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## INTRODUCTION

This document is provided to Enron traders who will be responsible for running the internal applications associated with posting and maintaining prices for Products in EnronOnline.

This is provided as part of the EnronOnline training program and is not a substitute for formal training, which will include hands-on demonstrations and simulations.

EnronOnline provides significant opportunity, but also significant risk. This manual is not a substitute for formal training and users should not use the EnronOnline applications without completion of the formal training course and the mandatory minimum period of simulation training.

Please note that the EnronOnline system will not allow users access to the live system without completion of the minimum required simulation period.

### Relationship of Web and Database

There are two primary parts to EnronOnline:

- a) The Internet application and
- b) The Database applications

The Internet application is used by customers to buy and sell commodities with Enron. It also contains a short multimedia presentation about EnronOnline, along with news, EnronOnline press releases and various administration screens which are helpful to the customer. You can find the website at [www.EnronOnline.com](http://www.EnronOnline.com), although it will not be fully functional until Sept. 27, 1999

The database applications are used by Enron personnel. These internal applications are not available to any customers and are not internet based, but are direct connections to the EnronOnline database, located in Houston.

The database applications which this document covers are the Price Stack Manager (PSM) and the Product Manager (PM). The PSM and the PM are the primary applications which will be used by traders in the normal course of trading with EnronOnline.

### Product Manager

The Product Manager (PM) allows traders to add new Products. With the PM, traders can create new Products, delete old Products, change existing Product attributes and view the system descriptions of the Product.

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### **Price Stack Manager**

The Price Stack Manager (PSM) is the principle application which traders will use in their day-to-day activities. It lists the Products which a trader is responsible for and shows the "stacks" of Enron bids, offers and volumes.

The PSM allows for adding and deleting new price and volume combinations and updating existing prices and volumes. It contains tools for setting warning levels and for setting up advanced price or volume related functions, like basis links or Order-Cancels-Other.

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## THE CUSTOMER'S PERSPECTIVE

Although Enron traders will not use the Internet application in the normal course of business, it is important to understand some principles about it and how those principles affect what a customer can see and do.

*Internet Home Page:*



### The EnronOnline Website

There are two general areas of the website: the House and the Garden.

The Garden is the area which is available to anyone with internet access. It contains a demonstration about EnronOnline, information on how to contact Enron, links to the Enron home page, information on how to register, etc.

The House is the area which is available only to users with an Enron-issued User ID and Password. It contains the EnronOnline quotes pages, which provide the ability to transact with EnronOnline.

### Customer Registration Process

There are two kinds of EnronOnline customer: Those who are pre-registered and those who are not.

Pre-registered customers have received a brochure from Enron which includes a Guest User ID and Password and a Password Application (PA). These are customers who we know and may have done business with before the launch of EnronOnline. The Guest User ID will allow these customers to see EnronOnline prices on a Read Only basis. The

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Guest User ID is time-limited. In order to transact with EnronOnline, customers must complete the PA. Once we have received a signed PA, we will assign a Master User ID and transaction rights for various Products to the applying customer as appropriate.

Customer who are not pre-registered will generally be those who independently arrive at the EnronOnline website. The site will not allow these customers to see prices until they have requested a Guest User ID or a Master User ID from us.

Customers who have not acquired either a Guest User ID or a Master User ID will not be able to view prices with EnronOnline.

### **Master User ID**

A Master User ID is required for a customer to transact with EnronOnline. Each company wishing to transact must have at least one Master User ID, but may have multiple Master User ID's as required. The Master User ID is issued by Enron to a customer when that customer completes a PA.

Each Master User ID will allow the customer to create up to 10 Users or Back Office Users. A User may have trading rights on the system. The Master User will control which rights a particular User has, within the limits of the overall rights which Enron has granted to the company. A Back Office User will only be able to view transactions which Users in their company have completed. Back Office Users do not have any rights to trade Products.

### **Contractual Framework**

The first contractual document which a customer will receive is the Password Application (PA). The PA is the document by which the customer agrees to be bound by the other contracts which will cover their online trading. Specifically, the Password Application references the Electronic Trading Agreement (ETA) and the General Terms and Conditions (GTC's). The PA is specific to the country from which the customer is trading.

The ETA provides the framework for electronic trading. It covers the use of the passwords and establishes the principle of "clicking" on a Product in order to initiate a process which may create a binding contractual arrangement for its purchase or sale. The ETA specifies that a particular transaction will be governed by the GTC which applies to the Product which has been identified by Enron as applying to that customer and the Product which has been clicked upon. The ETA is specific to the country from which the customer is trading.

The GTC's are much like the Master Agreements, which are common in gas and electricity for telephone-based trading. They provide the general contractual framework for multiple commodity transactions. GTC's identify termination rights, provisions for security (as appropriate), operational conventions (nominations, etc.), payment periods, tax treatments, force majeure, penalties for non-performance, etc.

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**Internet Quotes Page:**

[illegible]

## Customer Profiles

Not all customers will be able to transact all Products with EnronOnline. For various commercial, tax, credit or legal reasons, some customers will either have only read access or no access to bid prices, offer prices or whole Product Types.

The access which a particular customer enjoys is set by Enron according to the customer's profile. Each customer has their own profile, which specifies the type of GTC (General Terms and Conditions – like a Master Agreement), which applies to a customer and their available Products.

## The Quotes Page

The Quotes page is the "core" of EnronOnline from the customer's perspective. It shows a listing of all the Products which the customer can see and all the Products which the customer can transact. The only price and volume which a customer can see is the best bid and best offer from the Stack associated with that Product. Customers cannot see any other prices or volumes which an Enron trader may have set up for a Product, unless those other prices become the best available.

In order to transact with EnronOnline, all a customer has to do is click once on the bid or offer which they are interested in. They will then see a "Submissions" window, asking them to confirm their offer to buy or sell. If they click "Submit", then their offer will be processed by the Enron and, if it passes the automated checks, will be accepted. This makes transacting with Enron very simple with the customer: two clicks and they're done.

When a customer submits an offer to buy or sell to EnronOnline, they have several additional options: "All or Nothing" and "Price Range".

The “All or Nothing” option allows a customer to specify that their offer may only be accepted if there is sufficient volume remaining at the price they specify. If this option is

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not selected, then the customer can select the alternative option: "Accept Partial Volume", in which case the system will attempt to meet the customer's offer with as much volume as is available at the price which the customer specifies.

The "Price Range" option allows the customer to specify a range of prices at which their offer may be accepted by Enron. This is useful when the market is moving quickly. By specifying a range of prices, the customer's offer could be filled if the requested price ceases to be available by the time their offer arrives, but the next item in the price stack falls within their range.

The full EnronOnline Product list is very long, so one of the features on the Quotes page is the ability for a customer to select only those Products they are interested in through a drop-down filters list and put them onto a customized "composite" page.

### **Web Latency**

Because the customers will be transacting over the internet, there may be issues associated with web latency. Web latency is the delay experienced as information travels through the internet. When the market is moving quickly and internet traffic is high, it is possible for a customer to submit an offer, but by the time the offer reaches Enron, the selected price and volume is no longer available.

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## THE PRODUCT MANAGER

### Product Manager Functions

The Product Manager is used for adding and maintaining Products. The PM allows traders to generate new Products, activate/deactivate existing Products, amend Product preferences and settings and view Product descriptions.

### Overview of Product Add Process

Products are built up by combining the various attributes which describe them. For example, Canadian Physical Forward Gas at NIT for January 2000 would be built by combining a Product Type (Canadian GasPhysical Forward), a location (NIT) and a term (January 2000). By combining different attributes, we can create different Products.

When a trader selects the attributes for a Product, the system builds a short description, by combining the short description elements of the attributes which the trader selected, and a long description, by combining the long description elements of the attributes which the trader selected. This ensures that the descriptions for different Products have a similar look and feel, regardless of the individual trader who assembled them.

There are a number of different attributes, which can be selected to build a new Product. Although EnronOnline includes some error checking to ensure that the Products have been put together with appropriate attributes, it is the responsibility of the trader to ensure that the created Products are appropriate for the market.

The initial list of attributes include:

- Calendar Type
- Reference Period
- Locations
- Index
- Load Shape
- Grid Level
- Quality
- Option Type
- Strike
- Reference Basis
- Pay Unit
- Currency
- Expiry Date
- Pay Limit
- Nomination
- Swing %

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## Product Types Vs. Products

An EnronOnline Product Type is a unique combination of Country, Commodity, Category, Dealtypes and Firmness attributes. For example, U.S. Gas Physical Forward Firm.

An EnronOnline Product is a unique combination of various attributes, including several of: commodity, region, location, index, term, currency, etc. For example, U.S. Physical Forward Interruptible Gas for January 2000 at Henry Hub.

Adding new Products is easy for authorized traders to do. Adding new Product Types is more involved, requiring approval by legal, credit and tax.

It will be very common for traders to be adding new Products – for example, adding new months for UK NBP physical forward gas.

It will not be very common to add new Product Types – for example, U.S. Ammonia Fertilizer or UK Plastics.

## Product Creation Principles

This section provides a detailed description of the theory behind creating new Products and the way in which the system stores Product data. This section should be considered optional reading for those who wish a deeper understanding of the way in which Product Descriptions are assembled.

A Product description consists of two parts i)Product Type; ii)Product Additional Information (PAI). The Product Type is the level to which GTCs, Masters, Legal Entities and Authorised traders is consolidated. Product Types consist of the following fields: Country, Commodity, Deal Category, Deal Type, Firmness.

For each Product Type there is a part of the short description (e.g. US Gas FIN Swap) and there is a part of the long description (e.g. "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron")."

Each Product Type has a defined set of PAI's that must be selected to create a Product. For example: Product Type "US Gas FIN Swap" has the following PAI required fields: 'Reference Period, Index, Currency, Volume'.

Each field in the PAI has an associated abbreviation that will be used in the short description and a sentence (or group of sentences) that will be added to the long description. Abbreviations are used to generate the remainder of the short description.

Short Description PAI fields example:

Reference Period - 01Jan99 to 31Jan99 would abbreviate to 'Jan99'  
Index – Inside Ferc would abbreviate to 'iFerc'

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Currency – US Dollars would abbreviate to USD

Volume – MMBtu would abbreviate to MMBtu

Long Description PAI fields example:

Reference Period – "The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999."

Index – "The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report."

Currency – "The price is quoted in US Dollars per unit of volume."

Volume – "The unit of measure for which the price is quoted against is in millions of British thermal units."

Adding the Product Type and PAI together for the above PAI's would create the following short description: US Gas FIN Swap Jan99 iFerc USD/MMBtu.

Adding the Product Type and PAI together for the above PAI's would create the following long description: "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron").

The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999. The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report. The price is quoted in US Dollars per unit of volume.

The unit of measure for which the price is quoted against is in millions of British thermal units."

The order of both the abbreviations for the short descriptions and the sentences for the long descriptions is set according to the following order:

'CalType, RefPeriod, Location, Index, Loadshape, Grid Level, Quality, OptType, Strike, RefBasis, PayUnit, Curr/Volume, Edate, PayLimit, Swing%, Size'

Note: If a Product Type's required PAI does not include a field above then no short or long description will be generated for that particular field.

### Logging in to the Product Manager

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Product Manager by selecting the Product Manager icon.
- 5) Enter your EnronOnline id and password

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At this point, the Product Manager should start.

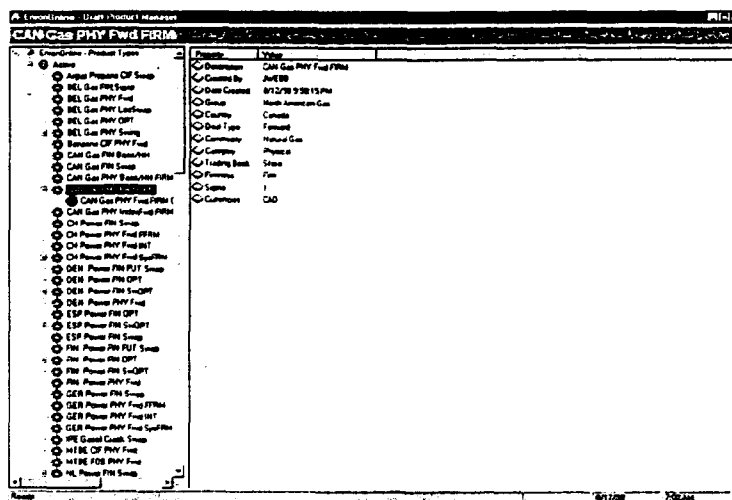
If any of the above steps do not work, please contact technical support.

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## The Product Listing

The first screen you see in the Product Manager shows a listing of all of the Product Types and Products which you are authorized to see. Note that you may need to expand the tree view to see all of the Products.

*Product Listing Page:*



When you select an individual Product Type, the Product Manager shows a short description and the relevant attributes for that Product.

This example shows the listing for the Canadian Gas Physical Forward Firm Product Type.

Note that if you do not currently have authorization to view any Product Types, then you will not be able to see any Products in the listing and you will be unable to use the Product Manager. You must have authorization to at least one Product in order to proceed.

If you are unable to see any Product Types and you require access, please see your Head Trader, who will contact the Product Group to authorize your access as appropriate.

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## Adding Products

To add a Product, right-click on a Product Type category which is associated with the Product you require and then select "Add Product". A screen similar to the following should appear:

*Product Listing Page:*

Select attributes from the drop-down boxes as appropriate for the Product you are adding.

Tokenised periods are those in which the lifespan of the Product is expressed relative to today's date, or using industry-standard language which is specific to the Product. For example, "Day-ahead" would be a tokenised period reference which is relative to today's date. The period "Summer 2000" is defined by the system to use specifically the months which the industry defines as "Summer" for the Product in question.

If you wish to specify discrete dates (e.g. Jan 1 2000 to Jan. 31 2000), then deselect the Lifespan Tokenized? tick box and fill in the Start Date and End Date fields as appropriate. Discrete End Dates should be the last full day in which delivery occurs. For example, you would not enter Jan 1 2000 – Feb. 1 2000 for delivery which was intended to last only for the month of January.

When you specify discrete end dates which are a full month or quarter, then they will be abbreviated in the short description as appropriate (e.g. Jan 2000 or Q1 2000).

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**Quote Details/Trading Hours Page:**

Select the next "page" on the screen and proceed to enter the Product attributes associated with Quote Details/Trading Hours.

The "Normally Trades in" field specifies the currency in which the Product normally trades.

If the "Offered in" field specifies a currency which is different from the one entered into "Normally Trades in", then the system will recognize that this Product involves foreign exchange.

The "Quoted in" field specifies the units of the currency in which the Product is quoted (e.g. cents vs. dollars). Note this must be the same currency as the Offered In field.

If you select "Suppress FX email notification", then the FX desk will not receive automatic emails whenever this Product is transacted. Under normal circumstances, you will not need to send emails to the FX desk unless you are trading in a currency which is not the base currency.

The Tick Size field specifies the minimum increment or decrement which can be used in specifying prices.

The times specified in the lower right portion of the screen identify the times in which the Product is normally available for trading. These hours can be set so that a particular Product can be traded outside of the trading hours which apply to the Product Type.

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### Garbage Checking Page:

Select the next "page" to move to the Garbage Checking screen. This screen is used to set the levels at which the system will check entries for input errors. There are two general kinds of error checking: against price and against volume.

There are two kinds of price checks: Percent and Absolute. Either one can be selected.

Percent price checks are measured by movement against the last traded price, or against an Initial Garbage Check price. You must specify a level at which the system will provide a warning before proceeding and also a level at which the system will simply fail to add a new price. An Initial Garbage Check price must be specified so that the system has a baseline to measure against when the first real price is entered into the system.

