EBB/EDM

***Introduction***

Industry Goal/Purpose

The goal of EBB/EDM can be found in GISB Standard 4.3.6:

> Transportation Service Providers should make all pertinent EBB functions and information available via the Internet or via the technology recommended by GISB within a reasonable amount of time after each such function or information has become standardized as appropriate by GISB.
>
> Within a reasonable amound of time, all EBB information, functions and transactions should be achieved via one mode of communications.

## What is Covered in GISB Standards?

- Common Terminology
- Order of Data Elements
- Placement of Navigation and Processing Functions
- User Workstation Technical Standards
- Nominations covers Nominations, Confirmations and Scheduled Quantity Screens
- Flowing Gas covers Allocations, Shipper Imbalances, PDA and Measurement Screens

## What is NOT Covered in GISB Standards?

- The exact format of the screens
- The level of interactivity
- The technology of back office systems
- Reports

Related processes

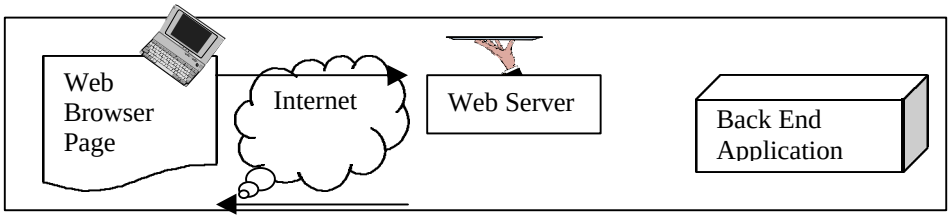
***Related standards***

**H**yper**T**ext **M**arkup **L**anguage (**HTML**) *(W3.ORG)*

- **HTML3.2** Specification *(W3.ORG)*
- **HTML4** Specification *(W3.ORG)*
- **HTML** URLs *(W3.ORG)*

**H**yper**T**ext **Transfer Protocol (HTTP)** *(W3.ORG)*

***Flow Diagram***



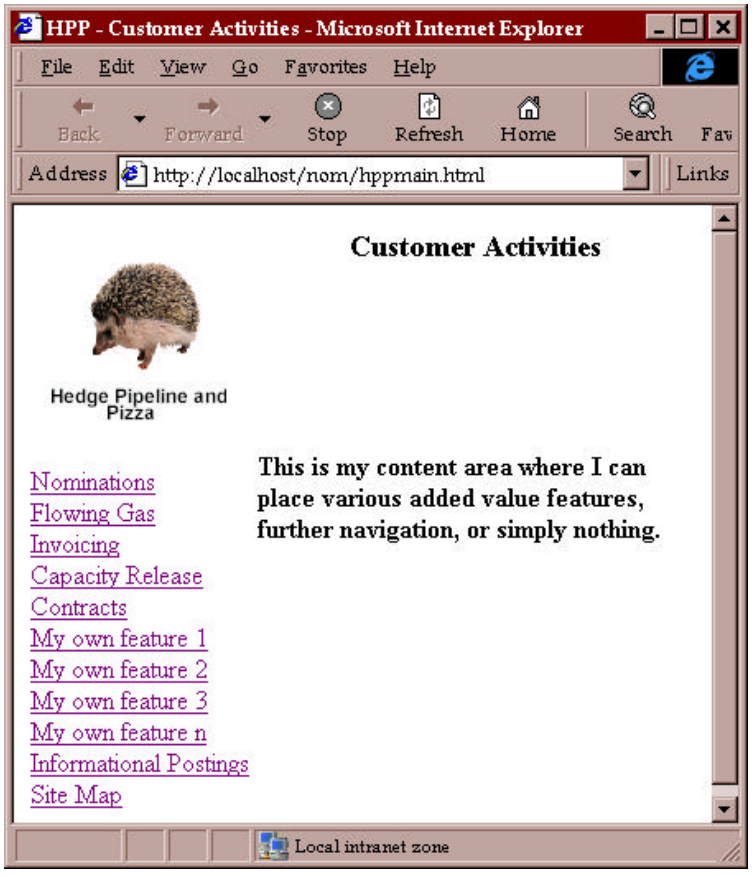

***Specification***

Navigation

The navigation pages of the Customer Activities site are divided into the same basic areas as the Informational Postings site. These are the Navigational Area and the Content area. The content area however is not typically used for the actual transactional pages, but rather, left open for your sites specific features. The top level menu provided for your site should include the following categories and labels:

*Nominations*
*Flowing Gas*
*Invoicing*
*Capacity Release*
*Contracts*
*Informational Postings*
*Site Map*

Each of these provide a link to another set of links detailing the associated area. When you need to place your own additional features within this menu you would place those features before the Informational Postings label/link. These links as well as the general layout of the top level page may be seen in the illustration below.




