



Comprehensive Plant Allocation and Settlement System Overview

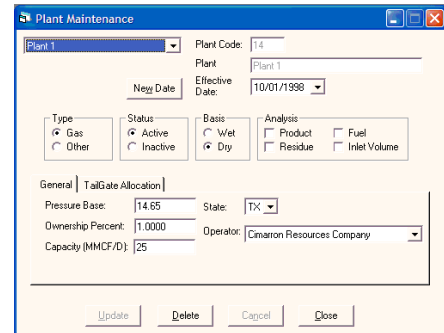
Provante's Comprehensive Plant Allocation and Settlement System (CPASS) is a full-featured gas plant allocation and settlement system. CPASS handles multiple plant and liquid product extraction combinations. The system collects plant and meter specific volume and quality information and performs a liquids allocation back to dynamically defined contract settlement terms.

Gas Plant Data

Plant

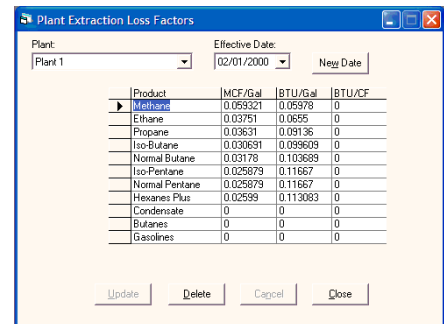
The system allows for an unlimited number of plants. The onetime plant setup screen includes data to identify the plant specifics including

- Name
- Company
- Status (active or inactive)
- Basis (wet or dry)
- Ownership Percentage
- Capacity
- Plant operator



The plant setup data is keyed by effective date to retain historical data for audit purposes. Each plant has an input screen for product extraction loss factors. The loss factors are identified by each product setup for the plant represented in MCF/gal, BTU/gal, and BTU/cf. The extraction loss factor data is keyed by effective date to retain historical data for audit purposes.

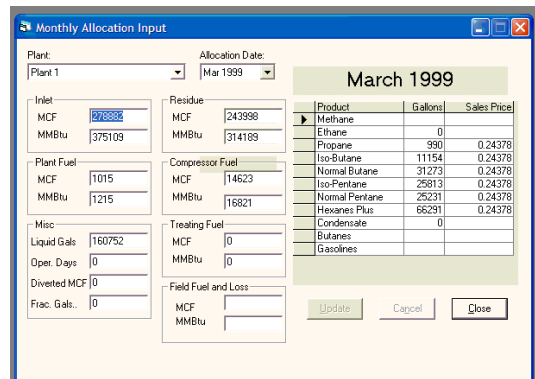
Products added to the system are associated with each plant. Each product associated with the plant may have descriptive remarks and a display order to control the product position on maintenance screens and reports throughout the system. Pipelines added to the system are associated with each plant.



Product	MCF/gal	BTU/gal	BTU/cf
Methane	0.059321	0.05978	0
Ethane	0.03751	0.0655	0
Propane	0.03631	0.09136	0
Iso-Butane	0.030691	0.09609	0
Normal Butane	0.03178	0.103689	0
Iso-Pentane	0.025679	0.11667	0
Normal Pentane	0.025679	0.11667	0
Hexanes Plus	0.02599	0.113083	0
Condensate	0	0	0
Butanes	0	0	0
Gasolines	0	0	0

Allocation period plant data is collected in the plant allocation input screen. The data captured includes

- Allocation Date
- Inlet MCF and MMBTU
- Plant Fuel MCF and MMBTU
- Residue MCF and MMBTU
- Compressor Fuel MCF and MMBTU
- Treating Fuels MCF and MMBTU
- Field Fuel and Loss MCF and MMBTU
- Liquid Gallons
- Operating Days
- Diverted MCF
- Fractionation Gallons
- Production Gallons by Product
- Sales Price by Product

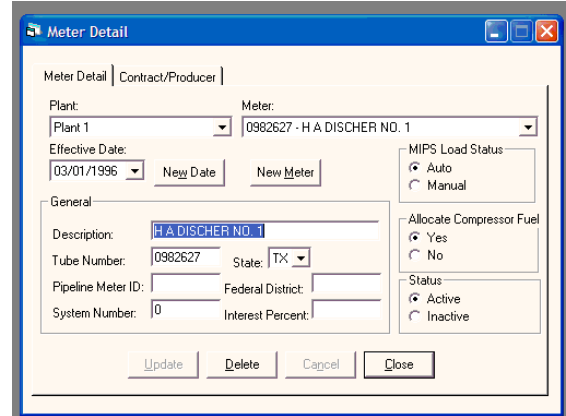


Product	Gallons	Sales Price
Methane		
Ethane		
Propane	990	0.24378
Iso-Butane	11154	0.24378
Normal Butane	31273	0.24378
Iso-Pentane	25913	0.24378
Normal Pentane	25231	0.24378
Hexanes Plus	66291	0.24378
Condensate		
Butanes		
Gasolines		