Absolute price checks also have specifications for warning and failure, but the check levels are shown in the same units as the price is displayed, rather than as a percentage.

If the Check on Percentage tick box is checked, then the system will check limits based on the specified percentages, rather than the absolute levels.

The Check Override is a field which is used to specify the starting value for percentage or absolute checks.

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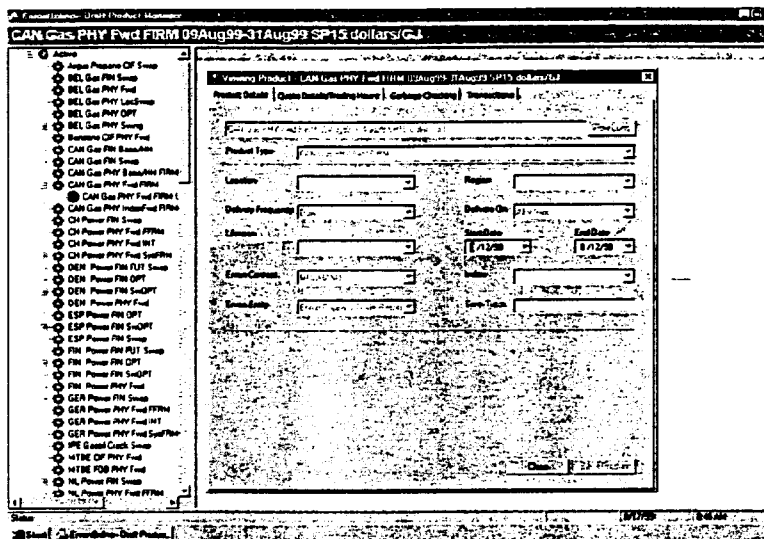




## Modifying Products

To modify a Product, you must click on it, using the right mouse button and select "View" from the menu. Products appear in the tree menu under the Product Types

*Product List and Details Page:*



Upon selecting a Product, the Product Details page will appear. The Product can be modified by changing the appropriate attributes. Note that Products cannot be amended (other than the garbage check levels) if they have already traded.

## Deleting Products

To delete a Product, you must click on it, using the right mouse button and select "Delete" from the menu. Note that Products cannot be deleted if they have already been traded.

## Copying Products

In some cases, it is easier to copy an existing Product and then modify it, rather than entering a new Product right from the start. To do this, click on the Product you wish to copy, using the right mouse button and select "Copy" from the menu.

You can then view the copied Product and modify it as necessary.

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### **Product Descriptions**

The short Product description is shown on the Product Details page in the same format as it would be seen by a customer.

The long Product description is available by clicking on the "long description" button, from the Product Details page. Customers can see both the long description and the short description, so it is important that they are checked for accuracy and clarity.

### **Resizing Windows/Customizing Screen Layout**

Most windows and fields can be resized within the Product Manager application by dragging their borders.

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## THE STACK MANAGER

### How the Stack Manager Works

A "Stack" is a listing of price and volume combinations for a Product. The customer will see only the most favorable bid or offer price. They will not see the remaining entries in the Stack unless the most favorable entries are sequentially removed either by other customers completing transactions, or their removal by the Enron trader.

The Enron trader maintains a Stack, so that if a transaction is completed by the customer, the next bid or offer in the Stack list will immediately appear to take its place. Different techniques can be used in building the Stack, depending on market objectives. It is possible, for instance, to have an entire Stack in which all of the prices and quantities are the same. Therefore, the "market" will not move, regardless of whether or not a customer "takes out" the entire bid or offer which is visible on their screen at any one time. An alternate strategy might be to build the stack with the same volume entries, but with prices moving up or down in defined increments. With this kind of stack, as customers complete transactions, the market will appear to move up or down, as appropriate.

Much more complex Stack strategies are of course possible, and EnronOnline has several tools which allow for construction of complex strategies and inter-Product relationships. These tools are discussed in the "Modifying Product Settings/Attributes" section, later in this document.

There is only one Offer Stack and One Bid Stack per Product, although there can be dependencies between Stacks.

Each trader will have a set of Products for which they will be responsible. Each active Product which is shown to customers must have a Stack maintained for it.

It is possible for multiple traders to view the same Product, but only one Trader will have Manager status and be able to manipulate the Stacks at any one time.

The Stack Manager links directly to the EnronOnline database. Customers do not have access to the Stack Manager. Information is entered into the EnronOnline database through the Stack Manager application and is processed, reformatted and selected elements transmitted to customers via the Internet.

### Stack Manager Function Summary

The Stack Manager is the primary interface that Enron traders will use to connect to the EnronOnline database and maintain their Stacks. This application allows traders to add, delete and modify prices and volumes, define Stack strategies, reassign responsibility for management of certain Products, view completed transactions, set market times, etc.

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The Stack Manager allows for defining relationships between Products. For example, it is possible to set the pricing of one Product so that it moves in proportion to price movements of another Product. It is also possible to set up the Stacks so that if volumes are taken from one Product, then volumes cease to be available from another Product.

The system handles basis, relative and absolute pricing. Limits can be set up to prevent or warn traders against entries in which the price or volume exceeds specified levels.

There are automated checks to ensure that traders do not accidentally cross their own bid/offer spread.

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### **Logging in to the Stack Manager**

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Stack Manager by selecting the Stack Manager icon.
- 5) Select Login User from the Speedbar
- 6) Enter your User Name and Password

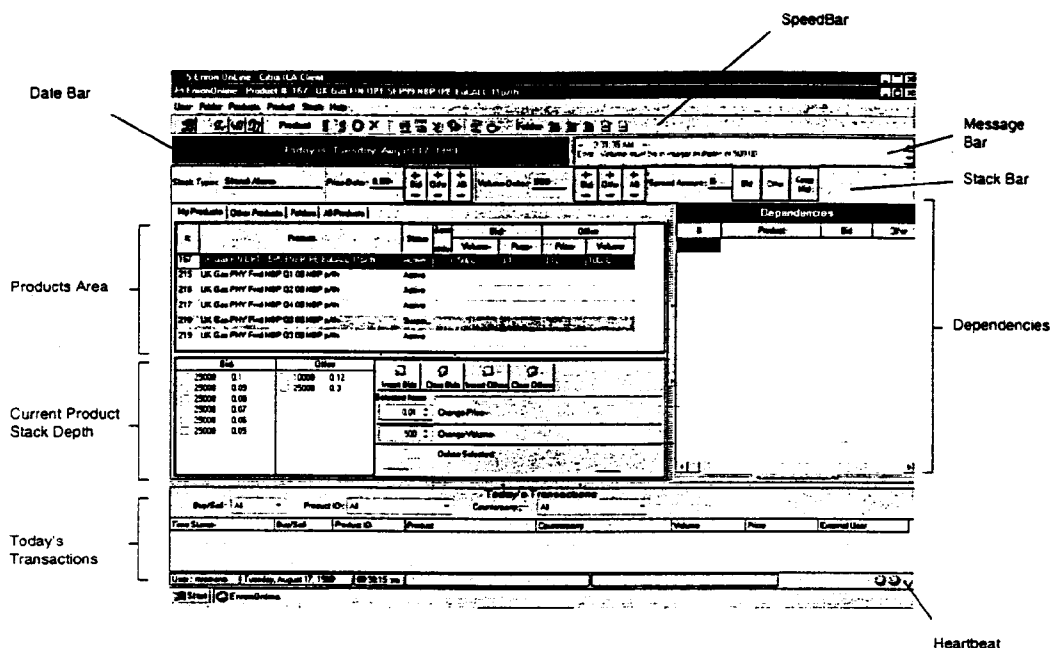
At this point, the Stack Manager should populate with the Products you are authorized to trade.

Note that it is possible to have multiple sessions logged on under one User ID. This can be useful if you are running multiple Products, and provides a level of redundancy in the event of failure of your computer.

If any of the above steps do not work, please contact technical support.

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## Stack Manager Screen



When you first log into the Stack Manager, you will see a screen which looks similar to the above.

The Products Area section shows a list of all of the Products which you are authorised for, along with the highest bid and lowest offer prices (and associated volumes) from each Product Stack.

The Current Product Stack Depth section shows the "stack" of bids and offers which lie behind the best price/volume shown in the Products Area for the highlighted Product.

The Today's Transactions section shows any transactions which have been completed for any of the managed Products in the current session.

The Heartbeat is your assurance that your desktop really is communicating with the main EnronOnline database. Every 60 seconds, the connection to EnronOnline is automatically checked. If the connection fails, then all of your Products will be automatically suspended, unless you have those same Products open under your User ID on another computer. The Heartbeat lights will remain a constant green color unless the connection fails. If this happens, please contact Tech Support.

The Dependencies section will list any Products which the Managed Products are dependent upon. For example, if one of the managed Products is set up so that its price is calculated relative to Product X, then Product X will be shown in the Dependencies section.

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The Message Bar shows any messages from the database which are relevant to your current session. Any error messages will be shown here, along with notifications regarding customers to have tried to transact, but have failed due to market movement or application of credit limits.

### **Primary Tabs**

Within the Products Area of the screen are four Primary Tabs. These are:

- My Products
- Folders
- All Products

The My Products tab shows all of the Products for which you are the current Manager. These are the Products for which you are responsible for maintaining a Stack, regardless of whether the Products are Active or Inactive. Note, however, that customers cannot see prices or volumes for Products which are not Active.

The Other Products tab contains listings of Products selected from the All Products tab which you wish to monitor. To move a Product into the Other Products tab, go to the All Products tab, highlight the Product and either select the "Open Product" button on the Speedbar, or right click, then select "Open Product" from the menu, or double-click on the Product. This is a way of organizing the Products which are most interesting, without having to pick them out of the long list on the All Products tab. To remove a Product from the Other Products tab, highlight the Product and either select the "Remove Product" button from the SpeedBar, or right click, then select "Remove Product" from the menu.

The All Products tab shows a listing of all of the Products which are available for which you have the ability to be the manager, or for which you have read-only access. The system will not allow you to maintain the Stack for any of the Products on this tab. In order to maintain the Stacks for these Products, you must first obtain Manager status (See the Changing Manager Status section for details).

Note that you cannot manage a Product which is identified in the All Products tab as Active and being managed by someone else. If you wish to manage a Product which is being managed by someone else, then you must first ask them to withdraw from that Product as its manager.

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## Modifying Product Settings/Attributes

Highlight a Product and choose the Product Properties button from the SpeedBar or right click on a Product in the Products Area and choose Product Properties. A window will open up which looks similar to the following:

Product # 171: NL Power FIN Swap BoM NLBO PMH VW V Base NLG/MWh Active

Read Only

Manager: HROMAND Access Level: Read/Trade Is Base Product: No

Time (CES)

Trade Start Time (0-23 hours) Trade End Time (0-23 hours) ☐ Keep Awake

Price Change

Price Delta: 0.00 Absolute Price Check: Percent Price Check

Garbage Check Price: 2.00 Warming Change: 0.00 Warming Percent: 20

☐ Constant Spread Amount: 0.00 False Change: 50.00 False Percent: 20

Volume Change

Volume Delta: 0 Stack Type: Standard

WEB Settings

Changing of the WEB settings will suspend the product

Price Tick: 0.00 Volume Increment: 100

Min Volume: 100

Update Cancel

### Time:

This section specifies the time when the Product will become visible to customers (Trade Start Time) and the time it will be removed from customers' view (Trade End Time). You can specify a different end time for the current day in the Today Trade End Time field.

If you select "Keep Awake", then the Product will continue to be visible to customers for as long as someone is logged in and managing the stack.

### Price Change:

The Price Tick (Price Delta) field specifies the default increment/decrement which appears in the Stack Bar of the main Stack Manager screen.

### Garbage Check (Controls):

The Garbage check section is in the Price Change section of the Product Properties window. This is an important element in ensuring that accurate prices and volumes are published.

The Garbage Check Price field is a baseline price which is used for the Percent Price Check. If a Product is trading, then the last price-traded will normally be set as the baseline price. If no trades have occurred, then the Garbage Check Price will be used as the baseline price.

If the Constant Spread Amount field is checked, then the bid and offer prices will automatically be adjusted to maintain the specified spread. For example;

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Constant Spread Amount: 0.05  
 Current bid: 1.95  
 Current offer: 2.00  
 Next best offer: 2.02

If the entire current offer volume at 2.00 is taken by a customer, then the current bid will be automatically adjusted to 1.97 (to maintain the specified spread of 0.05 to the next best offer). The rule applied by the system is that if the offer was the last side taken, then the bid is adjusted. If the bid was the last side taken, then the offer is adjusted.

If Absolute Price Check is ticked, then any prices which a trader enters will be monitored for absolute variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified amount, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

If Percent Price Check is ticked, then any prices which a trader enters will be monitored for percentage variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified percent, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

#### Volume Change:

The Volume Tick (Volume Delta) field specifies the default increment/decrement displayed in the Stack Bar on the main Stack Manager screen.

The Minimum Volume specifies the minimum volume which a customer can specify when they offer to buy or sell.

#### Stack Type:

The Stack Type section provides various tools for automating price or volume updates to the Stack. Stack Types include options for linking a Product to other Products for price, volume or both. You can also instruct the system to maintain a specified bid/offer spread relative to the last trades.

If you are specifying a price in a Stack which is relative to another Product, the customer sees only the final, calculated price – not the calculation which is applied against the other Product. You see the basis and the customer sees the calculated price. For example, if the bid for Product Y is at \$2.75 and you price a bid for Product X at \$-0.75 to Product Y, then the customer will see the Product X bid as \$2.00. The customer will not see \$-0.75. Note that this rule does not apply if you are posting an index price. For index prices, the index differential you input will be the number which the customer sees.

When you select a Stack Type with a dependency, a new field will in which you can identify the related Product. Stack Types are as follows:

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Stand Alone	There are no dependencies for this Stack Type. This is the default type. You directly specify the price and quantity which the customer sees.
Basis Link	Prices will move in direct proportion to the related commodity. Prices should be entered as an adjustment to the linked Product. For example, if you are selling natural gas at Empress at Henry Hub less \$0.75, then you would enter a price of \$-0.75 in the offer stack for that Product and you would enter a Basis Link to U.S. Gas Physical forward at Henry Hub. Note that if the Offer at Henry Hub is taken out and is not replaced, then the Empress Offer would not appear on Customer Screens (as there is nothing for the basis to calculate against).
Syncopated Stack	If volumes for the related Product are removed (either by an Enron trader or a customer), then related volumes for the Syncopated Stack Product will be withdrawn from customers' view. This is an "Order - Cancels - Other" principle.
Syncopated Basis	This is the same as the Syncopated Stack, except that prices will move automatically relative to the linked Product in the same way as a standard basis link.
Last Trade is Mid	The bids and offers are calculated as a differential against the last traded price. When this is first selected, you will be prompted for a spread amount, which is the differential to the last traded price. This spread will be maintained by the system as the system trades. The Reset Volume field specifies the quantity which the system will automatically create as a new bid or offer in the event that the current stack is emptied. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Offset to Last Trade	This is similar to Last Trade is Mid, except that instead of maintaining an even bid/offer spread on each side of the last trade, a specified differential to the last trade is maintained. This allows for either the bid or the offer to be maintained closer to the last trade price, rather than being equally distant from the last trade price. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Currency Link	<p>[This allows the Product to be linked to a Base Product which is shown in a different currency. The Product will always show prices which the system calculates as the Base Product against the current Enron spot currency exchange rate.]</p> <p>The spot rate automatically updates from the Enron Foreign Exchange desk.</p> <p>You will be prompted to identify the Base Product and to enter an adjustment to the bid/offer spread which reflects an appropriate exchange rate beyond the spot period.]</p>

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### Web Pricing:

The Price Tick specifies the minimum price increment or decrement which a customer can offer to buy from or sell to Enron.

