DADDS Training

Tuesday, April 23rd 2019

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DCS Web Training Topics
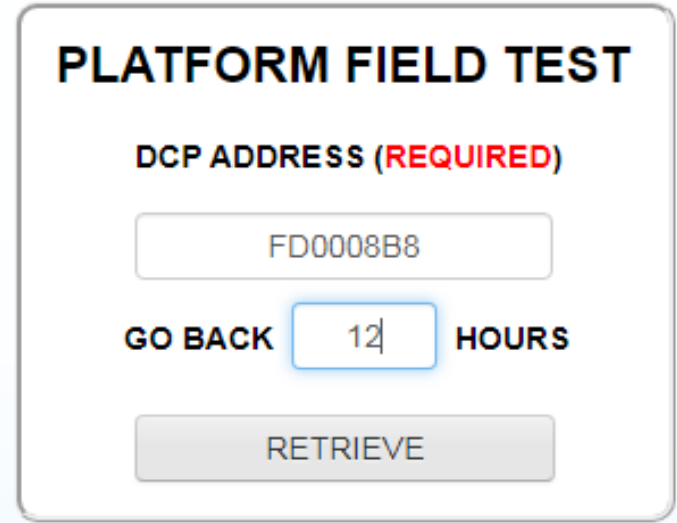
- PDT Field Test
  - Platform data is available outside of the user login.

- Reset/Forgot Password
  - Review reset password sources, emails and process
  - An additional way to reset an account password.

- Message Filters
  - Review message filter dialog and conditions
  - Manual and automatic DateTime filter examples.

- Saving Filters
  - Store filters in the database for future use

- Netlist Filters
  - Create custom filters from existing netlist files or a filter

- Troubleshooting Missing Data

Field Test Feature

- Created to re-produce a USGS web utility that helped technicians in the field quickly check the status of a platform.

- Returns information about the platform and any message data from a specific lookback period.

- Accessible via a link located on DCS website login pages or by browsing directly to a URL:

  ➢ https://dcs1.noaa.gov/Account/FieldTest
  ➢ https://dcs2.noaa.gov/Account/FieldTest
  ➢ https://dcs3.noaa.gov/Account/FieldTest
  ➢ https://dcs4.noaa.gov/Account/FieldTest

Field Test Output

PLATFORM FIELD TEST

DCP ADDRESS (REQUIRED)

FD0008B8

GO BACK 12 **HOURS**

RETRIEVE

PDT INFORMATION

ADDRESS	FD0008B8
GROUP	FLODOT
P-CHAN	111
S-CHAN	121
FIRST	00:06:50
PERIOD	01:00:00
WINDOW	00:00:10

ADDR	CHAN	BAUD	SIGNAL	PHASE	QUAL	FREQ	CARRIER	END	ARM	SCID	TYPE	LEN	DATA
FD0008B8	111	300	41.8	3.27	98.9	16.1	9/7/2017 16:06:53	9/7/2017 16:06:57	G	13	CS2	105	`@r@rAF@r@r@rBRBNBUBSB\BX@J@T@T@J@T@J@N@L@J@N@Z@OBVBLC\BVB`BVB OBKBTBdBYBb@T@^@^@J@T@J@K@O@J@O@G@Ims@^~QEk
FD0008B8	111	300	42.3	3.57	98.6	14.6	9/7/2017 15:06:53	9/7/2017 15:06:57	G	13	CS2	105	`@\@h@\@\AF@rB\BRBKBVB[BK@T@J@J@^@J@M@R@M@N@Q@MB`AdBVB`CRBLB [BRBNBPBYBN@J@J@T@J@T@H@Q@K@M@F@Ims@^~QE\
FD0008B8	111	300	42.3	3.62	98.4	13.1	9/7/2017 14:06:53	9/7/2017 14:06:57	G	13	CS2	105	`@h@\@r@\@\@hBUBQBNBRBRBQ@J@T@T@J@T@T@P@J@M@I@L@OAnBjB`BVBjBLB PBTBMBOBYBO@J@J@J@J@^@M@C@K@L@H@Kms@^~PEE
FD0008B8	111	300	42.2	3.35	99.3	-6.2	9/7/2017 13:06:53	9/7/2017 13:06:57	G	13	CS2	105	`@h@h@^@h@^@hB[BRBKBWBLBO@J@T@J@J@J@V@P@M@M@N@OAnBLAZBBAnAxB mBQBLB`BJBK@T@J@T@J@^@^@S@I@K@H@O@Oms@^~QDg
FD0008B8	111	300	42.3	3.41	98.2	-8.1	9/7/2017 12:06:53	9/7/2017 12:06:57	G	13	CS2	105	`@T@h@h@^@h@hBOBLBNBKBKBS@J@J@J@J@J@M@L@M@N@YAFAdBLAZAxAnB NBLBOBMBQBN@J@J@J@^@J@J@K@L@I@J@E@Pms@^~RDV
FD0008B8	111	300	42.6	3.36	98.0	-8.5	9/7/2017 11:06:53	9/7/2017 11:06:57	G	13	CS2	105	`@^@^@T@T@T@JBKBLBLBPBKBL@J@J@J@J@J@@@N@M@L@L@M@MAdAZ@r@\@\@TB LBLBLBNBKBM@T@^@J@J@J@@@L@L@L@L@Kms@^~RDV
FD0008B8	111	300	42.4	3.33	98.0	-8.6	9/7/2017 10:06:53	9/7/2017 10:06:57	G	13	CS2	105	`@T@T@J@T@T@TBJBJBLBOBIBO@J@J@@@@@J@@@N@N@L@N@MAF@\@h@rAF@\B JBJBOBKBJBL@J@J@J@J@J@M@N@H@O@M@Mms@^~RDV
FD0008B8	111	300	41.9	3.48	98.2	-9.0	9/7/2017 09:06:53	9/7/2017 09:06:57	G	13	CS2	105	`@^@^@T@T@^@^ABKBJBLBQBMBJ@J@J@J@J@J@J@M@N@M@I@M@NAFAn@rAPAdAnB KBJBKBUBMBJ@T@^@J@J@@@T@L@M@M@B@J@Mms@^~RDS
FD0008B8	111	300	42.0	3.33	98.0	-10.4	9/7/2017 08:06:53	9/7/2017 08:06:57	G	13	CS2	105	`@^@T@T@T@T@TBMBMBQBZBNBU@J@J@J@@@@@J@M@M@R@G@L@IAdAZAP@\@rAFB QBLBMB_BKBV@T@J@@@J@J@J@M@N@D@N@Ims@^~SDQ
FD0008B8	111	300	42.1	3.65	97.5	-12.3	9/7/2017 07:06:53	9/7/2017 07:06:57	G	13	CS2	105	`@^@T@^@^@T@JBKBNBNBMBPBK@J@J@J@J@J@@@N@K@K@R@MAF@\APAd@\@^B LBQBNBPBHBI@J@J@J@T@J@K@F@J@H@T@Oms@^~TDL
FD0008B8	111	300	41.8	3.71	95.7	-15.2	9/7/2017 06:06:53	9/7/2017 06:06:57	G	13	CS2	105	`@J@J@J@T@J@JBN@g@g@c@i@h@@@@@@@@@@@@R@M@K@H@N@P@^@^@h@\@^@^B K@i@f@d@j@j@J@J@@@J@J@O@N@I@N@Oms@^~UDS
FD0008B8	111	300	42.6	3.16	99.1	-14.8	9/7/2017 05:06:53	9/7/2017 05:06:57	G	13	CS2	105	`@T@T@T@^@h@T@g@Z@K@SB[BN@@@@@J@T@J@K@G@I@I@R@L@r@rAFAZB`AP@ h@T@H@KBTBR@@@@@@J@^@J@L@F@F@I@M@Gms@^~RD`

