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FDSD Publications Trip Level Data Reconciliation: Process Description

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Introduction

This document describes the Raw Trip Level (RTL) Data Reconciliation matching process utilized by the Fisheries Data Services Division (FDSD) of the Northeast Regional Office (NERO) of NOAA Fisheries. The Quality Assurance (QA) team is responsible for identifying and initiating the correction process for those fisheries designated with the highest priority as well as monitoring incoming data from the northeast multispecies sector management program. Responsibilities are divided among QA and Industry Data Investigation (IDI) staff members and duties reapportioned as necessary throughout the fishing year. The Data Reconciliation program improves timeliness and accuracy of trip level information and provides a basis for better quota monitoring and stock assessment.

How RTL Works

RTL Basics

The RTL quality control trip matching program is a database application that attempts to identify Fishing Vessel Trip Reports (FVTRs) and dealer reports that pertain to the same transaction (i.e., that *match*) by applying a set of matching rules. FVTRs and dealer reports for which no matching report is found are considered to be *orphans*. See figure 1, The RTL Approach, for an illustration of the process.

Note: RTL also attempts to match FVTRs and dealer reports to Allocation Management System (AMS) trip records, also known as Days At Sea (DAS) trip records for Scallop Individual Fishing Quota (IFQ) Data Reconciliation. This document does not describe AMS trip matching since the FDSD QA Team does not currently investigate this level of matching.

For source data, RTL uses FVTR and eVTR (Electronic Vessel Trip Report) data in the **NOAA** schema of the **NERO** database, and dealer report data in the **CFDBS** schema of the **SOLE** database.

RTL is refreshed weekly as a manual batch process. Each week RTL processes *all* submitted FVTR and dealer data, Sector Manager Detail Reports and Observer Tables to date.

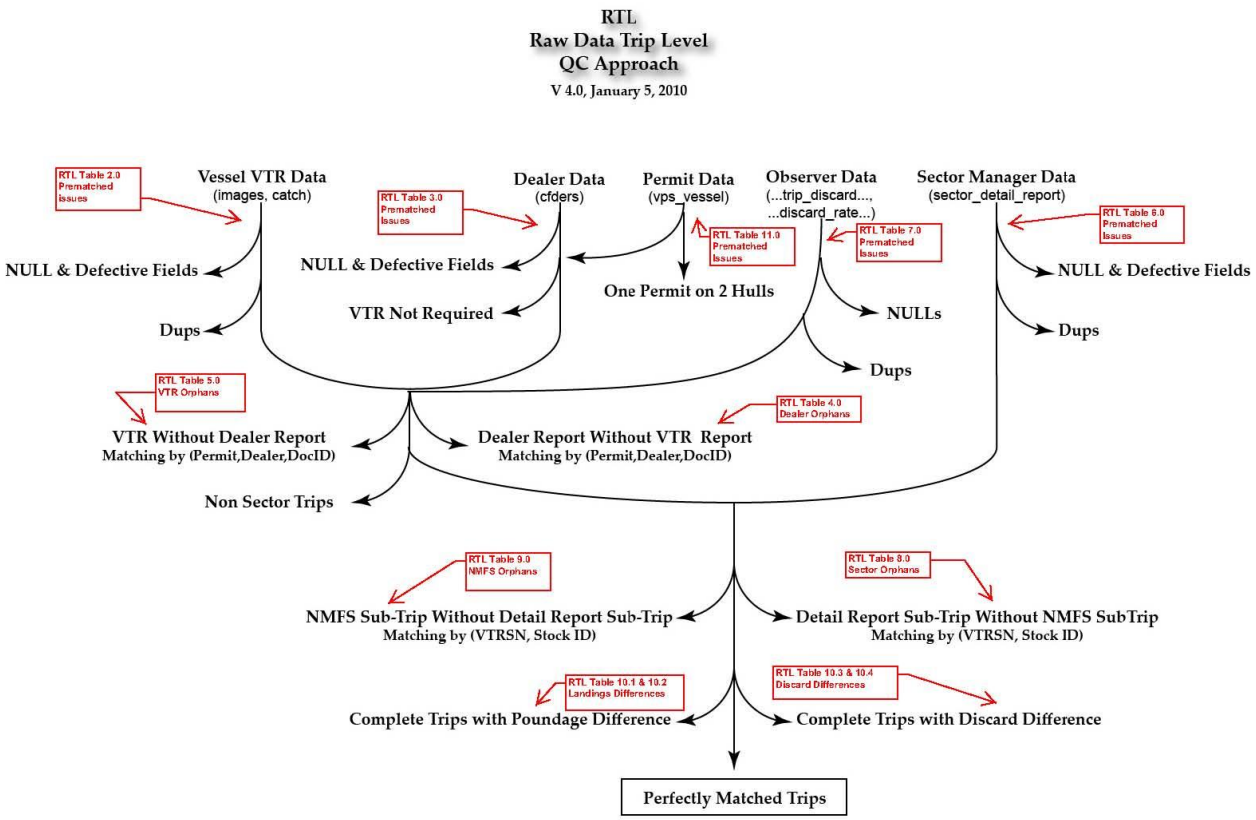
RTL Views

RTL generated output can be accessed by using the Oracle Bi Disoverer program.

Link (access):	**http://spinnertest:9003/discoverer/plus**
	http://155.206.47.33:9003/discoverer/plus
	Contact your system administrator for desktop access.
Database (connection):	**NERO**
Username:	**Designated Oracle username**
Password:	**Designated Oracle password**
End User Layer:	**None**
Locale:	**Locale retrieved from browser**

Note: Refer to the section titled Researching RTL Output for full instructions.

Figure 1: The RTL Approach

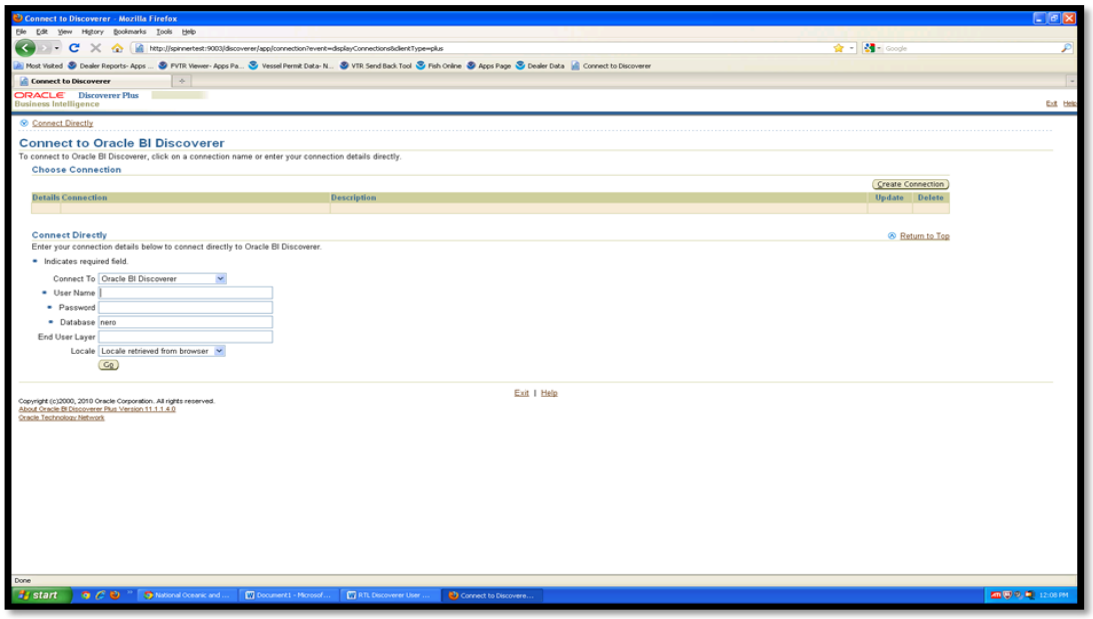


Researching RTL Output

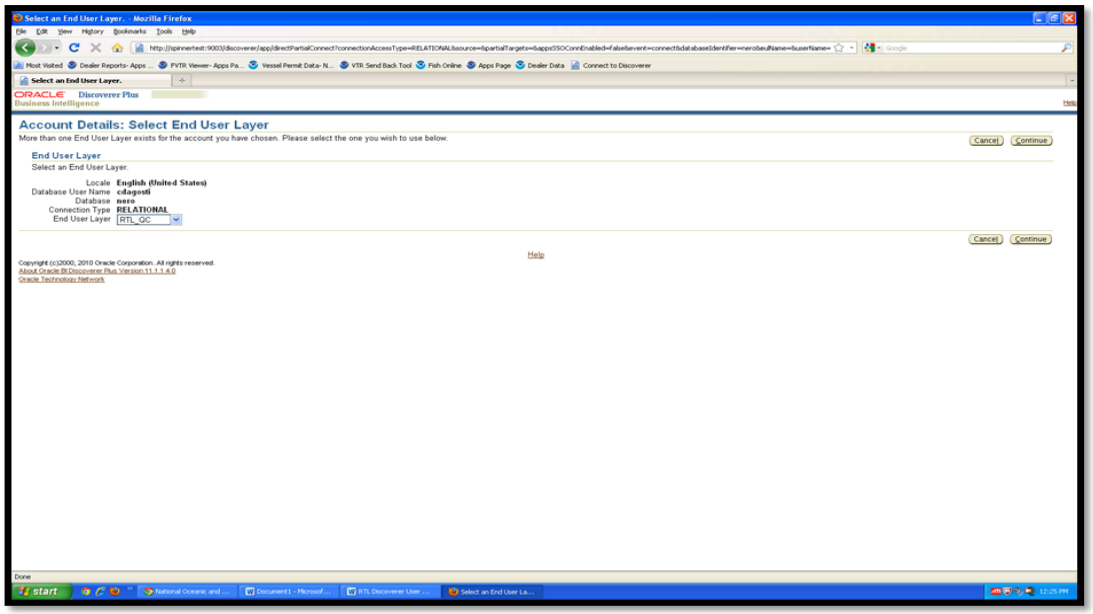
This section describes the general process for validating matching FVTR and dealer records as identified by RTL. The exact procedure used by the researcher will typically vary, depending on the volume of matched records, the time available to investigate matches, the types of issues encountered, and other such factors. Given the high volume of matched records, it is unlikely to expect to validate every matched record. Rather, the researcher must focus efforts on those matches suspected to be invalid, specifically those related to ground fish species.

The researcher should perform this process on a regular basis:

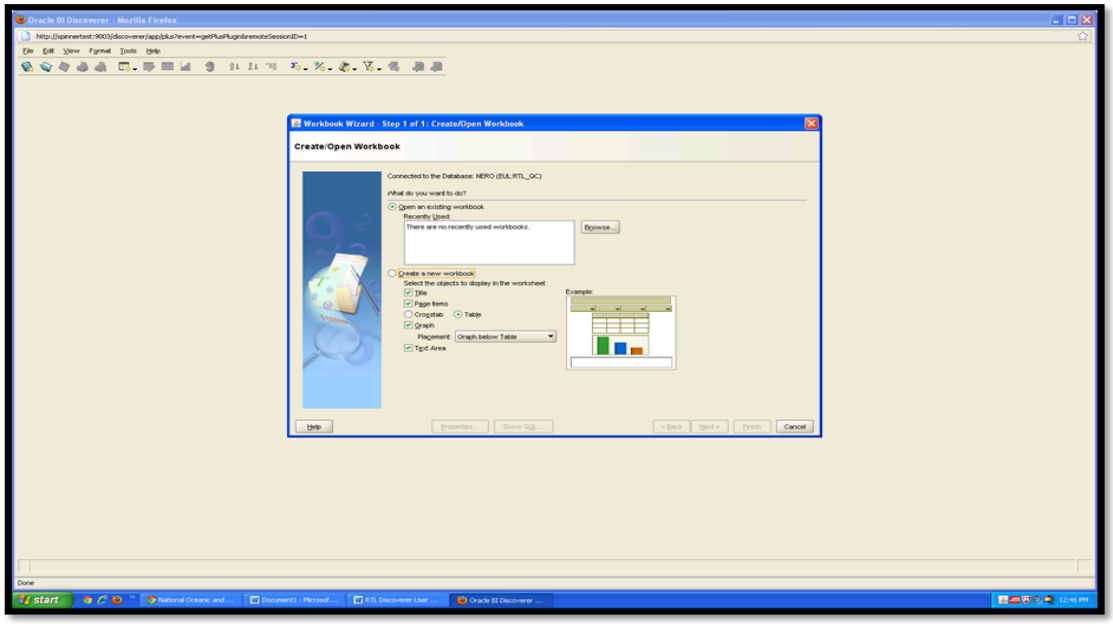
1. Access the Oracle Bi Discoverer log in page and input the requested information as instructed in the previous section titled RTL Views.



