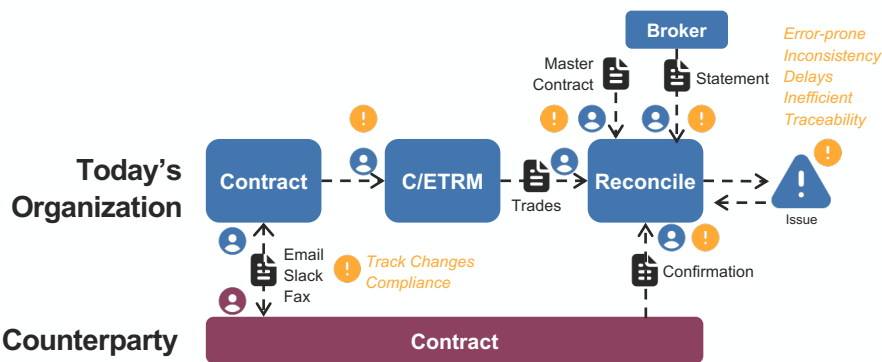


Confirmation Manager

Oil, Gas and Biofuels

Today's process is a series of manual, error-prone handoffs

The process of trading confirmations reconciliation is essential to ensure accurate and timely settlement of trades, and to avoid risks and discrepancies that can result in financial losses or legal disputes. Despite advances in technology, these processes are still manual, making it difficult to manage and prone to errors, delays, and data discrepancies.

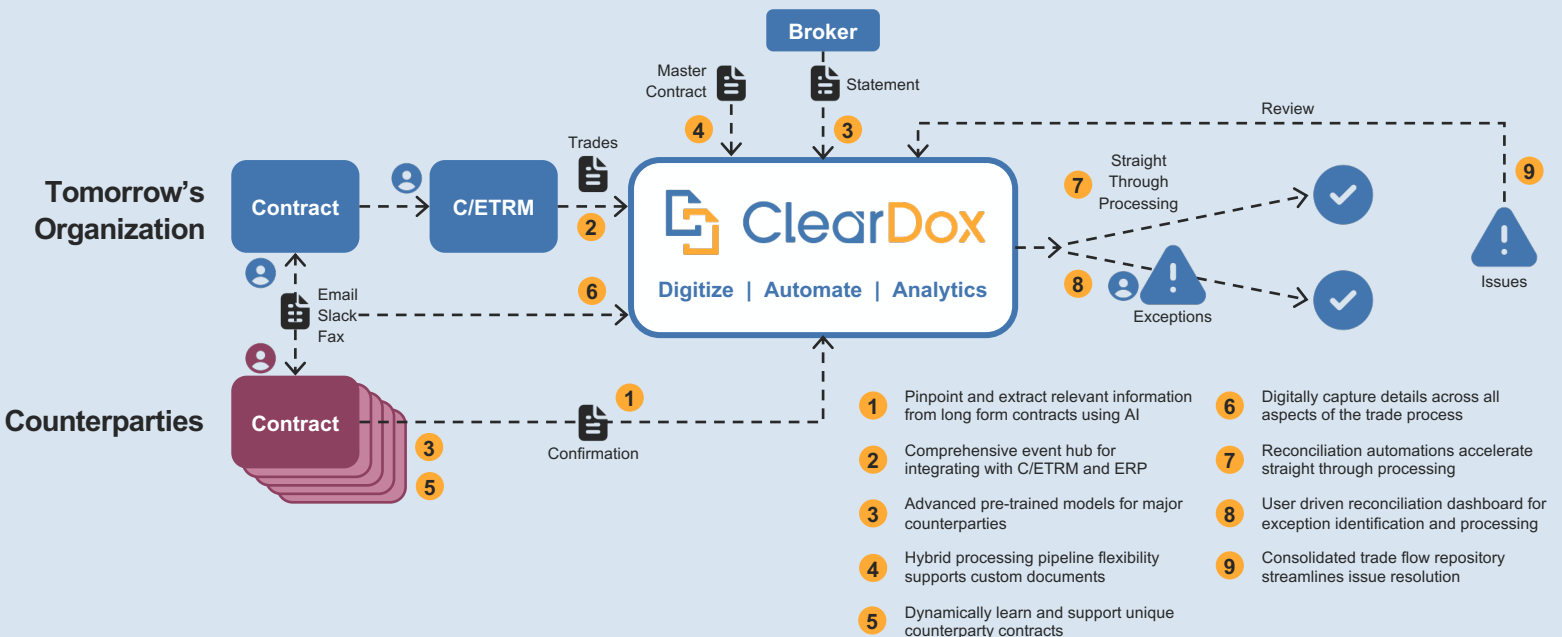


Unlike other financial transactions, the commodities market lacks standardization in terms of trading practices, contract terms, and settlement procedures. The complexity is further heightened by the unstructured nature of the contract and variance across each commodity and counterparty.