Field Test Form

- Requires two inputs:
  - DCP address of a platform.
  - Number of hours to look back.

- Returns two outputs:
  - Basic platform information.
  - Messages found in look back period.

- Clicking the 'RETRIEVE' button submits a query to the server and populates the page with information when finished.

PLATFORM FIELD TEST

DCP ADDRESS (REQUIRED)

FD0008B8

GO BACK 12 **HOURS**

RETRIEVE

End Field Test

Reset Password

- User account passwords can be reset via 3 methods

  1) By managers and operators within the DADDS website.
  2) By users via the forgot password security questions.
  3) By users via the forgot password using last name and pin code.

- All methods, when successful, send an email to the account email address containing a partial password and instructions on the completing the reset process.

- To complete the reset process, a user must then login to a DCS server using the partial password from the reset email and their 4 digit account pin code.

- If the login is successful, the user is redirected to the update password form to complete the reset process.

Reset Password

- In most cases, users reset their passwords using the 'Forgot Password' dialog.

- To open, click the 'Forgotten Password? Click here' link located to the right of the login controls.

- Two methods can be used to initiate a password:
  - Answer one of the security questions correctly.
  - Enter last name and account pin code for both secuirty answers.

Forgot Password

- On the forgot password dialog, enter the account email address and click 'NEXT' to show the 1st security question.

- Enter the answer in the answer field below the 1st security question and click 'NEXT'.

- If the answer provided is correct a success message will be shown and a reset email will be sent.

- If incorrect an error message will be shown and the 2nd security question will be shown for another attempt.

- Enter the 2nd security answer and click 'NEXT' to try again.

FORGOT YOUR PASSWORD?

ENTER YOUR EMAIL ADDRESS

MATTC@MICROCOMDESIGN.COM

INCORRECT QUESTION 1 ANSWER
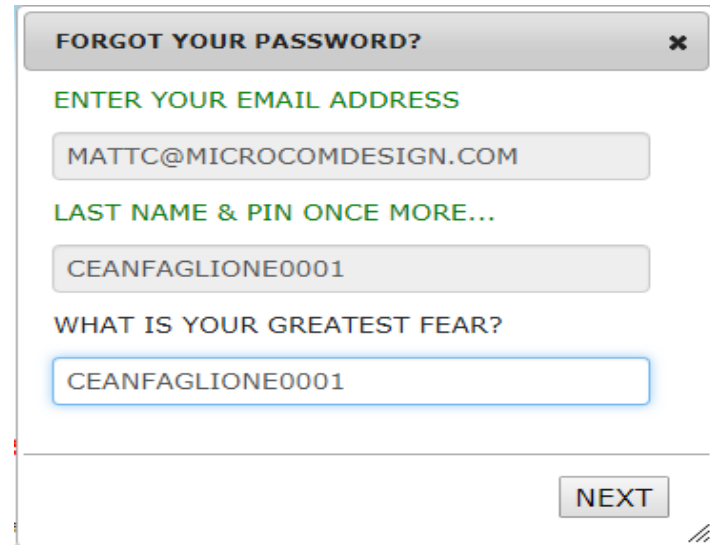
THE HOBBIT

WHAT IS YOUR GREATEST FEAR?