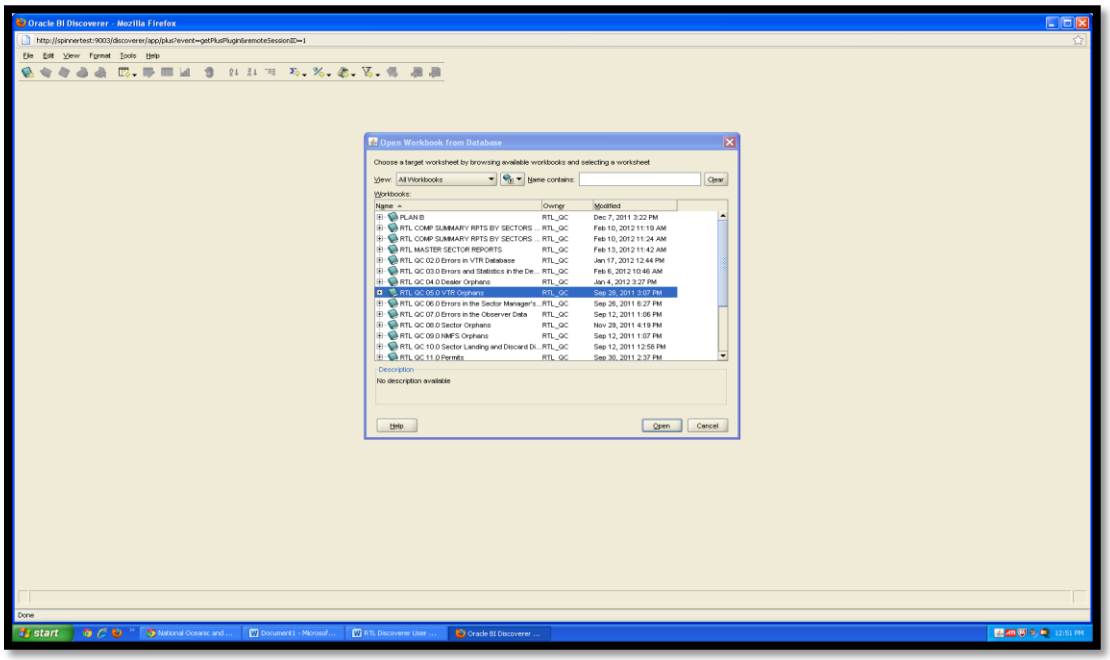
2. The next page, “Account Details”, will prompt you to select an “End User Layer”. In the drop down box, select “RTL_QC” and click *Continue.*

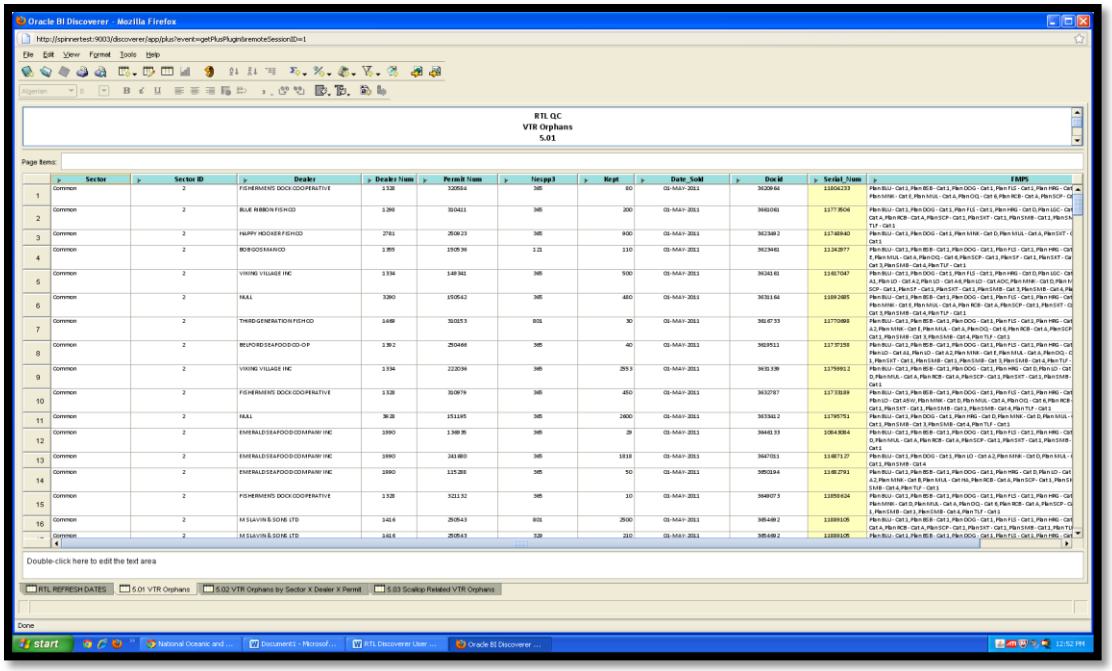


3. Select a workbook, or table, to query for investigation and click *Browse*.



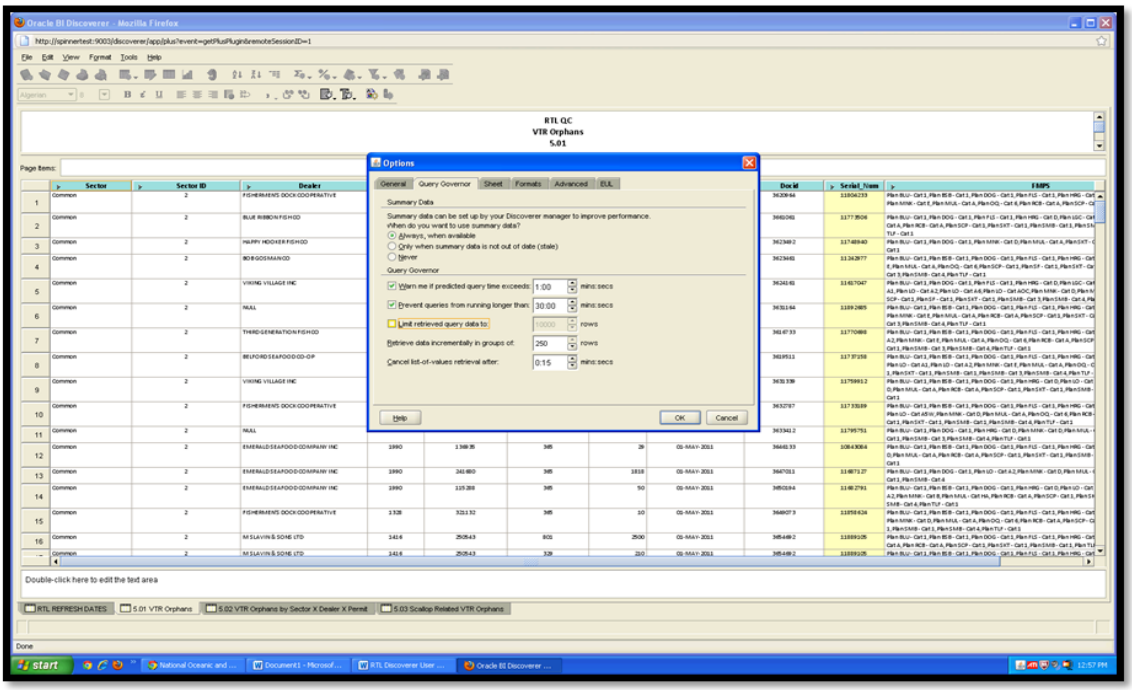
4. From the list of results, select the table for investigation and click *Open*.



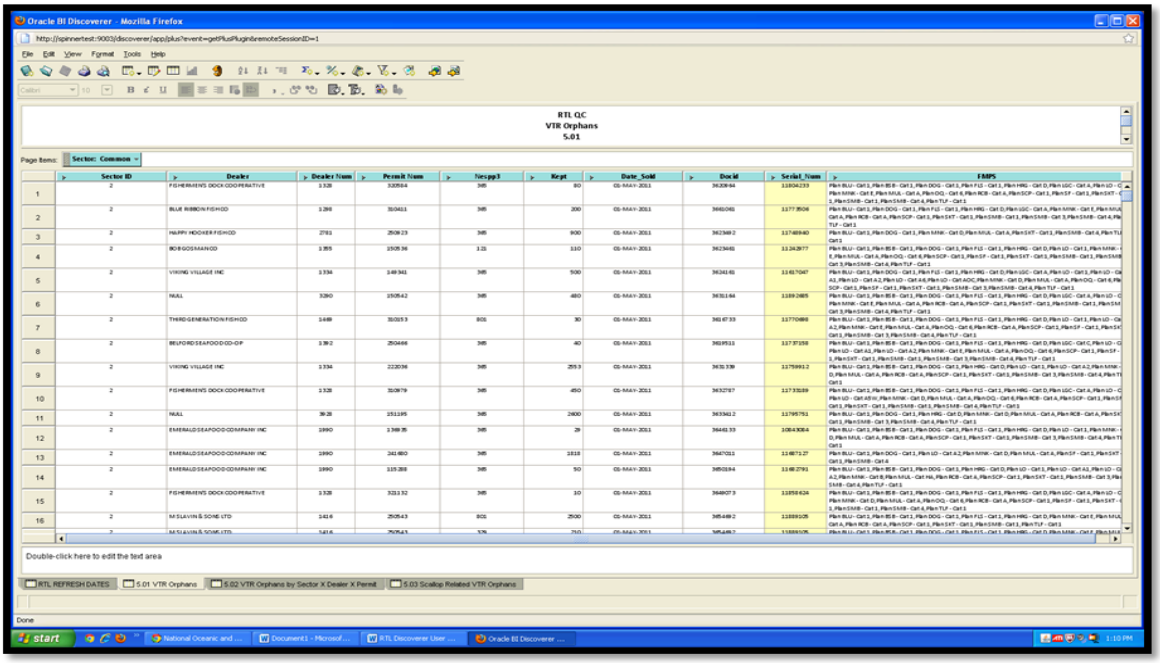


5. Once your workbook has been selected and opened, go to Tools > Options > Query Governor and unselect *"Limit retrieved query data"*.

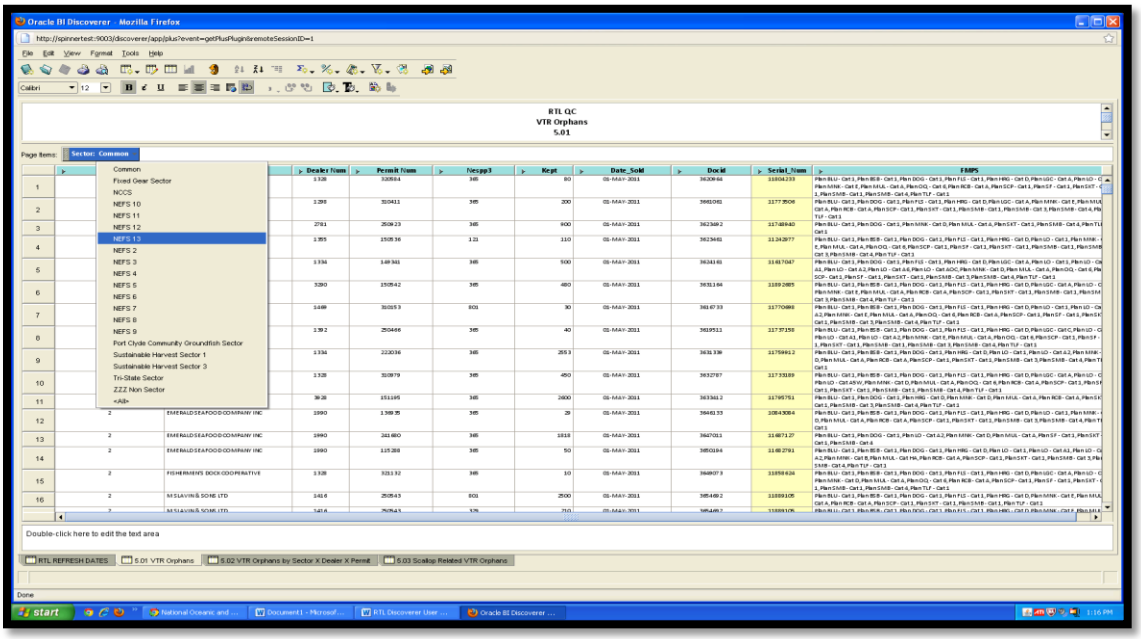
Note: This step will only need to be conducted once. Discoverer will save this information for future investigations. By unselecting this option, we allow the system to show us a complete listing of results.



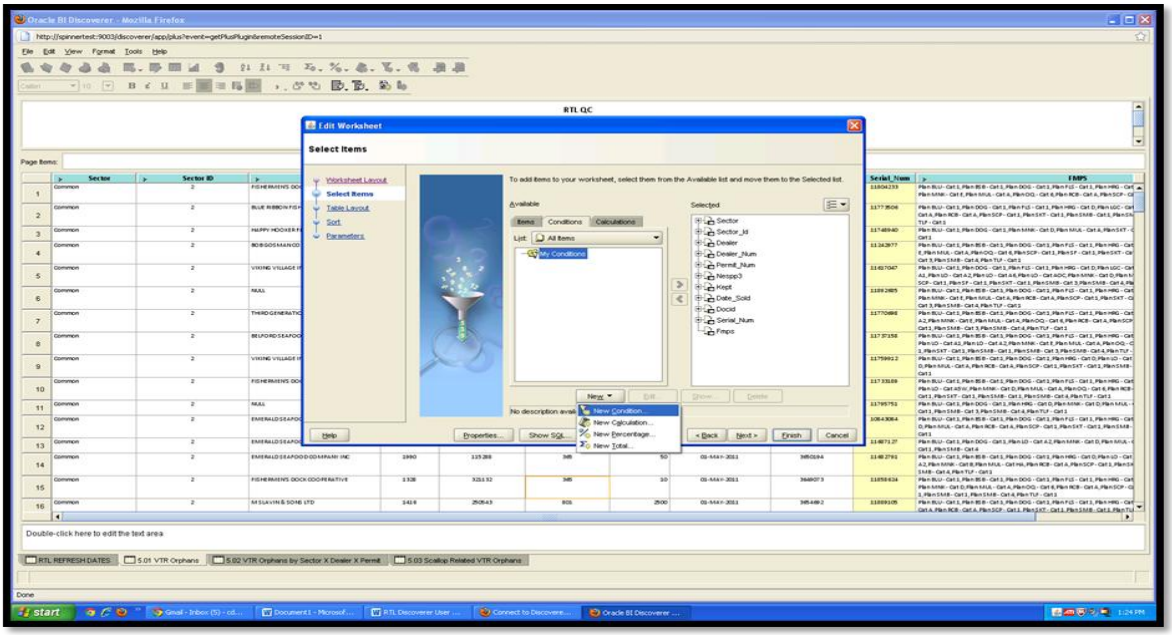
6. Headers for each category, highlighted in blue, can be "dragged and dropped" in order to narrow your results. Click on the header of choice and drag it to the "Page Items" field. Once you drop it, your results will automatically filter by the designated header. You may "drag and drop" multiple headers if desired.



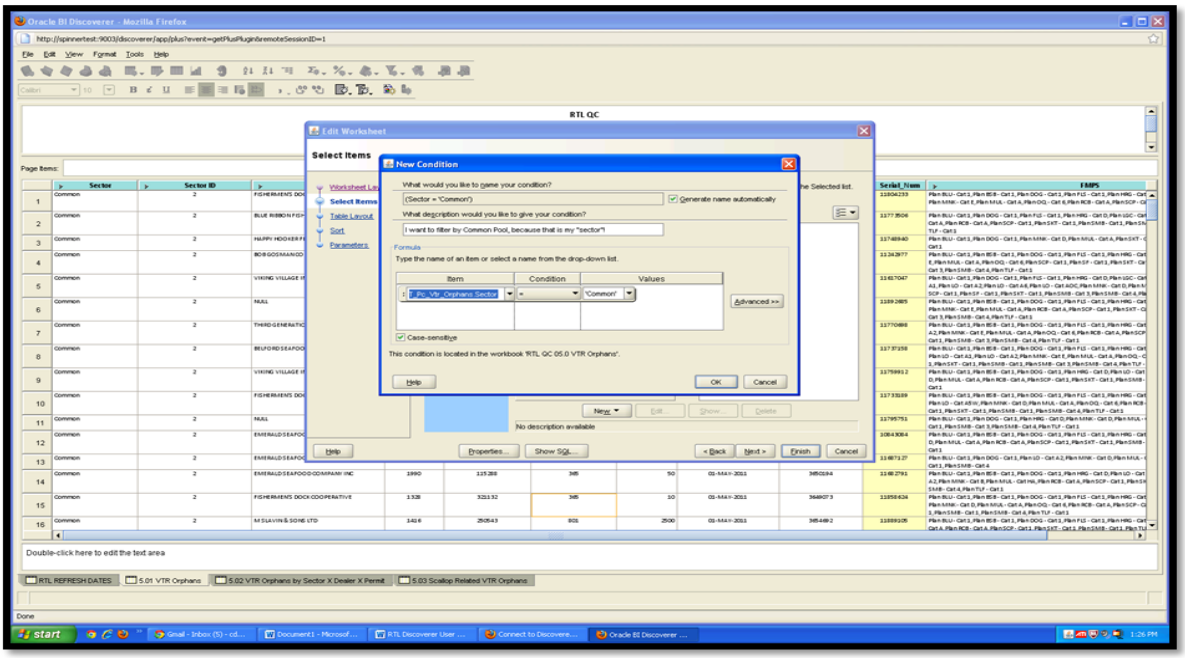
7. After dragging and dropping your headers, you can modify your filtering options by utilizing the headers in the "Page Items" field. Simply click on the down arrow on each header to select other options.