The Min. Volume specifies the minimum volume which a customer can offer to buy from or sell to Enron.

The Volume Increment specifies the minimum volume increment or decrement which a customer can offer to buy from or sell to Enron.

### Deactivating/Activating a Product

Products can have one of three possible states:

- 1) Active
- 2) Inactive
- 3) Suspended

Active Products are visible by customers, whereas Inactive or Suspended Products are not visible.

Active Products are available for viewing by all customers who have profiles granted by Enron which allow access to that Product.

Inactive Products are ones which are not being monitored by the database for distribution to customers. When new Products are added for the first time, they will be Inactive.

Suspended Products are ones which are normally available to customers, but which have been temporarily removed. The database monitors these Products but does not communicate them to any customers. Note that a Product can be Suspended by the system under certain circumstances, for example if you have specified a constant spread in the Product Options window and either your bid or offer is removed (in cases where you have not specified an automated volume replacement).

To Activate a Suspended or Inactive Product, highlight the Product and select the traffic light icon from the Speedbar, or right click on the Product and choose "Activate Product" from the menu.

To suspend an Active Product, highlight the Product and select the traffic light icon from the Speedbar or right click on the Product and choose "Suspend Product" from the menu. Alternatively, you can select the "Suspend All" speedbar button, which will Suspend all of the Products on the tab.

From the trader's perspective, there is no difference between an Inactive Product and a Suspended Product. In both cases, the Product is removed from the customers' view.

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### Inserting Bids/Offers (Building a Stack)

The Insert & Clear Bid and Offer buttons are located to the right of the Current Product Stack Depth.

Highlight the Product in the My Products tab and press Insert Bid or Insert Offer as appropriate. A window will appear which looks like the following:

Insert Bids for #: 167	
Volume: 10000	Number: 3
Price: 0.110	Price Change: 0.01
<input type="button" value="Insert"/> <input type="button" value="Cancel"/>	

Enter the volume and Price. If you wish to create multiple bids or offers from this one screen, you can increase the Number field. In this example, 3 Bids are being created. Each bid after the first will have its price reduced by 0.01. Therefore, a stack of bids will be added as follows:

<u>Bid</u>	<u>Volume</u>	<u>Price</u>
1	10,000	0.11
2	10,000	0.10
3	10,000	0.09

### Modifying Bids/Offers from a Stack

Select the entries you wish to modify from the Current Product Stack Depth section by selecting the appropriate tick boxes. As you select the entries to be modified, "+" and "-" signs will appear under the Insert Offers and Clear Offers buttons.

Adjust the price or volume figures beside the "+" and "-" signs for the amount of increment or decrement you desire. Note that this number defaults to zero if the tick sizes for the various Products are not equal. Press the "+" or "-" sign as appropriate to apply the price or volume adjustments to the selected entries.

### Modifying All Bids/Offers for a group of Products

Select the Products which you wish to modify from the Products Area. You can select all Products in a range by highlighting the first in the range, then holding the Shift key as you drag your mouse.

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Input the Price, Volume or Spread tick sizes you wish to apply in the Stack Bar and press the appropriate "+" or "-" button in the Stack Bar to adjust the price or volume for the bid, offer or both.

### Watching a Product Stack

The Current Product Stack Depth displays the depth of the Product stack for the Product which is currently highlighted in the Products Area of the screen. If you wish to monitor a stack other than the one which is highlighted, then you may create a new Product Stack Depth window.

To create a new Product Stack Depth window, double-click on the Product you wish to create the new window for, or right-click on it and select "Watch Product Stack" from the menu, or highlight the Product and select "Watch Product Stack" from the SpeedBar. A new window will be created under the Dependencies section of your screen.

The new window can be moved, resized and manipulated using standard windows processes. You can also expand the window to show a set of tools which mimic the tools found to the right of the full time Current Product Stack Depth window. To show these tools, click on the arrow icon to the right of "Offer" in the new Product Stack Depth Window.

Product #: 171		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

Click on the arrow beside "Offer" to expand screen to show this →

Product #: 171 - NL Power FIN Swap BoM NLBO PMH VW/V Base NLG/MWh		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

### Suspending All Products (The Panic Button)

In the event of an emergency, all Products can be removed from customers screens and their status set to Suspended by selecting the Suspend All Products button from the SpeedBar (shown as a stop sign with a hand in front).

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## **Changing Management Status**

In order to control or modify the Stack for a Product, you must have Manager status for that Product.

To obtain Manager status, highlight a Product in the All Products tab of the Products Area of the screen, then either select the Manage Selected Product button from the Speedbar or right click on the Product and select "Manage Product" from the menu.

To remove a Product from the My Products tab and remove yourself as the current manager, highlight the Product and either select the Clear Product Manager Speedbar button, or right click and select Clear Manager ID from the menu.

## **Working with Completed Transactions**

The Today's Transactions section of the Stack Manager shows all of the transactions which have been completed for the Products which were completed on the current date.

Transaction listings can be filtered by any of the following fields:

- Buy/Sell : All buys, all sells or both
- Product Identifier : The Product ID # (as displayed in the Products Area of the Stack Manager screen)
- Counterparty : Transactions completed by a company (not trader specific)

## **Folders and How to Use Them**

The folders tab provides an easy way to organize the Products listing into logical categories. By accessing the SpeedBar buttons, you can create new folder categories, provide appropriate names and add or remove Products from your created categories. Note that folders are not currently available, but are planned for a subsequent release, which is expected prior to Sept. 27.

## **Resizing Windows/Customizing Screen Layout**

Screen elements can be resized by dragging on their borders. The only element which can actually be moved is the Product Stack Depth window obtained by double-clicking on a Product (Not the Current Product Stack Depth).

Field sizes can also be resized. For example, within the Product Area, you can stretch or shrink the width of any of the fields to show or less information as desired.

To customize the colored bars indicated Product Status, right click on any Product and choose "Options" from the menu. You can select pre-determined colors or set up custom colors by selecting the color palette icon on the colors window. This allows you to easily see which of the listed Products are Active, Inactive or Suspended.

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### **Changing Access Levels**

If you are unable to see a particular Product in any of your Primary Tabs and you are sure that the Product exists, then it is likely that your User ID has not been set up for access to that Product.

Please contact the Head Trader of your dept. to obtain access to the Product. The Head Trader will pass requests to the Product Group for processing.

### **Products Not Available**

If you need access to a Product which does not exist (i.e. it needs to be created), you will need to use the Product Manager application. The Stack Manager does not support Product creation.

### **Logging Off the Stack Manager**










When you log off, all of your active Products go Inactive. This means that customers' will not be able to see them.

Therefore, it is important that another trader assume Manager status of your Products before you log off, if the trading period has not yet expired.

To logoff the Stack Manager, press the Logoff User button on the Speedbar.










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## Stack Manager Speedbar Glossary

	<b>Exit</b> – Closes the Stack Manager. You should log off using the Log Off Speedbar button before you close the Stack Manager.
	<b>Login User</b> – You must have a valid User ID and password in order to access the Products.
	<b>Log Off User</b>
	<b>Activate Product</b> – If a productProduct is Suspended or Inactive, it must be Activated in order for customers to see prices and volume. Note that a Product must be Active before any other Products which depend on it are Activated.s.
	<b>Suspend Product</b> – If a productProduct is currently active, pressing this button will remove prices and volumes from customers' view. Note that pressing this button will also remove prices and volumes from customers' view for all Products which are linked to this Product.
	<b>Suspend All Products</b> – This is the PANIC BUTTON. Press this if you wish to remove all managed Products from customer view.
	<b>Remove Product</b> – Removes Moves a Product from the Other Products tab to the All Products ta.b
	<b>Load All Products</b> – Forces a manual refresh of the screen. This is useful if you have added a new Product through the Product Manager application and you want the new Product to show on the All Products tab.
	<b>Open Product</b> – Moves a Product from the All Products tab to the Other Products tab.

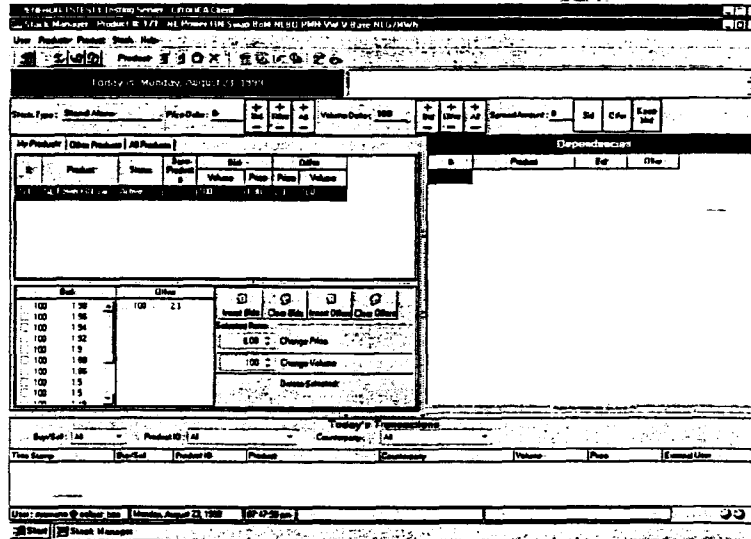
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	<b>Product Properties</b> – Opens a window to change attributes for the highlighted product. Only works for products which are highlighted in the Managed Products pagetab.
	<b>Watch Product Stack</b> – Opens a new Product Stack Depth window for the highlighted Product.
	<b>Manage Selected Products</b> – Moves a Product from the All Products tab to the My Products tab and makes the user the manager of the Product (responsible for maintaining the Stack) new icon – description required.
	<b>Clear Product Manager ID</b> – Moves a Product from the My Products tab to the All Products tab and removes the user as manager of the Product new icon – description required.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	<b>Add Folder</b> – Creates a new folder. Not available until a later release.
	<b>Delete Folder</b> – Removes a folder from the list. Not available until a later release.

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# EnronOnline™



## Trader User Guide

Version: 1.0  
August 23, 1999



EC 001691244

**Internet Quotes Page:**

[illegible]

## Customer Profiles

Not all customers will be able to transact all Products with EnronOnline. For various commercial, tax, credit or legal reasons, some customers will either have only read access or no access to bid prices, offer prices or whole Product Types.

The access which a particular customer enjoys is set by Enron according to the customer's profile. Each customer has their own profile, which specifies the type of GTC (General Terms and Conditions – like a Master Agreement), which applies to a customer and their available Products.

## The Quotes Page

The Quotes page is the "core" of EnronOnline from the customer's perspective. It shows a listing of all the Products which the customer can see and all the Products which the customer can transact. The only price and volume which a customer can see is the best bid and best offer from the Stack associated with that Product. Customers cannot see any other prices or volumes which an Enron trader may have set up for a Product, unless those other prices become the best available.

In order to transact with EnronOnline, all a customer has to do is click once on the bid or offer which they are interested in. They will then see a "Submissions" window, asking them to confirm their offer to buy or sell. If they click "Submit", then their offer will be processed by the Enron and, if it passes the automated checks, will be accepted. This makes transacting with Enron very simple with the customer: two clicks and they're done.

When a customer submits an offer to buy or sell to EnronOnline, they have several additional options: "All or Nothing" and "Price Range".

The “All or Nothing” option allows a customer to specify that their offer may only be accepted if there is sufficient volume remaining at the price they specify. If this option is

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not selected, then the customer can select the alternative option: "Accept Partial Volume", in which case the system will attempt to meet the customer's offer with as much volume as is available at the price which the customer specifies.

The "Price Range" option allows the customer to specify a range of prices at which their offer may be accepted by Enron. This is useful when the market is moving quickly. By specifying a range of prices, the customer's offer could be filled if the requested price ceases to be available by the time their offer arrives, but the next item in the price stack falls within their range.

The full EnronOnline Product list is very long, so one of the features on the Quotes page is the ability for a customer to select only those Products they are interested in through a drop-down filters list and put them onto a customized "composite" page.

### **Web Latency**

Because the customers will be transacting over the internet, there may be issues associated with web latency. Web latency is the delay experienced as information travels through the internet. When the market is moving quickly and internet traffic is high, it is possible for a customer to submit an offer, but by the time the offer reaches Enron, the selected price and volume is no longer available.

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## THE PRODUCT MANAGER

### Product Manager Functions

The Product Manager is used for adding and maintaining Products. The PM allows traders to generate new Products, activate/deactivate existing Products, amend Product preferences and settings and view Product descriptions.

### Overview of Product Add Process

Products are built up by combining the various attributes which describe them. For example, Canadian Physical Forward Gas at NIT for January 2000 would be built by combining a Product Type (Canadian GasPhysical Forward), a location (NIT) and a term (January 2000). By combining different attributes, we can create different Products.

When a trader selects the attributes for a Product, the system builds a short description, by combining the short description elements of the attributes which the trader selected, and a long description, by combining the long description elements of the attributes which the trader selected. This ensures that the descriptions for different Products have a similar look and feel, regardless of the individual trader who assembled them.

There are a number of different attributes, which can be selected to build a new Product. Although EnronOnline includes some error checking to ensure that the Products have been put together with appropriate attributes, it is the responsibility of the trader to ensure that the created Products are appropriate for the market.

The initial list of attributes include:

- Calendar Type
- Reference Period
- Locations
- Index
- Load Shape
- Grid Level
- Quality
- Option Type
- Strike
- Reference Basis
- Pay Unit
- Currency
- Expiry Date
- Pay Limit
- Nomination
- Swing %

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## Product Types Vs. Products

An EnronOnline Product Type is a unique combination of Country, Commodity, Category, Dealtypes and Firmness attributes. For example, U.S. Gas Physical Forward Firm.

An EnronOnline Product is a unique combination of various attributes, including several of: commodity, region, location, index, term, currency, etc. For example, U.S. Physical Forward Interruptible Gas for January 2000 at Henry Hub.

Adding new Products is easy for authorized traders to do. Adding new Product Types is more involved, requiring approval by legal, credit and tax.

It will be very common for traders to be adding new Products – for example, adding new months for UK NBP physical forward gas.

It will not be very common to add new Product Types – for example, U.S. Ammonia Fertilizer or UK Plastics.

## Product Creation Principles

This section provides a detailed description of the theory behind creating new Products and the way in which the system stores Product data. This section should be considered optional reading for those who wish a deeper understanding of the way in which Product Descriptions are assembled.

A Product description consists of two parts i)Product Type; ii)Product Additional Information (PAI). The Product Type is the level to which GTCs, Masters, Legal Entities and Authorised traders is consolidated. Product Types consist of the following fields: Country, Commodity, Deal Category, Deal Type, Firmness.

For each Product Type there is a part of the short description (e.g. US Gas FIN Swap) and there is a part of the long description (e.g. "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron")."

Each Product Type has a defined set of PAI's that must be selected to create a Product. For example: Product Type "US Gas FIN Swap" has the following PAI required fields: 'Reference Period, Index, Currency, Volume'.

Each field in the PAI has an associated abbreviation that will be used in the short description and a sentence (or group of sentences) that will be added to the long description. Abbreviations are used to generate the remainder of the short description.

Short Description PAI fields example:

Reference Period - 01Jan99 to 31Jan99 would abbreviate to 'Jan99'  
Index – Inside Ferc would abbreviate to 'iFerc'

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Currency – US Dollars would abbreviate to USD

Volume – MMBtu would abbreviate to MMBtu

Long Description PAI fields example:

Reference Period – "The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999."