All of this and the means by which confirmations are often sent (email, fax, chat) has limited the use of automation that could be applied, leaving organizations very reactive to issues when they arise.

Automated trade confirmation reconciliation with ClearDox

By combining its deep knowledge in the commodities space with its patent-pending multi-faceted AI approach, ClearDox can intelligently extract the appropriate data for processing and automate the reconciliation process at a scale unseen in the industry. This unique set of technologies and approach allows for the effective processing of unstructured, long form confirmations that were previously off-limits to automation. Now organizations can reduce the issues brought on by manual processes, and scale efficiently through the ClearDox solution versus today's build-your-own approach.



Using AI to solve the document complexity challenge

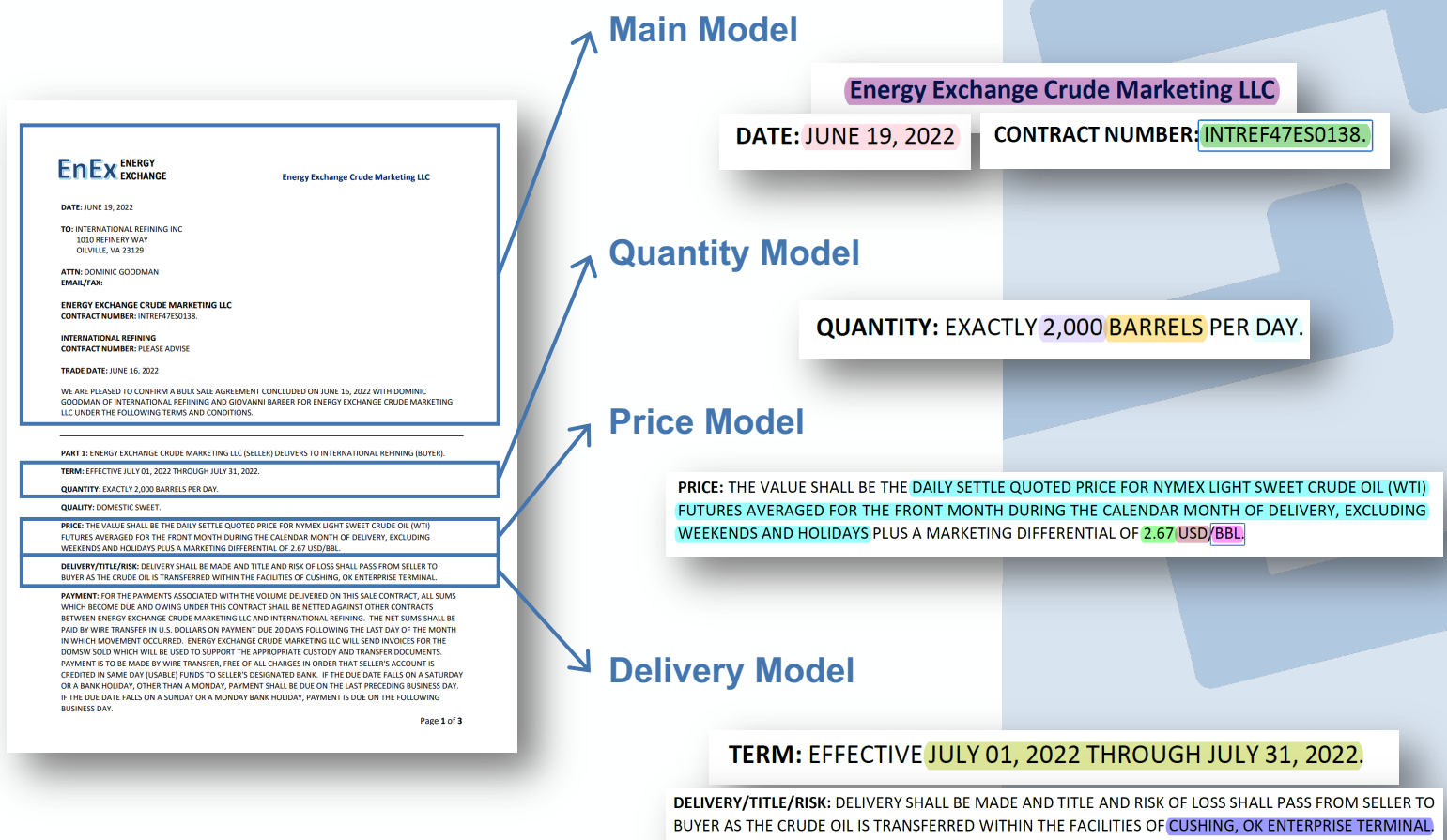
AI is an appropriate technology to digitally capture the details within each document. The attributes of confirmations present a unique challenge when compared to other documents across the trading and operations process including:

- High variability on pricing, delivery and quantity terminology
- Length of documents are too long to apply a single model against
- Substantial 'noise' such as headers and footers in the structure of contracts interfere with models
- Similarity of terms like price and quantity, especially in multi-trade contracts, make it difficult for models to distinguish between

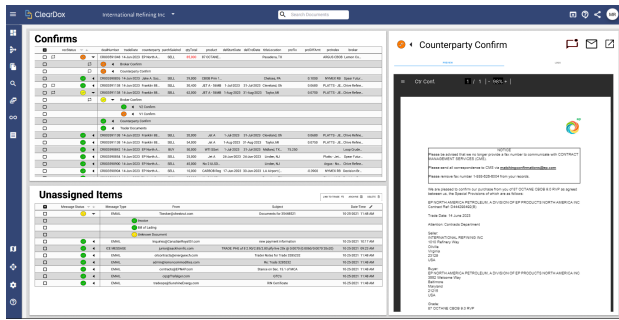
New patented approach with multi-faceted AI usage

ClearDox applies a combination of technologies, including a proprietary segmentation process, in conjunction with NLP to pinpoint and extract relevant information from long form commodity contracts and confirmations. Recognizing that the complexity of these documents was too difficult to solve with one model, a segmentation step was developed to break the document down into its requisite sections, (i.e., delivery, pricing, quantity). This included stripping out any extraneous details that would reduce their effectiveness.

Unique NLP models are generated and run for each section intelligently extracting the appropriate data for processing and automated reconciliation. This overall approach simplifies the training while substantially increasing the level of accuracy. Additionally, this method is highly effective and efficient against contracts involving multi-trades.



Reconciliation Dashboard



Relying on staff to manually compare statements against internal systems can result in costly discrepancies slipping through the cracks.

The reconciliation dashboard provides a centralized view to all reconciliation activities. It enables users to easily identify discrepancies or those contracts that require manual action. In addition, straight through processing can be applied against the digital data and automated matching reducing the time and risk of errors while increasing efficiency of the team.

Solution Components

By packaging the pre-trained models of major counterparties along with reconciliation automations and integrations for critical systems, ClearDox is unique in the space. These turnkey solutions bring more immediate value to customers, while reducing ongoing management and maintenance.

Documents

Proprietary Natural Language Processing (NLP) technology to extract relevant information from long-form confirms, even when embedded in blocks of plain text.

Normalizations

ClearDox Knowledge Base contains thousands of standardized names for entities such as counterparty, delivery location, product, grade etc. We also allow custom mappings

Automations

ClearDox contains a fully-featured reconciliation engine, including multi-way rec (internal to counterparty to broker) and pre-built dashboards to track rec status.

Integrations

Call ClearDox APIs with standard REST APIs, use our Event Hub, or take advantage of pre-built integrations with several leading ETRM systems.

Component Details

Out-of-the-Box Counterparties

Major Oil Producers, including

- BP
- Chevron
- ConocoPhillips
- Exxon
- Shell
- Sunoco

Oil Traders, including

- Freepoint
- Gunvor
- Mercuria
- Trafigura
- Vitol

Other

- Gulf
- Marathon
- PetroChina
- Valero

Brokers

Data Captured

Broker	INCO Terms
Broker Reference #	Internal Company
Buyer	Internal Trader
Counterparty	Payment Terms
Counterparty Deal #	Price Differential
Delivery End Date	Pricing Currency
Delivery Interval	Pricing End Date
Delivery MOT	Pricing Start Date
Delivery Origin	Pricing UOM
Delivery Pipeline Cycle	Product
Delivery Start Date	Purchase/Sale
Delivery Tolerance	Quantity
Destination	Seller
Document Date	Title Location
Document Source	Trade Date
Fixed Price	Trade Quantity
Grade	

Automations

- Confirmation Reconciliation
- Broker Reconciliation
- Trade Sheet Reconciliation
- Email Data Inputs

Integrations

CTRM/ETRM Vendors

- CXL
- Right Angle

Other

- Microsoft SharePoint
- AWS S3
- AWS SQS
- Google Big Query
- REST API
- Import/Export SFTP (CSV, JSON, XLSX)