NEXT PRESENTATION

STREAMLINING PROCESSES: AUTOMATING PIDX PRODUCT AND COMPANY CODES

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DTN
PIDX PRODUCT AND COMPANY CODES: AUTOMATING THE PROCESS
WHAT ARE THEY?

- Product identifiers used by Downstream Industry Partners.
  - Individual codes represent unique products used in the industry.

<table>
<thead>
<tr>
<th>Code</th>
<th>Product identifier</th>
<th>Description</th>
<th>Octane/octane type</th>
<th>Oxygenate percent % N</th>
<th>Oxygenate percent % Y</th>
<th>RON percentage</th>
<th>NOx</th>
<th>Sulfur content %</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A20</td>
<td>AVIATION GASOLINE</td>
<td></td>
<td>N</td>
<td>Y</td>
<td></td>
<td></td>
<td>85</td>
<td></td>
<td>100/130 LOW LEAD</td>
</tr>
<tr>
<td>A21</td>
<td>Unbranded Aviation Gasoline 100/LL</td>
<td>AVIATION GASOLINE</td>
<td>N</td>
<td>Y</td>
<td></td>
<td></td>
<td>85</td>
<td></td>
<td>AVIATION GASOLINE</td>
</tr>
<tr>
<td>A25</td>
<td>AVIATION GASOLINE</td>
<td></td>
<td>N</td>
<td>Y</td>
<td></td>
<td></td>
<td>85</td>
<td></td>
<td>100/130 HIGH LEAD</td>
</tr>
<tr>
<td>B90</td>
<td>FUEL ETHANOL</td>
<td>ALTERNATIVE FUEL - Ed79-83</td>
<td>A</td>
<td>70-95</td>
<td>N</td>
<td>F/N</td>
<td>3</td>
<td>N/N/N/N/N/N/N/N/N/N/N</td>
<td>Ed79-83% ETHANOL/21-17% CaRFG3 CARB E85 fuel Class 2</td>
</tr>
</tbody>
</table>

- Company identifiers used by Downstream Industry Partners.
  - Individual codes represent unique companies in the industry.

<table>
<thead>
<tr>
<th>Code</th>
<th>Company name</th>
<th>Address</th>
<th>City</th>
<th>St</th>
<th>Zip</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Stonewin LLC</td>
<td>333 SE 2nd Ave STE 2000</td>
<td>Miami</td>
<td>FL</td>
<td>33131</td>
<td>305.301.1178</td>
</tr>
<tr>
<td>02</td>
<td>J. Global Energy Inc</td>
<td>440 Louisiana ST, STE 1818</td>
<td>Houston</td>
<td>TX</td>
<td>77002</td>
<td>281.455.3139</td>
</tr>
</tbody>
</table>
PRODUCT CODES - WHAT ARE THEY?

Key Product Code elements include:

- Code: One to three character alphanumeric identifier assigned by the Downstream Subcommittee.
- Product Definition: Up to 34 character alphanumeric definition of the product.
  - IE: Regular, Gas, Unleaded Regular
- Description: Up to 120 character alphanumeric description of the product.
  - IE: Conventional Carb, RBOB-Carb
- Cetane/Octane: Numeric value of cetane or octane.
- Oxygenated/RBOB Type: A single alphanumeric character indicating if the product is oxygenated and if so, with which oxygenate.
  - If the product is an RBIB, this field also describes the type of RBOB.
COMPANY CODES - WHAT ARE THEY?

Company Code elements include:
  ○ Code
  ○ Company Name
  ○ Company Address
  ○ City
  ○ State
  ○ Zip/Postal Code
  ○ Phone Number
  ○ Contact Name
  ○ Contact Email Address
  ○ Date Assigned
CURRENT SOLUTION FOR REQUESTING NEW CODES

Person who wants to add a new PIDX code

- New codes can be requested by filling out the attached spreadsheet and emailing a copy to productcodes@pidx.org or companycodes@pidx.org
- Downstream committee will identify the code to be assigned to the new product.
- Downstream committee will reply to you with the new code.
- PIDX will update the Product Code list on the website.
CHALLENGES: PRODUCT CODES

- Terminals/Suppliers are not always consistent.
  - Established codes not used for the same product across all terminals.
    - Causes confusion if a code means something different at two separate terminals.
    - Additional work for suppliers, customers and vendors to keep their back office updated.
- Terminals/Suppliers use non-established codes.
  - Terminals/suppliers create codes at their own discretion.
    - Parties using the Product Code list from PIDX are unable to locate/identify codes being transmitted.
      - Causes additional work to determine/identify what the code is and maintain it in back office systems.
SOLUTIONS

Long Term Goals:
- Build an API–driven solution for PIDX codes.
  - Existing process is manually driven.
  - API should support a single, clarified protocol for providing key data sets to terminals.