Index – "The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report."

Currency – "The price is quoted in US Dollars per unit of volume."

Volume – "The unit of measure for which the price is quoted against is in millions of British thermal units."

Adding the Product Type and PAI together for the above PAI's would create the following short description: US Gas FIN Swap Jan99 iFerc USD/MMBtu.

Adding the Product Type and PAI together for the above PAI's would create the following long description: "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron").

The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999. The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report. The price is quoted in US Dollars per unit of volume.

The unit of measure for which the price is quoted against is in millions of British thermal units."

The order of both the abbreviations for the short descriptions and the sentences for the long descriptions is set according to the following order:

'CalType, RefPeriod, Location, Index, Loadshape, Grid Level, Quality, OptType, Strike, RefBasis, PayUnit, Curr/Volume, Edate, PayLimit, Swing%, Size'

Note: If a Product Type's required PAI does not include a field above then no short or long description will be generated for that particular field.

### **Logging in to the Product Manager**

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Product Manager by selecting the Product Manager icon.
- 5) Enter your EnronOnline id and password

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At this point, the Product Manager should start.

If any of the above steps do not work, please contact technical support.

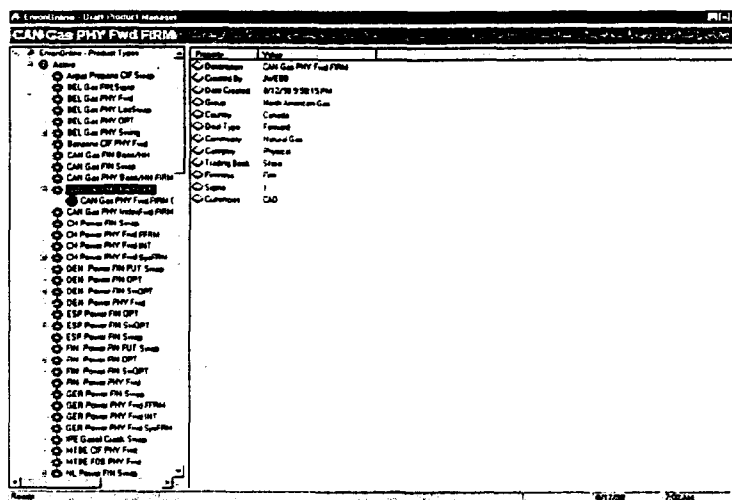
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## The Product Listing

The first screen you see in the Product Manager shows a listing of all of the Product Types and Products which you are authorized to see. Note that you may need to expand the tree view to see all of the Products.

*Product Listing Page:*



When you select an individual Product Type, the Product Manager shows a short description and the relevant attributes for that Product.

This example shows the listing for the Canadian Gas Physical Forward Firm Product Type.

Note that if you do not currently have authorization to view any Product Types, then you will not be able to see any Products in the listing and you will be unable to use the Product Manager. You must have authorization to at least one Product in order to proceed.

If you are unable to see any Product Types and you require access, please see your Head Trader, who will contact the Product Group to authorize your access as appropriate.

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## Adding Products

To add a Product, right-click on a Product Type category which is associated with the Product you require and then select "Add Product". A screen similar to the following should appear:

*Product Listing Page:*

Select attributes from the drop-down boxes as appropriate for the Product you are adding.

Tokenised periods are those in which the lifespan of the Product is expressed relative to today's date, or using industry-standard language which is specific to the Product. For example, "Day-ahead" would be a tokenised period reference which is relative to today's date. The period "Summer 2000" is defined by the system to use specifically the months which the industry defines as "Summer" for the Product in question.

If you wish to specify discrete dates (e.g. Jan 1 2000 to Jan. 31 2000), then deselect the Lifespan Tokenized? tick box and fill in the Start Date and End Date fields as appropriate. Discrete End Dates should be the last full day in which delivery occurs. For example, you would not enter Jan 1 2000 – Feb. 1 2000 for delivery which was intended to last only for the month of January.

When you specify discrete end dates which are a full month or quarter, then they will be abbreviated in the short description as appropriate (e.g. Jan 2000 or Q1 2000).

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**Quote Details/Trading Hours Page:**

Select the next "page" on the screen and proceed to enter the Product attributes associated with Quote Details/Trading Hours.

The "Normally Trades in" field specifies the currency in which the Product normally trades.

If the "Offered in" field specifies a currency which is different from the one entered into "Normally Trades in", then the system will recognize that this Product involves foreign exchange.

The "Quoted in" field specifies the units of the currency in which the Product is quoted (e.g. cents vs. dollars). Note this must be the same currency as the Offered In field.

If you select "Suppress FX email notification", then the FX desk will not receive automatic emails whenever this Product is transacted. Under normal circumstances, you will not need to send emails to the FX desk unless you are trading in a currency which is not the base currency.

The Tick Size field specifies the minimum increment or decrement which can be used in specifying prices.

The times specified in the lower right portion of the screen identify the times in which the Product is normally available for trading. These hours can be set so that a particular Product can be traded outside of the trading hours which apply to the Product Type.

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### Garbage Checking Page:

Select the next "page" to move to the Garbage Checking screen. This screen is used to set the levels at which the system will check entries for input errors. There are two general kinds of error checking: against price and against volume.

There are two kinds of price checks: Percent and Absolute. Either one can be selected.

Percent price checks are measured by movement against the last traded price, or against an Initial Garbage Check price. You must specify a level at which the system will provide a warning before proceeding and also a level at which the system will simply fail to add a new price. An Initial Garbage Check price must be specified so that the system has a baseline to measure against when the first real price is entered into the system.

Absolute price checks also have specifications for warning and failure, but the check levels are shown in the same units as the price is displayed, rather than as a percentage.

If the Check on Percentage tick box is checked, then the system will check limits based on the specified percentages, rather than the absolute levels.

The Check Override is a field which is used to specify the starting value for percentage or absolute checks.

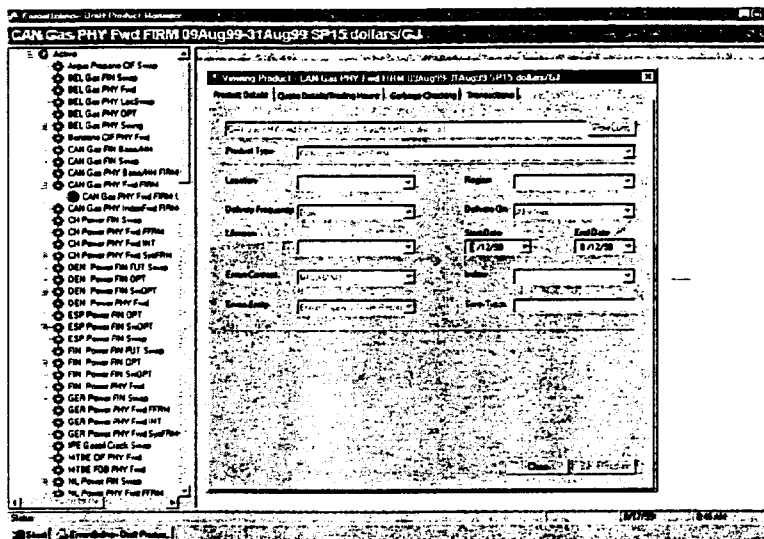
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## Modifying Products

To modify a Product, you must click on it, using the right mouse button and select "View" from the menu. Products appear in the tree menu under the Product Types

*Product List and Details Page:*



Upon selecting a Product, the Product Details page will appear. The Product can be modified by changing the appropriate attributes. Note that Products cannot be amended (other than the garbage check levels) if they have already traded.

## Deleting Products

To delete a Product, you must click on it, using the right mouse button and select "Delete" from the menu. Note that Products cannot be deleted if they have already been traded.

## Copying Products

In some cases, it is easier to copy an existing Product and then modify it, rather than entering a new Product right from the start. To do this, click on the Product you wish to copy, using the right mouse button and select "Copy" from the menu.

You can then view the copied Product and modify it as necessary.

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### **Product Descriptions**

The short Product description is shown on the Product Details page in the same format as it would be seen by a customer.

The long Product description is available by clicking on the "long description" button, from the Product Details page. Customers can see both the long description and the short description, so it is important that they are checked for accuracy and clarity.

### **Resizing Windows/Customizing Screen Layout**

Most windows and fields can be resized within the Product Manager application by dragging their borders.

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## THE STACK MANAGER

### How the Stack Manager Works

A "Stack" is a listing of price and volume combinations for a Product. The customer will see only the most favorable bid or offer price. They will not see the remaining entries in the Stack unless the most favorable entries are sequentially removed either by other customers completing transactions, or their removal by the Enron trader.

The Enron trader maintains a Stack, so that if a transaction is completed by the customer, the next bid or offer in the Stack list will immediately appear to take its place. Different techniques can be used in building the Stack, depending on market objectives. It is possible, for instance, to have an entire Stack in which all of the prices and quantities are the same. Therefore, the "market" will not move, regardless of whether or not a customer "takes out" the entire bid or offer which is visible on their screen at any one time. An alternate strategy might be to build the stack with the same volume entries, but with prices moving up or down in defined increments. With this kind of stack, as customers complete transactions, the market will appear to move up or down, as appropriate.

Much more complex Stack strategies are of course possible, and EnronOnline has several tools which allow for construction of complex strategies and inter-Product relationships. These tools are discussed in the "Modifying Product Settings/Attributes" section, later in this document.

There is only one Offer Stack and One Bid Stack per Product, although there can be dependencies between Stacks.

Each trader will have a set of Products for which they will be responsible. Each active Product which is shown to customers must have a Stack maintained for it.

It is possible for multiple traders to view the same Product, but only one Trader will have Manager status and be able to manipulate the Stacks at any one time.

The Stack Manager links directly to the EnronOnline database. Customers do not have access to the Stack Manager. Information is entered into the EnronOnline database through the Stack Manager application and is processed, reformatted and selected elements transmitted to customers via the Internet.

### Stack Manager Function Summary

The Stack Manager is the primary interface that Enron traders will use to connect to the EnronOnline database and maintain their Stacks. This application allows traders to add, delete and modify prices and volumes, define Stack strategies, reassign responsibility for management of certain Products, view completed transactions, set market times, etc.

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The Stack Manager allows for defining relationships between Products. For example, it is possible to set the pricing of one Product so that it moves in proportion to price movements of another Product. It is also possible to set up the Stacks so that if volumes are taken from one Product, then volumes cease to be available from another Product.

The system handles basis, relative and absolute pricing. Limits can be set up to prevent or warn traders against entries in which the price or volume exceeds specified levels.

There are automated checks to ensure that traders do not accidentally cross their own bid/offer spread.

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### **Logging in to the Stack Manager**

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Stack Manager by selecting the Stack Manager icon.
- 5) Select Login User from the Speedbar
- 6) Enter your User Name and Password

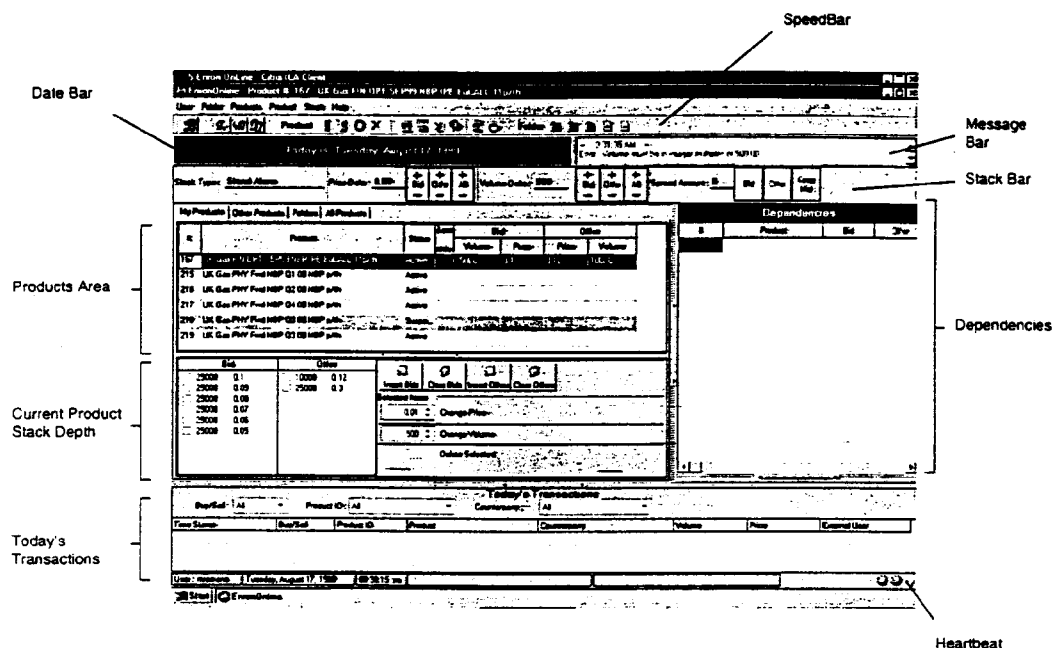
At this point, the Stack Manager should populate with the Products you are authorized to trade.

Note that it is possible to have multiple sessions logged on under one User ID. This can be useful if you are running multiple Products, and provides a level of redundancy in the event of failure of your computer.

If any of the above steps do not work, please contact technical support.

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## Stack Manager Screen



When you first log into the Stack Manager, you will see a screen which looks similar to the above.

The Products Area section shows a list of all of the Products which you are authorised for, along with the highest bid and lowest offer prices (and associated volumes) from each Product Stack.

The Current Product Stack Depth section shows the "stack" of bids and offers which lie behind the best price/volume shown in the Products Area for the highlighted Product.

The Today's Transactions section shows any transactions which have been completed for any of the managed Products in the current session.

The Heartbeat is your assurance that your desktop really is communicating with the main EnronOnline database. Every 60 seconds, the connection to EnronOnline is automatically checked. If the connection fails, then all of your Products will be automatically suspended, unless you have those same Products open under your User ID on another computer. The Heartbeat lights will remain a constant green color unless the connection fails. If this happens, please contact Tech Support.

The Dependencies section will list any Products which the Managed Products are dependent upon. For example, if one of the managed Products is set up so that its price is calculated relative to Product X, then Product X will be shown in the Dependencies section.

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The Message Bar shows any messages from the database which are relevant to your current session. Any error messages will be shown here, along with notifications regarding customers to have tried to transact, but have failed due to market movement or application of credit limits.

### **Primary Tabs**

Within the Products Area of the screen are four Primary Tabs. These are:

- My Products
- Folders
- All Products

The My Products tab shows all of the Products for which you are the current Manager. These are the Products for which you are responsible for maintaining a Stack, regardless of whether the Products are Active or Inactive. Note, however, that customers cannot see prices or volumes for Products which are not Active.

The Other Products tab contains listings of Products selected from the All Products tab which you wish to monitor. To move a Product into the Other Products tab, go to the All Products tab, highlight the Product and either select the "Open Product" button on the Speedbar, or right click, then select "Open Product" from the menu, or double-click on the Product. This is a way of organizing the Products which are most interesting, without having to pick them out of the long list on the All Products tab. To remove a Product from the Other Products tab, highlight the Product and either select the "Remove Product" button from the SpeedBar, or right click, then select "Remove Product" from the menu.

The All Products tab shows a listing of all of the Products which are available for which you have the ability to be the manager, or for which you have read-only access. The system will not allow you to maintain the Stack for any of the Products on this tab. In order to maintain the Stacks for these Products, you must first obtain Manager status (See the Changing Manager Status section for details).