Meter

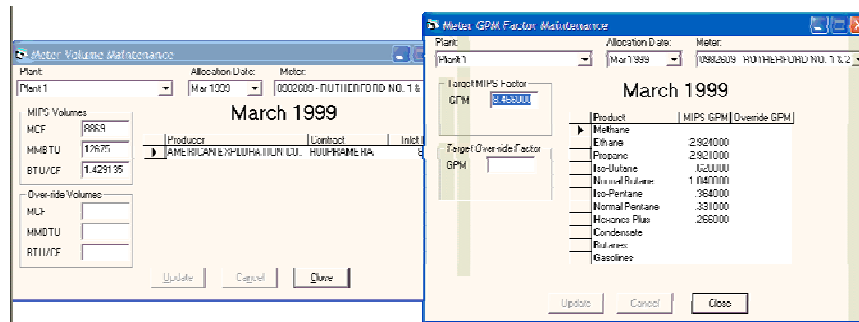
CPASS captures data for an unlimited number of meters per plant. Each meter has associated data to identify the following

- Meter description
- Meter Number
- Pipeline-Specific Number
- State
- Federal District
- Company System Number
- Ownership Interest Percentage
- Volume and Quality load status (auto or manual)
- Compressor Fuel Allocation Switch
- Status (active or inactive)



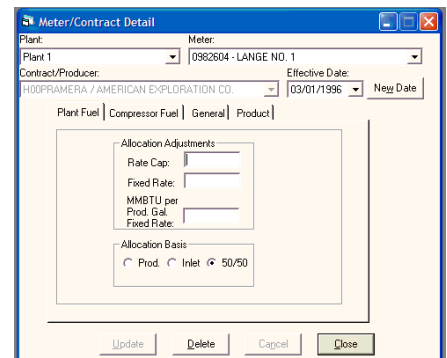
There is a read-only view from the meter detail screen to display the contract specific data associated with each meter.

The system includes a screen to capture meter volumes by allocation period. The screen includes volumes that may have been loaded automatically from an automated feed and volumes that may be entered manually as overrides. The meter volumes are then split among all associated contracts with a particular meter. The total of volumes split must add up to the total volume for the meter, if not, an input error occurs showing the volume discrepancy.



There is also a screen to capture meter quality information by allocation period. The screen includes quality factors that may have been loaded automatically from an automated feed and factors that may be entered manually as overrides. The factors are entered for all products associated with a particular meter. The total of factors split among products must add up to the total target factor for the meter, if not, an input error occurs showing the factor discrepancy.

CPASS includes a screen to capture contract data associated with each meter. Each meter can be associated with an unlimited number of contracts each having a different set of specific data. The meter/contract detail screen captures data for plant fuel, compressor fuel, general, and product categories. The contract plant fuel tab



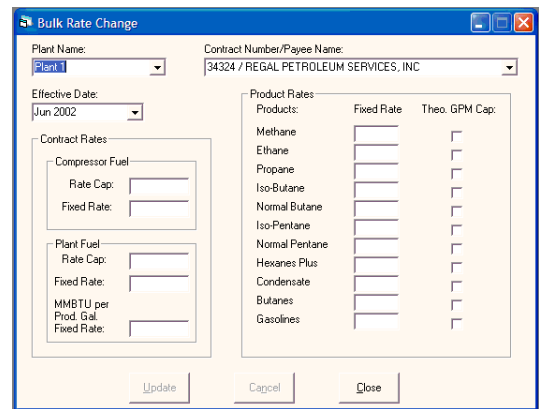
captures the following by contract:

- Rate Cap
- Fixed Rate
- MMBTU/gal Fixed Rate,
- Allocation basis (production, inlet, or 50/50) per contract

In the figure above, the compressor fuel tab captures whether compressor fuel is allocated to each contract and allows for a compressor fuel rate cap and fixed rate per contract. The general tab captures the meter/contract status (active or inactive), residue method (calculated or allocated), and a flag to identify a special methane allocation based upon ethane production. Finally, the product tab captures a fixed rate and theoretical cap to apply per product for the meter/contract combination. The meter/contract data is keyed by effective date to retain historical data for audit purposes.