NEXT
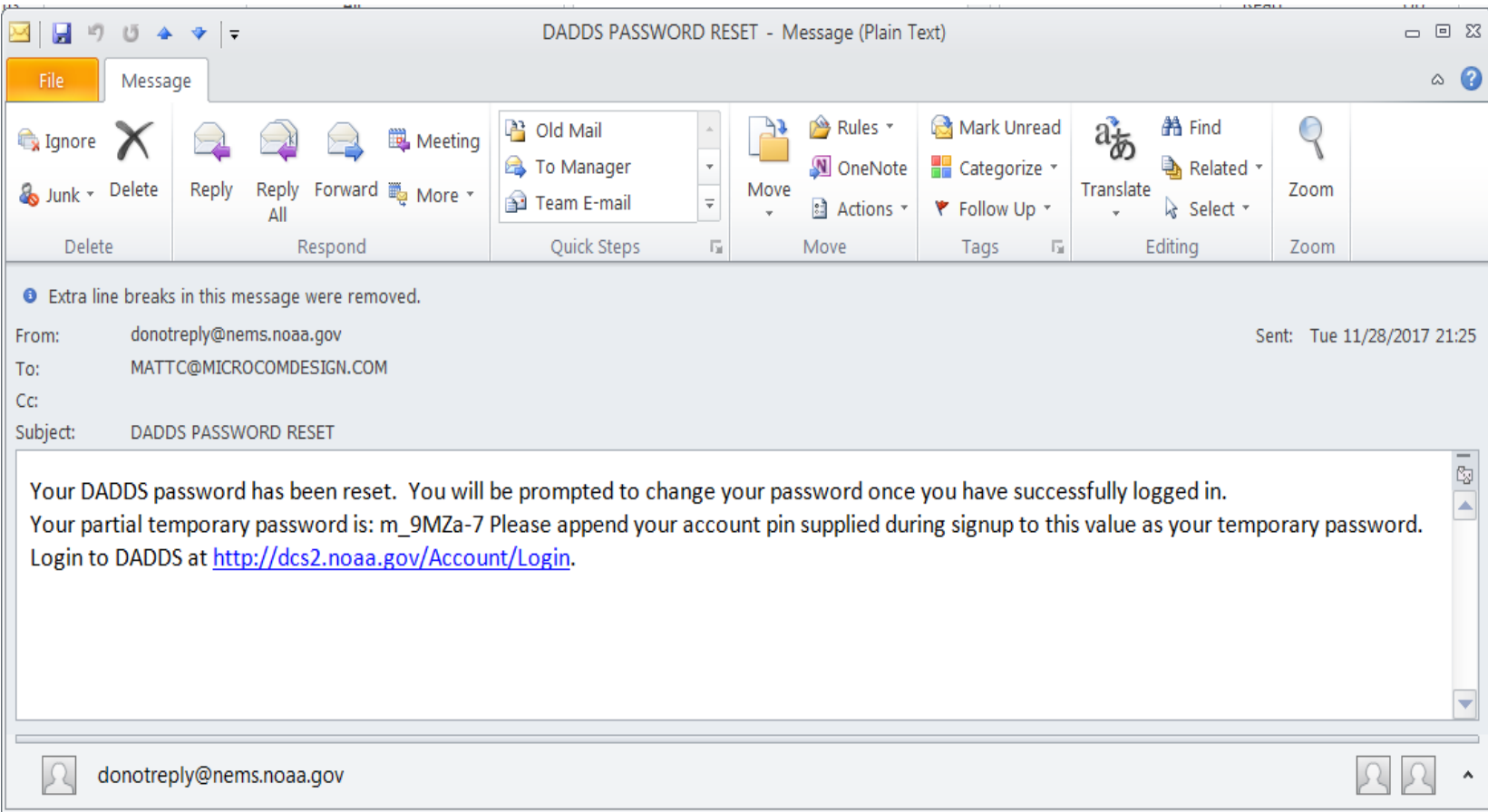
Forgot Password

- If resetting the password using security questions and answers fails, or the question answers are no longer known, passwords can still be reset by entering the user's last name plus the account's 4 digit pin code.

- For example, a user whose last name is 'Roberts' with the pin code is '1234' would enter the text 'Roberts1234'.

- Must enter the last name and pin in both security answer fields to complete the reset.

FORGOT YOUR PASSWORD? ✕

ENTER YOUR EMAIL ADDRESS

MATTC@MICROCOMDESIGN.COM

LAST NAME & PIN ONCE MORE...

CEANFAGLIONE0001

WHAT IS YOUR GREATEST FEAR?

CEANFAGLIONE0001

NEXT

Password Reset Email

Password Reset Login

- To complete the reset process, browse to any of the DCS websites and login using the partial password from the email, followed by the account pin code.

  ◦ When entering the partial password string, it is best to type the characters into the password textbox to ensure the value is copied correctly.

  ◦ Copying and pasting the partial password can cause an additional space character to be included in the string, which will cause the reset action to fail

- If the a user has forgotten their 4 digit account pin code, they will have to contact DCS support and have them query the database for the pin code.

Password Reset Form

- After logging in with the partial password string and account pin code, the user will be presented with the form used to change the account password.

- On the password reset form, perform the following steps:

  1) In the 'Current Password' text box enter the partial string from the reset email and user's account pin code.

  2) In the 'New Password' text box enter a password for the account. Ensure the new password meets password requirements.

  3) In the 'Confirm Password' text box enter the new password again.

  4) Click the submit button at the bottom of the form to reset the password.

  5) If successful the user will be logged in and redirected to the messages tab, otherwise a validation error message will be shown.

Password Reset Form

We're sorry, your password has expired. Please reset it by completing the form below.

* indicates a required field

Password Information

Current Password   ••••••••••••   *

New Password   *

Confirm Password   *

> ENTER THE CURRENT PASSWORD FOR THE ACCOUNT. IF THIS RESET ACTION HAS BEEN TRIGGERED BY A FORGOTTEN PASSWORD, BE SURE TO ENTER THE PARTIAL PASSWORD FROM THE EMAIL ALONG WITH THE ACCOUNT PIN CODE.