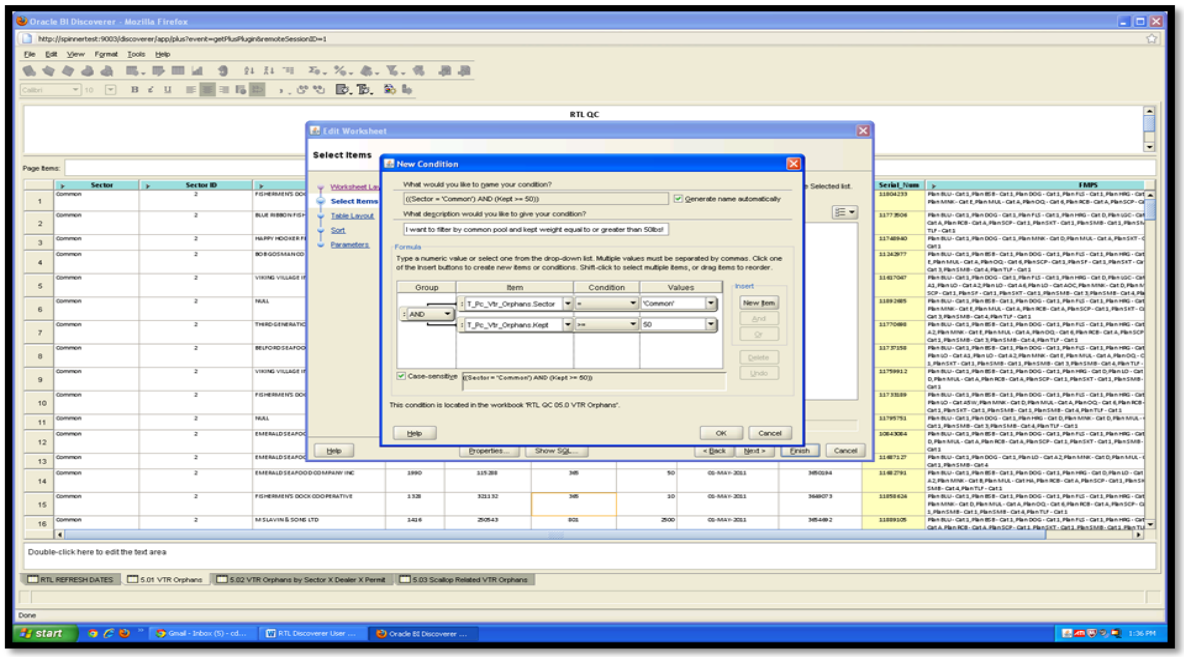


8. In addition to the "drag and drop" method, you may also consider utilizing the "condition selection" method to filter results. To begin, *Select Tools > Conditions > New > New Condition.*

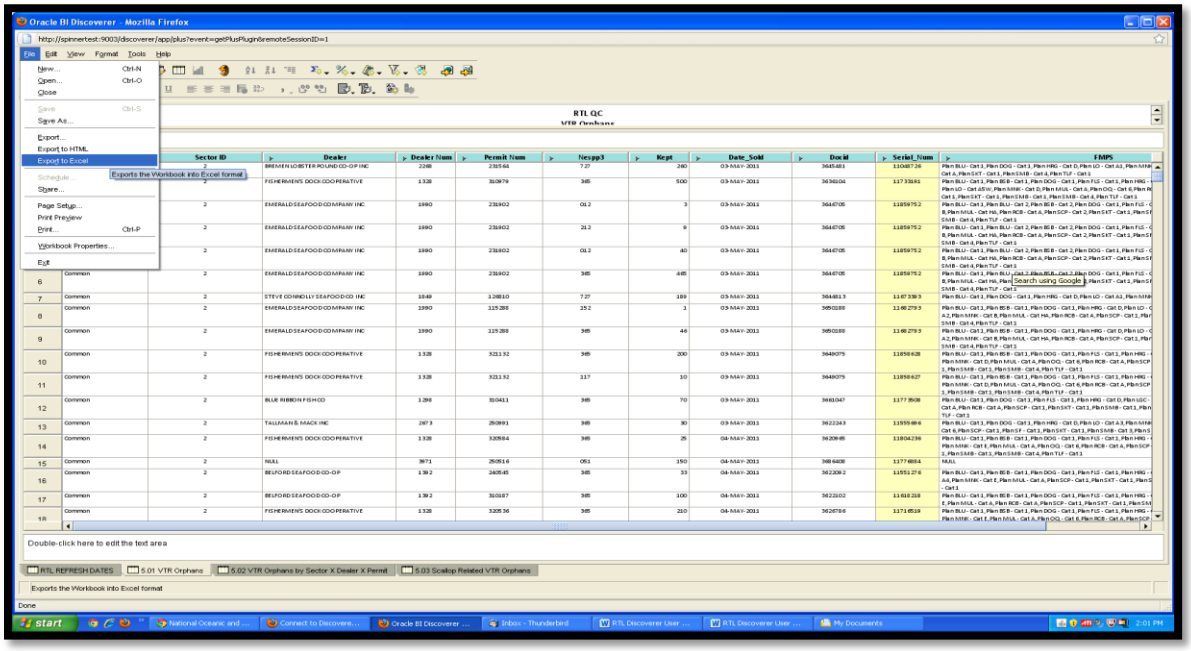


9. Give your new condition a description in the designated field. In the drop down fields under "Item, Condition and Values", select the options you wish to filter by and click *OK* and *Finish*. To choose multiple conditions, select *Advanced* and *New Item*. Discoverer will automatically link the conditions together. Use the drop down fields under *Group*, *Item*, *Condition* and *Values* to continue to filter results as desired. Click *OK* and *Finish*.





10. After filtering is complete, you can export your workbook. *Select File > Export > Export to Excel*



11. Organize the records by sorting and creating separate worksheets (tabs) as necessary to facilitate investigation.

    It is common practice to sort worksheets by ground fish species with a landed weight greater than fifty pounds. Typically, matches suspected to be invalid or orphans

(unmatched) are prioritized by the greatest amount of landed weight, with the oldest issues being addressed first.

12. Investigate possible invalid matches using the database and associated software applications described later in the section titled Research Tools and Resources. The researcher may find it helpful to highlight records in the spreadsheet that have been or are currently being investigated, and to create a separate spreadsheet as a work area containing additional data and notes for records being investigated.
13. For each FVTR or dealer record requiring data correction and/or further investigation, log an issue in JIRA and assign the issue to the appropriate staff, as described in the Correcting Data section.

RTL Tables

RTL generates output tables in which it detects and organizes errors found in the NMFS databases**.** These databases include the VTR database (NOAA under FDSD), the sector database (Sector under FDSD), the dealer database (CFDBS at SOLE), the permits database (Permit under FDSD), and data originating with the observer program.

This section of the document provides information for each output table in the following format:

Table description

Table or view name
How table or view is generated.
Grouped or Summed by: …
[Prioritized by: …
Where to look next: …]

The database may contain thousands of errors, in which case, QA and IDI personnel need to identify the most problematic areas and group errors from these areas together according to similar causes. Prioritization tables list these large error groups. Headings that are underlined indicate prioritization tables (Tables 2.0 through 11.0); it will not proceed until it is corrected. Refer to Table 1. List of RTL Table and View Names for a listing of tables.

2.0 Errors in the VTR Database (NOAA.images and NOAA.catch)

2.01 Invalid VTRSNs in VTR database

view RTL_QC.v_pc_odd_vtr_in_images
VTR serial number (VTRSN) in noaa.images table is all zeros or is not in one of the following formats:

1. new format
2. old dashed format with dash removed
3. old dashed format
4. research format
5. electronic VTR, often used for did not fish

Grouped by: sector, VTRSN

2.02 Null VTRSNs in VTR database

view RTL_QC.v_pc_null_vtr_in_images
VTRSN is null in noaa.images table.
Grouped by: sector, VTRSN

2.03 Duplicate records in VTR database

view RTL_QC.v_pc_duprecords_in_images
VTRSN appears in more than one record in noaa.images table.
Grouped by: duplicate count

2.04 Invalid area codes in VTR database

table RTL_QC.t_pc_bad_area_img
Statistical area code in noaa.images table is not valid. Valid codes are those in cfdbs.area@sole plus those on the VTR Instructions charts.
Grouped by: sector

2.05 Invalid gear codes in VTR database

view RTL_QC.t_pc_bad_gear_img
Gear code in noaa.images table is not on the list of valid gear codes on their VTR instructions.
Grouped by: sector

2.06 Null permit numbers in VTR database

view RTL_QC.v_pc_null_permit_vtrs
Null permit number in noaa.images table.
No grouping
Included for completeness. No possible output; this condition will cause the RTL program to abort.

2.07 Null or zero dealer numbers in VTR database

view RTL_QC.v_pc_null_dealer
VTR database (join of noaa.images with noaa.catch) has null or zero dealer numbers.
Grouped by: sector, permit_num
Included for completeness. No possible output; this condition will cause the RTL program to abort.

2.08 Sum of missing permit or dealer numbers by sector and permit

view RTL_QC.v_pc_vtr_null_dealer
Count of defective records in RTL_QC.v_pc_vtr_null_dealer (2.7)
Summed by: sector, permit, count
Prioritized by: count
Where to look next: VTR image. Look for other possible matches in cfders.

2.09 Sum of bad areas by sector and permit

table RTL_QC.t_pc_bad_area_by_vessel
Invalid are code counts by vessel permit.
Summed by: sector, permit

Prioritized by: count
Where to look next: VTR image. Contact vessel owner or sector manager.

2.10 Sum of bad gear codes by sector and permit

table RTL_QC.t_pc_bad_gear_by_vessel
Invalid gear code counts by vessel permit.
Summed by: sector, permit.
Prioritized by: count
Where to look next: VTR image. Contact vessel owner or sector manager.

3.0 Errors and Statistics in the Dealer Database (cfders)

3.01 Dealer records missing both hull ID and permit

table RTL_QC.t_pc_null_hull_permit
Both hull id and permit number are null or zero in cfdbs.cfders@sole. By law, dealer records are required to have one or the other.
Grouped by: dersource, where dersource indicates the dealer reporting system and whether the report passed inspection.
Valid dersource values are:

a) safis_k = data keyed in using SAFIS web form
b) safis_u = data upload, dealer notified right away if not valid
c) safis_s = PC based data entry system, followed by upload
d) codes = original data entry system used by port agents
e) scbi = newer code for safis_s
f) swcb = same as scbi but could not pass inspection

3.02 Dealer use by Sector

view RTL_QC.v_pc_dealer_user_by_sector
Indicates frequency of dealer use by sector.
Summed by: sector X dealer combination

3.03 Not currently in use

table NA
NA
Grouped by: NA

3.04 Dealer records that did not pass inspection upon upload

table RTL_QC.t_pc_dealer_didnt_pass
Records failing inspection according to dersource = ‘SWCB’. This table tends to mirror RTL_QC.t_pc_null_permit (3.1) but not always.
Grouped by: sector, dealer

3.05 Invalid VTRSNs in dealer database

table RTL_QC.t_pc_odd_dealer_vtr
Records in cfders that involve sales from federally permitted vessels to federal dealers with bad VTRSNs formats (as describe in 2.1) and species other than inshore species.

Grouped by: sector, dealer

3.06 Counts of invalid VTRSNs in dealer database

table RTL_QC.t_pc_odd_dealer_vtr_grp
Counts of invalid VTRSNs in RTL_QC.t_pc_odd_dealer_vtr (3.5) by sector and dealer.
Summed by: sector, dealer
Prioritized by: count
Where to look next: 3.5

3.07 Out of range VTRSNs with current formats

table RTL_QC.t_pc_out_of_range_dealer_vtr
For current format VTRSNs the valid range is known and checked here. Only records involving federally permitted vessel sales to federal dealers, where the species is other than an inshore species are inspected. See RTL_QC.t_pc_odd_dealer_vtr (3.5).
Grouped by: sector, dealer

3.08 Not currently in use

table NA
NA
Grouped by: NA

3.09 Null VTRSNs in dealer database

table RTL_QC.t_pc_null_dealer_vtr
A list of records in the dealer database with null VTRSNs. Only records involving federally permitted vessel sales to federal dealers, where the species is other than an inshore species are inspected. See RTL_QC.t_pc_odd_dealer_vtr (3.5).
Grouped by: sector, dealer

3.10 Counts of null VTRSNs in dealer database

table RTL_QC.t_pc_null_dealer_vtr_grp
Counts of null VTRSNs in RTL_QC.t_pc_null_dealer_vtr (3.9) by sector and dealer.
Summed by: sector and dealer
Prioritized by: count
Where to look next: 3.9

3.11 Counts of out of range VTRSNs in dealer database

table RTL_QC.t_pc_oor_dealer_vtr_grp
Counts of out of range VTRSNs in RTL_QC.t_pc_out_of_range_dealer_vtr (3.7) by sector and dealer.
Summed by: sector and dealer
Prioritized by: count
Where to look next: 3.7

3.12 Reused VTRSNs in dealer database

table RTL_QC.t_pc_reused_dealer_vtr
Pairs of dealer records where the VTRSN is the same but the permit is different. This indicates that a dealer is reusing VTRSNs across multiple trips. Data is collapsed across multiple sales within a single trip.

