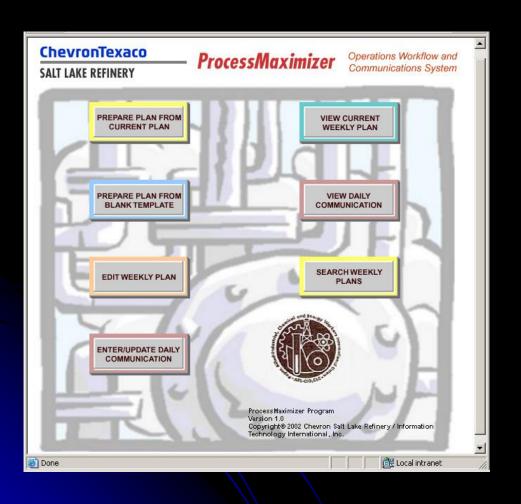


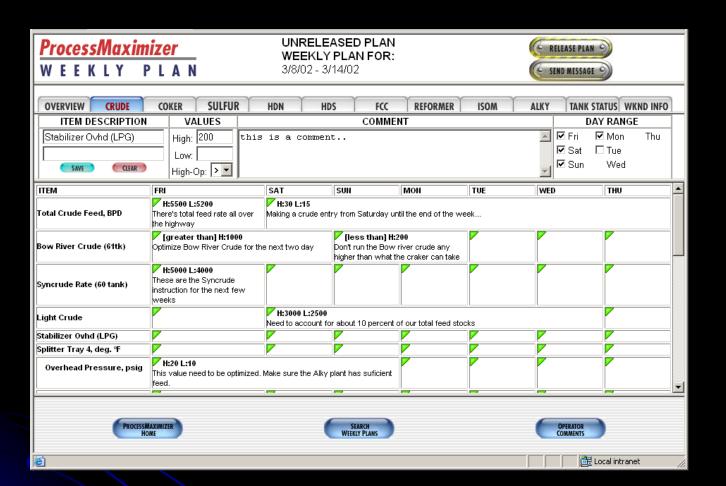
ProcessMaximizer Design Goals

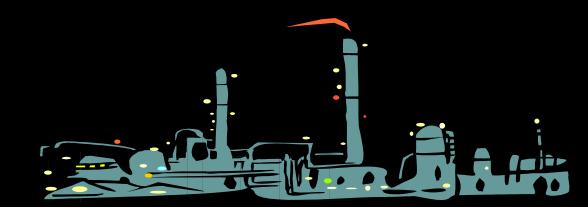
- Weekly Plan Creation & Distribution
- Tankfield Daily Order Creation & Distribution
- Update Live Weekly Plan
- Allow (encourage) Operator Feedback
- Plan vs. Actual process data display
- Operator Feedback on Plan vs. Actual