The system includes a bulk rate change screen to capture the following data by contract

- Compressor Fuel Rate Caps
- Compressor Fuel Fixed Rates
- Plant Fuel Rate Caps
- Plant Fuel Fixed Rates
- Plant Fuel MMBTU/Production Gal Fixed Rate
- Fixed Rate by Product
- Theoretical GPM Factor Caps by Product

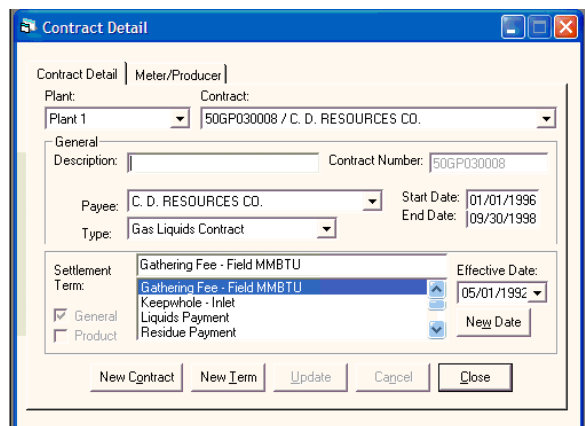


The rates are applied for the effective date to all meters associated with a particular contract and payee combination.

Contract

CPASS captures allocation and settlement contract data for an unlimited number of contracts. Data captured for processing includes contract number (alphanumeric), description, payee (selection from payee list), start and end dates, and a selection of applicable settlement terms. The settlement terms are statically defined in the system with associated settlement stored procedures and include:

- Compression Fee – Field MCF
- Compression Fee – Field MMBTU
- Field Fuel and Loss – MCF
- Field Fuels and Loss – MMBTU
- Gathering Fee – Allocated Field Delivery MCF
- Gathering Fee – Allocated Field Delivery MMBTU
- Gathering Fee – Field MMBTU
- Keepwhole – Inlet
- Keepwhole – PVR
- Liquids Payment
- Oil Field Cleanup Fee
- PVR Replacement
- Residue Payment
- Residue Payment (Calculated)
- Severance Tax

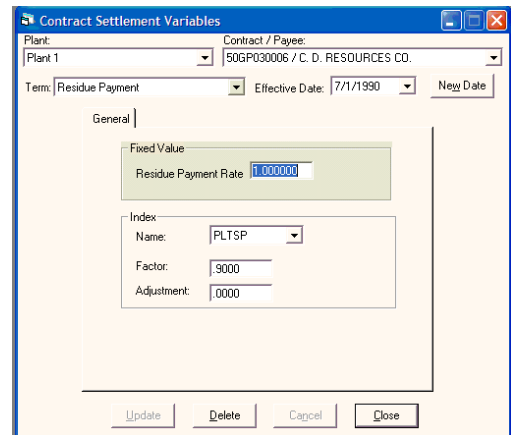


- Wellhead Purchase – Allocated Inlet MMBTU
- Wellhead Purchase – Field MMBTU
- Wellhead Purchase – Net Field MMBTU

The contract data is keyed by effective date to retain historical data for audit purposes. There is a read-only view from the contract detail screen to display the meter and meter/contract specific data associated with each contract.

Settlement Variables

Contract settlement variables are entered via a form selectable by plant, contract/payee, and settlement term. The form varies in input format to accommodate variables required by the settlement term selected. For example, the “Liquids Payment” settlement term allows input for payment percentages by product for the plant and the “Keepwhole – Inlet” settlement term allows input for a fixed Keepwhole Price or a Price Index selection with a percentage factor and price adjustment.

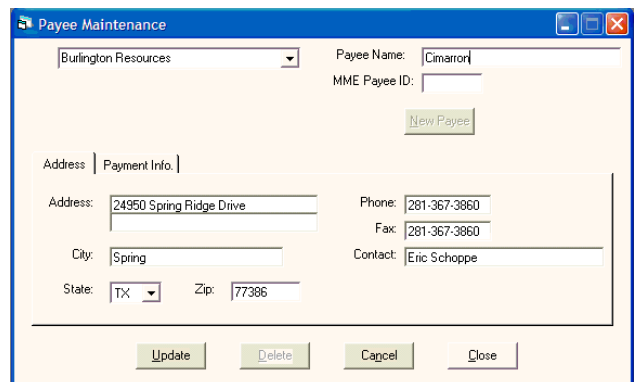


The settlement variable data is keyed by effective date to retain historical data for audit purposes.