Ordered by: sector and dealer

3.13 Counts of reused VTRSNs in dealer database

table RTL_QC.t_pc_reused_dealer_vtr_grp
Counts pairs of dealer records where the VTRSN is the same but the permit is different in RTL_QC.t_pc_reused_dealer_vtr.
Ordered by: sector and dealer
Prioritized by: count
Where to look next: 3.7

4.0 Dealer Orphans

4.01 Dealer orphans

table RTL_QC.t_pc_dealer_orph_age
Dealer records that do not have a corresponding VTR record in the VTR database. Matching is by docid, dealer, permit, and species; all four fields must match. The docid is a unique trip level identifier. Note that the table may contain dealer records that are not true orphans; that is, dealer records that are not expected to have matching VTRs because the transactions are associated with vessels that are exempt from reporting requirements (LOBSTER ONLY permitted vessels). These records are not excluded because the matching process cannot readily determine with certainty whether an orphaned dealer record is associated with an exempt vessel.
Grouped by: sector, age (in weeks), dealer, permit, species

4.02 Count of dealer orphans by sector X dealer X permit

table RTL_QC.t_pc_dealer_orph_dealerXpermit
Counts of dealer orphans by sector, dealer, permit.
Summed by: sector, dealer, permit
Prioritized by: live weight
Where to look next: 4.1, then look for fuzzy matches in noaa.images and noaa.catch

4.03 Scallop related dealer orphans

view RTL_QC.v_pc_scallop_dlr_orph_stats
Counts for dealer orphans for which the vessel has a scallop permit.
Summed by: permit and dealer

5.0 VTR Orphans

5.01 VTR orphans

table RTL_QC.t_pc_vtr_orphans
VTR records that do not have a corresponding dealer record in the dealer database. Matching is by docid, dealer, permit, and species; all four fields must match. The docid is a unique trip level identifier. Note that the table may contain VTR records that are not true orphans; that is, VTRs that are not expected to have matching dealer records because of dealer reporting exemptions related to TUNA ONLY dealers. These VTRs are not excluded because the matching process cannot readily determine with certainty whether an orphaned VTR record is associated with dealer reporting exemption.
Grouped by: sector, date sold

5.02 VTR orphans by sector X dealer X permit

table RTL_QC.t_pc_vtr_orphans_by_dlr_ves
VTR orphans grouped to show the most problematic dealer-vessel combinations. Shows number of VTR orphans for each sector-dealer-permit combination Ordered within sector by count.
Summed by: sector, dealer, permit
Prioritized by: landed weight
Where to look next: 5.1, then cfders.

5.03 Scallop related VTR orphans

table RTL_QC.t_pc_vtr_scal_orph_by_dlr_ves
Count of VTR orphans, for which the vessel has a scallop permit.
Summed by: sector, dealer, permit

6.0 Errors in the Sector Manager's Detail Report

6.01 Invalid VTRSNs in Sector Manager's Detail Report

table RTL_QC.t_sdr_bad_vtr
Sector Detail Report records (in sector.sector_detail_report) with null or invalid VTRSN formats (as described in 2.1).
Grouped by: sector

6.02 Invalid stocks in Sector Manager's Detail Report

table RTL_QC.t_sdr_odd_stocks
Sector Detail Report records (in sector.sector_detail_report) with invalid stocks. Valid stocks are: 'CODGBE', 'CODGBW', 'CODGMSS', 'FLWGB', 'FLWGMSS', 'HADGBE', 'HADGBW', 'HADGM', 'HKWGMMA', 'PLAGMMA', 'POKGMASS', 'REDGMGBSS', 'WITGMMA', 'YELCCGM', 'YELGB', 'YELSNE'.
Grouped by: sector, stock

6.03 Invalid stock summary from Sector Manager's Detail Report

table RTL_QC.t_sdr_odd_stocks_sum
List of distinct invalid stock codes found in Sector Detail Report records (in sector.sector_detail_report).

No Grouping

6.04 Invalid gear codes in Sector Manager's Detail Report

table RTL_QC.t_sdr_odd_gear
Sector Detail Report records (in sector.sector_detail_report) with gear codes not on the list of valid gear codes on the VTR Instructions.
Grouped by: sector, gear

6.05 Sector orphans (w.r.t. VTR database)

view RTL_QC.v_pc_sdr_vtr_orphs
Sector Detail Report records (in sector.sector_detail_report) with VTRSNs not in the VTR database.
Grouped by: sector, VTRSN

6.06 Null observer flags in Sector Manager's Detail Report

table RTL_QC.t_pc_sdr_null_obs
Sector Detail Report records (in sector.sector_detail_report) with null observer flag. Should be 'N' or 'Y'.
Grouped by: sector, VTRSN

7.0 Errors in the Observer Data

7.01 Duplicates in observer trip archive

table RTL_QC.t_pc_observer_dups
Duplicates of VTRSN X stock_id X mesh_cat in t_observer_trip_discard_arch.
Grouped by: vtrserno, stock_id, mesh_cat

7.02 Null VTRSNs in observer trip archive

table RTL_QC.t_pc_observer_null
Null VTRSNs in t_observer_trip_discard_arch.
Grouped by: stock_id, secgearfish, mesh_cat, process_last_run

7.03 Duplicates in observer discard rate archive

table RTL_QC.t_pc_discard_rate_dups
Duplicates in t_observer_discard_rate_arch. Records are identical with respect to sector_id, stock_id, secgearfish, mesh_cat, other_strata, process_last_run.
Grouped by: stock_id, secgearfish, mesh_cat, process_last_run

8.0 Sector Orphans

8.01 Sector orphans (w.r.t. NMFS data)

table RTL_QC.t_pc_sector_orphans
Sector records that are not found in the NMFS (VTR+Dealer) data. Matching by docid, stock, gear, mesh; all four fields must match. The docid is a unique trip level identifier.
Grouped by: sector, date_sold

9.0 NMFS Orphans

9.01 NMFS orphans (w.r.t. sector data)

table RTL_QC.t_pc_nmfs_orphans
NMFS generated records without matching sector records. Matching by docid, stock, gear, mesh; all four fields must match. The docid is a unique trip level identifier.
Grouped by: sector

10.0 Sector Landings and Discard Differences

10.01 Landings differences

table RTL_QC.t_pc_nmfs_sdr_comp
Differences between NMFS and sector reported landings. Matching by docid, stock, gear, mesh.
Grouped by: sector, weight difference

10.02 Non-zero landings differences

table RTL_QC.t_pc_nmfs_sdr_errors_only
Same as RTL_QC.t_pc_nmfs_sdr_comp (10.1) but excludes records without landings differences.
Grouped by: sector, weight difference
Prioritized by: weight
Where to look next: noaa.images and fso.v_obspeciesstockarea (find all related VTRSNs, check gear, area, mesh; determine how many strata are in the trip); noaa.catch (see which species are caught in different strata and compute apportionment fractions); cfders (find weights to be apportioned over strata for each species); sector.sector_detail_report (see how sectors reported).

10.03 Discard differences

view RTL_QC.t_pc_nmfs_sdr_dis_comp
Differences between NMFS and sector reported discards. Matching by docid, stock, gear, mesh.
Grouped by: sector, weight difference

10.04 Non-zero discard differences

table RTL_QC.t_pc_nmfs_sdr_dis_errors_only
Same as RTL_QC.t_pc_nmfs_sdr_dis_comp (10.3) but excludes records without landings differences.
Grouped by: sector, weight difference
Prioritized by: weight
Where to look next: noaa.images and fso.v_obspeciesstockarea (find all related VTRSNs, check gear, area, mesh; determine how many strata are in the trip); noaa.catch (see which species are caught in different strata and compute apportionment fractions); cfders (find weights to be apportioned over strata for each species); sector.sector_detail_report (see how sectors reported).

11.0 Permits

11.01 One permit on two hulls

table RTL_QC.t_pc_permit_on_2_hulls
Permits found in permit.vps_vessel that are applied to multiple hulls at the same time
Grouped by: date

12.0 Other Scallop Tables

These are run using different fishing year dates than the main body of RTL.

12.01 Scallop non-dealer landings

view RTL_QC.v_scallop_non_dealer_landings
Total scallop non-dealer landings.
Summed by: permit_num, dealer_num, fmps

13.0 Supplemental Tables for Use in Investigations

13.01 Supplemented VTR images view

view RTL_QC.v_pc_image_sup
Contains noaa.images data supplemented with vessel permit number, minimum VTRSN for a trip, date land, and median date sold for the catch. This is useful when investigating dealer orphans. Supplemental data obtained from noaa.document and noaa.catch.

13.02 VTR images joined with catch

table RTL_QC.t_pc_image_catch
When investigating dealer orphans, it is often necessary to view VTR image and catch data. This is a join of noaa.images with noaa.catch.

13.03 Dealer data with normal date and dealer name

view RTL_QC.v_pc_ders_dealer_name_0
This view is useful when dealer names and normal dates are needed, such as when investigating VTR orphans via dealer date ranges. Source data is cfdbs.cfders@sole.

13.04 Dealer data for two years

table RTL_QC.t_pc_cfders
This table combines year information when a fishing year spans two calendar years. Unused cfders columns are eliminated for ease of use.

13.05 VTR data with supplemental information

table RTL_QC.t_pc_image_catch_nespp3
This table is like table RTL_QC.t_pc_image_catch but with more extensive supplemental information.

Table 1. List of RTL Table and View Names

RTL Table / View #	Table/View Name	Information
2.01	RTL_QC.v_pc_odd_vtr_in_images	Invalid VTRSNs in database
2.02	RTL_QC.v_pc_null_vtr_in_images	Null VTRSNs in VTR database
2.03	RTL_QC.v_pc_duprecords_in_images	Duplicate records in VTR database
2.04	RTL_QC.t_pc_bad_area_img	Invalid area codes in VTR database
2.05	RTL_QC.t_pc_bad_gear_img	Invalid gear codes in VTR database
2.06	RTL_QC.v_pc_null_permit_vtrs	Null permit numbers in VTR database
2.07	RTL_QC.v_pc_vtr_null_dealer	Null or zero dealer numbers in VTR database
2.08	RTL_QC.v_pc_vtr_null_dealer_sum	Sum of missing permit or dealer numbers by sector and permit
2.09	RTL_QC.t_pc_bad_area_by_vessel	Sum of bad areas by sector and permit
2.10	RTL_QC.t_pc_bad_gear_by_vessel	Sum of bad gear codes by sector and permits
3.01	RTL_QC.t_pc_null_hull_permit	Dealer records missing both hull ID and permit
3.02	RTL_QC.v_pc_dealer_use_by_sector	Dealer use by sector
3.03		
3.04	RTL_QC.t_pc_dealer_didnt_pass	Dealer records that did not pass inspection upon upload
3.05	RTL_QC.t_pc_odd_dealer_vtr	Invalid VTRSNs in dealer database
3.06	RTL_QC.t_pc_odd_dealer_vtr_grp	Counts of invalid VTRSNs in dealer database
3.07	RTL_QC.t_pc_out_of_range_dealer_vtr	Out of range VTRSNs with current formats
3.08		
3.09	RTL_QC.t_pc_null_dealer_vtr	Null VTRSNs in dealer database
3.10	RTL_QC.t_pc_null_dealer_vtr_grp	Counts of null VTRSNs in dealer database
3.11	RTL_QC.t_pc_oor_dealer_vtr_grp	Counts of out of range VTRSNs in dealer database
3.12	RTL_QC.t_pc_reused_dealer_vtr	Reused VTRSNs in dealer database
3.13	RTL_QC.t_pc_reused_dealer_vtr_grp	Counts of reused VTRSNs in dealer database

4.01	RTL_QC.t_pc_dealer_orph_age	DEALER ORPHANS
4.02	RTL_QC.t_pc_dealer_orph_dealerXpermit	Count of dealer orphans by sector X dealer X permit
4.03	RTL_QC.v_pc_scallop_dlr_orph_stats	Scallop related dealer orphans
5.01	RTL_QC.t_pc_vtr_orphans	VTR ORPHANS
5.02	RTL_QC.t_pc_vtr_oprhans_by_dlr_ves	VTR orphans by sector X dealer X permit
5.03	RTL_QC.t_pc_vtr_scal_orph_by_dlr_ves	Scallop related VTR orphans
6.01	RTL_QC.t_sdr_bad_vtr	Invalid VTRSNs in Sector Manager's Detail Report
6.02	RTL_QC.t_sdr_odd_stocks	Invalid stocks in Sector Manager's Detail Report
6.03	RTL_QC.t_sdr_odd_stocks_sum	Invalid stock summary from Sector Manager's Detail Report
6.04	RTL_QC.t_sdr_odd_gear	Invalid gear codes in Sector Manager's Detail Report
6.05	RTL_QC.v_pc_sdr_vtr_orphs	SECTOR orphans (w.r.t. VTR data)
6.06	RTL_QC.t_pc_sdr_null_obs	Null observer flags in Sector Manager's Detail Report
7.01	RTL_QC.t_pc_observer_dups	Duplicates in observer trip archive
7.02	RTL_QC.t_pc_observer_null	Null VTRSNs in observer trip archive
7.03	RTL_QC.t_pc_discard_rate_dups	Duplicates in observer discard rate archive
8.01	RTL_QC.t_pc_sector_orphans	SECTOR ORPHANS
9.01	RTL_QC.v_pc_nmfs_orphans	NMFS ORPHANS
10.01	RTL_QC.t_pc_nmfs_sdr_comp	Landings differences
10.02	RTL_QC.t_pc_nmfs_sdr_errors_only	Non-zero landings differences
10.03	RTL_QC.t_pc_nmfs_sdr_dis_comp	Discard differences
10.04	RTL_QC.t_pc_nmfs_sdr_dis_errors_only	Non-zero discard differences
11.01	RTL_QC.t_pc_permit_on_2_hulls	One permit on two hulls
12.01	RTL_QC.v_scallop_non_dealer_landings	Scallop non-dealer landings
13.01	RTL_QC.v_pc_image_sup	Supplemented VTR images view
13.02	RTL_QC.t_pc_image_catch	VTR images joined with catch

13.03	RTL_QC.v_pc_ders_dealer_name_0	Dealer with normal date and dealer name
13.04	RTL_QC.t_pc_cfders	Dealer data for two years
13.05	RTL_QC.t_pc_image_catch_nespp3	VTR data with supplemental information

Canned Queries

The Canned Queries table in Discoverer represents the investigative paths that are routinely accessed by the QA Team during investigations. This table allows for standardization and consistency during the data retrieval process and conveniently eliminates the need for QA team members to create an individual query each time an investigation is required.

Tabs located in the Canned Queries table are:

- *Search By Dealer, Permit, Month:* Allows a user the option of filtering results by Dealer Number, Vessel Permit Number and Month of Purchase.
- *Search Dealer Data by VTR Serial NUM:* Allows a user the option of filtering results by VTR serial number.
- *Search by Dealer Report ID:* Allows a user the option of filtering results by a known Dealer Report ID number.
- *Search by Dealer Permit Month from CFDERS All Years:* Allows a user the option of filtering results in CFDERS by Fishing Year, Dealer Number, Vessel Permit Number and Month.