Steps to consider for Product Codes:
- Compare codes being used by Data Clearing Houses to the master list.
- Identify codes being used by terminals/suppliers not on the master list.
  - Determine how to handle codes missing from the master list and duplicated codes.
  - Identify a plan for handling non-standard codes.
    - Further define attributes/requirements to create a code.
    - Determine if non-standard/”bad” codes can be added to the master list.
SOLUTIONS

Online Request Submission:

- Partner with DocStudio to provide online solution to request codes.
  - Online form submission
    - Form reviewed for accuracy/clarity
    - Code assigned
    - New code sent to requestor
  - List updated online with new information
Streamlining Processes:
Automating PIDX Product and Company Codes
Solution for receiving new PIDX Product Codes through DocStudio

Person who wants to add a new PIDX code

https://pidx.org/standards/downstream/product-codes/

Add new code!

Person directed to DocStudio to fill out the form

Filled form will go through moderation and approval flow

Processing flow

1 - Sender
2 - Moderator
3 - Moderator
4 - PIDX Robot

PIDX robot pushes the data to PIDX Website SFTP and updates Excel Spreadsheet with a new code

SFTP Connection

PIDX robot push the data to PIDX API

PIDX API

api.pidx.org

Notification

Notify a requester that new code has been issued or rejected if error occurred.
How the process looks like from requester side?

DocStudio  PIDX
INTERNATIONAL

How to request a New PIDX Downstream Product Code?
PIDX robot updates the Product Code list on the website via SFTP connection and push the data to PIDX API.
ROADMAP: AUTOMATION OF PIDX PRODUCT AND COMPANY CODES

01 REQUEST = IDEA
OCTOBER, 2022
Kris Pronske’s Presentation at the PIDX Fall Conference about PIDX Product Codes

02 SOLUTION PROTOTYPE
NOVEMBER, 2022
The DocStudio Team and Kris Pronske collaborated to create a prototype solution for automating the PIDX Codes request process

03 DEVELOPMENT
DEC-FEB, 2023
- Developed a Form Template and flow
- Conducted a demonstration on the PIDX Webinar
- Tested with PIDX Downstream WorkGroup and Code Lists Users
- Made improvements based on expert feedback

04 TECHNICAL INTEGRATIONS
MAR-APR, 2023
- SFTP integration with PIDX Website to update Excel Spreadsheet with a new code
- Publish the data to PIDX API

05 PRODUCTION & ONBOARDING
MAY-JUN, 2023
- Production stage
- User Onboarding

06 PIDX COMPANY CODES
JUN-AUG, 2023
Automate the process of requesting new PIDX Company Codes based on the experience with Product Codes
# PIDX Downstream Company Codes

## New PIDX Company Code Request Form

**Publishing date:** Date

<table>
<thead>
<tr>
<th>Code</th>
<th>Company Name</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>ZIP</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Retail Content Service Inc.</td>
<td>12001 Research Parkway, STE 276</td>
<td>Orlando</td>
<td>FL</td>
<td>32826</td>
<td>+1(888) 520-9593</td>
</tr>
</tbody>
</table>
Benefits of automating request of New PIDX Product and Company Codes:

- **Increased efficiency:** Automating the request process reduces the time and effort required to complete each request, freeing up resources for other important tasks.

- **Greater accuracy:** By using a standardized and automated process, the likelihood of errors or inconsistencies in the request is greatly reduced.

- **Improved communication:** The use of a centralized platform helps to streamline communication between requestors and PIDX administrators, ensuring a smooth and efficient process.

- **Enhanced tracking and reporting:** The automated process enables real-time tracking, providing greater visibility into the overall process.

- **Scalability:** The automated process easily accommodates an increasing volume of requests as the PIDX community grows.