Password Rules

- Minimum length of 12 characters.
- Must contain at least 1 capital letter.
- Must contain at least 1 lower case letter.
- Must contain at least 1 special character.
- Must contain at least 1 numeric character.
- Cannot contain more than two repeating characters.
- Expire after 60 days.
- Cannot be re-used for a period of 2 years.

Reset Password

End Reset Password

Message Filters

- Used to view and/or export message data from a user's platforms for use and analysis.

- Also used to debug message reception issues related to platform configuration issues and interference.

- Filter parameters for all available fields including:
  - Message Times (Carrier, End)
  - Platform Information (Address, Group, ect)
  - Message Statistics (Sig Strength, Phase, ect.)

- Can be stored in the database for future use and loaded using the message view controls.

Filter Buttons

- Filter controls are located to the left of the export controls at the top right corner of the message data grid.
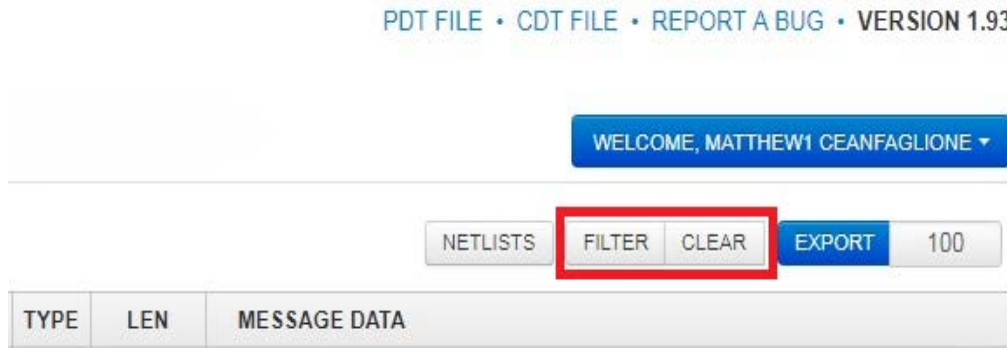
- Clicking the 'Filter' button opens the message data filter dialog. This training will review basic message filtering.

- Clicking the 'Clear' button removes any filters that are currently applied and restores the default load, which consists of all message data sorted by descending message end time.

Filter Dialog

- The dialog for filtering message and other data contains the following controls used to define specific filters:

  ◦ Apply Filter button to submit the query to the server

  ◦ Link to select 'All' (and) or 'Any' (or) option for the condition.

  ◦ Add new condition button (blue arrow icon, top left) used to add additional conditions

  ◦ Add new condition link provided to add an additional condition to the filter.

- Controls are the same for all website filter dialogs, with the only difference being the list of conditions available, which is determined by the dataset (grid) being filtered.

FILTER DATA

APPLY FILTER

SELECT RECORDS WHERE ALL OF THE FOLLOWING APPLY

[CLICK HERE TO ADD NEW CONDITION]
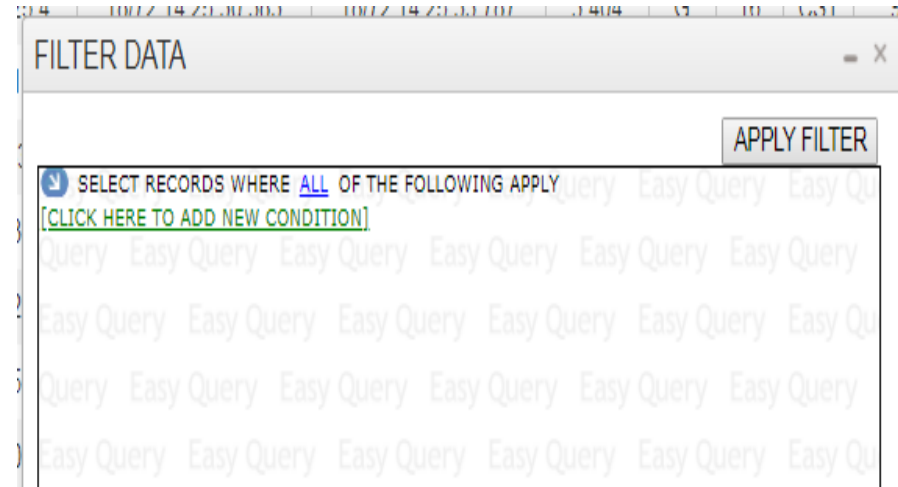
Filter Conditions

- Conditions depend on the data set and are normally available for each field displayed in the grid being filtered

- Click the 'CLICK HERE TO ADD A NEW CONDITION' link, followed by the desired option from the resulting conditions list to add a new condition.

- One or more conditions can be defined in a filter to query data for a specific set of results.

- Multiple conditions further refine queries to return more precise data set for use in troubleshooting and analysis.