VTR to Dealer Links

The VTR to Dealer Links table in Discoverer allows the user to search for dealer records that match a VTR in the system. By entering the prompted data into each tab, the VTR's serial number links to the corresponding trip level and sub level (Images) record in the NOAA system. By utilizing this table, the user can easily link catch reports associated with a VTR and the matching dealer records to further investigations.

Tabs located in the VTR to Dealer Links table are:

- *Start Here Find DOCID for VTRs*: Allows a user the option of searching for a VTR's associated DOCID.
- *Document With Images*: Displays all data entry information for a processed VTR by entering the DOCID.
- *Catch*: Displays all catch data for a trip by entering the IMGID.
- *CFDERS All Years*: Allows a user to retrieve all associated trip information located in CFDERS by entering the DOCID.
- *VTR Notes*: Displays any notations made by the VTR Data Entry team to reference any modifications made in CYGNET to already processed VTRs.

ACCSP Unknown Vessels

All federal and state fishing vessels are assigned either a USCG hull number or a state registration number as a means of identifying the vessel. When a dealer fails to add a valid identification number while submitting a record, the result is a dealer report assigned to an Unknown Vessel. The ACCSP Unknown Vessels Table in Discoverer can be utilized to identify and correct dealer reports submitted with an Unknown Vessel, beginning May 17, 2012 and forward. See the section titled Correcting Dealer Unknown Vessel Issues for full instructions on how to address Unknown Vessel issues.

Tabs located in the ACCSP Unknown Vessels Table are:

- *Dealers With Unknown Vessel Entries:* Displays an entire list of dealer records submitted with an Unknown Vessel entry.
- *SAFIS Vessel Conversions:* Allows the user to search for vessel conversions by Participant ID or Dealer Vessel Code when accessed by the dealers with an Unknown Vessel Entries Report.
- *SAFIS Vessel Conversions:* Displays an entire list of SAFIS Vessel Conversions for those vessels using the SAFIS Upload (SAFIS-U) process.
- *Dealers With Blank Vessel Entries:* Displays an entire list of dealer records submitted with a NULL vessel entry.
- *CFDERS Dealer Reports:* Allows the user to search for a specific dealer report by Dealer Report ID (Dealer Rpt Id) for a dealer entry of an unknown vessel.

Data Management Imputation System (DMIS)

DMIS is the quota monitoring system maintained by NMFS to regularly assess the annual allowable catch levels of all fisheries. For data reconciliation purposes, DMIS is utilized to monitor the year to date catch information for each sector which includes estimated trips, non matched trips and declaration information. It is also used to gauge where a sector is in regards to its percent ACE. The DMIS table located in Discoverer can be referenced as appropriate for investigation.

Tabs located in the DMIS table are:

- *DMIS*: Displays an entire summary of DMIS output.

Note: Due to the amount of results in the DMIS output, choosing this tab may take additional time to load results.

- *DMIS by Permit, Month, Day:* Allows a user the option of filtering table results by vessel permit number, month and day.
- *DMIS PCT ACE Discrepancies:* Allows a user the option of filtering table results by a specific Sector or Species Stock.
- *Imputed Due to Missing VTRs:* Displays a current summary of imputed trips due to missing VTRs, dealer reports or catch reports.

Note: It is important to keep in mind that some results displayed in this tab could be a result of mismatched data, i.e. the VTR exists, but the vessel permit number or dates are incorrect.

- *Sector Trip Match 2011:* Displays trips that have been assigned to Sector vessels for the current fishing year. Details include Activity Codes, AMS sail/land/VTR dates and Imputed/Groundfish column.
- *Sector Dealer Trip Match 2011:* Displays results from the *Sector Trip Match* tab and its relationship to associated Dealer Reports.

Located within each tab is a “Kept Source Column” which allows the user to identify whether a trip is considered imputed and specifies the source of imputation.

The Kept Source field details the source of the pounds variable. Records as source are:

- APR - Dealer and VTR
- DLR - Dealer Only
- VTR - VTR Only
- VMS - VMS Catch Reports

Imputations are considered some form of SPAG: SA, SPA, SPAG, etc. where the data source for the imputation comes from records matching.

- S - Sector
- P – Vessel Permit
- A – Broad Stock Area
- G – Gear Strata

Zero Possession

The terms "zero-possession prohibited species" and “zero-possession species” refer to landings that violate Federal regulations pertaining to the Northeast (NE) multispecies fishery; i.e., the reported landings by a vessel or purchase by a dealer of prohibited species.

A member of the QA team produces a report of suspected zero-possession species landings and/or purchases on a weekly basis. This report is available to all QA team members on the shared drive, located at H:\FSO QA Program\QA Compliance\Zero Possession\FY2012 Zero Possession. The query results are produced by DMIS and the zero-possession species script pulls data from the table produced, whose primary key is STOCK_ID. The zero-possession species script uses this table because the table contains AMS, VMS Declaration, and any existing VMS Catch Report trip information. In addition, the table contains matched Vessel Trip Report (VTR) data and dealer data from RTL. Only the fish species that are specified in the script will produce output in the table. Right now, the focus is on 5 zero-possession prohibited species:

- Northern Windowpane flounder (also known as sand dabs; abbreviated FLGMGBSS).
- Southern Windowpane flounder (also known as sand dabs; abbreviated FLDSNEMA).
- Southern New England winter flounder (also known as blackback; abbreviated FLWSNEMA).

- Atlantic wolffish (also known as ocean catfish; abbreviated WOLGMMA).
- Ocean pout (abbreviated OPTGMMA).

Note: If no output is produced, then there have been no reported landings or purchases of the prohibited species for which the script queried, therefore no investigations to be made this week

The Quality Assurance (QA) team of the Fisheries Data Services Division (FDSD), as part of its regular duties, checks the NE multispecies fishery data each week to ensure that there have been no landings of zero-possession prohibited species in the fishery. QA team members examine the Excel spreadsheet each week to see if there is zero-possession species activity for their individual sectors. Team members are responsible for addressing issues within their own sector. Each suspected occurrence of zero-possession prohibited species landing and/or purchase must be thoroughly investigated and documented. Start by creating an issue in the JIRA system (issue-tracking software application) under the Fish Harmony project. Follow the normal protocol for JIRA issues in terms of assigning watchers, documenting, labeling, and so on. (Remember that separate JIRA issues should be opened for separate vessels in question; in other words, each JIRA will pertain to a single vessel, which may have multiple zero-possession referrals.)

If the QA team suspects that there have been landings of prohibited species, the team refers the information to the NOAA Fisheries Office for Law Enforcement (OLE), which investigates all suspected violations of Federal fishing regulations. When it is determined that a landing or purchase of zero-possession prohibited species was made, then a referral to OLE is made by following this procedure:

1. Make a PDF of the VTRs in question.
2. Include a spreadsheet of supporting dealer data with your comments for clarification.
3. Include the Excel spreadsheet used for your investigation with comments on it to support the referral. Document as much as possible so that the OLE representative understands the issue fully.
4. Create a new issue in the NER Compliance Project (if it is an existing Fish Harmony issue, move it to the NER Compliance project).

Note: If the vessel that landed a zero-possession species belongs to a sector, the sector manager is contacted as well as OLE.

Other 2 Trips

Other 2 Trips refers to landings that either have no matching declaration and/or are declared out of fishery. A member of the QA team produces a report on a weekly basis and is available to all QA team members on the shared drive, located at insert location here. Needs to be completed 11/2/12

Researching Orphaned Records

Overview

The basic procedure for processing orphaned records is to:

1. Log into the Oracle BI Discoverer program and select the appropriate tables to identify orphaned records. Assorted dealer orphans are located in RTL 4.0 and VTR orphans in RTL 5.0.
2. Organize the script output as needed in Discoverer and export to excel spreadsheets.
3. Manually research the script output using NMFS online research tools, located in the section titled Research Tools and Resources.
4. Log issues in JIRA for further investigation and/or data correction by the appropriate staff. See the section titled Create, Log and Track Issues in JIRA for more details.

Sector Comparison Reports

The submission of a sector manager report is a listed requirement for all sectors in Amendment 16 to the Northeast (NE) Multispecies Fishery Management Plan (FMP). It is the responsibility of individual sectors to submit weekly reports to NMFS stating the remaining balance of Allocated Catch Entitlement (ACE) for each sector based upon regulated species landings and discards of vessels participating in that sector and any compliance or enforcement concerns.

Note: The *Sector Comparison Report Guide* can be referenced at **`H:\FSO QA Program\Data Quality Documents & Tools`** for more details.

When a sector reports 100% of any ACE, the sector must cease fishing activity in the stock area until additional ACE is traded in. Protocol for NMFS staff is as follows:

1. QA team member (FDSD) notifies appropriate SFD representative when a sector reports 100% of its ACE for a stock in its weekly report.
2. SFD representative contacts sector manager (via e-mail or phone) to determine the sectors next course of action; i.e., will the sector cease fishing altogether, will the sector cease fishing in the stock area or does the sector have a pending ACE trade?
3. SFD representative will create a related JIRA issue and include all necessary details, including any changes that occur over time.
4. SFD representative will coordinate with the Office of Law Enforcement (OLE) (including VMS team) and alert them to any areas where the sector may no longer fish. SFD representative will also work with OLE to contact any vessels at sea who attempt to fish in a prohibited area, notifying them to leave an area or return to port.
5. QA team member (FDSD) also alerts SFD representative if vessels are non-compliant with Vessel Trip Reports (VTR) or if the sector has failed to submit weekly sector reports.

Using the Sector / NMFS Data Report

The Sector / NMFS Data Report lets you see at a glance:

- Summary catch and ACE status data for your sector and every sector based on uploaded Sector Manager Reports. The purpose is to let NMFS compare numbers with those numbers that the sector has, and to use the report as a basis to begin investigating if any numbers vary widely.

- Detailed *stock-level* information about landings, discards, and other data based on the uploaded reports, and to see how this information differs from information that NMFS has for the sector. This stock-level information shows *only* the data that differ between the sector and NMFS. When the data and NMFS data are identical, those data do not appear on the report.

How the Report is Organized

The Sector/NMFS Data Report is a single MS Excel file that contains several spreadsheets, each accessible by its own tab.

Note: There are two Summary Comparison sheets, one for totals displayed in *pounds* and one for totals displayed in *metric tons*. This weight expression is the only difference between the two sheets.

How to Read the Summary Comparison Sheet

The Summary Comparison sheet is divided into two main parts:

- Sector Data: Landings data from the Sector Detail and Sector ACE Status reports that the sector has submitted to NMFS.
- NMFS Data: Landings data that include the number of trips and total live weight landings to date for a particular stock, categorized by data source. Sources include VMS catch reports, dealer reports, VTRs, observer reports and permits.

The Sector/NMFS Summary Comparison sheet is set up to compare sector data with NMFS data side-by-side. The data on this report are cumulative from the start of the fishing year by stock. In other words, you are looking at relatively large numbers and, therefore, you should be looking for *larger* trends.

Landings Differences

The Landing Differences sheet shows each stratum (area, gear and mesh) in the current week that has a difference in landings reported by NMFS and landings reported by the sector.

There are two general concerns to be aware of when looking at landing differences:

- **How old the records are** – Investigate older records first, if possible, because as records age it can be harder to track down information.
- **Largest differences between sector and NMFS data** – Fixing the largest discrepancies as they arise is beneficial because this makes reconciling totals at the end of the fishing year a much more manageable task.

NMFS Orphans

A “NMFS Orphan” means that NMFS has a record of a trip that the sector does not have.

A good area to concentrate on initially is the part of the report that has data that can be immediately cross-checked:

- **VTRs** – Use internal NMFS research tools to check on VTR numbers. One can sort the contents of the NMFS Orphans sheet by **Min Serial Number** to clearly show missing trips by VTR.
- **Date sold** – Check the **Max Date Sold** value for each trip against records.
- **Permit numbers** – Check with the sector manager or vessel owner to get more information about this trip, including the dealer who handled the catch.

Discard Differences

The Discards Differences sheet shows landings from each stratum (area, gear and mesh) in the current week that has a difference in discard poundage recorded by NMFS and discards recorded by the sector.

Among the items to focus on when using the Discard Differences sheet are the following:

- Compare discards – Look for patterns in the **Nmfs_Discard** and **Sdr_Discard** numbers.
- Sort the **Discard_Diff** numbers in descending order – Find out what the highest discrepancies are. Often those discrepancies are from a single trip or sub-trip, or are associated with a single permit number. This could indicate that the discard calculation was applied incorrectly in a specific case.
- Look at **Deal_Code** – When there is a value in the **Deal_Code** field, there should be a corresponding value in **Nd_kall** for the weight of the non-dealer catch. **Nd_kall** plus **D_kall** should equal **Kall**.
- Look for differences in discards when the trip has been observed **(Ob_Discards).** In this case, very likely there has been a simple transcription error because discard ratios are not applied to catch from observed trips.
- If there is a value in **Num_Obs_Dups**, it is an indication that the data in this particular record might not be trustworthy due to a duplicate record in the NMFS Observer database.

Correcting Imputations

VMS (Vessel Monitoring System) declarations that do not have a matching VTR or dealer report are defined as Imputed Trips. Most fisheries are required to have an operational VMS as a requirement of the permit.

The basic process for researching imputed trips is to:

1. Locate the most recent file of **`OUTPUT TO SECTOR MGRS`** on the H: drive and select the sector to be investigated.
2. Output should already be in excel spreadsheet form. Organize output as needed.
3. Research the script output using NMFS online research tools.
4. Log issues in JIRA for further investigation and/or data correction by the appropriate staff. See the section titled Create, Log and Track Issues in JIRA for more details.

Although the investigation of imputed trips is similar to that of researching matched records or VTR/Dealer orphans, the research process typically varies. Referencing vTrack and utilizing sector managers is vital in the corrections process.

Variables to consider while investigating an imputed trip include:

- Incorrect AMS declaration: could be the result of a technical error with the VMS unit. Technical issues should be forwarded to OLE (Office of Law Enforcement).
- Vessel mis-declarations: QA/QC or IDI representative should direct vessel to contact OLE to resolve the issue.
- Set Gear Only trips: NMFS regulations require a federal VTR whenever there is intent to fish. This includes each time a vessel sets its gear.
- Missing Trip Information: trip information could be declared, but dealer and VTR data is missing or unavailable.

Correction of imputed trips follows the same process guidelines as VTR/Dealer orphans and matched trips. This includes the usual staff assignments as listed under the Correcting Data section.

Scallop IFQ Data Correction

This section describes the process for how the QA team identifies, investigates, logs and corrects errors in landings data for the Scallop Individual Fishing Quota (IFQ) fishery.

