



# TIMEZERO

## Professional v4.1

New Features

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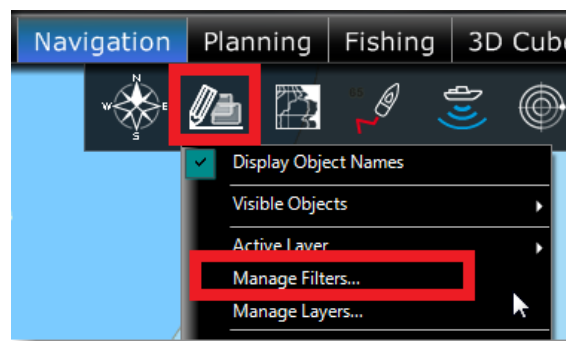
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# Data Management

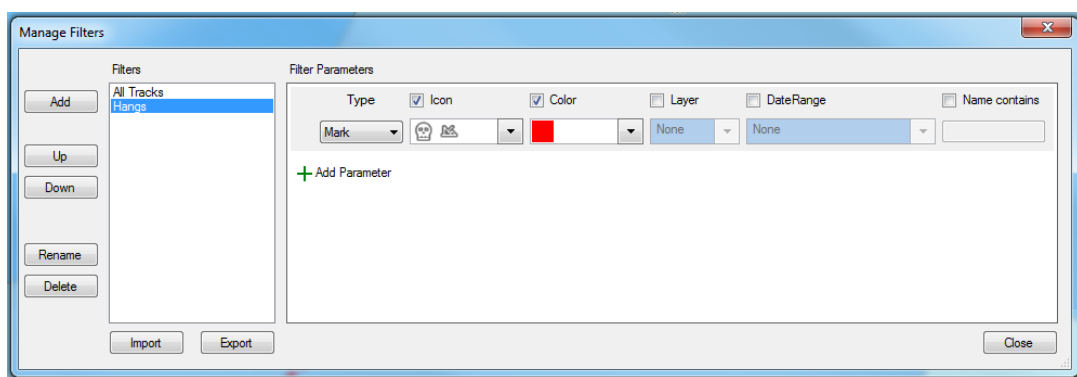
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## Filter

TZ Professional v4.1 introduces a new innovative way to manage large user dataset. In addition to the layer management that has always been available, TZ Professional v4.1 allows the users to create filters based on simple parameters (type of object, color, icon...). Filters can be created by selecting “Manage Filters...” under the “User Objects” button:



Up to 20 filters with multiple parameters each can be created:

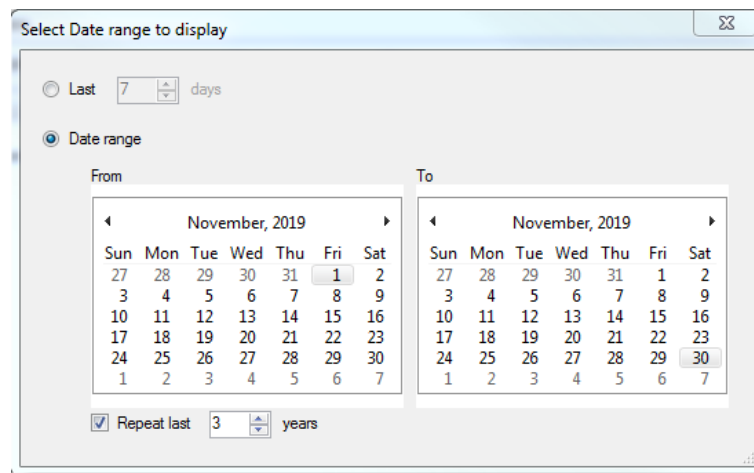


Filter criteria include:

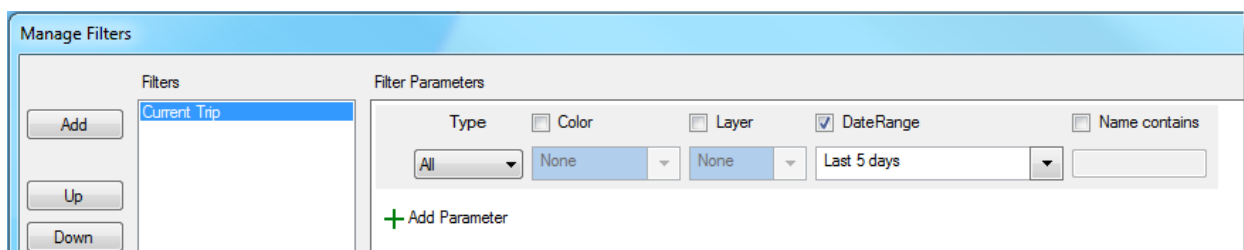
- Type of Object (Marks, Tracks, Route, Areas, Circle, Lines, Own Ship Tracks, AIS tracks, ARPA tracks, Catches and Pictures)
- Icon (for marks) and pattern (for boundaries)

- Color
- Layer
- Date
- Name of Object

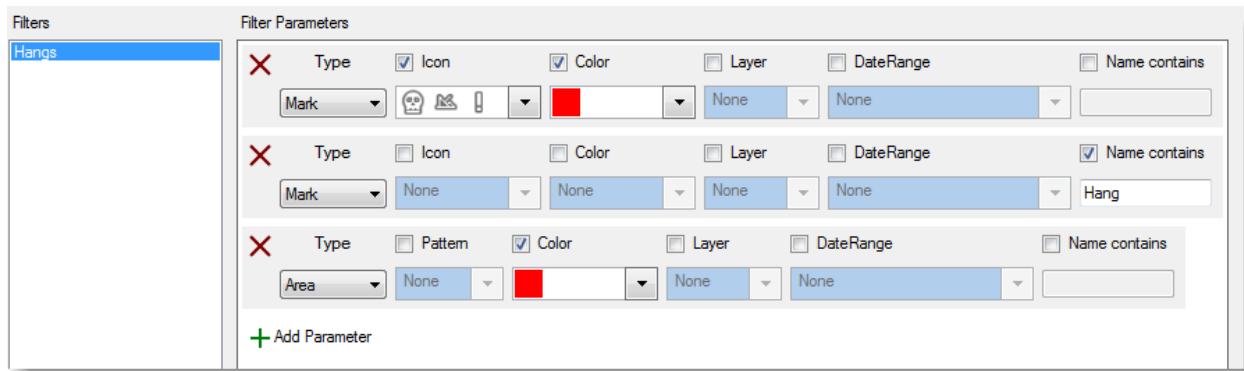
Note that the date criteria is very flexible and allows to select objects that have been created/modified during the last XX days (last week for example), or created/modified in between two specific dates, or created/modified in between two specific dates over multiple years (to select multiple fishing seasons):