Nominations
- Nomination
- Confirmation
- Scheduled Quantity

Flowing Gas
Invoicing
Capacity Release

Th
pla
furt

**Nominations Categories -** The adjacent figure shows the Nominations Category expanded to show each of its sub categories. Your page should provide this sort of display where selecting a ling from the top level categories will provide a selection of related subcategories.

When a category does not have a subcategory the link should directly navigate to the area described.


Nominations
Flowing Gas
- PDA
- Allocation
- Imbalance
- Measurement

Invoicing
Capacity Release
Contracts

Thi
vari
nav

**Flowing Gas Categories -** The adjacent figure shows the Flowing Gas Category expanded to show each of its sub categories.


Nominations
Flowing Gas
Invoicing
- Trans/Sales Invoice
- Service Requester Level Charge/Allowance
- Invoice
- Payment Remittance
- Statement of Account

Capacity Release
Contracts
My own feature 1

a
pl
va
fu
or

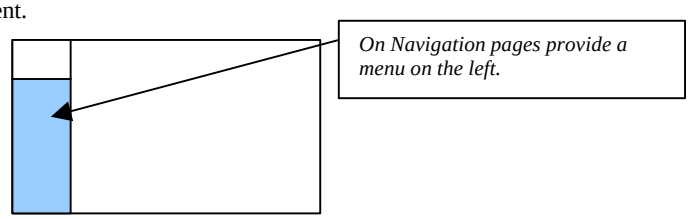
**Invoicing Categories -** The adjacent figure shows the Invoicing Category expanded to show each of its sub categories.


**Capacity Release Categories -** The adjacent figure shows the Capacity Realease Category expanded to show each of its sub categories.

The parts of the page

### The Menu

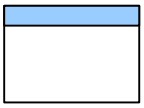
The Customer Activities web site carries many of the cosmetic features found in the Informational Postings site. Among these, and most notably is that the left hand menu is used for navigation to the actual transactional pages. Your implementation of this menu should include the categories and sub categories shown in the Navigation section of this document.



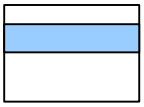
### Layout on Transactional Pages

The layout of transactional pages is divided into the following sections/areas:

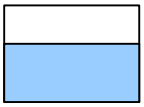
**The Header** – The area normally used for entry of search criteria and to contain processing functions and Navigation functions.



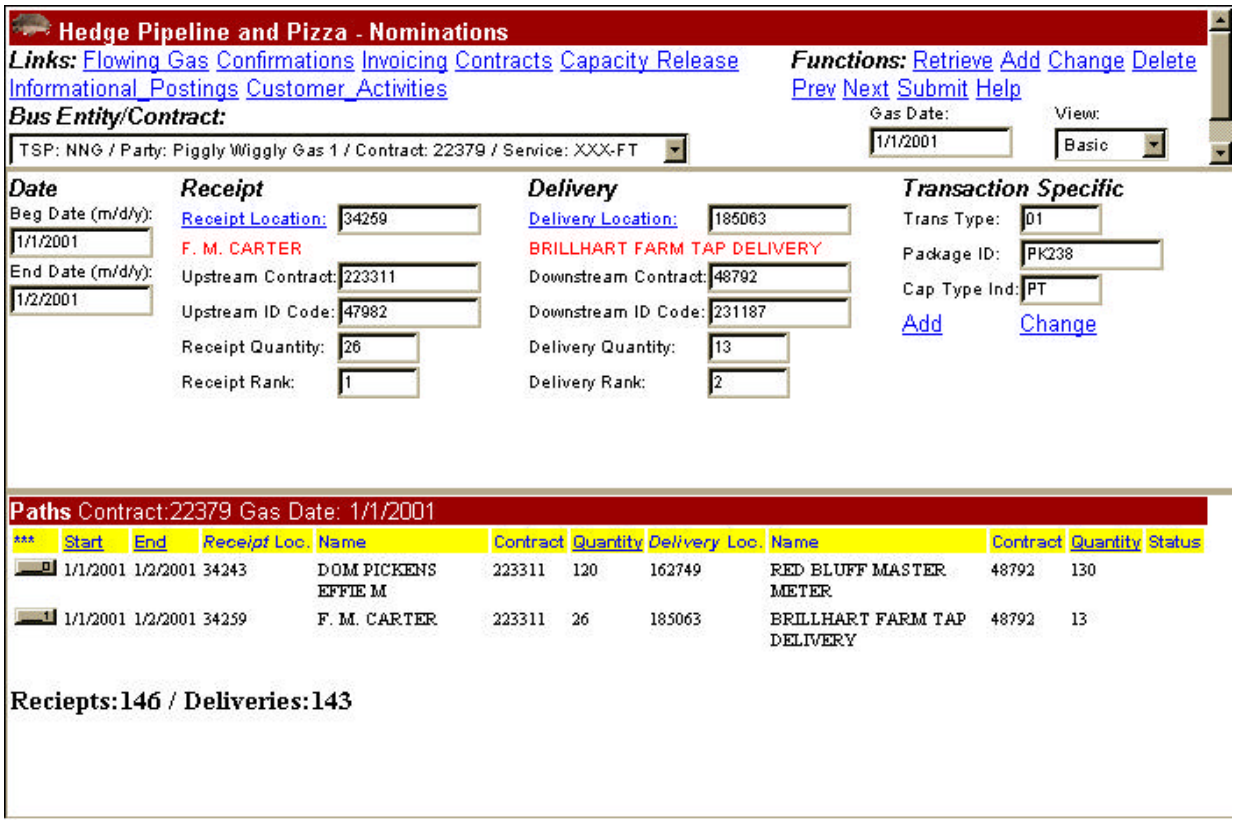
**The Form** – The area used to display/edit a single item from the matrix. This area is directly below the header. Alternatively, this area may be an entire new page linked to the matrix. This means that selecting from the matrix may bring up an entirely new window for the form display.