Payee

The system captures address and payment information for an unlimited number of payees for the system. The address information includes mailing address and contact information. The payment information includes

- Wire Transfer Number
- Payee Type
- Federal ID
- Federal ID Type
- Form 1099 Designation
- Accounting System Name ID
- Accounting System Address ID



Remaining System Entities

CPASS captures data for each of the following entities:

Entity	Description
<i>Producer</i>	CPASS captures data for an unlimited number of producers for each pipeline. The system captures producer address and identification data.
<i>Product</i>	CPASS allows an unlimited number of products to be setup for the system available to all plants. Product name and abbreviation are captured.
<i>Pipeline</i>	The system captures data for an unlimited number of pipelines for the system available to all plants. Pipeline name, abbreviation, address, and contact information is collected on the pipeline maintenance screen.
<i>Operator</i>	CPASS allows the setup of an unlimited number of operators for the system

Entity	Description
	available to all plants. The operator name is collected.
<i>Gas Price Index</i>	CPASS allows for the setup of an unlimited number of gas price indexes for the system available to all settlement terms. The index price is stored for each allocation period.
<i>Company</i>	CPASS allows for the setup of an unlimited number of companies within the system. Each company exists as a separate entity and acts as the parent for all plants and associated allocation and settlement data.

CPASS Processing

Allocation Runs

CPASS allows multiple allocations and settlements to be run by allocation period. The allocation and settlement runs are executed from the “Perform Allocation” screen. Subsequently, each allocation and settlement run result is available for viewing within the system via reports. Each run may be marked as final or deleted via the “Mark Complete” screen. The first run marked for a particular allocation period as final is tagged as the “original” run and each subsequent run marked as final is tagged as a revision numbered by the ordinal number of the revision.

Allocation Process

Allocation calculations are performed to derive the following data by plant inlet meter:

- Field Delivery
- Allocated Field Delivery
- Shrinkage
- Residue
- Allocated Plant Inlet
- Plant Fuel and Flare
- Compressor Fuel
- Liquids Production

This information can be viewed on various reports described in the Reports section. The major calculation steps are described in the subsections below.

Liquids

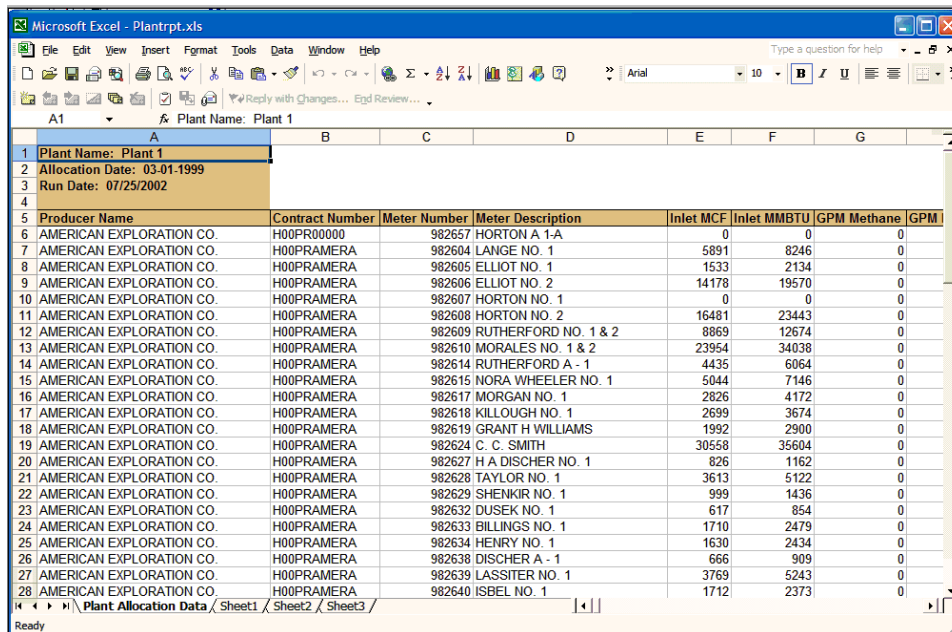
Plant liquid production is allocated back to the inlet meters based upon plant liquid production prorated by inlet volume and quality information. Theoretical production is calculated and used for theoretical cap settlement terms. GPM factor caps and fixed rate adjustments are also calculated and applied to production gallon numbers. A special allocation is also performed for methane production based upon an ethane production basis.