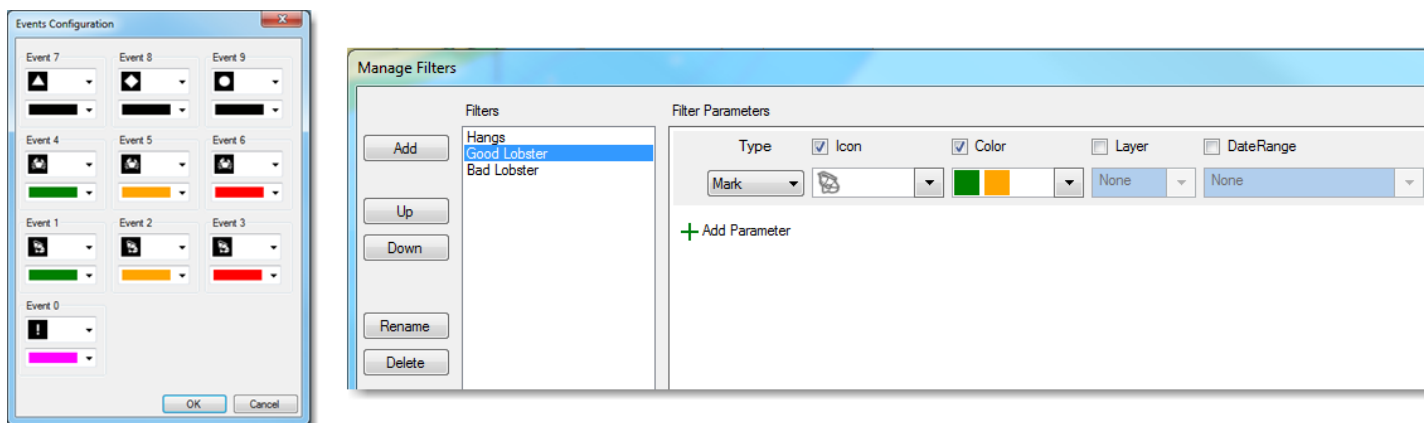
A filter can be configured to be as simple as displaying all objects that have been created/modified during the last 5 days (for example to only show the objects that have been created during the last fishing trip):



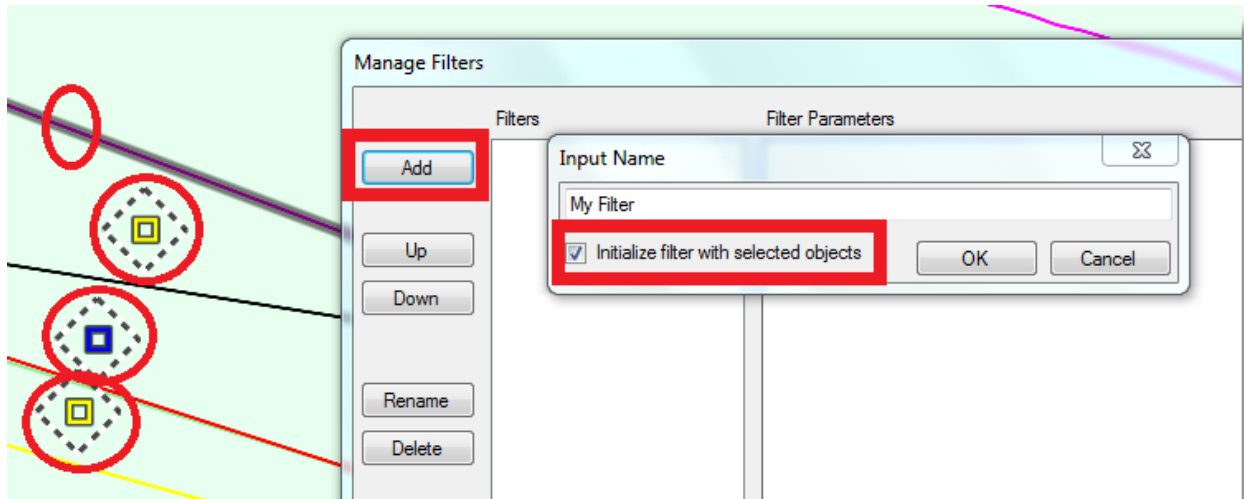
But a filter can be configured to be very advanced by combining multiple parameters and multiple types of objects. For example, the filter below will display marks that are red with specific icons (3 icons), plus any marks whose name contain "Hang", plus any areas that are red:



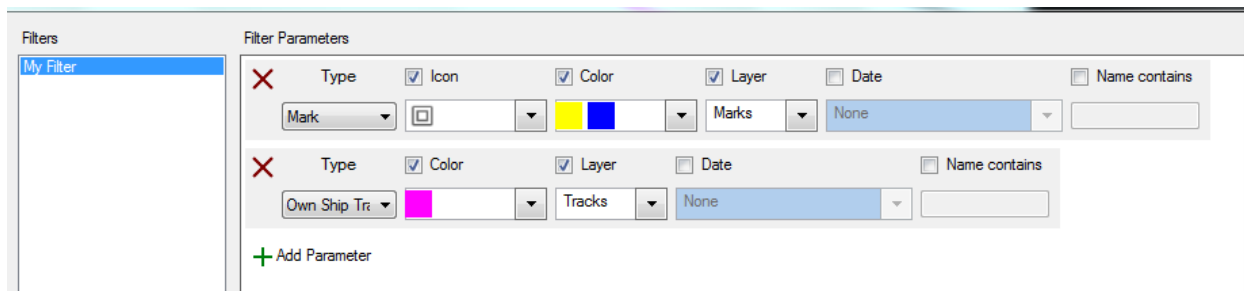
Filters are especially useful when paired with the use of preconfigured events, especially the Event NavData that allows to quickly drop preconfigured marks under the boat (with specific icon and color) with one simple click or key stroke (number keypad). In the example below, the event NavData has been configured with lobster and crab icons that use a color code to indicate the relative catch amount (green for a trap that is full, orange for an average trap and red for nearly empty). Then, corresponding filters have been configured allowing the user to highlight productive areas with one click:



Note that filters can be created directly from existing user object selection. For example, you can OPTION-Click (or Shift Drag) on or around multiple objects and then create a new filter with the option "Initialize filter with selected objects":



This will automatically create a filter with the selected object in parameters:

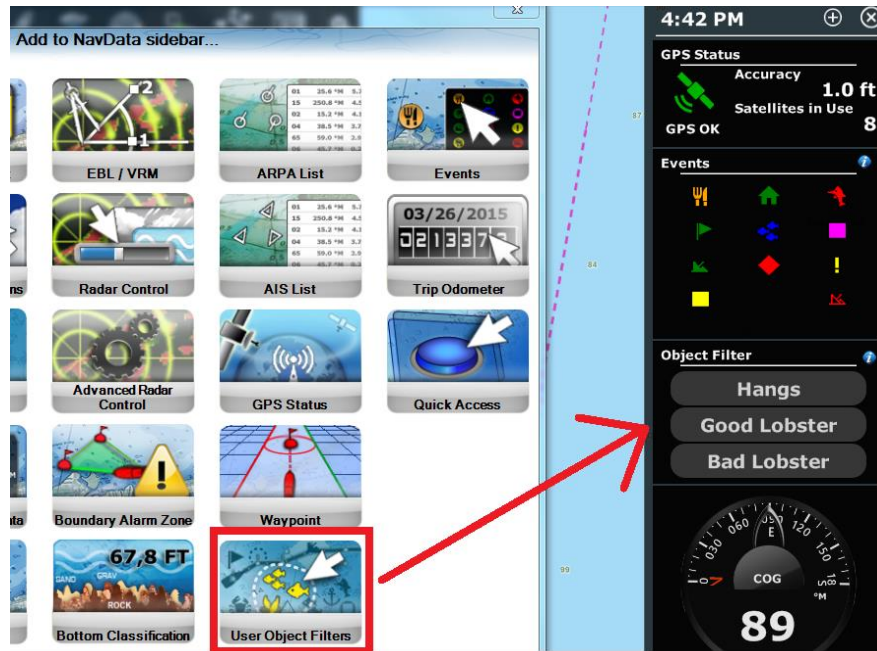


#### Notes:

- Independent filters can be selected on each display and each Workspace. For example, if you split your screen in two (two plotters), the left side can be configured with one specific filter independent of the right screen.
- It is not possible to select multiple filters at the same time.