FILTER DATA

APPLY FILTER

SELECT RECORDS WHERE ALL OF THE FOLLOWING APPLY
[CLICK HERE TO ADD NEW CONDITION]

MESSAGE
ADDRESS
GROUP
CHANNEL
BAUD RATE
SIGNAL STRENGTH
PHASE NOISE
MESSAGE QUALITY
FREQUENCY DEVIATION
CARRIER TIME
CARRIER TIME (BY DAY)
END TIME
END TIME (BY DAY)
MESSAGE TIME
ARM
SATELLITE ID
TYPE
DATA LENGTH

:: POWERED BY EASYQUERY.NET ::
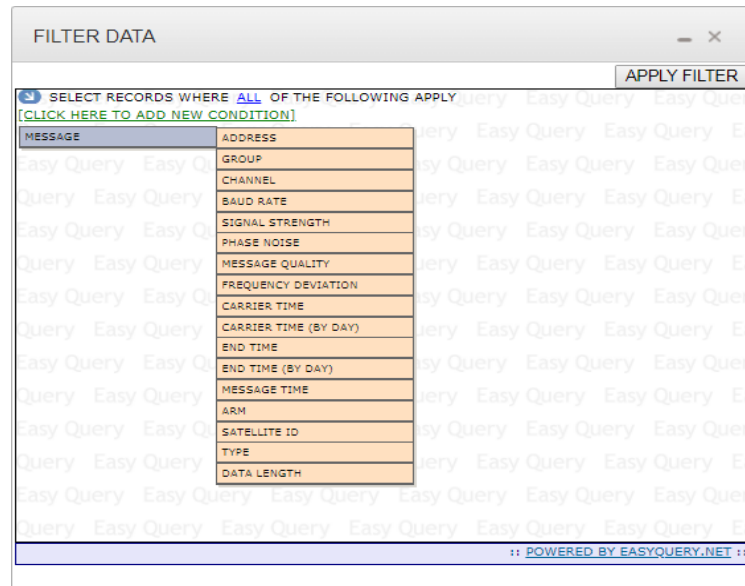
Filter Operators

- Operators determined by the data type of the field being queried:
  - String

    Starts With, Not Starts With, Contains, Does Not Contains, Is Equal To, Is Not Equal To

  - Number

    Is Equal To, Is Not Equal To, Is Between, Is Not Between, Is Greater Than, Is Less Than

  - DateTime

    Is Between, Is Equal To, Is Greater Than, Is Less Than

  - Select List

    Is Equal To, Is Not Equal To

Any/All Types

- Advanced feature used to create complex queries. The default selection is 'ALL', and is used for majority of filters.

- Changed via the blue 'ALL' (or 'ANY') link to the right of the text 'SELECT RECORDS WHERE' at the top of the dialog window.

- Determines how boolean operators are applied to the filter condition when generating the query to the database

  ◦ 'ALL' selection is analogous to the boolean 'AND' operator and returns data that meets all specified conditions in the query.

    'Return all messages found from platform X and channel Y and belonging to group USGS01'

  ◦ 'ANY' selection is analogous to the boolean 'OR' operators and returns data that meets any specified condition in the query.

    'Return all messages found from platform X or channel Y or belonging to group USGS01

All/Any Example

- The following example demonstrates how to use the 'All/Any' operators to create a message filter that represents the statement below by changing how individual filter conditions are linked together in the overall query

"*Return all messages on channel 183 and have an ARM code 'G' or '?'*"

1) Browse to messages tab, clear filters, and open the filter dialog.

2) Click the 'Add New Condition' link and select 'Channel' from the list of conditions. Enter 183 in the condition text box.

3) Click 'Add New Condition' button and then 'Open New Bracket' to add new condition set. Default option is 'Any' (boolean OR).

4) In new bracket, change default condition to 'ARM' and select 'Good Msg (G)' from the ARM values list.

5) Click the 'Add New Condition' button for the ARM condition and select 'Add New Condition After Current' from the list to add a second condition to the 'Any' bracket.

6) Change new 'Any' bracket condition to 'ARM' and select 'Parity Msg (?) from the ARM values list.

7) Click the 'Apply Filter' button to apply the filter to message data.

FILTER DATA

SELECT RECORDS WHERE ALL OF THE FOLLOWING APPLY
- ☑ MESSAGE CHANNEL IS EQUAL TO 183
- ☑ ANY OF THE FOLLOWING APPLY
- ☑ MESSAGE ARM IS EQUAL TO GOOD MSG (G)
- ☑ MESSAGE ARM IS EQUAL TO PARITY ERROR (?)
- [CLICK HERE TO ADD NEW CONDITION]