Plant Fuel

Plant fuel is allocated back to inlet meters using the following basis methods:

- Inlet Volume
- Liquid Production Gallons
- 50/50 Mix of Inlet Volume and Liquid Production Gallons

Report	Description
<i>Meter Volume Comparison</i>	The Meter Volume Comparison Report lists the inlet volumes by meter for an allocation period and compares that against the most recently entered previous volumes. The report flags those volumes that vary by more than a specified tolerance.
<i>Meter GPM</i>	The Meter GPM Report lists the inlet gas quality factors by meter for an allocation period. The report shows the auto-loaded factors as well as the manually entered overrides.
<i>Meter GPM Comparison</i>	The Meter GPM Comparison Report lists the inlet gas quality factors by meter for an allocation period and compares that against the most recently entered previous factors. The report flags those factors that vary by more than a specified tolerance.
<i>Producer Payment</i>	The Producer Payment Report is a report formatted to mail to individual producers that breaks down the inlet, allocation, and settlement data by producer by contract by meter. The letter serves as a written notice of settlement to the producer for gas processing at the plant.
<i>Contract Term Rule</i>	The Contract Term Rule Report lists all of the settlement terms and their associated variable values by contract (payee) and meter. The report serves as a hard-copy list of contract settlement data represented in the CPASS system.
<i>Plant Excel Export</i>	The Plant Excel Report exports all input, allocation, and settlement data by meter into an Excel spreadsheet for a specified allocation period. The dynamic data, statically arranged, may be linked to other worksheets, spreadsheets, or ODBC clients to produce ad-hoc reports and what-if scenario reports.



1	Plant Name: Plant 1							
2	Allocation Date: 03-01-1999							
3	Run Date: 07/25/2002							
4								
5	Producer Name	Contract Number	Meter Number	Meter Description	Inlet MCF	Inlet MMBTU	GPM Methane	GPM
6	AMERICAN EXPLORATION CO.	H00PR00000	982657	HORTON A 1-A	0	0	0	
7	AMERICAN EXPLORATION CO.	H00PRAMERA	982604	LANGE NO. 1	5891	8246	0	
8	AMERICAN EXPLORATION CO.	H00PRAMERA	982605	ELLIOT NO. 1	1533	2134	0	
9	AMERICAN EXPLORATION CO.	H00PRAMERA	982606	ELLIOT NO. 2	14178	19570	0	
10	AMERICAN EXPLORATION CO.	H00PRAMERA	982607	HORTON NO. 1	0	0	0	
11	AMERICAN EXPLORATION CO.	H00PRAMERA	982608	HORTON NO. 2	16481	23443	0	
12	AMERICAN EXPLORATION CO.	H00PRAMERA	982609	RUTHERFORD NO. 1 & 2	8869	12674	0	
13	AMERICAN EXPLORATION CO.	H00PRAMERA	982610	MORALES NO. 1 & 2	23954	34038	0	
14	AMERICAN EXPLORATION CO.	H00PRAMERA	982614	RUTHERFORD A - 1	4435	6064	0	
15	AMERICAN EXPLORATION CO.	H00PRAMERA	982615	NORA WHEELER NO. 1	5044	7146	0	
16	AMERICAN EXPLORATION CO.	H00PRAMERA	982617	MORGAN NO. 1	2826	4172	0	
17	AMERICAN EXPLORATION CO.	H00PRAMERA	982618	KILLOUGH NO. 1	2699	3674	0	
18	AMERICAN EXPLORATION CO.	H00PRAMERA	982619	GRANT H WILLIAMS	1992	2900	0	
19	AMERICAN EXPLORATION CO.	H00PRAMERA	982624	C. C. SMITH	30558	35604	0	
20	AMERICAN EXPLORATION CO.	H00PRAMERA	982627	H A DISCHER NO. 1	826	1162	0	
21	AMERICAN EXPLORATION CO.	H00PRAMERA	982628	TAYLOR NO. 1	3613	5122	0	
22	AMERICAN EXPLORATION CO.	H00PRAMERA	982629	SHENKIR NO. 1	999	1436	0	
23	AMERICAN EXPLORATION CO.	H00PRAMERA	982632	DUSEK NO. 1	617	854	0	
24	AMERICAN EXPLORATION CO.	H00PRAMERA	982633	BILLINGS NO. 1	1710	2479	0	
25	AMERICAN EXPLORATION CO.	H00PRAMERA	982634	HENRY NO. 1	1630	2434	0	
26	AMERICAN EXPLORATION CO.	H00PRAMERA	982638	DISCHER A - 1	666	909	0	
27	AMERICAN EXPLORATION CO.	H00PRAMERA	982639	LASSITER NO. 1	3769	5243	0	
28	AMERICAN EXPLORATION CO.	H00PRAMERA	982640	ISBEL NO. 1	1712	2373	0	

Sample Plant Excel Export