## Filter NavData

To quickly enable or disable filters, a new NavData is available ("User Object Filters" NavData):

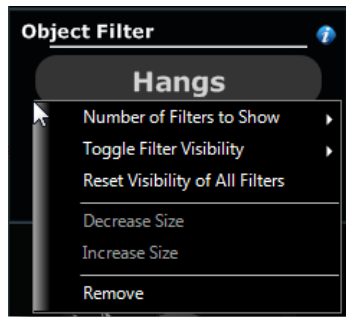


By default, this NavData will display the first 4 filters, but right clicking on the NavData allows to limit the number of filters to 2 or expand it to up to 8 filters. The active filter (if any) will be displayed in yellow/orange in the list:



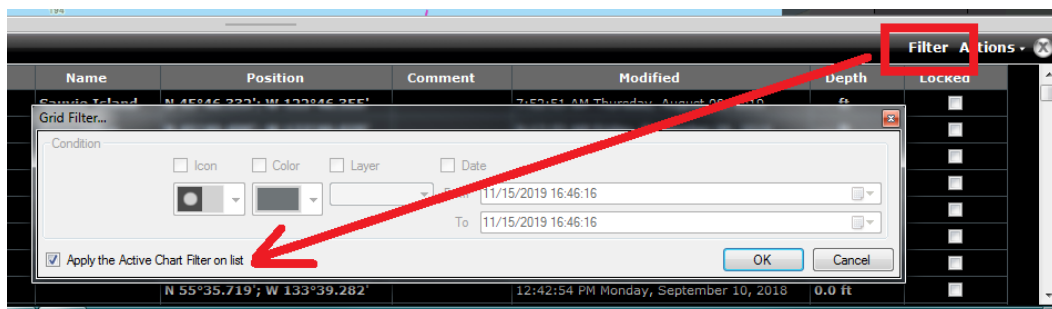
Note that you can re-order the list from the "Manage Filter" window (by clicking on the blue "i" icon), but you can also hide specific filters from the right click menu of the NavData (using "Toggle Filter Visibility"):





## List Filter Improvements

The lists (Marks List, Tracks List, Boundaries Lists) can be setup to use the active filter (so that the chart and the list are synchronized and display the same objects):



When a filter is activated on the list, it will display the number of visible and filtered objects:



## New Route Management

With TZ Professional v4.1, in order to enforce the full synchronization of all routes, they will be all automatically transferred to the TimeZero layer (the first time you open the new version).

*Note: Routes that were not on the TimeZero layer were previously not synchronized and could cause many issues if activated on a network with other TZ Platforms.*

Note that this means that the total number of routes that can be created and stored by TZ Professional v4.1 is **limited to 200 routes** (with 500 waypoints each) just like with any other TimeZero Platforms. It is not possible anymore to manage routes using “custom” layers.

*Note: If a customer has more than 200 routes in V4.0 or below, only the last modified/created 200 routes will be kept with TZ v4.1. If a route contains more than 500 waypoints, it will be truncated.*

Since routes can no longer be managed using layers, it is now possible to adjust routes visibility individually using a “visible” checkbox:

	Visible	Name	From	To	Length	Comment	Modified
▶	<input checked="" type="checkbox"/>	Alaska 01	Clam Bay	Gowlland Harbour	98.86 NM	Don't take Mudge against the ebb again	2:17:13 PM Saturday, March 07, 2020
	<input type="checkbox"/>	Alaska 02	Cleveland Passage	Ketchikan	57.37 NM		2:19:23 PM Saturday, March 07, 2020
	<input checked="" type="checkbox"/>	Alaska 3	Ell Cove	Pavloff Harbor	1.199 NM		2:19:18 PM Saturday, March 07, 2020

Note that you can also use the new filter feature if you want to show/hide groups of routes at the same time. For example, you could create a filter by date (to show or hide routes of a specific season) or you can create a filter by name and “tag” the routes belonging to a specific trip with the same prefix in their name:

Filters

Filter Parameters

Route Alaska Trip

Type

☐ Color

☐ Date

☒ Name contains

Route

None

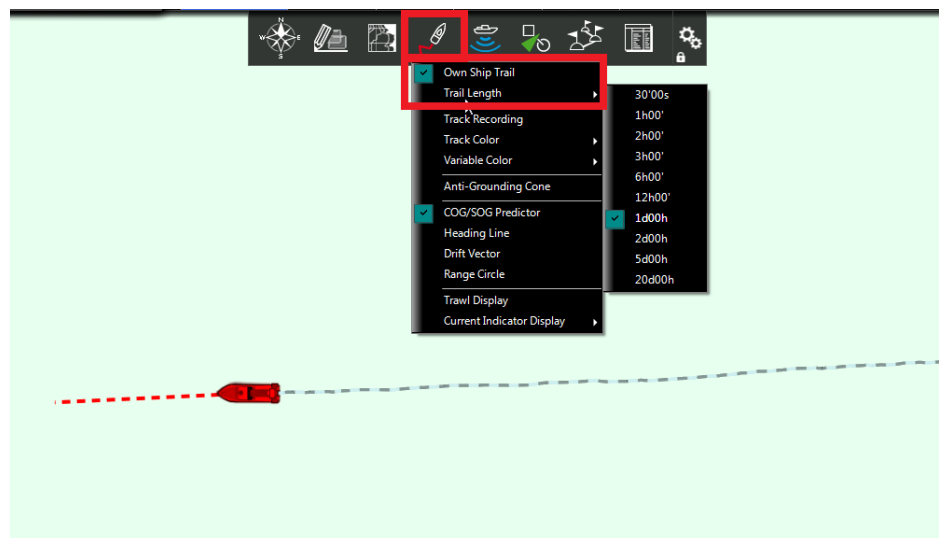
None

Alaska

+ Add Parameter

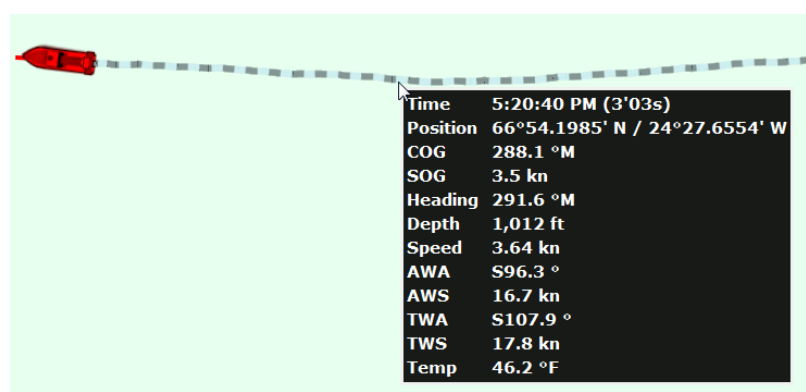
## Own Ship Trail

TZ Professional v4.1 introduces a new Own Ship trail feature that always keep track of the boat location in the background. User can choose to display or hide the trail at any time from the new "Own Ship" button located in the ribbons:



The trail duration can be adjusted on the fly from 20 minutes to up to 20 days. The trail is complimentary to the track. It is very useful when you just want to know "where you were" and may prevent you to create unnecessary tracks that you do not have to remember to erase (to clean your display). Also, since the trail is always recorded in the background, there is no need to remember to press the "Track ON" button!