**The Matrix** – The area used to display a list of items for the page. This area should be below the form. This area may be used for update/edit as well. Alternatively, this area may be an entire new page linked to the form.



### Example layout of a Nominations Page:

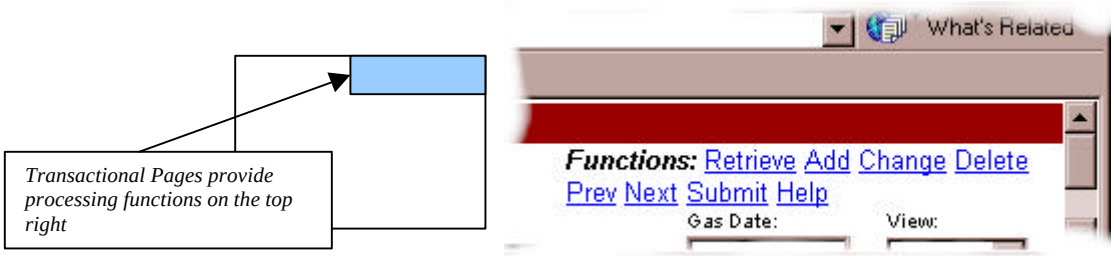


### Navigation on Transactional Pages

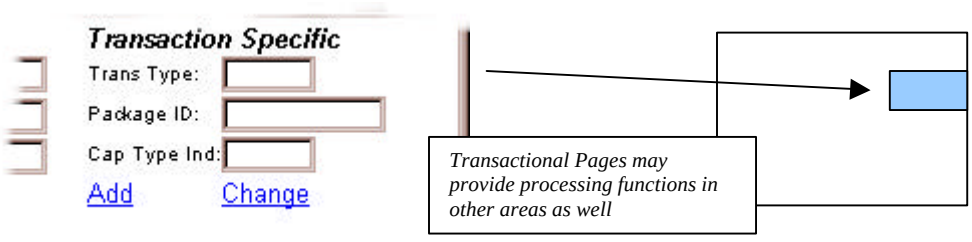
The left hand menu should be used for top level navigation. However, it is recognized that many of the entry (transactional) pages do not lend themselves to a significant percentage of the space being used by such a menu. Thus, on the transactional pages the navigation menu is present on the upper left portion of those pages. The exact links provided are not standardized except that at a minimum a link back to the top level Customer Activities page would be appropriate.


The illustration above shows an example of a Nomination Entry form with an example Navigation at the top left portion of the page. The orientation of this picture is seen in the picture.

### Processing Functions




Processing Functions vary between implementations of the transactional windows. A given function may or may not be used on any given site. However when present these functions should appear in the top right area of the page. This does not preclude also including some of these functions in other useful locations on the page. The illustration above shows the processing functions placed at the top right portion of an example page. Below there is an example of **also** placing two of these functions on the form area of the page.