Note that you cannot manage a Product which is identified in the All Products tab as Active and being managed by someone else. If you wish to manage a Product which is being managed by someone else, then you must first ask them to withdraw from that Product as its manager.

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## Modifying Product Settings/Attributes

Highlight a Product and choose the Product Properties button from the SpeedBar or right click on a Product in the Products Area and choose Product Properties. A window will open up which looks similar to the following:

Product # 171: NL Power FIN Swap BoM NLBO PMH VW V Base NLG/MWh Active

Read Only

Manager: HROMAND Access Level: Read/Trade Is Base Product: No

Time (CES)

Trade Start Time (0-23 hours) Trade End Time (0-23 hours) ☐ Keep Awake

Price Change

Price Delta: 0.00 Absolute Price Check: Percent Price Check

Garbage Check Price: 2.00 Warming Change: 0.00 Warming Percent: 20

☐ Constant Spread Amount: 0.00 False Change: 50.00 False Percent: 20

Volume Change

Volume Delta: 0 Stack Type: Standard

WEB Settings

Changing of the WEB settings will suspend the product

Price Tick: 0.00 Volume Increment: 100

Min Volume: 100

Update Cancel

### Time:

This section specifies the time when the Product will become visible to customers (Trade Start Time) and the time it will be removed from customers' view (Trade End Time). You can specify a different end time for the current day in the Today Trade End Time field.

If you select "Keep Awake", then the Product will continue to be visible to customers for as long as someone is logged in and managing the stack.

### Price Change:

The Price Tick (Price Delta) field specifies the default increment/decrement which appears in the Stack Bar of the main Stack Manager screen.

### Garbage Check (Controls):

The Garbage check section is in the Price Change section of the Product Properties window. This is an important element in ensuring that accurate prices and volumes are published.

The Garbage Check Price field is a baseline price which is used for the Percent Price Check. If a Product is trading, then the last price-traded will normally be set as the baseline price. If no trades have occurred, then the Garbage Check Price will be used as the baseline price.

If the Constant Spread Amount field is checked, then the bid and offer prices will automatically be adjusted to maintain the specified spread. For example;

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Constant Spread Amount: 0.05  
 Current bid: 1.95  
 Current offer: 2.00  
 Next best offer: 2.02

If the entire current offer volume at 2.00 is taken by a customer, then the current bid will be automatically adjusted to 1.97 (to maintain the specified spread of 0.05 to the next best offer). The rule applied by the system is that if the offer was the last side taken, then the bid is adjusted. If the bid was the last side taken, then the offer is adjusted.

If Absolute Price Check is ticked, then any prices which a trader enters will be monitored for absolute variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified amount, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

If Percent Price Check is ticked, then any prices which a trader enters will be monitored for percentage variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified percent, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

#### Volume Change:

The Volume Tick (Volume Delta) field specifies the default increment/decrement displayed in the Stack Bar on the main Stack Manager screen.

The Minimum Volume specifies the minimum volume which a customer can specify when they offer to buy or sell.

#### Stack Type:

The Stack Type section provides various tools for automating price or volume updates to the Stack. Stack Types include options for linking a Product to other Products for price, volume or both. You can also instruct the system to maintain a specified bid/offer spread relative to the last trades.

If you are specifying a price in a Stack which is relative to another Product, the customer sees only the final, calculated price – not the calculation which is applied against the other Product. You see the basis and the customer sees the calculated price. For example, if the bid for Product Y is at \$2.75 and you price a bid for Product X at \$-0.75 to Product Y, then the customer will see the Product X bid as \$2.00. The customer will not see \$-0.75. Note that this rule does not apply if you are posting an index price. For index prices, the index differential you input will be the number which the customer sees.

When you select a Stack Type with a dependency, a new field will in which you can identify the related Product. Stack Types are as follows:

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Stand Alone	There are no dependencies for this Stack Type. This is the default type. You directly specify the price and quantity which the customer sees.
Basis Link	Prices will move in direct proportion to the related commodity. Prices should be entered as an adjustment to the linked Product. For example, if you are selling natural gas at Empress at Henry Hub less \$0.75, then you would enter a price of \$-0.75 in the offer stack for that Product and you would enter a Basis Link to U.S. Gas Physical forward at Henry Hub. Note that if the Offer at Henry Hub is taken out and is not replaced, then the Empress Offer would not appear on Customer Screens (as there is nothing for the basis to calculate against).
Syncopated Stack	If volumes for the related Product are removed (either by an Enron trader or a customer), then related volumes for the Syncopated Stack Product will be withdrawn from customers' view. This is an "Order - Cancels - Other" principle.
Syncopated Basis	This is the same as the Syncopated Stack, except that prices will move automatically relative to the linked Product in the same way as a standard basis link.
Last Trade is Mid	The bids and offers are calculated as a differential against the last traded price. When this is first selected, you will be prompted for a spread amount, which is the differential to the last traded price. This spread will be maintained by the system as the system trades. The Reset Volume field specifies the quantity which the system will automatically create as a new bid or offer in the event that the current stack is emptied. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Offset to Last Trade	This is similar to Last Trade is Mid, except that instead of maintaining an even bid/offer spread on each side of the last trade, a specified differential to the last trade is maintained. This allows for either the bid or the offer to be maintained closer to the last trade price, rather than being equally distant from the last trade price. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Currency Link	<p>[This allows the Product to be linked to a Base Product which is shown in a different currency. The Product will always show prices which the system calculates as the Base Product against the current Enron spot currency exchange rate.</p> <p>The spot rate automatically updates from the Enron Foreign Exchange desk.</p> <p>You will be prompted to identify the Base Product and to enter an adjustment to the bid/offer spread which reflects an appropriate exchange rate beyond the spot period.]</p>

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### Web Pricing:

The Price Tick specifies the minimum price increment or decrement which a customer can offer to buy from or sell to Enron.

The Min. Volume specifies the minimum volume which a customer can offer to buy from or sell to Enron.

The Volume Increment specifies the minimum volume increment or decrement which a customer can offer to buy from or sell to Enron.

### Deactivating/Activating a Product

Products can have one of three possible states:

- 1) Active
- 2) Inactive
- 3) Suspended

Active Products are visible by customers, whereas Inactive or Suspended Products are not visible.

Active Products are available for viewing by all customers who have profiles granted by Enron which allow access to that Product.

Inactive Products are ones which are not being monitored by the database for distribution to customers. When new Products are added for the first time, they will be Inactive.

Suspended Products are ones which are normally available to customers, but which have been temporarily removed. The database monitors these Products but does not communicate them to any customers. Note that a Product can be Suspended by the system under certain circumstances, for example if you have specified a constant spread in the Product Options window and either your bid or offer is removed (in cases where you have not specified an automated volume replacement).

To Activate a Suspended or Inactive Product, highlight the Product and select the traffic light icon from the Speedbar, or right click on the Product and choose "Activate Product" from the menu.

To suspend an Active Product, highlight the Product and select the traffic light icon from the Speedbar or right click on the Product and choose "Suspend Product" from the menu. Alternatively, you can select the "Suspend All" speedbar button, which will Suspend all of the Products on the tab.

From the trader's perspective, there is no difference between an Inactive Product and a Suspended Product. In both cases, the Product is removed from the customers' view.

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### Inserting Bids/Offers (Building a Stack)

The Insert & Clear Bid and Offer buttons are located to the right of the Current Product Stack Depth.

Highlight the Product in the My Products tab and press Insert Bid or Insert Offer as appropriate. A window will appear which looks like the following:

Insert Bids for #: 167	
Volume: 10000	Number: 3
Price: 0.110	Price Change: 0.01
<input type="button" value="Insert"/> <input type="button" value="Cancel"/>	

Enter the volume and Price. If you wish to create multiple bids or offers from this one screen, you can increase the Number field. In this example, 3 Bids are being created. Each bid after the first will have its price reduced by 0.01. Therefore, a stack of bids will be added as follows:

<u>Bid</u>	<u>Volume</u>	<u>Price</u>
1	10,000	0.11
2	10,000	0.10
3	10,000	0.09

### Modifying Bids/Offers from a Stack

Select the entries you wish to modify from the Current Product Stack Depth section by selecting the appropriate tick boxes. As you select the entries to be modified, "+" and "-" signs will appear under the Insert Offers and Clear Offers buttons.

Adjust the price or volume figures beside the "+" and "-" signs for the amount of increment or decrement you desire. Note that this number defaults to zero if the tick sizes for the various Products are not equal. Press the "+" or "-" sign as appropriate to apply the price or volume adjustments to the selected entries.

### Modifying All Bids/Offers for a group of Products

Select the Products which you wish to modify from the Products Area. You can select all Products in a range by highlighting the first in the range, then holding the Shift key as you drag your mouse.

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Input the Price, Volume or Spread tick sizes you wish to apply in the Stack Bar and press the appropriate "+" or "-" button in the Stack Bar to adjust the price or volume for the bid, offer or both.

### Watching a Product Stack

The Current Product Stack Depth displays the depth of the Product stack for the Product which is currently highlighted in the Products Area of the screen. If you wish to monitor a stack other than the one which is highlighted, then you may create a new Product Stack Depth window.

To create a new Product Stack Depth window, double-click on the Product you wish to create the new window for, or right-click on it and select "Watch Product Stack" from the menu, or highlight the Product and select "Watch Product Stack" from the SpeedBar. A new window will be created under the Dependencies section of your screen.

The new window can be moved, resized and manipulated using standard windows processes. You can also expand the window to show a set of tools which mimic the tools found to the right of the full time Current Product Stack Depth window. To show these tools, click on the arrow icon to the right of "Offer" in the new Product Stack Depth Window.

Product #: 171		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

Click on the arrow beside "Offer" to expand screen to show this →

Product #: 171 - NL Power FIN Swap BoM NLBO PMH VW/V Base NLG/MWh		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

### Suspending All Products (The Panic Button)

In the event of an emergency, all Products can be removed from customers screens and their status set to Suspended by selecting the Suspend All Products button from the SpeedBar (shown as a stop sign with a hand in front).

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## **Changing Management Status**

In order to control or modify the Stack for a Product, you must have Manager status for that Product.

To obtain Manager status, highlight a Product in the All Products tab of the Products Area of the screen, then either select the Manage Selected Product button from the Speedbar or right click on the Product and select "Manage Product" from the menu.

To remove a Product from the My Products tab and remove yourself as the current manager, highlight the Product and either select the Clear Product Manager Speedbar button, or right click and select Clear Manager ID from the menu.

## **Working with Completed Transactions**

The Today's Transactions section of the Stack Manager shows all of the transactions which have been completed for the Products which were completed on the current date.

Transaction listings can be filtered by any of the following fields:

- Buy/Sell : All buys, all sells or both
- Product Identifier : The Product ID # (as displayed in the Products Area of the Stack Manager screen)
- Counterparty : Transactions completed by a company (not trader specific)

## **Folders and How to Use Them**

The folders tab provides an easy way to organize the Products listing into logical categories. By accessing the SpeedBar buttons, you can create new folder categories, provide appropriate names and add or remove Products from your created categories. Note that folders are not currently available, but are planned for a subsequent release, which is expected prior to Sept. 27.

## **Resizing Windows/Customizing Screen Layout**

Screen elements can be resized by dragging on their borders. The only element which can actually be moved is the Product Stack Depth window obtained by double-clicking on a Product (Not the Current Product Stack Depth).

Field sizes can also be resized. For example, within the Product Area, you can stretch or shrink the width of any of the fields to show or less information as desired.

To customize the colored bars indicated Product Status, right click on any Product and choose "Options" from the menu. You can select pre-determined colors or set up custom colors by selecting the color palette icon on the colors window. This allows you to easily see which of the listed Products are Active, Inactive or Suspended.

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### **Changing Access Levels**

If you are unable to see a particular Product in any of your Primary Tabs and you are sure that the Product exists, then it is likely that your User ID has not been set up for access to that Product.

Please contact the Head Trader of your dept. to obtain access to the Product. The Head Trader will pass requests to the Product Group for processing.

### **Products Not Available**

If you need access to a Product which does not exist (i.e. it needs to be created), you will need to use the Product Manager application. The Stack Manager does not support Product creation.

### **Logging Off the Stack Manager**










When you log off, all of your active Products go Inactive. This means that customers' will not be able to see them.

Therefore, it is important that another trader assume Manager status of your Products before you log off, if the trading period has not yet expired.










To logoff the Stack Manager, press the Logoff User button on the Speedbar.

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## Stack Manager Speedbar Glossary

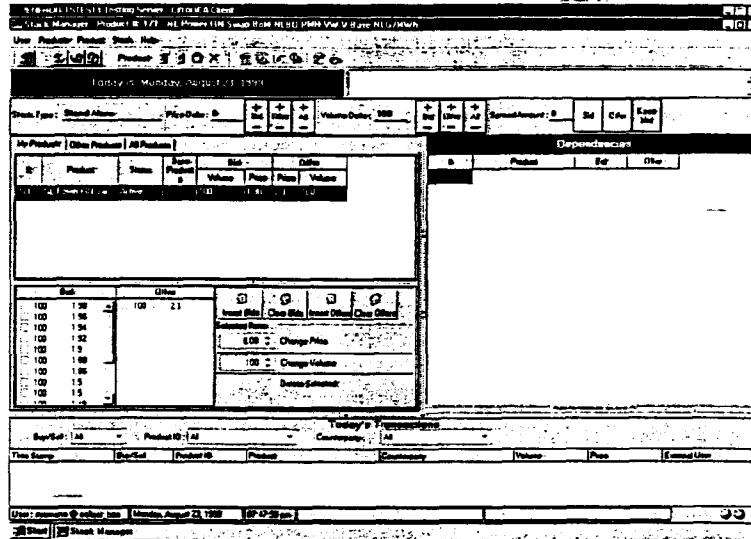
	<b>Exit</b> – Closes the Stack Manager. You should log off using the Log Off Speedbar button before you close the Stack Manager.
	<b>Login User</b> – You must have a valid User ID and password in order to access the Products.
	<b>Log Off User</b>
	<b>Activate Product</b> – If a productProduct is Suspended or Inactive, it must be Activated in order for customers to see prices and volume. Note that a Product must be Active before any other Products which depend on it are Activated.s.
	<b>Suspend Product</b> – If a productProduct is currently active, pressing this button will remove prices and volumes from customers' view. Note that pressing this button will also remove prices and volumes from customers' view for all Products which are linked to this Product.
	<b>Suspend All Products</b> – This is the PANIC BUTTON. Press this if you wish to remove all managed Products from customer view.
	<b>Remove Product</b> – Removes Moves a Product from the Other Products tab to the All Products ta.b
	<b>Load All Products</b> – Forces a manual refresh of the screen. This is useful if you have added a new Product through the Product Manager application and you want the new Product to show on the All Products tab.
	<b>Open Product</b> – Moves a Product from the All Products tab to the Other Products tab.

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	<b>Product Properties</b> – Opens a window to change attributes for the highlighted product. Only works for products which are highlighted in the Managed Products pagetab.
	<b>Watch Product Stack</b> – Opens a new Product Stack Depth window for the highlighted Product.
	<b>Manage Selected Products</b> – Moves a Product from the All Products tab to the My Products tab and makes the user the manager of the Product (responsible for maintaining the Stack) new icon – description required.
	<b>Clear Product Manager ID</b> – Moves a Product from the My Products tab to the All Products tab and removes the user as manager of the Product new icon – description required.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	<b>Add Folder</b> – Creates a new folder. Not available until a later release.
	<b>Delete Folder</b> – Removes a folder from the list. Not available until a later release.