Issue Identification

Scallop IFQ data issues are typically identified in one of three ways:

A vessel operator finds a possible scallop data issue on the Fish-on-Line system and contacts a NERO staff member in one of the following departments:

- Sustainable Fisheries Division (SFD)
- Office of Legal Enforcement (OLE)
- Analysis and Program Support Division (APSD)
- FDSD (Data Quality Line, a Reporting Specialist, or the Scallop Data QA Specialist)

The NERO staff member forwards the call to the Scallop Data QA Specialist if that Specialist has not been contacted directly.

A NERO staff member from one of the following departments finds a possible scallop data issue in Allocation Management System (AMS) and contacts the FDSD Reporting Specialist. In this case, the Reporting Specialist forwards the call to the Scallop Data QA Specialist:

- APSD
- Information Resource Management (IRM)
- FDSD (Data Quality Line, a staff member, or the Scallop Data QA Specialist)

- SFD
- OLE

The Scallop QA Specialist finds data issues by reviewing RTL Scallop tables and AMS tables generated located in Discoverer. (See the document entitled *Scallop IFQ Fishing Year 2011 Cost Recovery SQL* for the names and descriptions of these tables.)

Issue Investigation

The QA Specialist investigates the issue using the software tools and systems listed below and in the section titled Research Tools and Resources. If the Specialist determines that a correction is necessary, a JIRA issue will be created. See Create, Log and Track Issues in JIRA for full instructions.

The Scallop Data QA Specialist researches the trip using vTrack, Dealer Electronic Reports (DERs), VTR records, and Pre-land reports.

The Specialist may contact the vessel operator to investigate the issue, depending on the nature of the issue (e.g., to request a missing Pre-Land report or VTR).

In the course of investigating the issue, the Specialist may request the vessel operator to submit missing VTRs. The Specialist may also inform OLE of missing VTRs, depending on the number of missing VTRs for a given vessel and the time elapsed since the trips were taken.

Tools Used for Scallop QA Investigation

Table 8 shows the additional tools that the Scallop QA Specialist uses to investigate issues.

Table 8. Scallop QA/QC Investigation Tools

Description	Web-based	Core System
Viewing Pre-lands	General Category Scallop Pre-Landing Notification Website http://apps.nero.noaa.gov/scallop_preland/	Pre-land table in AMS
Querying AMS	Allocation Management System (AMS) http://cuda2:7777/pls/htmldb/f?p=2315:1	cuda2 IRM SQL tables

Data Reconciliation / Data Correction

The Scallop Data QA Specialist employs several different types of data correction and/ or resolution, depending upon the type of issue that is causing the problem.

- Split Trips/Flier Positions
- Dealer Reporting and VTR Submission Errors
- AMS Errors
- Incorrect Pre-land Reports

- Missing Pre-land Reports
- Missing Dealer Reports or VTRs

Split Trips/Flier Positions

The Scallop Data QA Specialist sends a request to OLE via JIRA issue to edit the following types of trips:

- Split Trip – single trip logged by VMS as two (or more) trips because the vessel crossed the demarcation line multiple times (i.e., crossed from outside to inside the demarcation line, remained inside for more than 70 minutes, and then crossed outside the demarcation line again). OLE "stitches" the trips together to form a single trip within AMS by editing the start time or end time of one the trips and "X'ing out" the other trips.
- Flier positions – trips with erroneous positions sent by the VMS unit.

After editing the trip, OLE reassigns the JIRA issue to the Scallop Data QA Specialist who closes the issue with an appropriate annotation.

Dealer Reporting Errors or VTR Submission Errors

If the Scallop Data QA Specialist determines that the issue is the result of one of the following types of errors, the Specialist assigns/reassigns the associated JIRA issue to the appropriate FDSD staff member, who then processes the error according to established procedures and closes the JIRA:

- Dealer reporting error (missing/erroneous data on the dealer report) or missing dealer report. The Scallop Data QA Specialist assigns the JIRA issue to a Fisheries Information Section (FIS) Port Agent or to the Port Agent Team Leader.
- VTR submission error (missing/erroneous data on the paper VTR). The Scallop Data QA Specialist assigns the JIRA issue to the appropriate QA team member.
- VTR data entry error (VTR data entered erroneously into NERO databases by FDSD). The Scallop Data QA/QC Specialist assigns the JIRA issue to the FDSD VTR Office Team Leader. The Team Leader or data entry staff corrects the error in the NERO databases using the VTR data entry software system, CYGNET.

AMS Errors

If the Scallop Data QA Specialist finds the issue is the result of an AMS processing error (or other software processing error), the Specialist reassigns the JIRA issue to the appropriate IRM staff member. IRM closes the JIRA issue upon resolution of the software problem.

Incorrect Pre-land Reports

If the Scallop Pre-land report is incorrect, the vessel operator can correct using the VMS unit on the vessel.

Missing Pre-land Reports

If the Scallop Data QA Specialist determines that the Scallop Pre-land report is missing, the Specialist creates a Validated Trip Correction Record (VCR). The VCR is a "stand-in" VTR. (NERO software systems require that a VTR exist before the Specialist can create a "stand-in" Pre-land report.)

Once the Specialist creates the VCR, the Specialist creates the stand-in Pre-land report. When the report is complete and filed, the correct trip matching can take place. At this point, the Specialist writes an appropriate annotation on the JIRA issue and closes the issue.

Missing Dealer Reports or VTRs

Dealers, vessel owners, or vessel operators may be delinquent in filing dealer reports or VTRs. If the Scallop QA/QC Specialist has not been successful in attempts to contact the delinquent parties, or in encouraging compliance:

Specialist reassigns the JIRA issue to OLE.

OLE contacts the noncompliant party, assigns the JIRA to the appropriate FDSD contact (VTR or dealer).

Appropriate FDSD contact closes the JIRA issue if resolved.

If not resolved, FDSD contact reassigns the JIRA to OLE.

OLE resolves the issue, closes the JIRA.

Research Tools and Resources

The following tools and resources are available to help research individual FVTR and dealer records.

Online Research Tools

At http://apps.nero.noaa.gov/:

- FVTR Viewer – Displays the scanned image of a hard-copy FVTR on the left side of the screen and the data entered for the report on the right side of the screen. FVTR viewer will also display eVTR data on a subtrip level.
- Permit History – Displays a snapshot of the permit history of a specified vessel, including information such as vessel owner, permit types, expiration dates, owner history, etc. For full permit history, contact the Permits Office.
- Dealer Reports – Displays dealer reports for a specified vessel and/or dealer for a selected fishing year. Includes information such as species, amount purchased by the dealer, vessel ID information, FVTR serial number, dealer name, etc.
- SIMM (NMFS internal) – Sector Information Management Module. SIMM is the software interface between the sector manager and NMFS that allows the sector manager to perform data management tasks. Refer to the *SIMM User Guide Rev. 2.1* for a full

description. (The external, sector manager view of SIMM can be found at https://www.nero.noaa.gov/NMFSlogin/login/login)

- VTR Send Back Tool – Displays incomplete or invalid FVTRs that were sent back to the vessel and specifies which VTR field number prompted the send back. Refer to the *VTR Send Back Process* document for a full description.

At http://www.nero.noaa.gov/permits/data/:

- Dealer Permit Data: Displays a list of active dealer permit holders and contact information.

At http://155.206.16.118/vtrack/:

- V-Track – Displays VMS (Vessel Monitoring System) information including area, time, activity code and visually tracks each trip.

At https://www.nero.noaa.gov/NMFSlogin/login/login:

- Fish On Line – Displays the most recent six months of VTRs and dealer reports for a vessel, provides access to Days-At-Sea allocation and trip information, PSC letters and landings, VTR compliance history, observed trip information, historic IVR herring landings and more. Fish On Line also tracks landings information reported by both the vessel and federally permitted dealers sold to. Vessels have the ability to submit electronic DNF (Did Not Fish) reports up to three months in advance.

At https://fish.nefsc.noaa.gov/cgi-bin/vers:

- VERS – Displays submitted eVTRs on a trip level only.

At http://spinnertest:9003/discoverer/plus or http://155.206.47.33:9003/discoverer/plus:

- Oracle Bi Discoverer- The Quality Assurance (QA) information software application used by the QA Team.

At http://nero.noaa.gov/permits/display/:

- Northeast Region Vessel Permit Data – Displays current vessel permit information and sector affiliation.

Data Sources

Depending on the RTL QA Team Role, different privilages will apply to the data sources listed in Table 9.

Table 9. Data Sources

Database	Data Source	Data Provided	Results Data Accessed
SOLE	CFDBS (NEFSC)	Dealer Data	RTL_QC_Discoverer
NOVA	OBSCON (NEFSC)	Observer Data	
NERO	NOAA	FVTR Data	
	SECTOR	Sector Data	
	FSO	Source Data (DMIS, Conversion Factors, etc.)	

	FSO ADMIN	Source Data (DMIS, Conversion Factors, etc.)	
	AMS	AMS Data (Scallop IFQ)	
	DMIS	DMIS Data	

Additional References

The folder, **`H:\FSO QA Program\Data Quality Documents & Tools`**, contains several documents and cheat sheets that the researcher can use in their investigations. These include, but are not limited to, stock area charts, contact lists, team assignments, work instructions and user guides.

Correcting Data

For each FVTR or Dealer record requiring data correction and/or further investigation, the QA Team creates an issue in JIRA under the Fish Harmony project and assigns the issue to the appropriate staff. Assignments are as follows:

- Dealer errors: FDSD Field IDI Representative and DMS for data correction.
- FVTR submission errors (errors made by the vessel owner or operator when filling out the FVTR form): FDSD QC Representative.
- FVTR data entry errors (errors made by the FVTR data entry staff at FDSD when entering data from the paper FVTRs into the NOAA schema via CYGNET and APHIDS): FDSD Vessel Trip Reporting Office lead.
- eVTR submission errors: FDSD QA representative assigns to themselves for the time being and adds designated sector manager as a Watcher.

Detailed descriptions of the process for correcting each error type follow.

Create, Log and Track Issues in JIRA

For each FVTR or Dealer record requiring data correction and/or further investigation, the researcher logs an issue in JIRA and assigns the issue to the appropriate staff. .

The QA Team has developed several business rules for properly creating issues for the Fish Harmony project in the JIRA issue tracking tool. You should follow these rules prior to final changes being incorporated into JIRA. variable

The Fish Harmony tool can be found at: https://www.st.nmfs.noaa.gov/jira/secure/Dashboard.jspa. The program requires a username and password for access. Contact your system administrator to set up an account.

- Project – Fish Harmony details resonate
- Issue Type - The default is Data Error; select only Data Error as the Issue Type unless there is a valid reason to select an alternate Issue Type.

- Summary - Enter one of the following: Vessel Issue, Dealer Issue, Other Industry Issue or Unidentified Issue.
- Priority – Select Critical, Major, Minor or Trivial. Do not select Blocker; it will be removed.
  - Critical: use only if a sector ACE is in jeopardy of being reached or for other similar circumstances.
  - Major: use for issues that require near term attention.
  - Minor: use for longer term corrections.
  - Trivial: primarily used for informational purposes.
- Due Date – Assign the due date in accordance with the priority rating.
  - Critical Issues: require a real time response.
  - Major Issues: assign a one week turnaround time.
  - Minor Issues: assign a two week turnaround time.
  - Trivial Issues: do not require a due date.
- Assignee – When creating the issue assign it to yourself until you have added all the watchers and attachments, as well as proofread it for any errors. Then select the appropriate team member for action on this issue. All public users will assign issues to Anthony Conigliari, as he is the default assignee. He will then pass the issue on to the appropriate team member. Refer to assignments under the section titled Correcting Data.
- Environment – Enter on of the following:
  - VTR Submission Error
  - Other Industry Submission
  - VTR Data Entry
  - Dealer Submission Error
- Description – Add a brief, concise description of the issue, including the following as applicable: f/v Dealer Name, f/v Dealer Permit #, VTR #, Date Landed, Date Sold, species in question, contact info, etc. Add an attachment if necessary using the "choose files" button below the description or by the "more actions" button on the upper menu bar; you can add files of all types of attachments.
- Organization – None.
- Labels – Select labels from the drop down menu if applicable. These can help to quickly identify the source of the issue. Here is a list of some of the labels that are currently being used:
  - Sector Affiliation or CommonPool
  - Dealer_Contact_Required/Automated_Audit
  - Dealer_Contact_Required/Port_Validation_Audit
  - Dealer_Contact_Required/DSR_Identified_Issue
  - Dealer_Contact_Required/RTL_Identified_Issue
  - Dealer_Contact_Required/Sampling_Identified_Issue
  - FV_Contact_Required/DSR_Identified_Issue

- FV_Contact_Required/RTL_Identified_Issue
- FV_Contact_Required/Sampling_Identified_Issue
- Dealercombinedtrip
- EVTR
- Scallop_DAS
- Scallop_IFQ

The Upper Menu Bar – Workflow

Please comment on the issue as you work on it, adding in more pertinent information to your investigation. Document all contacts with the FV or Dealer using comments.

- Open Issue – Issue has been created and assigned prior to progress being initiated.
- Status/Start Progress – When you start working on the issue, make sure to hit the *Start Progress* button to initiate your progress.
- Resolve Issue – Click this button when the issue has been corrected by the dealer and/or the VTR(s) have been received.
- Close Issue – Close the issue when the correction has been verified in the CFDERs/VTR databases.
- Linking Issues - Using the *link* option under the *More Action* button you can link issues that are parallel/duplicate/dependent on/related to the primary issue (issues can be linked from Fish Harmony to NERC).
- Sub Tasks – Sub Tasks should be used when an issue becomes split between a dealer corrected issue AND a FV corrected issue, or splits between multiple dealers that require different Field IDI staff contact.
- Watchers – Add in other Fish Harmony users as watchers who may have involvement in the issues. Make sure to put watchers on just after you create the issue, that way the watchers will receive an email notification of the issue.

Table 10. JIRA Terminology

Term	Definition
Assignee	JIRA system user assigned to investigate and/or correct the issue by another JIRA system user.
Cannot Duplicate	JIRA status indicating that the assignee could not reproduce the occurrence of the problem.
Closed	JIRA status indicating that the problem has been fixed and the issue has been eliminated.
Fixed	JIRA status indicating that the original problem has been corrected.
In Progress	JIRA status indicating that the issue is being actively worked on at the moment by the assignee.

Term	Definition
Issue	Possible data problem that has been documented and logged under a unique number in the JIRA system.
Open	JIRA status indicating that the issue is active and has been assigned.
Reopened	JIRA status indicating that an issue previously marked as Resolved has been found to need further investigation and/or correcting.
Reporter	JIRA system user who finds a possible problem and creates the JIRA issue.
Resolved	JIRA status indicating that the issue has been given a resolution by the assignee and the resolution awaits verification by the reporter or another appropriate staff member. From here issues are either reopened or closed.
Watcher	JIRA status given to one JIRA system user by another JIRA system user. A watcher is notified by the JIRA system of any change of status with a particular JIRA issue.