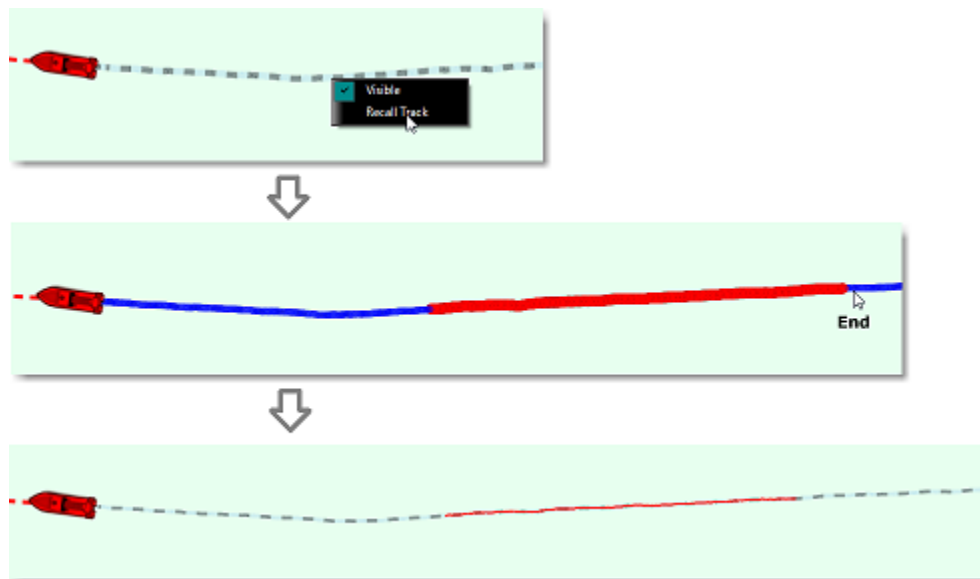
Hovering the cursor over any point of the trail will display a tooltip with all the data that was recorded at that time:



To display trail data older than 20 days, the Planning WorkSpace (with the Time Bar) can be used. It is possible to set any date/time in the past and the trail will also be displayed behind the blue boat icon (replay boat).

Note: The replay trail displayed behind the blue boat is fixed to one day in length (it does not use the Active Trail Options).

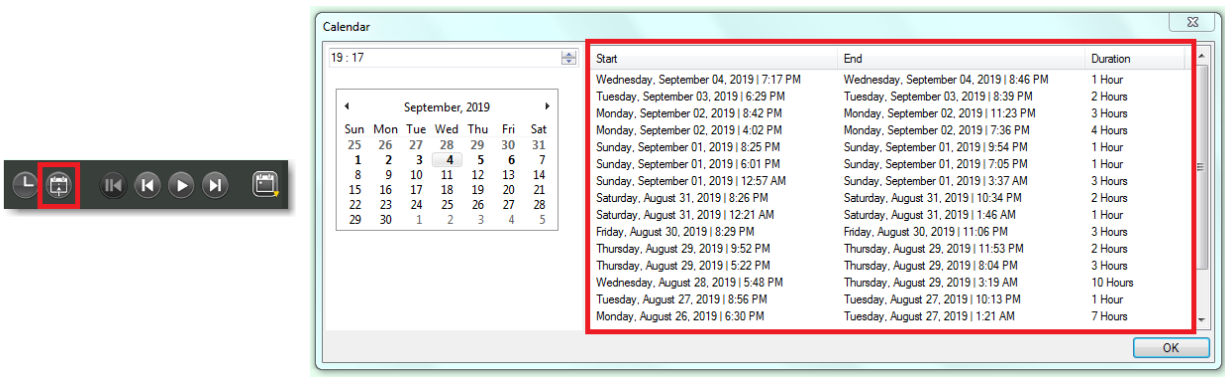
If you want to permanently store a chunk of a trail as a track, you can simply right click on the trail and select "Recall Track". This will allow you to select and split the trail to create a permanent track:



This feature is very useful when you want to store and display permanently a difficult passage for future navigation.

## Trip View in Calendar

When clicking on the calendar icon located on the Time Bar (from the Planning Workspace), TZ Professional V4.1 will now display the list of all your trips. If you click on the start date column, the date/time will automatically adjust to the beginning of the selected trip, and the chart will move to the recorded location displaying the Blue Boat icon on the chart:



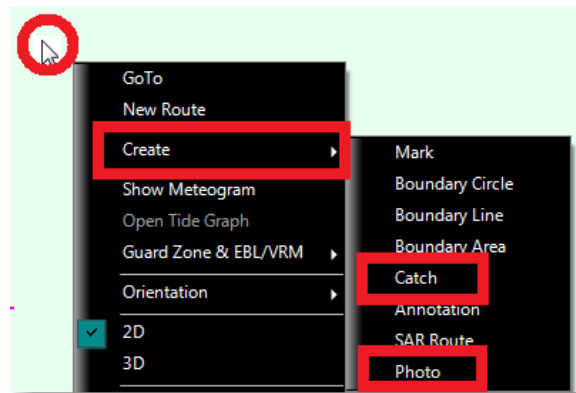
This makes it very easy to find and replay previous trips and recall any track (by right clicking on the trail or on the blue boat icon):



# New Catches and new Photo User Objects

---

Introduction: TZ Professional v4.1 introduces two new types of User Objects geared toward recreational and sportfishing customers: Catches and Photos. These two new types of user objects can be created from the right click menu:



Just like any user objects, both Catches and Photos are synchronized with all other TimeZero compatible platforms and with TZ Cloud (so that they can be reviewed at home using a simple Web Browser).

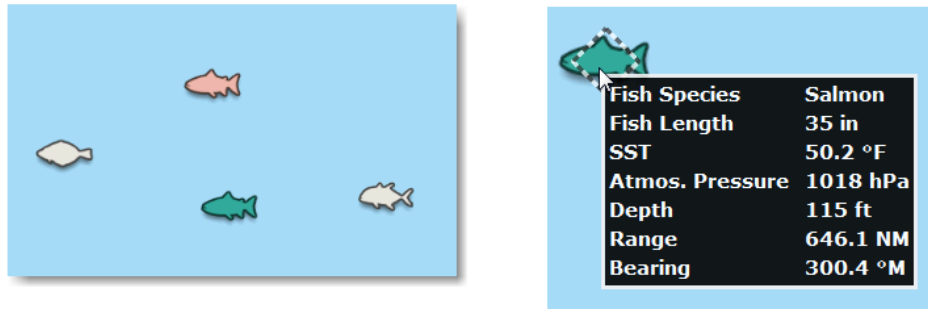
Catches and Photos are just the beginning of a new series of user objects that we are going to introduce in the future.