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# EnronOnline™



## Trader User Guide

Version: 1.0  
August 23, 1999



EC 001691244

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## INTRODUCTION

This document is provided to Enron traders who will be responsible for running the internal applications associated with posting and maintaining prices for Products in EnronOnline.

This is provided as part of the EnronOnline training program and is not a substitute for formal training, which will include hands-on demonstrations and simulations.

EnronOnline provides significant opportunity, but also significant risk. This manual is not a substitute for formal training and users should not use the EnronOnline applications without completion of the formal training course and the mandatory minimum period of simulation training.

Please note that the EnronOnline system will not allow users access to the live system without completion of the minimum required simulation period.

### Relationship of Web and Database

There are two primary parts to EnronOnline:

- a) The Internet application and
- b) The Database applications

The Internet application is used by customers to buy and sell commodities with Enron. It also contains a short multimedia presentation about EnronOnline, along with news, EnronOnline press releases and various administration screens which are helpful to the customer. You can find the website at [www.EnronOnline.com](http://www.EnronOnline.com), although it will not be fully functional until Sept. 27, 1999

The database applications are used by Enron personnel. These internal applications are not available to any customers and are not internet based, but are direct connections to the EnronOnline database, located in Houston.

The database applications which this document covers are the Price Stack Manager (PSM) and the Product Manager (PM). The PSM and the PM are the primary applications which will be used by traders in the normal course of trading with EnronOnline.

### Product Manager

The Product Manager (PM) allows traders to add new Products. With the PM, traders can create new Products, delete old Products, change existing Product attributes and view the system descriptions of the Product.

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### **Price Stack Manager**

The Price Stack Manager (PSM) is the principle application which traders will use in their day-to-day activities. It lists the Products which a trader is responsible for and shows the "stacks" of Enron bids, offers and volumes.

The PSM allows for adding and deleting new price and volume combinations and updating existing prices and volumes. It contains tools for setting warning levels and for setting up advanced price or volume related functions, like basis links or Order-Cancels-Other.

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## THE CUSTOMER'S PERSPECTIVE

Although Enron traders will not use the Internet application in the normal course of business, it is important to understand some principles about it and how those principles affect what a customer can see and do.

*Internet Home Page:*



### The EnronOnline Website

There are two general areas of the website: the House and the Garden.

The Garden is the area which is available to anyone with internet access. It contains a demonstration about EnronOnline, information on how to contact Enron, links to the Enron home page, information on how to register, etc.

The House is the area which is available only to users with an Enron-issued User ID and Password. It contains the EnronOnline quotes pages, which provide the ability to transact with EnronOnline.

### Customer Registration Process

There are two kinds of EnronOnline customer: Those who are pre-registered and those who are not.

Pre-registered customers have received a brochure from Enron which includes a Guest User ID and Password and a Password Application (PA). These are customers who we know and may have done business with before the launch of EnronOnline. The Guest User ID will allow these customers to see EnronOnline prices on a Read Only basis. The

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Guest User ID is time-limited. In order to transact with EnronOnline, customers must complete the PA. Once we have received a signed PA, we will assign a Master User ID and transaction rights for various Products to the applying customer as appropriate.

Customer who are not pre-registered will generally be those who independently arrive at the EnronOnline website. The site will not allow these customers to see prices until they have requested a Guest User ID or a Master User ID from us.

Customers who have not acquired either a Guest User ID or a Master User ID will not be able to view prices with EnronOnline.

### **Master User ID**

A Master User ID is required for a customer to transact with EnronOnline. Each company wishing to transact must have at least one Master User ID, but may have multiple Master User ID's as required. The Master User ID is issued by Enron to a customer when that customer completes a PA.

Each Master User ID will allow the customer to create up to 10 Users or Back Office Users. A User may have trading rights on the system. The Master User will control which rights a particular User has, within the limits of the overall rights which Enron has granted to the company. A Back Office User will only be able to view transactions which Users in their company have completed. Back Office Users do not have any rights to trade Products.

### **Contractual Framework**

The first contractual document which a customer will receive is the Password Application (PA). The PA is the document by which the customer agrees to be bound by the other contracts which will cover their online trading. Specifically, the Password Application references the Electronic Trading Agreement (ETA) and the General Terms and Conditions (GTC's). The PA is specific to the country from which the customer is trading.

The ETA provides the framework for electronic trading. It covers the use of the passwords and establishes the principle of "clicking" on a Product in order to initiate a process which may create a binding contractual arrangement for its purchase or sale. The ETA specifies that a particular transaction will be governed by the GTC which applies to the Product which has been identified by Enron as applying to that customer and the Product which has been clicked upon. The ETA is specific to the country from which the customer is trading.

The GTC's are much like the Master Agreements, which are common in gas and electricity for telephone-based trading. They provide the general contractual framework for multiple commodity transactions. GTC's identify termination rights, provisions for security (as appropriate), operational conventions (nominations, etc.), payment periods, tax treatments, force majeure, penalties for non-performance, etc.

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### **Price Stack Manager**

The Price Stack Manager (PSM) is the principle application which traders will use in their day-to-day activities. It lists the Products which a trader is responsible for and shows the "stacks" of Enron bids, offers and volumes.

The PSM allows for adding and deleting new price and volume combinations and updating existing prices and volumes. It contains tools for setting warning levels and for setting up advanced price or volume related functions, like basis links or Order-Cancels-Other.

**EC 001691247**

## THE CUSTOMER'S PERSPECTIVE

Although Enron traders will not use the Internet application in the normal course of business, it is important to understand some principles about it and how those principles affect what a customer can see and do.

*Internet Home Page:*



### The EnronOnline Website

There are two general areas of the website: the House and the Garden.

The Garden is the area which is available to anyone with internet access. It contains a demonstration about EnronOnline, information on how to contact Enron, links to the Enron home page, information on how to register, etc.

The House is the area which is available only to users with an Enron-issued User ID and Password. It contains the EnronOnline quotes pages, which provide the ability to transact with EnronOnline.

### Customer Registration Process

There are two kinds of EnronOnline customer: Those who are pre-registered and those who are not.

Pre-registered customers have received a brochure from Enron which includes a Guest User ID and Password and a Password Application (PA). These are customers who we know and may have done business with before the launch of EnronOnline. The Guest User ID will allow these customers to see EnronOnline prices on a Read Only basis. The

**EC 001691248**

Guest User ID is time-limited. In order to transact with EnronOnline, customers must complete the PA. Once we have received a signed PA, we will assign a Master User ID and transaction rights for various Products to the applying customer as appropriate.

Customer who are not pre-registered will generally be those who independently arrive at the EnronOnline website. The site will not allow these customers to see prices until they have requested a Guest User ID or a Master User ID from us.

Customers who have not acquired either a Guest User ID or a Master User ID will not be able to view prices with EnronOnline.

### **Master User ID**

A Master User ID is required for a customer to transact with EnronOnline. Each company wishing to transact must have at least one Master User ID, but may have multiple Master User ID's as required. The Master User ID is issued by Enron to a customer when that customer completes a PA.

Each Master User ID will allow the customer to create up to 10 Users or Back Office Users. A User may have trading rights on the system. The Master User will control which rights a particular User has, within the limits of the overall rights which Enron has granted to the company. A Back Office User will only be able to view transactions which Users in their company have completed. Back Office Users do not have any rights to trade Products.

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**Internet Quotes Page:**

[illegible]

## Customer Profiles

Not all customers will be able to transact all Products with EnronOnline. For various commercial, tax, credit or legal reasons, some customers will either have only read access or no access to bid prices, offer prices or whole Product Types.

The access which a particular customer enjoys is set by Enron according to the customer's profile. Each customer has their own profile, which specifies the type of GTC (General Terms and Conditions – like a Master Agreement), which applies to a customer and their available Products.

## The Quotes Page

The Quotes page is the "core" of EnronOnline from the customer's perspective. It shows a listing of all the Products which the customer can see and all the Products which the customer can transact. The only price and volume which a customer can see is the best bid and best offer from the Stack associated with that Product. Customers cannot see any other prices or volumes which an Enron trader may have set up for a Product, unless those other prices become the best available.

In order to transact with EnronOnline, all a customer has to do is click once on the bid or offer which they are interested in. They will then see a "Submissions" window, asking them to confirm their offer to buy or sell. If they click "Submit", then their offer will be processed by the Enron and, if it passes the automated checks, will be accepted. This makes transacting with Enron very simple with the customer: two clicks and they're done.

When a customer submits an offer to buy or sell to EnronOnline, they have several additional options: "All or Nothing" and "Price Range".

The “All or Nothing” option allows a customer to specify that their offer may only be accepted if there is sufficient volume remaining at the price they specify. If this option is

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not selected, then the customer can select the alternative option: "Accept Partial Volume", in which case the system will attempt to meet the customer's offer with as much volume as is available at the price which the customer specifies.

The "Price Range" option allows the customer to specify a range of prices at which their offer may be accepted by Enron. This is useful when the market is moving quickly. By specifying a range of prices, the customer's offer could be filled if the requested price ceases to be available by the time their offer arrives, but the next item in the price stack falls within their range.

The full EnronOnline Product list is very long, so one of the features on the Quotes page is the ability for a customer to select only those Products they are interested in through a drop-down filters list and put them onto a customized "composite" page.

### **Web Latency**

Because the customers will be transacting over the internet, there may be issues associated with web latency. Web latency is the delay experienced as information travels through the internet. When the market is moving quickly and internet traffic is high, it is possible for a customer to submit an offer, but by the time the offer reaches Enron, the selected price and volume is no longer available.

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## THE PRODUCT MANAGER

### Product Manager Functions

The Product Manager is used for adding and maintaining Products. The PM allows traders to generate new Products, activate/deactivate existing Products, amend Product preferences and settings and view Product descriptions.

### Overview of Product Add Process

Products are built up by combining the various attributes which describe them. For example, Canadian Physical Forward Gas at NIT for January 2000 would be built by combining a Product Type (Canadian GasPhysical Forward), a location (NIT) and a term (January 2000). By combining different attributes, we can create different Products.

When a trader selects the attributes for a Product, the system builds a short description, by combining the short description elements of the attributes which the trader selected, and a long description, by combining the long description elements of the attributes which the trader selected. This ensures that the descriptions for different Products have a similar look and feel, regardless of the individual trader who assembled them.

There are a number of different attributes, which can be selected to build a new Product. Although EnronOnline includes some error checking to ensure that the Products have been put together with appropriate attributes, it is the responsibility of the trader to ensure that the created Products are appropriate for the market.

The initial list of attributes include:

- Calendar Type
- Reference Period
- Locations
- Index
- Load Shape
- Grid Level
- Quality
- Option Type
- Strike
- Reference Basis
- Pay Unit
- Currency
- Expiry Date
- Pay Limit
- Nomination
- Swing %

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## Product Types Vs. Products

An EnronOnline Product Type is a unique combination of Country, Commodity, Category, Dealtypes and Firmness attributes. For example, U.S. Gas Physical Forward Firm.

An EnronOnline Product is a unique combination of various attributes, including several of: commodity, region, location, index, term, currency, etc. For example, U.S. Physical Forward Interruptible Gas for January 2000 at Henry Hub.

Adding new Products is easy for authorized traders to do. Adding new Product Types is more involved, requiring approval by legal, credit and tax.

It will be very common for traders to be adding new Products – for example, adding new months for UK NBP physical forward gas.

It will not be very common to add new Product Types – for example, U.S. Ammonia Fertilizer or UK Plastics.

## Product Creation Principles

This section provides a detailed description of the theory behind creating new Products and the way in which the system stores Product data. This section should be considered optional reading for those who wish a deeper understanding of the way in which Product Descriptions are assembled.

A Product description consists of two parts i)Product Type; ii)Product Additional Information (PAI). The Product Type is the level to which GTCs, Masters, Legal Entities and Authorised traders is consolidated. Product Types consist of the following fields: Country, Commodity, Deal Category, Deal Type, Firmness.

For each Product Type there is a part of the short description (e.g. US Gas FIN Swap) and there is a part of the long description (e.g. "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron")."

Each Product Type has a defined set of PAI's that must be selected to create a Product. For example: Product Type "US Gas FIN Swap" has the following PAI required fields: 'Reference Period, Index, Currency, Volume'.

Each field in the PAI has an associated abbreviation that will be used in the short description and a sentence (or group of sentences) that will be added to the long description. Abbreviations are used to generate the remainder of the short description.

Short Description PAI fields example:

Reference Period - 01Jan99 to 31Jan99 would abbreviate to 'Jan99'  
Index – Inside Ferc would abbreviate to 'iFerc'

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Currency – US Dollars would abbreviate to USD

Volume – MMBtu would abbreviate to MMBtu

Long Description PAI fields example:

Reference Period – "The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999."

Index – "The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report."

Currency – "The price is quoted in US Dollars per unit of volume."

Volume – "The unit of measure for which the price is quoted against is in millions of British thermal units."

Adding the Product Type and PAI together for the above PAI's would create the following short description: US Gas FIN Swap Jan99 iFerc USD/MMBtu.

Adding the Product Type and PAI together for the above PAI's would create the following long description: "A Transaction under which one Party pays a Floating Price and the other Party pays a Fixed Price in respect of the Notional Quantity. The Transaction shall be arranged by Enron Capital & Trade Resources ("Enron").

The term of the Transaction shall be from the start date to the end date. The start date is 01 January 1999. The end date is 31 January 1999. The index used for this transaction is the Prices of Spot Gas Delivered to Pipelines section located in the first issue of Inside F.E.R.C.'s Gas Market Report. The price is quoted in US Dollars per unit of volume.

The unit of measure for which the price is quoted against is in millions of British thermal units."

The order of both the abbreviations for the short descriptions and the sentences for the long descriptions is set according to the following order:

'CalType, RefPeriod, Location, Index, Loadshape, Grid Level, Quality, OptType, Strike, RefBasis, PayUnit, Curr/Volume, Edate, PayLimit, Swing%, Size'

Note: If a Product Type's required PAI does not include a field above then no short or long description will be generated for that particular field.

### **Logging in to the Product Manager**

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Product Manager by selecting the Product Manager icon.
- 5) Enter your EnronOnline id and password

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At this point, the Product Manager should start.

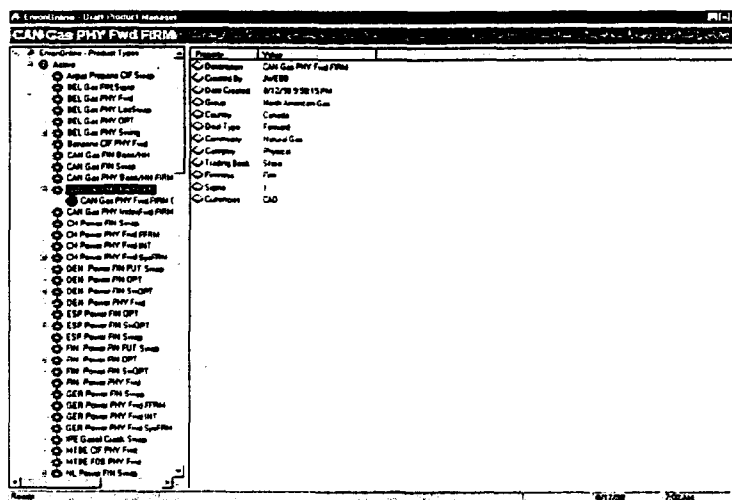
If any of the above steps do not work, please contact technical support.

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## The Product Listing

The first screen you see in the Product Manager shows a listing of all of the Product Types and Products which you are authorized to see. Note that you may need to expand the tree view to see all of the Products.

*Product Listing Page:*



When you select an individual Product Type, the Product Manager shows a short description and the relevant attributes for that Product.

This example shows the listing for the Canadian Gas Physical Forward Firm Product Type.