DateTime Filters

- DateTime conditions allow users to create queries that restricts the resulting data to a defined time frame.
- The message carrier or end time can be used to add a DateTime condition to the query. End time has the best performance.
- Two ways to add a carrier or end time condition to the filter:
  - Default - Manual entry in Julian format (DD/YYY HH:MM:SS)
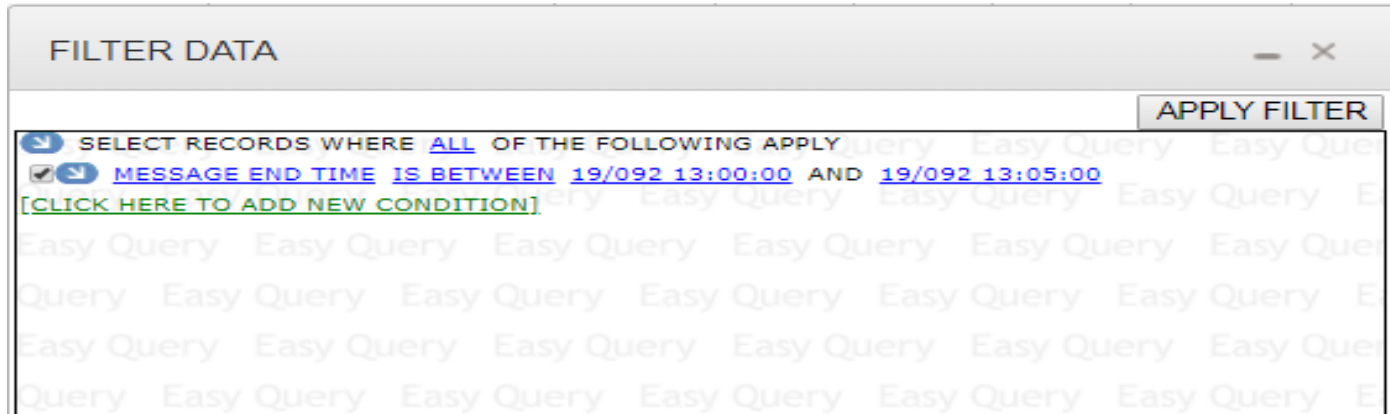 - By Day - Automatically entry from date picker selections
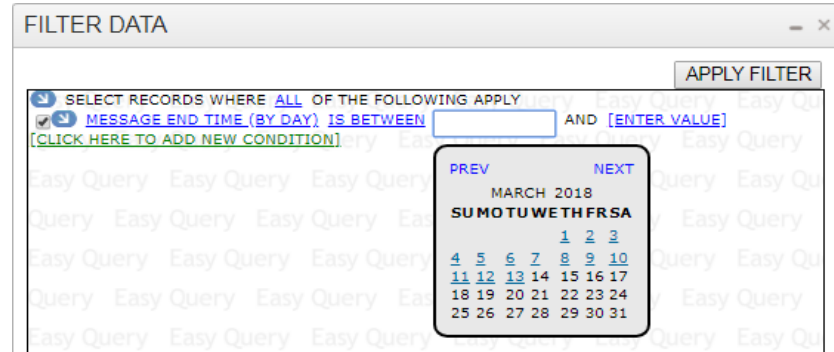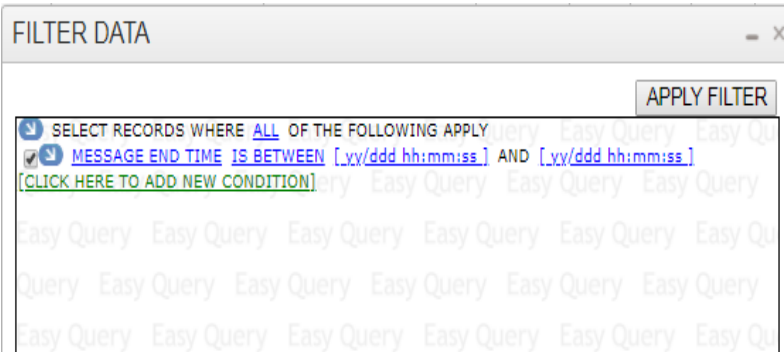
Manual DateTime Example

- Create a message filter representing the statement below using the default (manual) DateTime entry method:

"Return messages with end times between 13:00z and 13:05z on April 1st 2019"

1) Browse to the messages tab, clear any existing filters, and open the filter dialog

2) Click the '**Add New Condition**' link and select '**End Time**' from the condition list

3) Enter the Julian DateTime '**19/092 13:00:00**' in the left text box for lower limit.

4) Enter the Julian DateTime '**19/092 13:05:00**' in the right text box for upper limit.

5) Verify entries match Julian format exactly, and click the '**Apply Filter**' button to submit the query

Day DateTime Example

- Create a message filter representing the statement below using the 'by day' DateTime method using the date picker control:

"Return messages with end times between April 1st 2019 and April 3rd 2019"

1) Browse to the messages tab, clear any existing filters, and open the filter dialog.

2) Click the 'Add New Condition' link and select 'End Time (By Day)' from the condition list.

3) Click the left text box and select April 1st from the date picker control to set the lower limit.

4) Click the right text box and select April 3st from the date picker control to set the upper limit.

5) Click 'Apply Filter' to submit the query (Selections are automatically entered in the fields).

End Filters

Message Views

- Message filters can be saved in the database and are linked to the user account responsible for its creation.

- Once a filter has been saved, it is referred to as a 'view' within the DADDS website terminology.

- Prevents frequently used filters from having to be re-created every time a user wishes to filter for a specific set of data.

- View controls are next to 'NETLISTS & VIEWS' at top left corner of 'Messages' Grid.
  - Select List - Load
  - Folder Button - Save
  - Trash Button - Delete
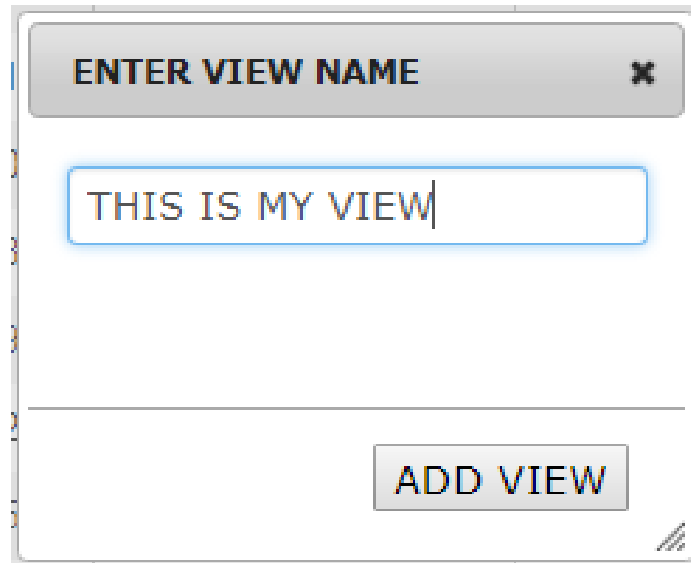
Creating Views

- The first step in creating a view is to create and apply the desired filter to the grid data.

- Once the filter has been applied, click the 'Folder' icon to open the save dialog where the view is given a name.

- On the dialog, enter the desired view name in the text box and click the 'Add View' button.

- If successful, the page will re-load, and the new view will be available in the select list control.

ENTER VIEW NAME ✖

THIS IS MY VIEW

ADD VIEW

Loading Views

- Views are applied to message data using the 'NETLISTS & VIEWS' select list.