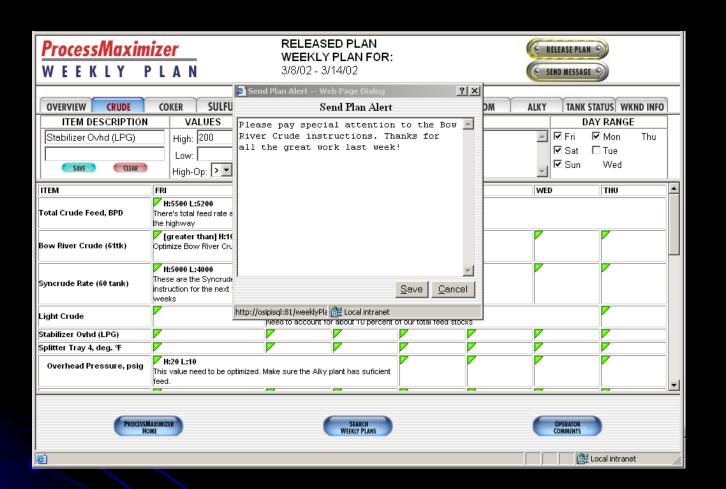


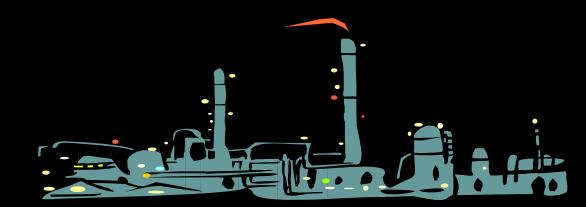
ProcessMaximizer Application









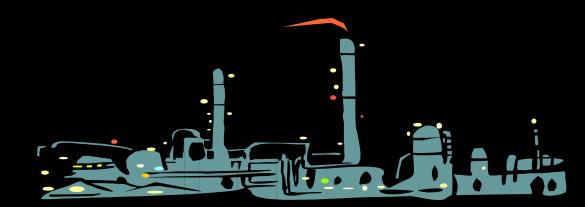


ProcessMaximizer WEEKLY PLAN

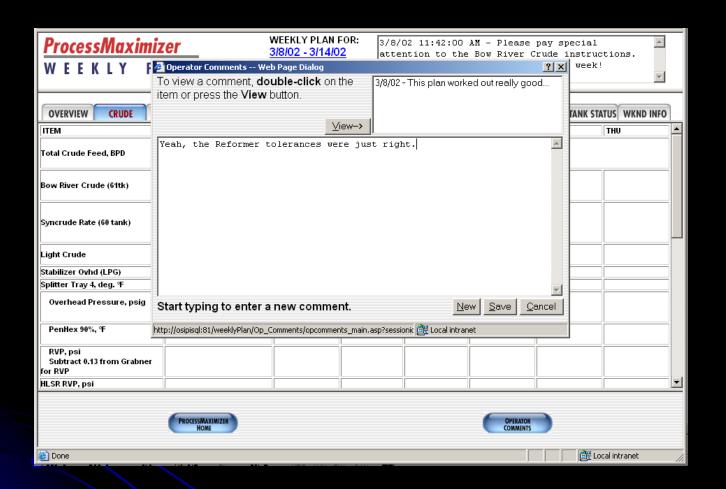
WEEKLY PLAN FOR: 3/8/02 - 3/14/02

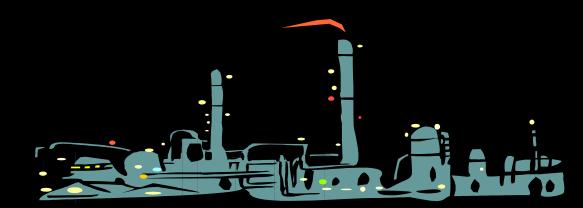
3/8/02 11:42:00 AM - Please pay special attention to the Bow River Crude instructions. Thanks for all the great work last week!

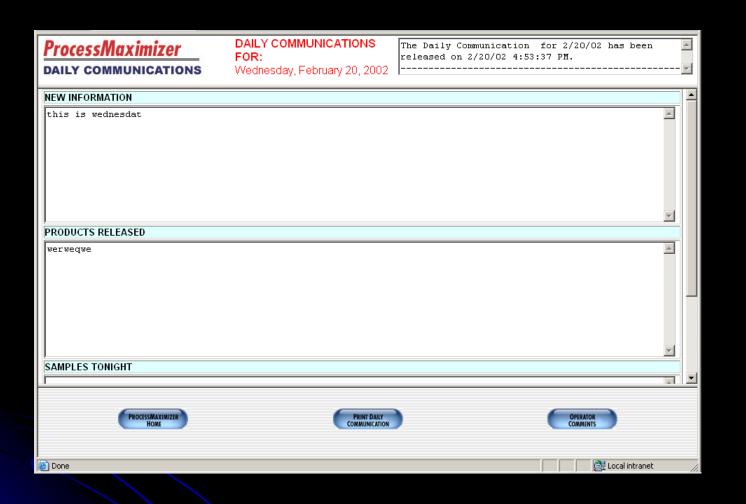
												_
OVERVIEW	CRUDE	COKER	SULFUR	HDN	HDS	FCC	REFORMER	ISOM	ALKY	TANK STATUS	WKND INFO	
ITEM		FRI		SAT		SUN	MON	TUE	WED	THU		•
Total Crude Fe	ed, BPD	H:5500 L: There's to the highw	otal feed rate all o		H:30 L:15 Making a crude entry from Saturday until the end of the week							
Bow River Crud	le (61tk)		than] H:1000 Bow River Crude	for the next tw	vo day	[less than] H:20 Don't run the Bow higher than what						
Syncrude Rate	(60 tank)		: 4000 e the Syncrude n for the next fev	v								
Light Crude					H:3000 L:2500 Need to account for about 10 percent of our total feed stocks							
Stabilizer Ovhd	(LPG)											
Splitter Tray 4,	deg. °F											
Overhead Pro	essure, psig	This value	H:20 L:10 This value need to be optimized. Make sure the Alky plant has sufficient feed.									
PenHex 90%,	o r											
RVP, psi Subtract 0.13 for RVP	from Grabner											
HLSR RVP, psi												▾
		PROCES	SMAXIMIZER HOME					OPERAT COMME	OR NTS			
a										CH Local int	ranet	-/-

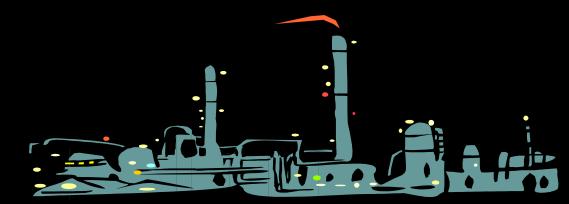


T





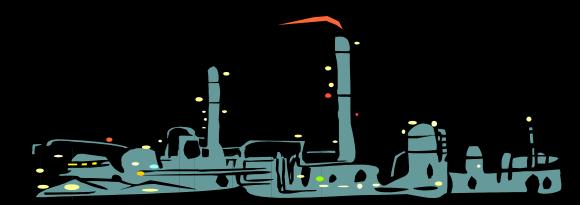






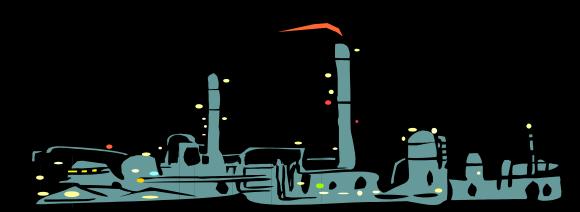






ProcessMaximizer Application System Benefits...

- No more faxed tankfield communications
- No more manually updated plans
- Archive of historical plans
- Less paperwork/manual editing



CREDITS

- CLIENT: Chevron Salt Lake Refinery
 - Operations Team
 - Shannon Heimbuch
 - Ken Downey
 - Jim Newton
- DEVELOPER: Information Technology International, Inc. Salt Lake City