Note that if you do not currently have authorization to view any Product Types, then you will not be able to see any Products in the listing and you will be unable to use the Product Manager. You must have authorization to at least one Product in order to proceed.

If you are unable to see any Product Types and you require access, please see your Head Trader, who will contact the Product Group to authorize your access as appropriate.

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## Adding Products

To add a Product, right-click on a Product Type category which is associated with the Product you require and then select "Add Product". A screen similar to the following should appear:

*Product Listing Page:*

Select attributes from the drop-down boxes as appropriate for the Product you are adding.

Tokenised periods are those in which the lifespan of the Product is expressed relative to today's date, or using industry-standard language which is specific to the Product. For example, "Day-ahead" would be a tokenised period reference which is relative to today's date. The period "Summer 2000" is defined by the system to use specifically the months which the industry defines as "Summer" for the Product in question.

If you wish to specify discrete dates (e.g. Jan 1 2000 to Jan. 31 2000), then deselect the Lifespan Tokenized? tick box and fill in the Start Date and End Date fields as appropriate. Discrete End Dates should be the last full day in which delivery occurs. For example, you would not enter Jan 1 2000 – Feb. 1 2000 for delivery which was intended to last only for the month of January.

When you specify discrete end dates which are a full month or quarter, then they will be abbreviated in the short description as appropriate (e.g. Jan 2000 or Q1 2000).

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**Quote Details/Trading Hours Page:**

Select the next "page" on the screen and proceed to enter the Product attributes associated with Quote Details/Trading Hours.

The "Normally Trades in" field specifies the currency in which the Product normally trades.

If the "Offered in" field specifies a currency which is different from the one entered into "Normally Trades in", then the system will recognize that this Product involves foreign exchange.

The "Quoted in" field specifies the units of the currency in which the Product is quoted (e.g. cents vs. dollars). Note this must be the same currency as the Offered In field.

If you select "Suppress FX email notification", then the FX desk will not receive automatic emails whenever this Product is transacted. Under normal circumstances, you will not need to send emails to the FX desk unless you are trading in a currency which is not the base currency.

The Tick Size field specifies the minimum increment or decrement which can be used in specifying prices.

The times specified in the lower right portion of the screen identify the times in which the Product is normally available for trading. These hours can be set so that a particular Product can be traded outside of the trading hours which apply to the Product Type.

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### Garbage Checking Page:

Select the next "page" to move to the Garbage Checking screen. This screen is used to set the levels at which the system will check entries for input errors. There are two general kinds of error checking: against price and against volume.

There are two kinds of price checks: Percent and Absolute. Either one can be selected.

Percent price checks are measured by movement against the last traded price, or against an Initial Garbage Check price. You must specify a level at which the system will provide a warning before proceeding and also a level at which the system will simply fail to add a new price. An Initial Garbage Check price must be specified so that the system has a baseline to measure against when the first real price is entered into the system.

Absolute price checks also have specifications for warning and failure, but the check levels are shown in the same units as the price is displayed, rather than as a percentage.

If the Check on Percentage tick box is checked, then the system will check limits based on the specified percentages, rather than the absolute levels.

The Check Override is a field which is used to specify the starting value for percentage or absolute checks.

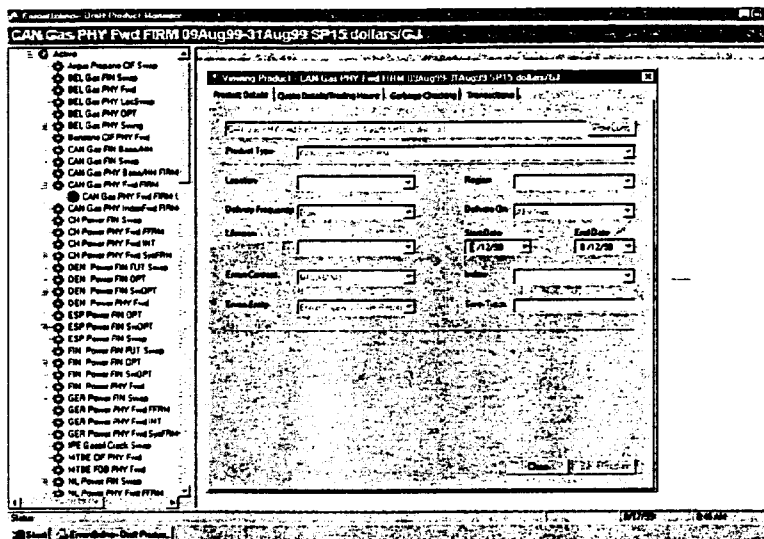
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## Modifying Products

To modify a Product, you must click on it, using the right mouse button and select "View" from the menu. Products appear in the tree menu under the Product Types

*Product List and Details Page:*



Upon selecting a Product, the Product Details page will appear. The Product can be modified by changing the appropriate attributes. Note that Products cannot be amended (other than the garbage check levels) if they have already traded.

## Deleting Products

To delete a Product, you must click on it, using the right mouse button and select "Delete" from the menu. Note that Products cannot be deleted if they have already been traded.

## Copying Products

In some cases, it is easier to copy an existing Product and then modify it, rather than entering a new Product right from the start. To do this, click on the Product you wish to copy, using the right mouse button and select "Copy" from the menu.

You can then view the copied Product and modify it as necessary.

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### **Product Descriptions**

The short Product description is shown on the Product Details page in the same format as it would be seen by a customer.

The long Product description is available by clicking on the "long description" button, from the Product Details page. Customers can see both the long description and the short description, so it is important that they are checked for accuracy and clarity.

### **Resizing Windows/Customizing Screen Layout**

Most windows and fields can be resized within the Product Manager application by dragging their borders.

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## THE STACK MANAGER

### How the Stack Manager Works

A "Stack" is a listing of price and volume combinations for a Product. The customer will see only the most favorable bid or offer price. They will not see the remaining entries in the Stack unless the most favorable entries are sequentially removed either by other customers completing transactions, or their removal by the Enron trader.

The Enron trader maintains a Stack, so that if a transaction is completed by the customer, the next bid or offer in the Stack list will immediately appear to take its place. Different techniques can be used in building the Stack, depending on market objectives. It is possible, for instance, to have an entire Stack in which all of the prices and quantities are the same. Therefore, the "market" will not move, regardless of whether or not a customer "takes out" the entire bid or offer which is visible on their screen at any one time. An alternate strategy might be to build the stack with the same volume entries, but with prices moving up or down in defined increments. With this kind of stack, as customers complete transactions, the market will appear to move up or down, as appropriate.

Much more complex Stack strategies are of course possible, and EnronOnline has several tools which allow for construction of complex strategies and inter-Product relationships. These tools are discussed in the "Modifying Product Settings/Attributes" section, later in this document.

There is only one Offer Stack and One Bid Stack per Product, although there can be dependencies between Stacks.

Each trader will have a set of Products for which they will be responsible. Each active Product which is shown to customers must have a Stack maintained for it.

It is possible for multiple traders to view the same Product, but only one Trader will have Manager status and be able to manipulate the Stacks at any one time.

The Stack Manager links directly to the EnronOnline database. Customers do not have access to the Stack Manager. Information is entered into the EnronOnline database through the Stack Manager application and is processed, reformatted and selected elements transmitted to customers via the Internet.

### Stack Manager Function Summary

The Stack Manager is the primary interface that Enron traders will use to connect to the EnronOnline database and maintain their Stacks. This application allows traders to add, delete and modify prices and volumes, define Stack strategies, reassign responsibility for management of certain Products, view completed transactions, set market times, etc.

EC 001691263

The Stack Manager allows for defining relationships between Products. For example, it is possible to set the pricing of one Product so that it moves in proportion to price movements of another Product. It is also possible to set up the Stacks so that if volumes are taken from one Product, then volumes cease to be available from another Product.

The system handles basis, relative and absolute pricing. Limits can be set up to prevent or warn traders against entries in which the price or volume exceeds specified levels.

There are automated checks to ensure that traders do not accidentally cross their own bid/offer spread.

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### **Logging in to the Stack Manager**

If you are not already connected to the Houston network, you will need to follow steps 1-3. If you are already in Houston or are otherwise already connected to the Houston network, you can proceed to step 4.

- 1) Start Citrix Program Neighborhood (ICA Server)
- 2) Select EnronOnline from within Citrix
- 3) Enter your network login id and password

For all offices:

- 4) From within the terminal server window (or your regular program window, if in Houston), Start the Stack Manager by selecting the Stack Manager icon.
- 5) Select Login User from the Speedbar
- 6) Enter your User Name and Password

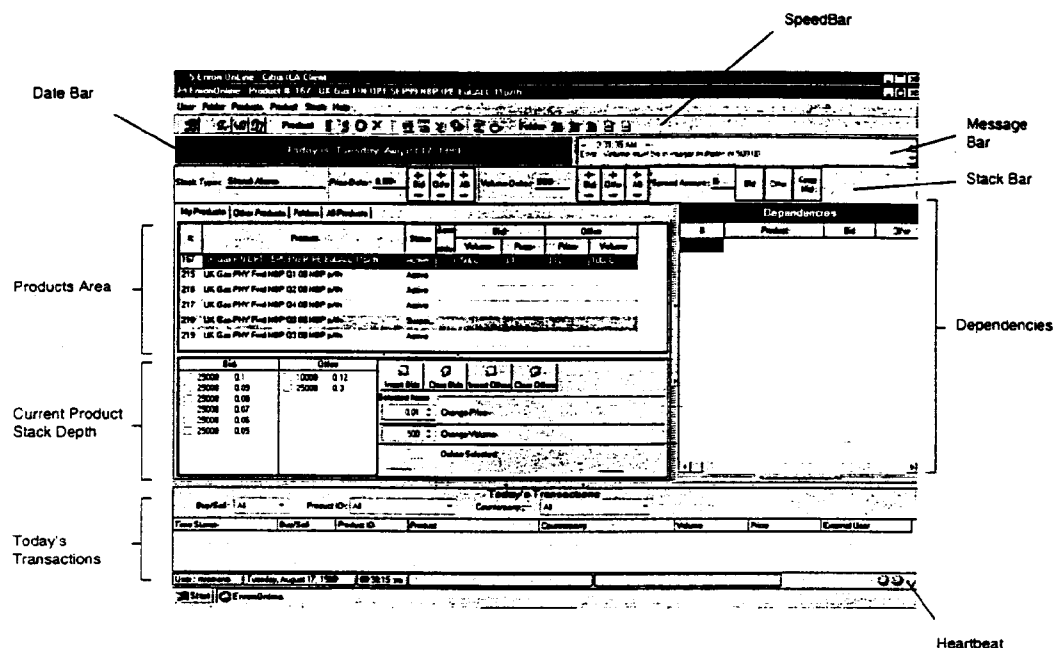
At this point, the Stack Manager should populate with the Products you are authorized to trade.

Note that it is possible to have multiple sessions logged on under one User ID. This can be useful if you are running multiple Products, and provides a level of redundancy in the event of failure of your computer.

If any of the above steps do not work, please contact technical support.

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## Stack Manager Screen



When you first log into the Stack Manager, you will see a screen which looks similar to the above.

The Products Area section shows a list of all of the Products which you are authorised for, along with the highest bid and lowest offer prices (and associated volumes) from each Product Stack.

The Current Product Stack Depth section shows the "stack" of bids and offers which lie behind the best price/volume shown in the Products Area for the highlighted Product.

The Today's Transactions section shows any transactions which have been completed for any of the managed Products in the current session.

The Heartbeat is your assurance that your desktop really is communicating with the main EnronOnline database. Every 60 seconds, the connection to EnronOnline is automatically checked. If the connection fails, then all of your Products will be automatically suspended, unless you have those same Products open under your User ID on another computer. The Heartbeat lights will remain a constant green color unless the connection fails. If this happens, please contact Tech Support.

The Dependencies section will list any Products which the Managed Products are dependent upon. For example, if one of the managed Products is set up so that its price is calculated relative to Product X, then Product X will be shown in the Dependencies section.

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The Message Bar shows any messages from the database which are relevant to your current session. Any error messages will be shown here, along with notifications regarding customers to have tried to transact, but have failed due to market movement or application of credit limits.

### **Primary Tabs**

Within the Products Area of the screen are four Primary Tabs. These are:

- My Products
- Folders
- All Products

The My Products tab shows all of the Products for which you are the current Manager. These are the Products for which you are responsible for maintaining a Stack, regardless of whether the Products are Active or Inactive. Note, however, that customers cannot see prices or volumes for Products which are not Active.

The Other Products tab contains listings of Products selected from the All Products tab which you wish to monitor. To move a Product into the Other Products tab, go to the All Products tab, highlight the Product and either select the "Open Product" button on the Speedbar, or right click, then select "Open Product" from the menu, or double-click on the Product. This is a way of organizing the Products which are most interesting, without having to pick them out of the long list on the All Products tab. To remove a Product from the Other Products tab, highlight the Product and either select the "Remove Product" button from the SpeedBar, or right click, then select "Remove Product" from the menu.

The All Products tab shows a listing of all of the Products which are available for which you have the ability to be the manager, or for which you have read-only access. The system will not allow you to maintain the Stack for any of the Products on this tab. In order to maintain the Stacks for these Products, you must first obtain Manager status (See the Changing Manager Status section for details).

Note that you cannot manage a Product which is identified in the All Products tab as Active and being managed by someone else. If you wish to manage a Product which is being managed by someone else, then you must first ask them to withdraw from that Product as its manager.

**EC 001691267**

## Modifying Product Settings/Attributes

Highlight a Product and choose the Product Properties button from the SpeedBar or right click on a Product in the Products Area and choose Product Properties. A window will open up which looks similar to the following:

Product # 171: NL Power FIN Swap BoM NLBO PMH VW V Base NLG/MWh Active

Read Only

Manager: HROMAND Access Level: Read/Trade Is Base Product: No

Time (CES)

Trade Start Time (0-23 hours) Trade End Time (0-23 hours) ☐ Keep Awake

Price Change

Price Delta: 0.00 Absolute Price Check: ☐ Warming Change: 0.00 Warming Percent: 20

Garbage Check Price: 2.00 Constant Spread Amount: ☐ False Change: 50.00 False Percent: 20

Volume Change

Volume Delta: 0 Stack Type: ☐ Standard ☐ Stacked

WEB Settings

Changing of the WEB settings will suspend the product.

Price Tick: 0.00 Volume Increment: 100

Min Volume: 100

Update Cancel

### Time:

This section specifies the time when the Product will become visible to customers (Trade Start Time) and the time it will be removed from customers' view (Trade End Time). You can specify a different end time for the current day in the Today Trade End Time field.

If you select "Keep Awake", then the Product will continue to be visible to customers for as long as someone is logged in and managing the stack.

### Price Change:

The Price Tick (Price Delta) field specifies the default increment/decrement which appears in the Stack Bar of the main Stack Manager screen.

### Garbage Check (Controls):

The Garbage check section is in the Price Change section of the Product Properties window. This is an important element in ensuring that accurate prices and volumes are published.

The Garbage Check Price field is a baseline price which is used for the Percent Price Check. If a Product is trading, then the last price-traded will normally be set as the baseline price. If no trades have occurred, then the Garbage Check Price will be used as the baseline price.

If the Constant Spread Amount field is checked, then the bid and offer prices will automatically be adjusted to maintain the specified spread. For example;

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Constant Spread Amount: 0.05  
 Current bid: 1.95  
 Current offer: 2.00  
 Next best offer: 2.02

If the entire current offer volume at 2.00 is taken by a customer, then the current bid will be automatically adjusted to 1.97 (to maintain the specified spread of 0.05 to the next best offer). The rule applied by the system is that if the offer was the last side taken, then the bid is adjusted. If the bid was the last side taken, then the offer is adjusted.