## Catches

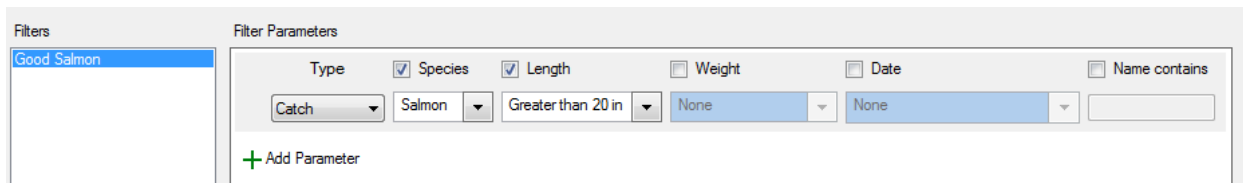
Catches are marks that have specific properties allowing to capture information about a single fish (Sport Fishing):

- Fish Species
- Fish Length
- Fish Weight
- Name & Comment
- Depth
- Pressure
- Sea Surface Temperature

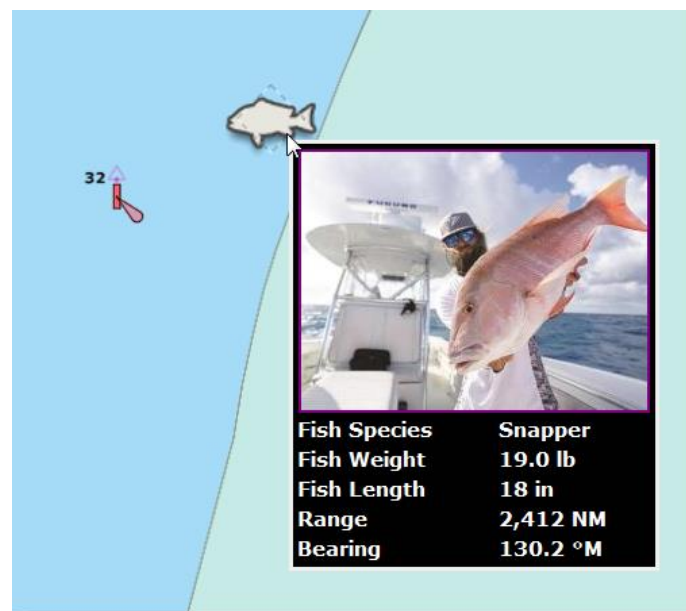
The icon is fixed and automatically selected according to the selected fish species. The color will vary automatically according to the average fish size caught by species (green for above average and red for under average among all the Catches you entered in TZ):



Specific Filter parameters (fish species, fish length and fish weight) are available allowing to create “common sense” filters based on fish properties. It then becomes very easy to only display fish of a specific species, that are under or over a specific size or weight:

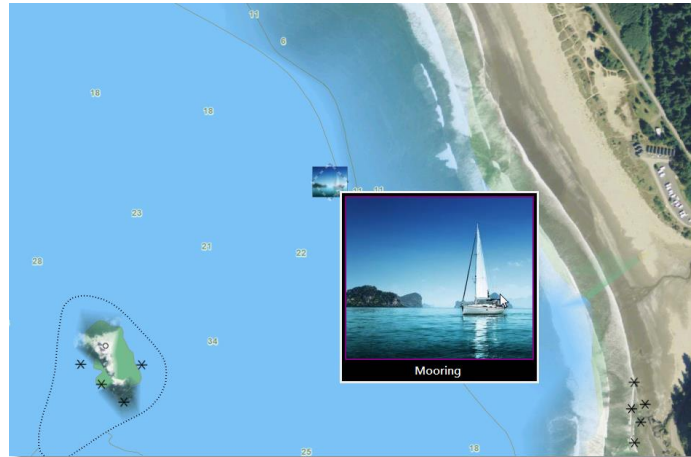


Because Catches user objects are geared toward recreational and sportfishing, it is also possible to attach a picture from TZ Professional, TZ iBoat or TZ First Mate:



## Photos

Instead of using Marks to record a nice beach or a mooring location, a Photo user object can be used instead. Photos will be displayed on the chart using a pictogram and can be displayed in a tooltip or full screen by clicking on them.



Photos can be added manually using the Right Click menu of TZ Professional, but you can also import JPEG using the Import Wizard (photos that have geo-tag will use that location, and photo that have a time stamp will correlate their position from your position history).

*Note: To capture Catches or Photos from your phone, a free App (for iOS & Android phones) will be released by Furuno. The name of the App will be "TZ First Mate". This App is designed to be a "companion" of NavNet TZT2 and TZT3, but it can also be used with TZ Professional. The main goal of this App is to allow users to quickly capture a Catch or Photo by snapping a picture using the phone camera, but it will also synchronize and push all the user objects to TZ Cloud as soon as the Phone has an Internet connection.*



# Fishing Buoys Management

Introduction: For many years, TimeZero has been compatible with satellite buoys from various manufacturers (Satlink, Marine Instruments, Zunibal and Ryokuseisha). TZ Professional v4.1 adds lots of new features regarding fishing buoys management.

## New Trail & History management

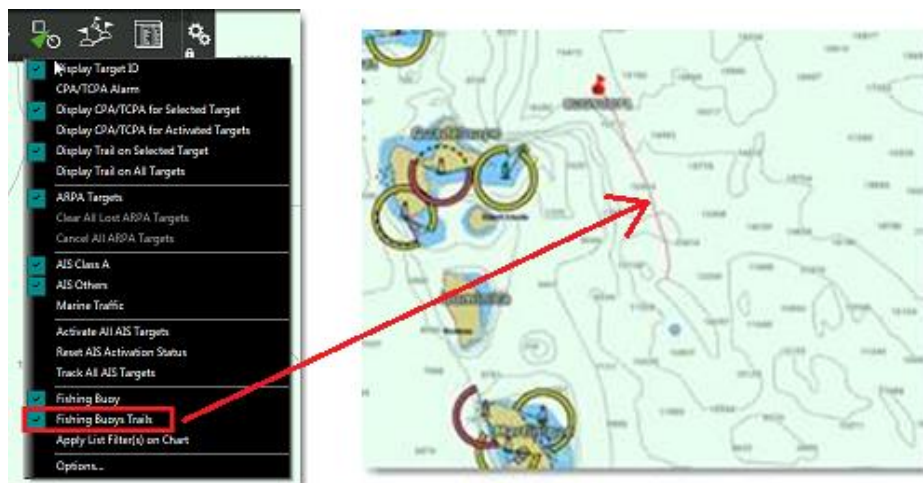
It is possible to define a trail duration (that can be displayed on all buoys on the chart) and a maximum buoy history (that lets TZ Professional know how far to look in the past for buoy data).



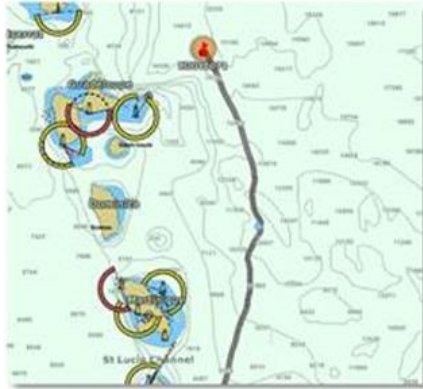
The image shows a settings dialog box titled "Fishing Buoys". It contains two settings: "Buoys Trail Length (Days)" with a value of 3, and "Buoys History Length (Days)" with a value of 30. Each setting has a numeric input field, a spinner control, and a slider control.

If a buoy position update has not been received since the Buoys Maximum History, it will not be displayed on the chart or inside the buoy list. For example, by default, TZ will not display any buoy "older" than 30 days.

The Buoy trail can be displayed or hidden (for all buoys) from the "Targets" button:



Note that when you click on a buoy (select it), all its previous positions (up to the maximum history duration) will be automatically loaded and displayed on the chart:



## New Buoy Deployment Management (advanced)

Note that by default, the trail duration and history (when you click on a buoy) are common to all buoys according to the setting in the Options. However, sometimes, you may want specific buoy(s) to display their trail or history only up to a very specific date (for example, when the buoy is deployed to a new location). In order to “clamp” the trail and history to a specific date, it is possible to adjust on one or multiple buoys a “deployment date”. No need to erase the trail when deploying the buoy(s) to a new location, simply adjust the buoy deployment date (set it to “now” when launching the buoy) or pick any date you want. After setting a deployment date, the trail and the history will stop at the deployment date or maximum trail/history duration (whichever comes first).