This sort of redundancy allows for tuning of pages to allow keyboard-only entry. As well as placing a function near the data being affected by that particular function. In the illustration above the 'Add' and 'Change' function were placed into the form area as well to allow a user to tab to these fields after data entry and hit 'enter'.

The following list shows the labels and definitions for defined processing functions. If you use these labels you should ensure they work as described. There is no requirement that you use any of these, but if you do you should conform to these definitions.

| Processing Function | Nomenclature |
|---|---|
| Create a new line item for data entry in the Matrix. | New |
| Copy existing data on a screen or window. | Copy |
| Delete the current line item from the Matrix, the screen or the window prior to Submit. | Delete |
| Back out of a screen or window without executing the process, which will cause the loss of all updates since the last Submit. | Cancel |
| Print application data. | Print |
| Send record/records from the Matrix to the TSP for processing. | Submit |
| Sort displayed records based on specified criteria. | Sort |
| Retrieve information from the TSP based on specified criteria. | Retrieve |
| Post a line item from the Form to the Matrix as a change to the current line item in the Matrix prior to Submit. | Change |
| Clear fields on the Form. | Clear |
| Post a line item from the Form to the Matrix as a new record. | Add |
| Provide information regarding the current page or function. | Help |
| Filter displayed records based on specified criteria. | Filter |

### The Form

The form area of a transactional page is the portion that holds a display, and sometimes entry/edit fields for a single selected row of data. The form is intended as an area that displays the record without needing to scroll the window from right to left. The concept is that the data in this area would be populated when a record is selected from the matrix. There are several technical implementations of this area, including:

- Separate the form and matrix in separate frames to allow each to be painted separately on the same page.
- Separate the form and matrix in separate linked pages to allow each to be painted separately.
- Build these as integrated Java Objects to allow communication between the displays. This may be implemented on either one or multiple pages.
- Use JavaScript to populate input fields based on selections and the corresponding events. This may be implemented on either one or multiple pages.

An example of a form area for a nominations entry could be as follows:


The form area is the area to which most standards will apply. For example when the standards specify the order and grouping of the fields, these standards only apply to the form area. However, it would generally be a good practice to keep much the same order for fields and groupings shown in each.

### The Matrix

The matrix area is a list of items for that page. So, for a Nominations entry page the matrix would contain a list of retrieved nominations. This list needs to provide some mechanism to allow a user to select a given row/record. This can be accomplished by use of a simple link, a button or a Java control. This list may be formatted with any order of fields if a standardized form is also provided.

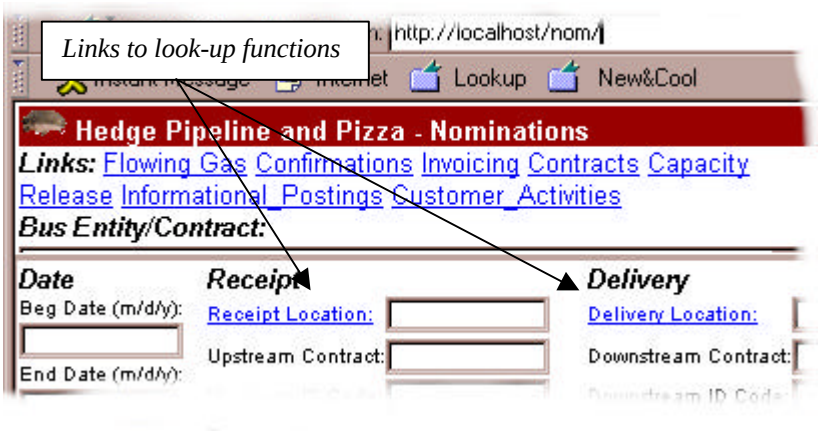
**Paths** Contract:22379 Gas Date: 1/1/2001

| *** | Start | End | *Receipt* Loc. | Name | Contract | Quantity | *Delivery* Loc. | Name | Contract | Quantity | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1/1/2001 | 1/2/2001 | 34243 | DOM PICKENS EFFIE M | 223311 | 120 | 162749 | RED BLUFF MASTER METER | 48792 | 130 | |
| | 1/1/2001 | 1/2/2001 | 34259 | F. M. CARTER | 223311 | 26 | 185063 | BRILLHART FARM TAP DELIVERY | 48792 | 13 | |

**Reciepts:146 / Deliveries:143**

### Looks-ups

Several of the entry forms require lookups be provided. These look-ups are simply links associated with a function to that given value. For example, the Nominations page requires that there be look-ups for the receipt and delivery location values. This means that, near that value, a selector be provided which will 'pop-up' a device to search for a location value. There are many implementations of this feature including but not limited to simply providing a link that would open another window with a structured search function.