If Absolute Price Check is ticked, then any prices which a trader enters will be monitored for absolute variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified amount, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

If Percent Price Check is ticked, then any prices which a trader enters will be monitored for percentage variation from the last price entered. If a trader tries to enter a price which is higher or lower than the last price entered by more than the specified percent, limits will be breached and either the entry will be prohibited, or the trader will receive a warning, as appropriate.

#### Volume Change:

The Volume Tick (Volume Delta) field specifies the default increment/decrement displayed in the Stack Bar on the main Stack Manager screen.

The Minimum Volume specifies the minimum volume which a customer can specify when they offer to buy or sell.

#### Stack Type:

The Stack Type section provides various tools for automating price or volume updates to the Stack. Stack Types include options for linking a Product to other Products for price, volume or both. You can also instruct the system to maintain a specified bid/offer spread relative to the last trades.

If you are specifying a price in a Stack which is relative to another Product, the customer sees only the final, calculated price – not the calculation which is applied against the other Product. You see the basis and the customer sees the calculated price. For example, if the bid for Product Y is at \$2.75 and you price a bid for Product X at \$-0.75 to Product Y, then the customer will see the Product X bid as \$2.00. The customer will not see \$-0.75. Note that this rule does not apply if you are posting an index price. For index prices, the index differential you input will be the number which the customer sees.

When you select a Stack Type with a dependency, a new field will in which you can identify the related Product. Stack Types are as follows:

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Stand Alone	There are no dependencies for this Stack Type. This is the default type. You directly specify the price and quantity which the customer sees.
Basis Link	Prices will move in direct proportion to the related commodity. Prices should be entered as an adjustment to the linked Product. For example, if you are selling natural gas at Empress at Henry Hub less \$0.75, then you would enter a price of \$-0.75 in the offer stack for that Product and you would enter a Basis Link to U.S. Gas Physical forward at Henry Hub. Note that if the Offer at Henry Hub is taken out and is not replaced, then the Empress Offer would not appear on Customer Screens (as there is nothing for the basis to calculate against).
Syncopated Stack	If volumes for the related Product are removed (either by an Enron trader or a customer), then related volumes for the Syncopated Stack Product will be withdrawn from customers' view. This is an "Order - Cancels - Other" principle.
Syncopated Basis	This is the same as the Syncopated Stack, except that prices will move automatically relative to the linked Product in the same way as a standard basis link.
Last Trade is Mid	The bids and offers are calculated as a differential against the last traded price. When this is first selected, you will be prompted for a spread amount, which is the differential to the last traded price. This spread will be maintained by the system as the system trades. The Reset Volume field specifies the quantity which the system will automatically create as a new bid or offer in the event that the current stack is emptied. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Offset to Last Trade	This is similar to Last Trade is Mid, except that instead of maintaining an even bid/offer spread on each side of the last trade, a specified differential to the last trade is maintained. This allows for either the bid or the offer to be maintained closer to the last trade price, rather than being equally distant from the last trade price. Note that the Stack for this kind of Stack Type is always only one-deep, as new entries are automatically entered by the system as old entries are removed.
Currency Link	<p>[This allows the Product to be linked to a Base Product which is shown in a different currency. The Product will always show prices which the system calculates as the Base Product against the current Enron spot currency exchange rate.]</p> <p>The spot rate automatically updates from the Enron Foreign Exchange desk.</p> <p>You will be prompted to identify the Base Product and to enter an adjustment to the bid/offer spread which reflects an appropriate exchange rate beyond the spot period.]</p>

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### Web Pricing:

The Price Tick specifies the minimum price increment or decrement which a customer can offer to buy from or sell to Enron.

The Min. Volume specifies the minimum volume which a customer can offer to buy from or sell to Enron.

The Volume Increment specifies the minimum volume increment or decrement which a customer can offer to buy from or sell to Enron.

### Deactivating/Activating a Product

Products can have one of three possible states:

- 1) Active
- 2) Inactive
- 3) Suspended

Active Products are visible by customers, whereas Inactive or Suspended Products are not visible.

Active Products are available for viewing by all customers who have profiles granted by Enron which allow access to that Product.

Inactive Products are ones which are not being monitored by the database for distribution to customers. When new Products are added for the first time, they will be Inactive.

Suspended Products are ones which are normally available to customers, but which have been temporarily removed. The database monitors these Products but does not communicate them to any customers. Note that a Product can be Suspended by the system under certain circumstances, for example if you have specified a constant spread in the Product Options window and either your bid or offer is removed (in cases where you have not specified an automated volume replacement).

To Activate a Suspended or Inactive Product, highlight the Product and select the traffic light icon from the Speedbar, or right click on the Product and choose "Activate Product" from the menu.

To suspend an Active Product, highlight the Product and select the traffic light icon from the Speedbar or right click on the Product and choose "Suspend Product" from the menu. Alternatively, you can select the "Suspend All" speedbar button, which will Suspend all of the Products on the tab.

From the trader's perspective, there is no difference between an Inactive Product and a Suspended Product. In both cases, the Product is removed from the customers' view.

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### Inserting Bids/Offers (Building a Stack)

The Insert & Clear Bid and Offer buttons are located to the right of the Current Product Stack Depth.

Highlight the Product in the My Products tab and press Insert Bid or Insert Offer as appropriate. A window will appear which looks like the following:

Insert Bids for #: 167	
Volume: 10000	Number: 3
Price: 0.110	Price Change: 0.01
<input type="button" value="Insert"/> <input type="button" value="Cancel"/>	

Enter the volume and Price. If you wish to create multiple bids or offers from this one screen, you can increase the Number field. In this example, 3 Bids are being created. Each bid after the first will have its price reduced by 0.01. Therefore, a stack of bids will be added as follows:

<u>Bid</u>	<u>Volume</u>	<u>Price</u>
1	10,000	0.11
2	10,000	0.10
3	10,000	0.09

### Modifying Bids/Offers from a Stack

Select the entries you wish to modify from the Current Product Stack Depth section by selecting the appropriate tick boxes. As you select the entries to be modified, "+" and "-" signs will appear under the Insert Offers and Clear Offers buttons.

Adjust the price or volume figures beside the "+" and "-" signs for the amount of increment or decrement you desire. Note that this number defaults to zero if the tick sizes for the various Products are not equal. Press the "+" or "-" sign as appropriate to apply the price or volume adjustments to the selected entries.

### Modifying All Bids/Offers for a group of Products

Select the Products which you wish to modify from the Products Area. You can select all Products in a range by highlighting the first in the range, then holding the Shift key as you drag your mouse.

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Input the Price, Volume or Spread tick sizes you wish to apply in the Stack Bar and press the appropriate "+" or "-" button in the Stack Bar to adjust the price or volume for the bid, offer or both.

### Watching a Product Stack

The Current Product Stack Depth displays the depth of the Product stack for the Product which is currently highlighted in the Products Area of the screen. If you wish to monitor a stack other than the one which is highlighted, then you may create a new Product Stack Depth window.

To create a new Product Stack Depth window, double-click on the Product you wish to create the new window for, or right-click on it and select "Watch Product Stack" from the menu, or highlight the Product and select "Watch Product Stack" from the SpeedBar. A new window will be created under the Dependencies section of your screen.

The new window can be moved, resized and manipulated using standard windows processes. You can also expand the window to show a set of tools which mimic the tools found to the right of the full time Current Product Stack Depth window. To show these tools, click on the arrow icon to the right of "Offer" in the new Product Stack Depth Window.

Product #: 171		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

Click on the arrow beside "Offer" to expand screen to show this →

Product #: 171 - NL Power FIN Swap BoM NLBO PMH VW/V Base NLG/MWh		
Bid		Offer
<input type="checkbox"/>	100 1.98	<input type="checkbox"/> 100 2.3
<input type="checkbox"/>	100 1.96	
<input type="checkbox"/>	100 1.94	
<input type="checkbox"/>	100 1.92	
<input type="checkbox"/>	100 1.9	
<input type="checkbox"/>	100 1.88	
<input type="checkbox"/>	100 1.86	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.5	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.49	
<input type="checkbox"/>	100 1.48	
<input type="checkbox"/>	100 1.47	

### Suspending All Products (The Panic Button)

In the event of an emergency, all Products can be removed from customers screens and their status set to Suspended by selecting the Suspend All Products button from the SpeedBar (shown as a stop sign with a hand in front).

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## **Changing Management Status**

In order to control or modify the Stack for a Product, you must have Manager status for that Product.

To obtain Manager status, highlight a Product in the All Products tab of the Products Area of the screen, then either select the Manage Selected Product button from the Speedbar or right click on the Product and select "Manage Product" from the menu.

To remove a Product from the My Products tab and remove yourself as the current manager, highlight the Product and either select the Clear Product Manager Speedbar button, or right click and select Clear Manager ID from the menu.

## **Working with Completed Transactions**

The Today's Transactions section of the Stack Manager shows all of the transactions which have been completed for the Products which were completed on the current date.

Transaction listings can be filtered by any of the following fields:

- Buy/Sell : All buys, all sells or both
- Product Identifier : The Product ID # (as displayed in the Products Area of the Stack Manager screen)
- Counterparty : Transactions completed by a company (not trader specific)

## **Folders and How to Use Them**

The folders tab provides an easy way to organize the Products listing into logical categories. By accessing the SpeedBar buttons, you can create new folder categories, provide appropriate names and add or remove Products from your created categories. Note that folders are not currently available, but are planned for a subsequent release, which is expected prior to Sept. 27.

## **Resizing Windows/Customizing Screen Layout**

Screen elements can be resized by dragging on their borders. The only element which can actually be moved is the Product Stack Depth window obtained by double-clicking on a Product (Not the Current Product Stack Depth).

Field sizes can also be resized. For example, within the Product Area, you can stretch or shrink the width of any of the fields to show or less information as desired.

To customize the colored bars indicated Product Status, right click on any Product and choose "Options" from the menu. You can select pre-determined colors or set up custom colors by selecting the color palette icon on the colors window. This allows you to easily see which of the listed Products are Active, Inactive or Suspended.

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### **Changing Access Levels**

If you are unable to see a particular Product in any of your Primary Tabs and you are sure that the Product exists, then it is likely that your User ID has not been set up for access to that Product.

Please contact the Head Trader of your dept. to obtain access to the Product. The Head Trader will pass requests to the Product Group for processing.

### **Products Not Available**

If you need access to a Product which does not exist (i.e. it needs to be created), you will need to use the Product Manager application. The Stack Manager does not support Product creation.

### **Logging Off the Stack Manager**










When you log off, all of your active Products go Inactive. This means that customers' will not be able to see them.

Therefore, it is important that another trader assume Manager status of your Products before you log off, if the trading period has not yet expired.










To logoff the Stack Manager, press the Logoff User button on the Speedbar.

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## Stack Manager Speedbar Glossary

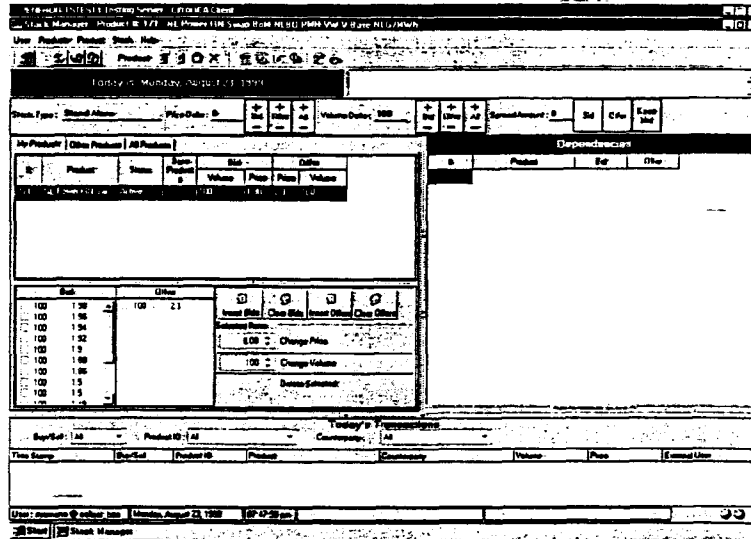
	<b>Exit</b> – Closes the Stack Manager. You should log off using the Log Off Speedbar button before you close the Stack Manager.
	<b>Login User</b> – You must have a valid User ID and password in order to access the Products.
	<b>Log Off User</b>
	<b>Activate Product</b> – If a productProduct is Suspended or Inactive, it must be Activated in order for customers to see prices and volume. Note that a Product must be Active before any other Products which depend on it are Activated.s.
	<b>Suspend Product</b> – If a productProduct is currently active, pressing this button will remove prices and volumes from customers' view. Note that pressing this button will also remove prices and volumes from customers' view for all Products which are linked to this Product.
	<b>Suspend All Products</b> – This is the PANIC BUTTON. Press this if you wish to remove all managed Products from customer view.
	<b>Remove Product</b> – Removes Moves a Product from the Other Products tab to the All Products ta.b
	<b>Load All Products</b> – Forces a manual refresh of the screen. This is useful if you have added a new Product through the Product Manager application and you want the new Product to show on the All Products tab.
	<b>Open Product</b> – Moves a Product from the All Products tab to the Other Products tab.

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	<b>Product Properties</b> – Opens a window to change attributes for the highlighted product. Only works for products which are highlighted in the Managed Products pagetab.
	<b>Watch Product Stack</b> – Opens a new Product Stack Depth window for the highlighted Product.
	<b>Manage Selected Products</b> – Moves a Product from the All Products tab to the My Products tab and makes the user the manager of the Product (responsible for maintaining the Stack) new icon – description required.
	<b>Clear Product Manager ID</b> – Moves a Product from the My Products tab to the All Products tab and removes the user as manager of the Product new icon – description required.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	Folder icon. Not available until a later release.
	<b>Add Folder</b> – Creates a new folder. Not available until a later release.
	<b>Delete Folder</b> – Removes a folder from the list. Not available until a later release.

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# EnronOnline™



## Trader User Guide

Version: 1.0  
August 23, 1999



EC 001691244

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## INTRODUCTION

This document is provided to Enron traders who will be responsible for running the internal applications associated with posting and maintaining prices for Products in EnronOnline.

This is provided as part of the EnronOnline training program and is not a substitute for formal training, which will include hands-on demonstrations and simulations.

EnronOnline provides significant opportunity, but also significant risk. This manual is not a substitute for formal training and users should not use the EnronOnline applications without completion of the formal training course and the mandatory minimum period of simulation training.

Please note that the EnronOnline system will not allow users access to the live system without completion of the minimum required simulation period.

### Relationship of Web and Database

There are two primary parts to EnronOnline:

- a) The Internet application and
- b) The Database applications

The Internet application is used by customers to buy and sell commodities with Enron. It also contains a short multimedia presentation about EnronOnline, along with news, EnronOnline press releases and various administration screens which are helpful to the customer. You can find the website at [www.EnronOnline.com](http://www.EnronOnline.com), although it will not be fully functional until Sept. 27, 1999

The database applications are used by Enron personnel. These internal applications are not available to any customers and are not internet based, but are direct connections to the EnronOnline database, located in Houston.

The database applications which this document covers are the Price Stack Manager (PSM) and the Product Manager (PM). The PSM and the PM are the primary applications which will be used by traders in the normal course of trading with EnronOnline.

### Product Manager

The Product Manager (PM) allows traders to add new Products. With the PM, traders can create new Products, delete old Products, change existing Product attributes and view the system descriptions of the Product.

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