Note that TZ never erases anything, it is just “filtering” the display with the deployment date information (so if you make a mistake, you could always change the deployment date to an earlier date and you will retrieve the trail or track up to that new date).

The deployment can be set individually by right clicking on a single buoy or it can be set on multiple buoys at the same time by using the multi-selection (from list or chart). If you want to change the deployment date of all your buoys, you can use the “Actions menu” of the Buoys list:



*Note: The deployment date does not have to be used. If it is not set, the maximum track/history setting will be used instead.*

## Buoys Icon/Color Management

All buoys have a default icon and color that can be adjusted globally inside the Options. However, it is also possible to set buoys with specific icon and color (multi-selection supported from the chart or list).

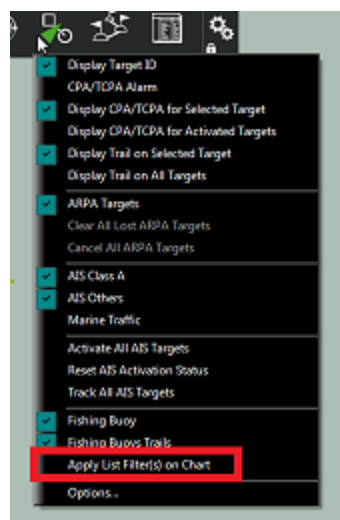
Color can also be changed automatically according to a parameter (last transmission in days, SST and Speed).

## Filter in the list (and chart)

The Buoys List can be filtered using multiple parameters directly from the list:



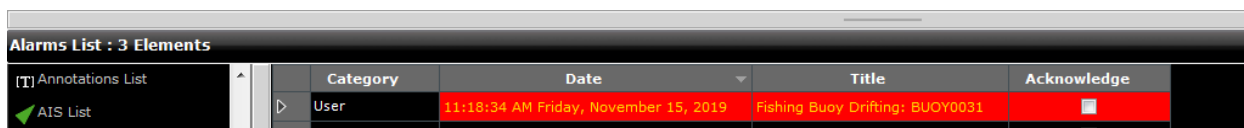
The filter can also be applied on the chart (or limited to the list) according to the selection below:



## Buoy Drift Alarm

A drift alarm can be set on a single buoy, a selection (from list or chart) or all buoys (from the Action menu of the list).

An alarm will be raised each time a buoy drift by more than a preset value (like the boat anchor alarm). Note that when an alarm is raised, it is easy to find the buoy that raised the alarm from the alarm list (it will indicate the buoy's ID, and when you click on the alarm from the list, it will move the screen to that location).

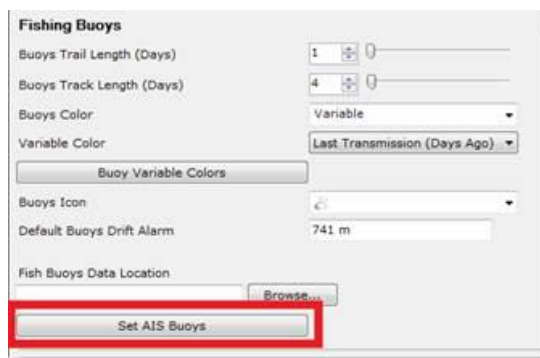


Alarms List : 3 Elements				
[T] Annotations List	Category	Date	Title	Acknowledge
✓ AIS List	User	11:18:34 AM Friday, November 15, 2019	Fishing Buoy Drifting: BUOY0031	<input type="checkbox"/>

The drifting value can be set globally for all buoys from the options or can be set individually or using multi-selection (if you need some buoys to have different values).

## AIS transmitter for buoys

If you use an AIS transmitter on your fishing gear, it is possible to convert specific AIS targets into fishing buoys from the Target options:



**Fishing Buoys**

Buoys Trail Length (Days)

Buoys Track Length (Days)

Buoys Color:

Variable Color:

Buoys Icon:

Default Buoys Drift Alarm:

Fish Buoys Data Location:

If an AIS target with matching MMSI is received, it will no longer be handled as an AIS target in TZ, but it will be converted into a buoy with all its associated features (this allows you to use the trail, a dedicated list, icon, color and drift alarm).

## Record & Replay

Buoy data is never erased by TZ, it means that the Planning WorkSpace can be used to select a date in the past and see where your buoys were.

*Note: When displaying buoy in the past, the color of the buoy changes to a light blue (to indicate it is a "replay buoy"). The replay buoy trail is also fixed and limited to one day.*

# Ocean-O Improvements

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Introduction: When working with oceanographic data to find the best fishing spots, users need to mix several “layers” simultaneously in order to make correlations and highlight high probability areas.

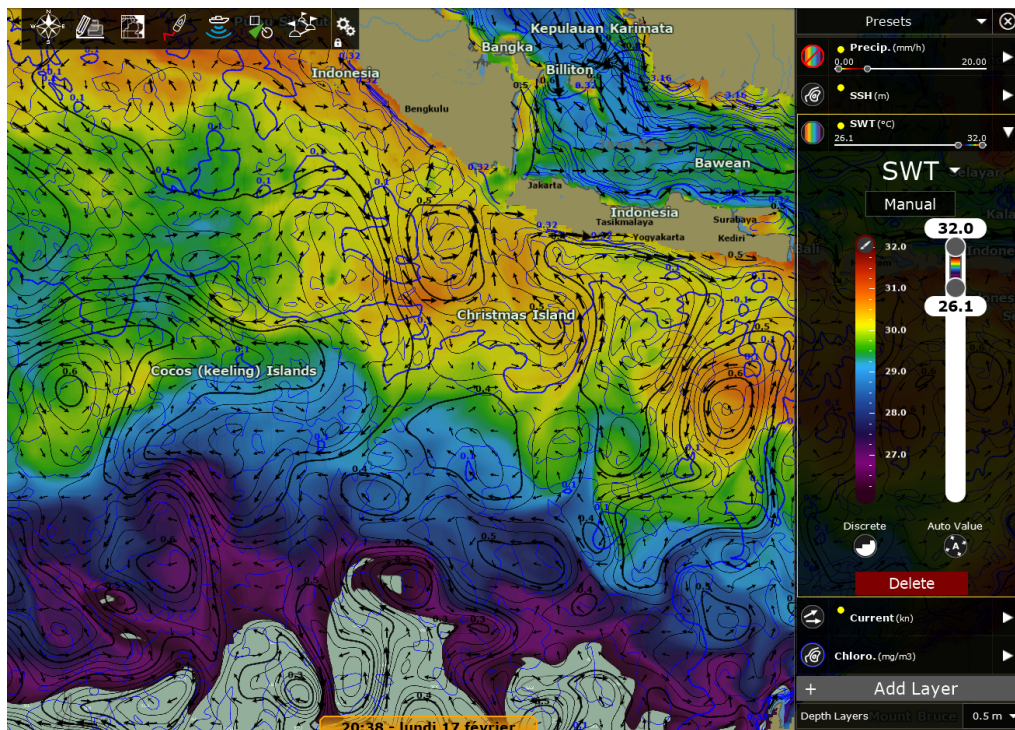
TZ Professional v4.1 introduces a completely redesigned Ocean-O user experience to fit that need:

- It is now easier to display and combine various oceanographic and weather data by adding “data layers” to the new Ocean-O Control Panel.
- The Ocean-O Control Panel can be opened or closed (similar to the NavData) to give maximum space to the chart once setup is done.
- New types of presentation were added such as arrows and isolines (that were highly requested), but also particles and texts.
- A new Plot window allows the user to “drill down” into multi-layered data and see variation according to depth (similar to the Oceanogram, but along the vertical axis).
- A “Dual Ocean-O” Workspace can now be configured to allow the user to display two plotters side by side with different layers.
- New data are now available

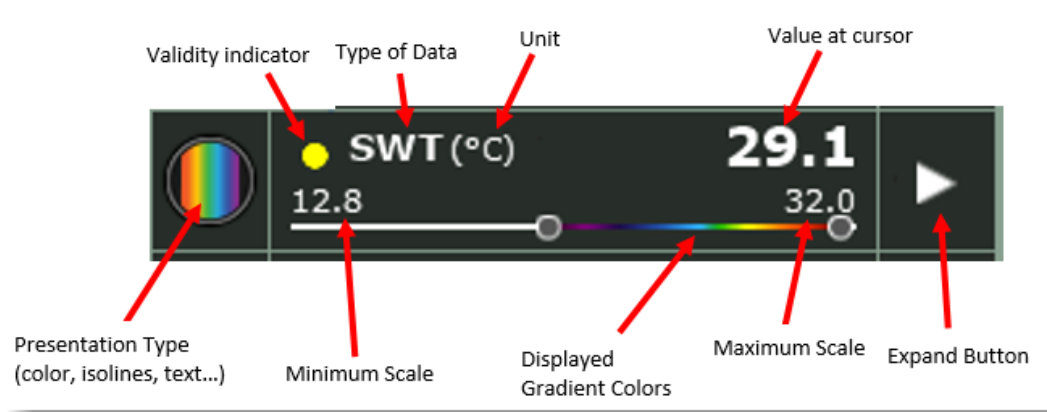
## Ocean-O Control Panel

Users can add as many layers as they want and stack them in the new Ocean-O Control Panel. With this advanced layer control, it is possible to combine several types of data using different types of presentation. For example, in the picture below:

- Altimetry is displayed with black isolines
- Water Temperature is displayed in color shading, with colors varying from 26.1°C to 32°C
- Currents are displayed using black arrows
- Chlorophyll is displayed using blue isolines.

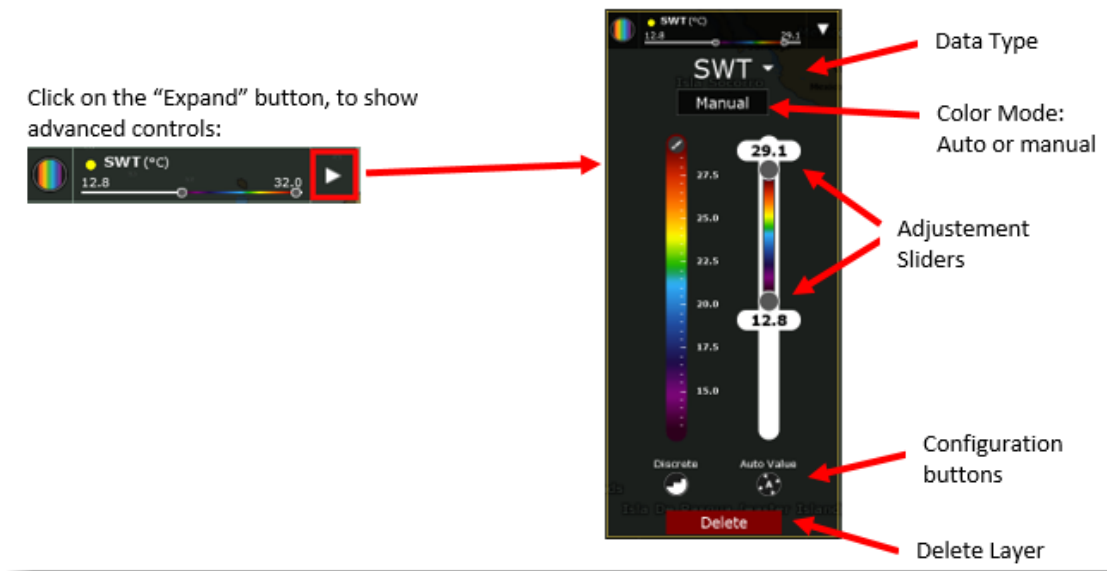


Each data layer can be expanded or collapsed. The collapsed view offers a quick summary about the layer with basic controls:



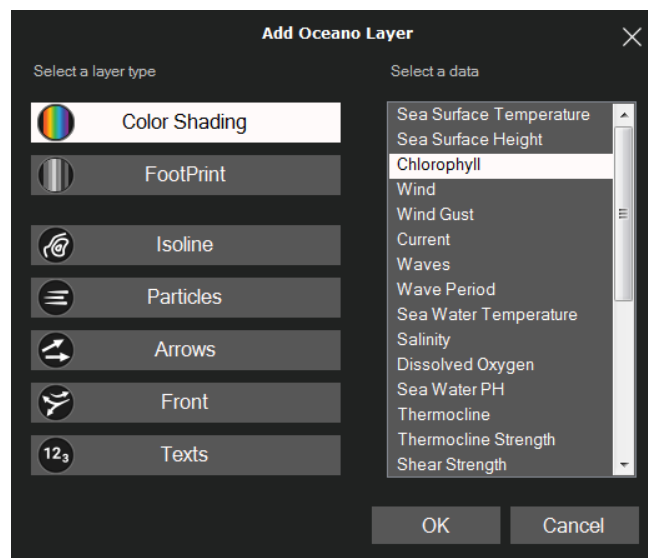
Simply click on the “Expand” button to reveal more options and advanced controls:





## New Type of Presentation

When you add a layer to the new Ocean-O Control Panel, you can choose among a large variety of presentations:

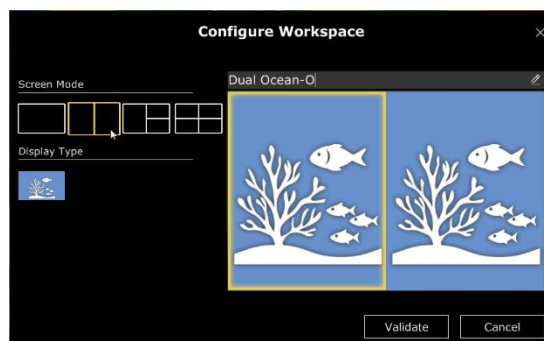


- Color Shading displays the data using a traditional color palette (that now can be customized)
- FootPrint displays the data with a uniform shade that is useful when you want to combine and highlight areas that match multiple parameters (areas with multiple footprint coverages will be displayed darker)

- Isoline will show the “shape” of the data and is useful when combined with other data displayed in color (for example Sea Surface Temperature in color shading and Altimetry in isoline)
- Arrows are useful to show the direction of specific data (current, wind...)
- Front will highlight sudden change of the data such as areas with big temperature change
- Value will display text label on a fixed grid