- Click the list to expand views and select the desired option.

- Load action will close the select list and apply the filter defined in the view to the message data.

- Select list containing user's views can have two view types:

  - [FILTER]   - Standard message filter.
  - [NETLIST] - Custom message filter (address & time only).

Removing Views

- Views are that are no longer needed can be easily removed from the account.

- To remove a view it must first be applied to the data by selecting the desired option from the list of views.

- After loading, click the trash icon to remove the view from the user account.

- If successful, the page will refresh with the filter cleared and the view removed from the select list.

Netlist Views

- A netlist filter is a type of message data filter created from a standard CSV file, an LRGS netlist file or a platform filter.

- They contain two query parameters
  - One or more platform addresses.
  - Look back period to limit results.

- Stored in the database for future use, and accessed using existing message view controls.

Netlist Files

- ## LRGS '.nl' Files
    - Used by an LRGS client to determine what platforms it needs to retrieve data for.
    - Many users already have LRGS .nl files that define only the platforms for their organization.

- ## CSV Files
    - Comma Separated Value; An additional file format for users not familiar with LRGS netlist files.
    - Contains a comma separated string of platform addresses to be included in the website netlist filter.
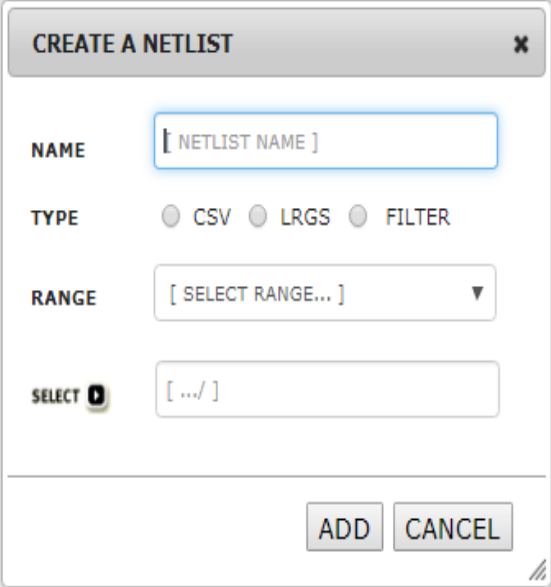
Netlist Dialog

- Netlist buttons are located to the left of the filter button on the 'Messages' and 'Platforms' website tabs.
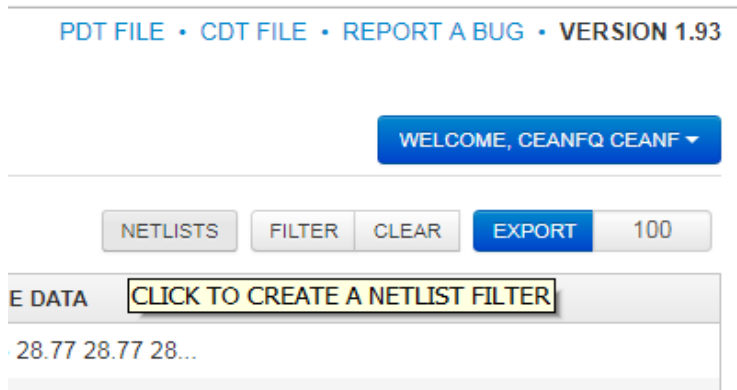
- Clicking a netlist button opens a dialog window used to create a netlist view from an uploaded file or an applied platform filter.

Netlist Dialog

- The netlist dialog has 4 fields
  - Name for the netlist view.
  - Type of netlist view being created: CSV, LRGS or an applied filter (PDT only).
  - Time range to determine how far the netlist view looks back for data (from 1 hour to 30 days).
  - File upload control to select a netlist file for the CSV and LRGS types.

Creating Netlist Views

- Perform the following steps to create a netlist view from a platform filter:

  1) Create a filter with conditions such as group codes or individual platform addresses on the platforms tab.

  2) Open the netlist view dialog window by clicking the 'Netlist' button on the platforms tab.

  3) Select the 'Filter' option from the 'Type' options group.

  4) Select a look back period using the 'Range' select list.

  5) Click the 'Add' button to submit and save the netlist view.

Creating Netlist Views

- Perform the following steps to create a netlist view from a CSV or LRGS netlist file:

    1) Open the netlist view dialog window by clicking the 'Netlist' button on the messages or platforms tabs.

    2) Enter a name for the netlist view.

    3) Select the 'CSV' or 'LRGS' option in the 'Type' options group depending on what file type is being used.

    4) Select look-back period using the 'Range' select list.

    5) Click the 'Select' button to open the file browser, and select the CSV or LRGS file to be uploaded.

    6) Click the 'Add' button to submit and save the netlist view.

Loading Netlist Views

- Netlist views are handled as a custom message data filter on the messages tab and grid.

- They are loaded into the 'Netlists & Views' select list located on the messages tab and have the format:
  - Header text '[NETLIST]' before the friendly name.
  - Footer text specifying the range, for example '[3HOUR]'.

- To load a netlist view, simply select the desired option from the drop down list.

- The website will submit a query to the database and apply the netlist view to the message data.

End Views

Troubleshooting

- Where is my platform's message data?

- Why am I receiving missing messages?

- Why am I experiencing poor reception?

- Am I being 'stepped on' by another platform?

- What do the informational messages being received along with message data mean?

Troubleshooting

- Message filters and netlist views are powerful tools for troubleshooting problems with message reception.

- This section will detail how to use filters and netlists views to obtain specific sets of DCS data for review.

- Analysis of message timing and other parameters in the filter results provides clues into the cause of the reception issues, and what actions to take to resolve the problem.

- In addition, message data and informational messages from a platform provide clues, and are important to consider when debugging a problem.