Correcting Dealer Errors

1. The QA Team member identifies a data problem and performs a preliminary investigation to ensure that the exact same problem has not already been logged into the JIRA system. This investigation prevents duplicate JIRA issues from being opened.
2. QA Team Member, the reporter, creates a new JIRA issue under the Fish Harmony project and assigns it to the appropriate FDSD Field IDI Representative, who now becomes the assignee.
3. The Field IDI Representative marks the JIRA issue as “In Progress” and begins the investigation before contacting the dealer.
4. The assignee should consider the persistence of the issue: Single Issue, Multiple Trips or Recurring Issue.
5. The assignee should consider the relevant factors before beginning the correction process:
   - Elapsed time between dealer submittals of the data involved in the multiple trips (determines the methodology of resolving the issue)
   - Submission process used by the dealer: SAFIS-K, SAFIS-U and Trip Ticket. This determines how the assignee should help the dealer resolve a recurring or multiple trip issue. Each type of dealer submission process has a different pathway of getting data into the system. By knowing which system the dealer uses, the assignee can more efficiently help resolve the issue.
   - Past experiences with the relevant dealer. Examples include the dealer having refused requests in the past to do corrections, or the dealer having been cooperative previously in correcting submissions.

Single Issue

Use the process outlined in this section when the data problem includes up to 3 concurrent trips with the same issue.

1. RO staff member submits correction of the issue directly to DMS regardless of length of time elapsed. A JIRA issue may have several single issue items listed in a spreadsheet, or listed in the JIRA issue itself, in order to help limit the number of issues being sent to DMS.
2. Assignee designates the RO staff member identified using the RTL assignment areas in the Staff Breakout table as a watcher.
3. The watcher or assignee (if the same) decides if contact with the dealer is necessary and notes the decision to either contact or not contact the dealer in the Comments section within the JIRA issue.

   Watcher can contact the dealer through e-mails, phone calls, in person, or other methods. Watcher records the contact method as a comment in the JIRA issue.
4. DMS marks the issue as "Closed" as listed under "Workflow" once the correction has been completed.

   Comments can still be added after the JIRA has been closed.

Multiple Trips

Use the process outlined in this section when the dealer data problem includes more than 3 concurrent, identical issues for the same type of issue. Examples Include:

- Four or more trips reported with the same wrong vessel
- Four or more trips reported with missing or invalid VTR serial numbers.
- Four or more trips reported with incorrect or missing species, grade, or other required data.

The methodology to use depends upon the elapsed time since the date of the emergence of the first issue:

- Within 30 Days
- Over 30 Days

The following sections discuss each methodology.

Multiple Trips – Issue Within 30 Days Old

If the issue is less than 31 days old, the assignee first attempts to help the dealer correct the data errors. If the dealer fails to correct the errors, the assignee corrects them following reassignment protocol.

Issue within 30 Days Old – First Dealer Contact

Start the dealer correction process as follows:

5. Assignee informs the dealer of the errors, offers assistance to help the dealer correct the errors, and works with the dealer if the offer of help is accepted.
   A) If the dealer refuses to correct the errors:
      Assignee records this contact result in the Comments section of the JIRA issue.
      i. Assignee prepares corrections for submission to DMS using the format provided.
      ii. Assignee reassigns the issues to DMS.
      iii. DMS marks the issues either as "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to the reporter (if DMS needs more information to complete the correction).
   B) If the dealer agrees to try to correct the issues, proceed to the next step.
6. Assignee logs the dealer contact in the Comments section of the JIRA issue and ensures that the issue status is labeled "In Progress".
7. Unless the dealer submits the correction in the assignee's presence, the assignee sets a "correction period" *of one business week* for the dealer to correct the data.

Note: This is not a rigid deadline, but the assignee should attempt to have the dealer correct the problem as soon as possible, and should also use judgment from past experience with the dealer or knowledge of the dealer's ability to submit corrections to determine the effectiveness of setting or extending a correction period beyond 1 week.

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8. Assignee during correction review also:
   - Examines data entry processes to possibly identify where errors may be occurring.
   - Helps identify possible solutions when requested by the dealer.
   - Reviews support tables, Favorites Lists, or conversion tables (file upload) with the dealer and insures that the tables are accurate.
   - Helps fix tables and lists as requested by the dealer.
5. If the dealer within the correction period submits the corrections:
   A) Assignee subsequently documents the corrections in the Comments section in the JIRA issue.
   B) Assignee marks the issues as either "Closed" as listed under "Workflow" upon verifying the submission or reassigns issue back to the reporter upon reviewing CFDERS and finding that the dealer has not submitted the correction.
6. If the correction period lapses without assignee – dealer contact *or* without the dealer making the correction in the presence of the assignee, proceed to the next section.

Issue within 30 days Old – End of First Correction Period

If the first correction period lapses without further contact or without the dealer making the corrections in the presence of the assignee:

1. Assignee checks CFDERS to see if the dealer has made the corrections.
   A) If the dealer *has made successful corrections:*

i. Assignee periodically monitors CFDERS for submitted corrections.

ii. Assignee records each monitoring session in the Comments section of the JIRA issue.

iii. Assignee changes the issue to "Closed" as listed under "Workflow" upon verification of the submitted corrections in CFDERS.

B) If the dealer has not made successful corrections:

i. Assignee changes the status of the JIRA issue to "In Progress" by clicking the "Start Progress" button.

ii. Assignee contacts the dealer and gives the dealer one more opportunity to correct the data.

- If the dealer agrees to try one more time to correct the data, assignee gives the dealer one more correction period to do so.
- If the dealer refuses to correct the data, proceed to Step C, ii.

iii. Assignee updates the Comments section in the JIRA issue.

C) If the dealer *has not made the corrections*, the assignee contacts the dealer a second time to find out the status of the correction process.

i. If the dealer requests additional time:

- Assignee allots one additional correction period from the point of second contact so that the dealer can submit corrections.
- Assignee records this contact result in the Comments section of the JIRA issue.

ii. If the dealer *refuses to make the correction*:

- Assignee records this contact result in the Comments section of the JIRA issue.
- Assignee prepares corrections for submission to DMS using format provided.
- DMS marks the issues either as "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to the reporter (if DMS needs more information to complete the correction).

2. If the dealer has not submitted the corrections by the end of the second correction period, proceed to the next section.

Issue within 30 Days Old – End of Second Correction Period

If by the end of the second correction period the dealer has not submitted the data, or has failed a second time to correctly submit the data:

1. Assignee notifies the dealer that the assignee will submit the corrections.
2. Assignee notes the contact result in the Comments section in the JIRA issue.
3. Assignee prepares corrections for submission to DMS using format provided.

4. Assignee reassigns the issues to DMS.
5. DMS marks the issues either as "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to reporter if DMS needs more information to complete the correction).

Multiple Trips – Issue More Than 30 Days Old

If the initial error is more than 30 days old, or if the effort to assist the dealer in correcting the data has not been successful, the assignee submits the corrections.

1. Assignee submits corrections to DMS.
2. Assignee contacts the affected dealer and together they review the corrections.
3. Assignee during correction review also:
   - Examines data entry processes to possibly identify where errors may be occurring.
   - Helps identify possible solutions when requested by the dealer.
   - Reviews support tables, Favorites Lists, or conversion tables (file upload) with the dealer and insures that the tables are accurate.
   - Helps fix tables and lists as requested by the dealer.
4. Assignee submits any resulting further corrections to DMS.
5. Assignee makes comments in JIRA issue on whether the dealer and assignee met to review corrections, resolved data entry issues causing errors, and found any additional issue during the review.
6. DMS marks the issues either as "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to the reporter (if DMS needs more information to complete the correction).

Recurring Issue

Use the following process if the following conditions apply:

- There are blocks of problem data with the same *specific* issue recurring, such as:
  - Assigning a wrong vessel.
  - Identifying at a single instance one or more large blocks of missing or invalid VTR serial numbers.
  - Entering the wrong species or grades of fish.

    RO staff actively looks at data sets within a sector fishing year. Dealers are allowed one recurring error per sector fishing year.
- The assignee discovers that there is a history of the same issue recurring. (That is, the issue continually present or absent and spans more than 30 days from the date of the first issue).

The assignee gives the dealer an opportunity to correct the *first instance of the error*. If the dealer fails to correct the error, the assignee submits the correction.

Recurring Issue – Dealer Corrects the First Instance

The following process applies to a specific recurring dealer data issue:

Dealer Corrects the First Instance – First Dealer Contact

1. Assignee informs the dealer that the assignee will work with the dealer to correct the first instance of the recurring errors.
   A) If the dealer refuses to correct the errors:
      i. Assignee records this contact result in the Comments section of the JIRA issue.
      ii. Assignee submits the corrections.
      iii. Assignee marks relevant issues as "Resolved" and reassigns the issues to DMS.
      iv. DMS marks the issues either as "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to reporter and is marked "In Progress" (if DMS needs more information to complete the correction).
   B) If the dealer agrees to try to correct the instance, proceed to the next step.
2. Assignee logs the dealer contact in the Comments section of the JIRA issue and ensures that the issue status is labeled "In Progress".
3. Assignee contacts the dealer and:
   - Reviews the errors with the dealer.
   - Reviews data entry processes to possibly identify where errors may be occurring and help you identify possible solutions when requested.
   - Reviews support tables, Favorites Lists, or conversion tables (file upload) with the dealer and insure the tables are accurate.
   - Helps fix tables as lists are requested.
4. Unless the dealer submits the correction in the assignee's presence, the assignee sets a "correction period" of *one business week* for the dealer to correct the instance.

   This is not a rigid deadline, but the assignee should attempt to have the dealer correct the problem as soon as possible, and should also use judgment from past experience with the dealer or knowledge of the dealer's ability to submit corrections to determine the effectiveness of setting or extending a correction period beyond 1 week.
5. If the dealer submits the corrections within the correction period:
   a) Assignee notes the contact in the Comments section of the JIRA issue.
   b) Assignee reassigns the issues to DMS.
   c) DMS marks the issues either as "Closed" as listed under "Workflow" or reassigns issues back to the reported and is marked "In Progress".

      Comments can still be added after the JIRA has been closed.

6. If the correction period lapses without assignee – dealer contact *or* without the dealer making the correction, proceed to the next section.

Dealer Corrects the First Instance – End of the First Correction Period

1. Assignee checks CFDERS to see if the dealer has made the corrections.
    a) If the dealer *has made successful corrections:*
        i. Assignee periodically monitors CFDERS for submitted corrections.
        ii. Assignee records each monitoring session in the Comments section of the JIRA issue.
        iii. Assignee changes the issue to "Closed" upon verification of the submitted corrections in CFDERS.
    b) If the dealer *has not made successful corrections:*
        i. Assignee updates the Comments section in the JIRA issue.
        ii. Assignee ensures that the status of the JIRA issue remains "In Progress".
        iii. Assignee contacts the dealer and gives the dealer one more opportunity to correct the instance.
            - If the dealer agrees to try one more time to correct the instance, assignee gives the dealer one more correction period to do so.
            - If the dealer refuses to correct the instance, the assignee submits the corrections and follows the process to resolve and close the issue.
    c) If the dealer *has not made the corrections*, the assignee contacts the dealer a second time to find out the status of the corrections process.
        i. If the dealer *requests additional time*:
            - Assignee allots one more correction period from the point of second contact so that the dealer can submit corrections.
            - Assignee records this contact result in the Comments section of the JIRA issue.
        ii. If the dealer *refuses to make the correction:*
            - Assignee records this contact result in the Comments section of the JIRA issue.
            - Assignee prepares corrections for submission to DMS using format provided.
            - Assignee reassigns issues to DMS.
            - DMS marks the issues as either "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to reported and is marked "In Progress" (if DMS needs more information to complete the correction).

2. If the dealer has not submitted the corrections by the end of the second correction period, proceed to the next section.

Dealer Corrects the First Instance – End of the Second Correction Period

If by the end of the second correction period the dealer has not corrected the instance:

1. Assignee notifies the dealer that the assignee will submit the corrections.
2. Assignee notes the contact result in the Comments section in the JIRA issue.
3. Assignee prepares corrections for submission to DMS using format required.
4. Assignee reassigns the issue to DMS.
5. DMS marks the issues as either "Closed" as listed under "Workflow" (if DMS enters the corrections) or reassigns issues back to reported and is marked "In Progress" (if DMS needs more information to complete the correction).

Recurring Issue – Assignee Corrects Second Instance

The JIRA assignee handles the second instance of a recurring identical issue and all subsequent instances. The following process applies to handling subsequent instances of a recurring issue after the first instance has been corrected.

Assignee completes the following tasks:

1. Ensures the status of the JIRA is "In Progress".
2. Verifies the submission age in order to ensure that the instance should not have been included in the first instance review.
3. Collates the relevant information on the reoccurrence.
4. If occurrence should have been included in the original issue, assignee treats as a continuation of the original JIRA issue.

   Assignee documents the situation in the Comments section and follows the instructions starting in section Dealer Corrects the First Instance – First Dealer Contact otherwise, continues to Step 5.
5. Reassigns the JIRA issue to the Dealer Data Coordinator for further action.

Dealer Data Self Correction

Dealers can correct their submitted records by correcting data in SAFIS-K as well as the dealer's own data system to prevent the reoccurrence of similar issues in the future.

Dealer data records submitted to SAFIS-K are unlocked for the first 30 days. Dealers can access their data during this time period without having to seek unlocking assistance from NMFS personnel.

Correcting Data in SAFIS-K and Dealer's Own Data System

Updating SAFIS-K is the most direct method

To correct data in SAFIS-K only, QA team member should perform the following steps:

1. FDS QA team member creates an issue in JIRA under the Fish Harmony project and assigns the issue immediately to DMS for correction or to QA Team member for further investigation.
2. Assignee changes the status of the issue as "In progress". If further investigation is warranted, QA Team member investigates the issue, including the possibility of errors in the dealer's own data system and assists the dealer in correcting these issues.
3. If QA Team member determines the dealer data needs to be corrected, the data are corrected in one of two ways. In order of preference, the dealer corrects the error by logging into SAFIS, or NEFSC DMS corrects the error.
4. Assignee marks the JIRA issue as "Closed" as listed under "Workflow" once the correction has been completed.

Correcting Specific Records

Having the dealer correct the data is the primary and preferred method, exceptions being:

- QA Team member is assigned the issue more than 30 days after the dealer initially submitted the erroneous data. (Dealers records are automatically locked 30 days after the records are created.)
- The dealer refuses to make the correction.
- QA Team member, upon discussing the error with the dealer, determines that the complexity of the correction exceeds the dealer's technical expertise.

Correcting Blocks of Data

QA Team member validates the error with the dealer and discusses possible corrective measures such as updating file upload support tables or Favorites listings. QA Team member requests the dealer to make the correction(s) within one week via SAFIS or by resubmitting the data file with the appropriate corrections, if feasible.