### Security

Firewalls:

A firewall is one or more computers running special software which is designed to provide control of communications between two networks. Its purpose is to limit the types of services between these two networks. Often, a company's connection to the Internet is intended to provide several other services to its employees who are connected by an internal network such as a Local Area Network or Wide Area Network (LAN or WAN). Examples of these services include access to the World Wide Web, use of e-mail, use of file transfer capabilities and publishing content intended for viewing by the external world on a Web server. In addition, the internal network will likely have connections to host computers which provide internal services such as file and print sharing, fax and database capabilities. So that availability of these services and confidential internal data are not compromised by unwelcome intruders from the Internet, there should exist a protective mechanism between the internal network and the public Internet, the firewall.

There are two general mechanisms employed by firewalls to provide this control: packet filtering and proxy services. Packet filtering examines important components of the messages such as the address of the sending and target computers and the designator (port number) for a specific application running on the target computer. By doing this, it can prevent access to specific computers or programs on those computers. It can also reject messages from certain computers. Proxy servers have various capabilities. They can act as relay agents that can examine attempted use of certain features within an application thus limiting access to these features. They can also hide (by substituting its own address) the internal addresses of clients communicating with external hosts. This hiding makes it difficult for potential attackers to focus on specific internal hosts.

Because firewalls are designed to deal with a broad set of security issues, which may vary at each organization, and are not specific to the use of HTTP, this guide does not attempt to provide specific implementation information. Deciding on a specific firewall architecture, organizational security policies, and choosing between numerous products may require outside resources to address these issues.

Login

Access to the 'Customer Activities' site should be protected by HTTP Basic
Authentication or similar logon/password mechanism(s) using 40-bit encryption. A 'Customer Activities' site should require a single logon/password pair for each
user session.

Encryption

At a minimum, data communications for a 'Customer Activities' site should utilize
40-Bit encryption. Where possible, 128-Bit encryption is strongly recommended. This may be implemented through any of the following techniques:

- 40-bit SSL
- 40-bit RSA Java communications
- 40-bit Secure ICA

## Server Specifications

General

There are few specific requirements for the server applications mentioned in the standards. The primary driver of the standards is to focus on the feature and function provided to the client. How these features are delivered on the server is left relatively open.

Time synchronization

Several of the entry forms require lookups be provided. These look-ups are simply links associated with a function to that given value. For example, the Nominations page requires that there be look-ups for the location values. This means that, near that value, a selector be provided which will 'pop-up' a device to search for a location value. There are many implementations of this feature including but not limited to simply providing a link that would open another window with a structured search function.

Ports

The HTTP Server or the server side application should be configured as port 80. If port 80 is not available, use one of the following recommended alternate tcp ports :
HTTP 80, 5713, 6112, 6304, 8674, 7403
SSL 443
ICA 1494
RMI(Java) 1099-1100
Java Telnet 31415
TCP Optional 8001-8020
(note no udp ports are available)
Transportation Service Provider EDM implementations should minimize the number of ports required to be opened on the client side firewall. Each time a server application requires another open port it is potentially necessary for the

users of that site to open yet another outbound port. An effort has been made to provide a limited number of these ports and a user should be able to use any EDM site if all of these outbound ports have been provided.

## Client Specifications

General

A workstation configured in accordance with the hardware and software recommendations provided should be able to run any compliant application. This means that developers of web site applications must test using each of the browsers provided for and with only the standard features available.

**PLACE MIN CONFIG HERE**

Browser Characteristics

*HTML Use*

Features of HTML including Frames, Tables, Style Sheets, DHTML, Javascript, etc. should be tested under any allowed browser. This means that features should not be provided that are only supported by a single browser. For example if a given DHTML tag is not available in all supported platforms it cannot be used, or the application must detect the variation in browser and accommodate this difference. The key to successful implementation under the standards is to test every function under all standard platforms using all standard browsers.

*Java*

The standards allow for the use of Java version 1.1.6 . This means that an application that uses Java may use those in that version and when backward compatibility is provided, earlier versions may be used. This version is not normally provided with the common browsers and compatibility may require the use of a Java plugin.

*ICA*

In order to facilitate transition of client server applications ICA plug-in is allowed in the standard. This plug-in provides a remote image from the server . Since ICA is not necessarily a Browser object linking and menus may behave differently.

Data dictionary

***Appendix***

**Reference Guide**

**Terms/Glossary**