Query Platform Messages

- The first step to take when troubleshooting missing data is to create a message data filter for the problem platform.

- Login to a DADDS website and open the messages filter dialog:
  - Add a new 'ADDRESS' condition to the filter and select the 'STARTS WITH' (default) or 'EQUAL TO' operator.
  - Enter the problem platform's DCP address in the condition text box.
  - Add a second 'END TIME (BY DAY)' condition and select the 'GREATER THAN' operator.
  - Select the day prior to the last time the message was received and apply the filter.

- Save the filter as a view for quick re-call while debugging.

- If desired, export the filter results to an excel file for offline analysis of the data using Microsoft Excel or other software capable of reading XLS formatted files.

Analyze Platform Messages

- Review the messages leading up to the last received message from the platform.

  ◦ Are there any informational or missing messages?

  ◦ Are there any indicators in the actual data of transmissions leading up to the outage?

  ◦ Does the message quality (performance) change leading up to the last received message?

- Query all 4 DCS websites to determine if reception issue is specific to a DADDS processing strand.

  ◦ Real-time servers associated with DCS1-4 are re-booted periodically, during which time no messages will appear from that server on its website.

  ◦ It is possible for messages to be received at Wallops but not NSOF, and visa-versa.

Analyze Informational Messages

- Are any informational messages present in the platform query results?

- If so, what are they and when were they received?

  ◦ Timing informational messages indicate the platform is having problems transmitting on schedule.

  ◦ Address informational messages indicate possible configuration, platforms registration or interference issues.

  ◦ Missing messages indicate reception gaps and possible interference with the platform's transmissions.

Analyze Message Data

- Depending on the transmit or message data format, some clues may be found in the message data.

- The first character of CS2 messages corresponds to platform GPS time synchronization events.

  ◦ " **b** " indicates that a GPS synchronization occurred prior to the message's transmit time.

  ◦ " ' " (single quote) indicates that no GPS synchronization has occurred.

  ◦ Missing GPS synchronizations along with timing informational messages prior to an outage points to GPS issues (drifting transmissions).

  ◦ Check the platform's GPS hardware and antenna.

- Message data (ASCII or decoded) may include battery voltage readings depending on the platform configuration.

  ◦ Decreasing battery voltage readings prior to an outage points to battery and/or charging issues.

Analyze Message Performance

- Signal strength, frequency deviation, message quality, phase noise and parity errors provide insight into a platform's health.

- High frequency deviation can indicate problems with the transmitter hardware.

- Low signal strength, message quality and/or high phase noise normally indicate RFI or antenna issues.

- Did the performance decrease leading up to the outage occur gradually or suddenly?

  ◦ Sudden decrease followed by an outage indicates a site issue, such as a misaligned antenna or dean transmitter.

  ◦ Does it follow the diurnal with good message reception during the day and poor or missing messages overnight?

  ◦ Gradual or periodic decrease prior to the outage points to local RFI or DCP interference due to timing issues.

Query Platform Channel

- To debug possible interference from other DCPs, a query on the platform channel is helpful

- Create a message data filter on the channel the platform is transmitting on.

- Add a few 'END TIME BETWEEN' conditions with time ranges starting few minutes before and after the expected transmission for a few hours prior to the outage.

- Look at the transmissions occurring immediately before and after the platform's window:

  - Is there another message overlapping the window in any of the time ranges?

  - Are there timing/channel informational messages from other platforms, or does a neighboring transmission moving very close to the window?

  - If so, it is possible your platform is being 'stepped on' by another transmission.

  - Contact DCS support for help in resolving the DCP interference.

Informational Messages

- Informational messages are generated when DADDS detects problems with a platform's message reception.

- They are phony messages generated and disseminated by DADDS to alert users to potential problems with a platform.

- Within the website, informational messages are identified by the abnormal response message, or 'ARM' field, and can have the following values:

  ◦ 'W' character for messages received on the wrong channel.

  ◦ 'T' / 'U' characters for messages received with timing errors.

  ◦ 'A' / 'B' / 'I' characters for messages received with address errors.

  ◦ 'M' character for messages that were not received at all.

  ◦ 'G' character for messages received with no errors (actual message).

  ◦ '?' character for messages received with parity errors (actual message).

Address Info Messages

- There are three types of address informational messages generated by DADDS:
  - Bad Address Errors (B)
  - Invalid Address Errors (I)
  - Correctable Address Errors (A)
- Bad address informational messages have the ARM character 'B' and are generated when an invalid DCP address is received that cannot be corrected.
- Invalid address informational messages have the ARM character 'I' and are generated when a transmission is received with a DCP address not present in the DADDS database.
- Correctable address informational messages have the ARM character 'A' and are generated when a transmission is received with an invalid DCP address that can be corrected via the BCH code.

Timing Info Messages

- There are two types of timing informational messages generated by DADDS:
  - Message Timing Errors
  - Unexpected Message Errors

- Timing informational messages have the ARM character 'T' and are generated when a message is not received entirely within its expected window.

- Unexpected informational messages have the ARM character 'U' and are generated when a message is received completely out of its expected window.

- Timing informational messages normally indicate problems with a platform's transmit configuration, GPS synchronization or radio hardware.

Missing Info Messages

- Missing informational messages are generated by DADDS when an transmission is not received within 2 minutes of its expected time window.

- They are generated for 48 hours after the last successful reception of a platform's message to notify users of the problem.

- After 48 hours, the platform is marked as inactive and missing messages are no longer generated by DADDS.

- For a missing message to be generated, the expected message must be completely missing.

- Messages received completely outside of their window, or received on a wrong channel will not trigger a missing message to be generated.

End Troubleshooting

End Web Training