1. Assuming the dealer has agreed to make the correction, the QA Team member:
   a) Changes the JIRA status to Resolved (not closed).
   b) Reassigns the JIRA issue back to the reporter.
   c) Adds comments on how the JIRA issue was resolved.
   d) Includes correspondence with the dealer.
   e) Attaches any relevant documents.
2. If upon validating CFDERS review that the dealer has made the correction, the Reporter closes the JIRA issue with the appropriate comments. If the dealer has not made the correction within one week, the Reporter reopens the JIRA issue and reassigns it to the QA Team member for further action as described in the comments by Reported.

Note: If a JIRA issue has been assigned during the 30-day window for corrections by dealers but the dealer has not made the correction before the 30-day window closes, the FDSD Help Desk can unlock the records. Prior to every correction made by a dealer, QA team members need to review the previous submissions to ensure that the relevant data have not been altered. If the relevant data have been altered, all changes must be made through DMS in order to preserve the changes in the data.

NEFSC DMS Corrects the Error

When the dealer correction of the data is not viable, NEFSC DMS makes the correction.

1. If the dealer is not aware of the issue, the QA Team member contacts and notifies the dealer of the correction.
2. QA Team member opens the JIRA issue, makes the appropriate comments including clarifying instructions, attaches appropriate supporting files and assigns or reassigns the JIRA issue to NEFSC DMS and keeps the JIRA status as Open.
3. DMS reviews the JIRA.
4. DMS either a) makes the correction in the SAFIS audited tables (Audit_dealer_reports and Audit_Landings) and closes the JIRA issue with appropriate comments or b) reassigns the JIRA issue back to the QA Team member with further instructions in order to complete the correction.

Correcting Dealer Unknown Vessel Issues

All federal and state fishing vessels are assigned either a USCG hull number or a state registration number as a means of identifying the vessel. When a dealer fails to add a valid identification number while submitting a record, the result is a dealer report assigned to an Unknown Vessel.

The standard process for identifying and correcting Dealer Unknown Vessel Issues associated with SAFIS-U is as follows:

1. Designated QA team member will prompt the Oracle Bi Discoverer program and query the workbook titled “ACCSP Unknown Vessel Conversions”. Four individual tabs located at the bottom of the worksheet provide multiple search options.
2. Designated QA team member will filter results as necessary by STATE and DEALER and export to an excel spreadsheet.
3. Designated QA team member will divide the exported spreadsheet into individual lists, by dealer.
4. Designated QA/QC staff identifies an Unknown Vessel data issue and creates a new JIRA using the appropriate format, attaching the related excel spreadsheet for reference and will assign to the Field IDI staff responsible for assisting the specific dealer.

Note: Refer to the *F IDI Dealer List- Field Staff* located at **`H:\FSO QA Program\Data Quality Documents & Tools`** for a full list of federal seafood dealers and the designated field IDI staff member assigned to each.

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5. During investigation, both the reporter and the assignee will follow the appropriate Dealer Data Correction Process as outlined in the section titled Correcting Data.
6. Assignee will organize the attached spreadsheet by species and poundage, prioritizing investigations by assumed federal vessels with the largest amount of effect catch. Issues concerning state vessels should be investigated secondary, and will remain low priority until federal vessel issues have been corrected.

7. During the investigation, the assignee will make contact in the following order to resolve Unknown Vessel Issues: 1) Contact Dealer 2) Contact State 3) Contact Fishing Vessel. The primary method of resolving the issue is by contacting the dealer; contacting the state and the vessel should only be conducted if approaching the dealer is deemed unsuccessful in attempting to resolve the issue.

Note: In rare circumstances, a vessel's state registration number may have been omitted from SAFIS. In this case, contact the State Partner with a requested addition before continuing with resolving the issue. See the document titled *State Partner Contact Listing* as reference when contacting the state, located at **`H:\FSO QA Program\Data Quality Documents & Tools.`**

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8. If contact with dealer is successful, Assignee assists the dealer with cleaning out any erroneous vessel data from a) the dealer's own data system b) the dealer's favorites lists and/or c) the dealer's upload/conversion tables to prevent the occurrence of future vessel issues. If the dealer's upload/conversion tables are too large to export, proceed to the following steps in SAFIS-U:

    a) Select "Download" (Database to PC File under *PC Conversion Files*) > Select "Vessel Conversion Table" (Vessel_Conv) > Select "Submit".
    b) Save the original as an xls (excel workbook) file to your desktop and omit any spaces from the file name. Also be sure to attach the original file to the related JIRA issue.

    When modifying the original vessel conversion table, a valid DEALER VESSEL NAME and VESSEL REGISTRATION are required. The vessel permit number can be left blank; when submitted and saved, the system will link the vessel registration to the correct vessel permit number, if one is available. An invalid vessel registration number will not save successfully, but will instead prompt an error message. To upload a dealer's corrected conversion table:

    a) Select "Upload" (PC to Database under *PC Conversion Files*) > Select "Vessel Conversion Table" (Vessel_Conv) > "Browse" and open the desired file > Select "Submit".
    b) On the following screen, identify the column headers in the blue box shown with the appropriate letter assigned to each and select "Save".

Note: When correcting a dealer's vessel conversion table in MS Excel, avoid scientific notation by modifying the formatting settings. Right click on the column header to select the entire column > Select "Format Cells" > Select "Number" in the category window > Set the decimal places to 0 > Select "OK". Save the file and upload as described above.

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9. The assignee should review the dealer's vessel conversion tables for flawed data in the following order:

    i) Unknown Vessel / Hull and Permit numbers.

    ii) Fisherman names in the Permit or Hull number position.

    iii) Null / Blank Hull and Permit numbers.

    iv) Vessels with incorrect Permit numbers.

v) Query and filter the Oracle Bi Discoverer workbook "ACCSP Unknown Vessel Conversions" for the specific dealer and review for additional errors.

If the dealer is found to be uncooperative or unwilling to assist with the corrections, the issue could be a candidate for OLE Referral. See section titled OLE Referrals for further instructions.

Note: Refer to the *Dealer Data Mapping* document for detailed instructions on how to access SAFIS, amend existing dealer records and maintain dealer Favorites lists. It can be located at **`H:\FSO QA Program\Data Quality Documents & Tools.`**

10. When the Unknown Vessels have been identified and the dealer's vessel database corrected, the Assignee reassigns the issue to NEFSC DMS for correction. Assignee should complete and attach the standard format spreadsheet titled *Vessel Upload Conversion Corrections* as a reference for correction.

Note: The *Vessel Upload Conversion Corrections* spreadsheet can be found at **`H:\FSO QA Program\Data Quality Documents & Tools.`**

11. NEFSC DMS marks the issue as "Closed" as listed under "Workflow" after making the corrections or reassigns the issue back to reporter and is marked "In Progress" if more information is needed to complete the correction.

If the assignee judges that the dealer data problem might be a candidate to refer to the Office of Law Enforcement (OLE), see the section titled OLE Referrals for information about this process.

Dealer Combined Trips

When a dealer has combined individual trips or VTRs into one Dealer Record, it is labeled as a Dealer Combined Trip. In the case that a dealer refuses to correct the issue by separating the trips, each must be logged in the *FY2012 Dealer Combined Trip Information* spreadsheet which can be found at **`H:\FSO QA Program\Dealer combined trips.`**

To add a trip to the *FY2012 Dealer Combined Trip* list, add the following to the spreadsheet:

- Permit: Vessel's federal permit number.
- Dealer: Dealer's federal permit number.
- Dealer Report ID: Designated ID number for the dealer report in question.
- Date Sold: Catch purchase date.
- DOCID: Designated DOCID number for the VTR(s) in question.
- VTR #: Designated VTR Serial number (located at the top right hand of the VTR)
- Matched (Yes=1 & No=0): source
- DAS ID: Designated Days At Sea (DAS) ID number.
- JIRA #: Designated JIRA number for the issue in question.
- Initials: Initials of person adding the data to the spreadsheet.
- Date Added: Date the data was added to the spreadsheet.

- Fishing Year: Fishing year for the trip(s) in question.

The *FY2012 Dealer Combined Trip* list serves as a record of the effort put into each individual issue, so that it may not be duplicated in future investigations. It is also utilized by the quota monitoring system, Plan B, which will apportion the listed catch to the appropriate stock assessment.

Correcting FVTR Submission Errors

For a known or probable FVTR submission error:

1. The QA Team creates a JIRA issue under the Fish Harmony project and assigns it to the appropriate FDSD QC Representative.
2. The QA team member marks the JIRA issue as "In Progress" and contacts the vessel operator. If the QA team member confirms that a VTR correction is required for an issue involving greater than 100 pounds, the team member requests the vessel operator to mail an amended paper VTR to NERO. The team member instructs the vessel operator to note the corrections on a copy of the original VTR, if possible. Once the amended VTR is received, the team member scans and attaches a copy of the image to the JIRA and reassigns the issue to the VTR Office Team Leader requesting correction. Investigations that require corrections that are less than 100 pounds can be amended in house, with verbal agreement from the vessel. JIRA issues that are reassigned to the VTR Office Team Leader will be corrected with an added notation in the "Return Info" field of CYGNET indicating that a modification was made in the database.

Note: All correspondence with vessel operators/owners related to a JIRA issue should be logged in JIRA.

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3. If the vessel is a sector vessel, the Representative creates a JIRA issue and assigns it to the sector manager (SM). The issue requests the SM to submit corrected data in the next Sector Manager Report uploaded to the Sector Information Management Module (SIMM), if the SM incorporated the erroneous VTR data in a prior report. Otherwise, the issue is for informational purposes only.
4. The SM (if assigned an issue) submits corrected data, if applicable, in a Sector Manager Report, and comments in the JIRA that the correction was made. (The Sector Manager Report data resides at NERO in the Sector schema.) The reporter confirms the correction and closes the JIRA issue.
5. Upon receipt of the amended VTR from the vessel operator, the FDSD VTR data entry staff uses APHIDS and CYGNET to scan the amended VTR and enter the corrected data in the NOAA schema.
6. The QC Representative periodically queries the RTL schema and/or checks the RTL output, which is refreshed weekly, to determine if FDSD has corrected the VTR data in the RTL schema. Upon correction, the Representative marks the JIRA issue as "Closed". The priority that the QA Team assigns the issue in JIRA determines the time in which the JIRA issue should be resolved and closed.

7. The QA Team periodically checks all open JIRA issues and subtasks. In this way, the Team monitors whether SMs have submitted corrected VTR data, if applicable, in their Sector Manager Reports.
8. If two unsuccessful contacts within two weeks are made to the vessel, then the issue can be reassigned for OLE Referral. See the section titled OLE Referrals for more details.

Correcting FVTR Data Entry Errors

For a known or possible FVTR data entry error:

1. The QA Team creates a JIRA issue under the Fish Harmony project and assigns it to the FDSD Vessel Trip Reporting Office Lead.
2. The VTR Office Lead uses APHIDS and Cygnet to enter the correct data into the NOAA schema, or ensures that data entry staff makes the correction.
3. The VTR Office Lead enters a notation in the "Return Info" field in CYGNET, indicating that a correction was made to the VTR.
4. The VTR Office Lead closes the JIRA issue. The priority that the QA Team assigns the issue in JIRA determines the time in which the JIRA issue should be resolved and closed.
5. Throughout the process, the QA Team monitors the status of the issue in JIRA. The Team validates the correction by checking RTL output and/or querying the NOAA schema.

Correcting eVTR Submission Errors

For a known or possible eVTR submission error:

1. The QA Team creates a JIRA issue under the Fish Harmony project and assigns it to themselves as the appropriate FDSD QC Representative.
2. The QC Representative adds the appropriate sector manager as a Watcher on the JIRA issue.
3. The QC Representative marks the JIRA issue as "In Progress" and contacts the vessel operator. If the QC Representative confirms that an eVTR correction is required, a hard copy indicating the specific error(s) is sent back to the vessel for reference and the vessel is instructed to make the necessary correction in the Vessel Electronic Reporting System (VERS).

Note: At this time eVTR submission errors are not corrected internally at NMFS. Any vessel inquiries regarding eVTR submission errors can be directed to Josh Moser at DMS.

4. The QC Representative periodically monitors the JIRA issue to ensure that the vessel has corrected all eVTR submission errors identified.
5. When correction has been verified, the QC Representative marks the issue as "Closed" as listed under "Workflow".
6. If two unsuccessful contacts within two weeks are made to the vessel, then the issue can be reassigned for OLE Referral. See the section titled OLE Referrals for more details.

OLE Referrals

To refer an investigation to OLE (Office of Law Enforcement):

1. QA team member creates an issue in the JIRA system (issue-tracking software application) under the Fish Harmony project.

2. Specialist assigns the issue to the appropriate assignee as listed under Correcting Data.

3. Assignee investigates the issue.

   A. If the Assignee finds a resolution, the team member:

      i. Marks the issue as "Resolved".

      ii. Properly documents the issue in the Comments section.

      iii. Marks the issue as "Closed".

   B. If the Assignee/QA team member determines that the issue has become a compliance issue, he/she:

      i. Moves the issue from the Fish Harmony project to the NER Compliance project.

      ii. Creates an issue in NER Compliance and assigns the issue to the appropriate OLE representative.

      iii. Fills out the appropriate OLE Referral Form.

4. OLE representative:

   C. Contacts the industry member in an attempt to resolve the issue.

   D. Re-assigns the issue in NER Compliance to the original QA assignee.

5. QA team member monitors the status of the issue (allowing for appropriate time passage for resolution to occur).

   E. If resolved, the QA team member:

      i. Marks the issue as "Resolved".

      ii. Documents the NER Compliance issue in the Comments section.

      iii. Closes the issue.

   F. If unresolved, the QA team member:

      i. Documents the NER Compliance issue in the Comments section.

      ii. Re-assigns the issue to the original OLE representative for further inquiry.

6. OLE representative contacts the industry member or assigns an officer in uniform to make contact with the industry member in an attempt to resolve the issue.

7. OLE representative re-assigns the NER Compliance issue to the original QA assignee.

8. Repeat steps 5-7 until the issue can be closed in the JIRA NER Compliance project.

Note: OLE referral forms as well as instructions can be found at **`H:\FSO QA Program\QA Compliance\OLE referral forms.`**

For More Information

Other related documents:

- *Sector Manager Report Data Reconciliation PDF Package* – includes process description, flowchart, ISO quality management procedure, and ISO process characteristic sheet for FDSD process for reconciling sector- and NMFS-reported catch data.
- *Sector-NMFS Data Report Guide* - process description for individual sectors who are required to submit weekly reports to NMFS stating the remaining balance of Allocated Catch Entitlement (ACE) based upon regulated species landings and discards of vessels participating in that sector and any compliance or enforcement concerns.