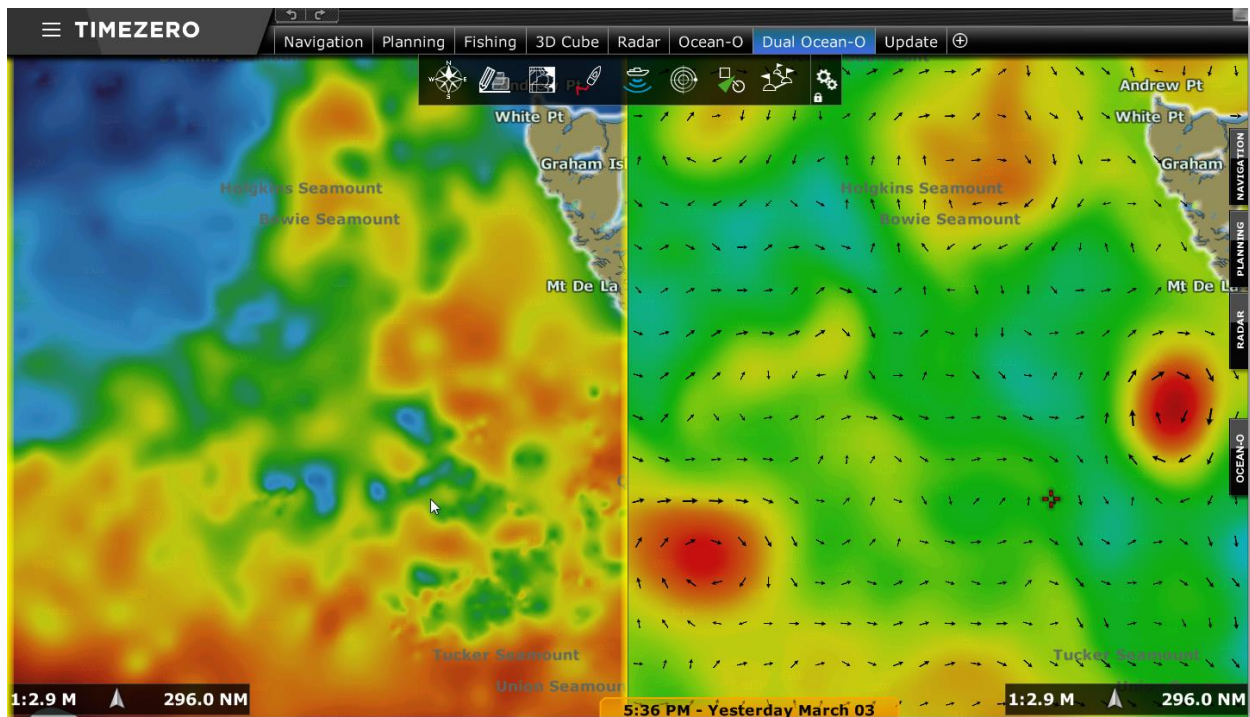
## Dual Ocean-O WorkSpace

With TZ Professional v4.1, it is possible to split a WorkSpace in two and select two Ocean-O displays:



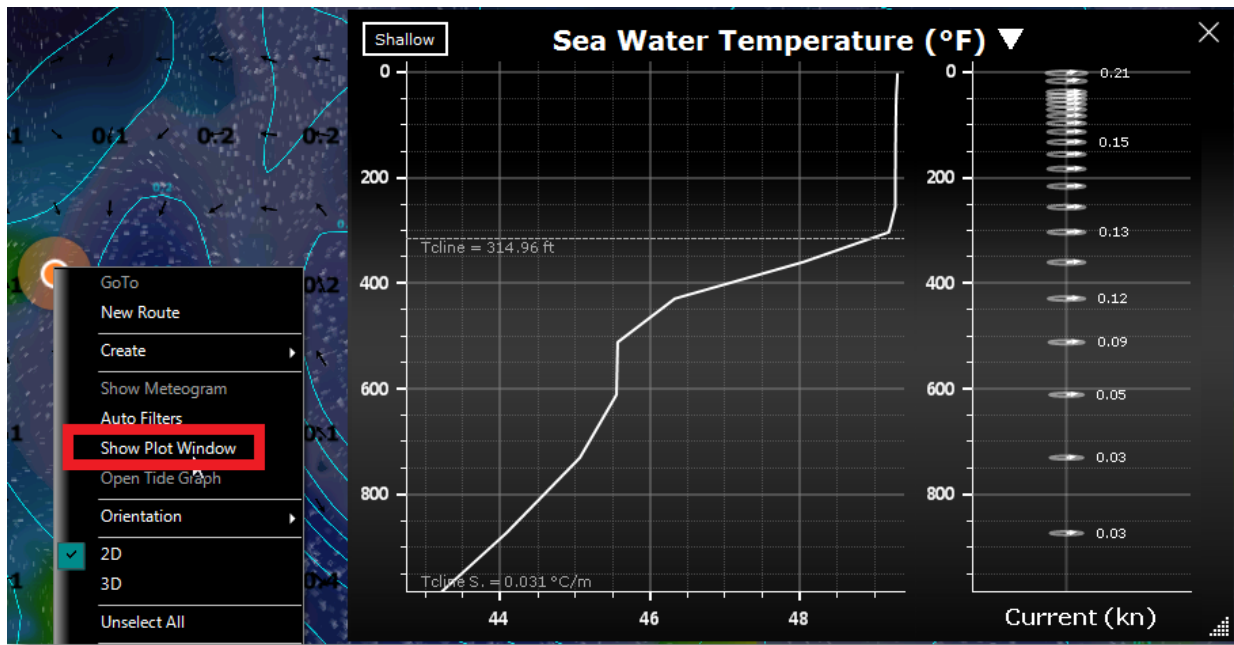
This will create a WorkSpace where the location and scale of the two charts are synchronized allowing you to display two sets of data side by side:





## Plot Window

The new plot window allows you to drill down into any multi-layered data (water temperature, Currents, Salinity, Oxygen and PH). Simply right click anywhere and select "Show Plot Window". A graph showing the variation of the selected data according to the depth will be displayed. In the example below, the Sea Water temperature is being displayed at a location (indicated by the orange dot on the chart) revealing the thermocline depth:



Note that the currents direction and intensity (according to depth) are also displayed on the right side.

## New Data

### - Weather Data:

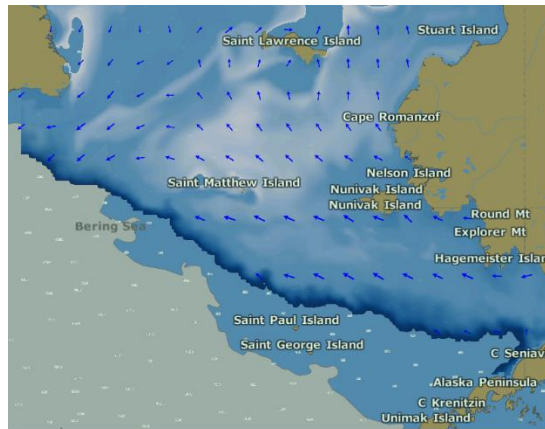
We realize that weather and sea condition can make a big difference in fishing efficiency. As such, it is now possible to configure this data as layers directly inside the Ocean-O Workspace. No need to switch back and forth with the Planning Workspace.

### - New High-Resolution Wave Model

A new global high-resolution wave model (based on ECMWF wind among other parameters) is now available.

### - Sea Ice

Sea Ice is now available. It includes Sea Ice concentration, Thickness and Drift Velocity



- **Improved Biologic Model**

The new biologic model used by TZ Professional v4.1 has doubled in resolution (from 50km to 25km) and increased in frequency (now daily). This new model provides better O<sub>2</sub> (Dissolved Oxygen), Primary production, Phytoplankton and a new pH (acidity) level.

- **New Chlorophyll data for high latitude.**

In Winter, and at high latitude, the chlorophyll observation satellite becomes inoperative (Nov – Feb).

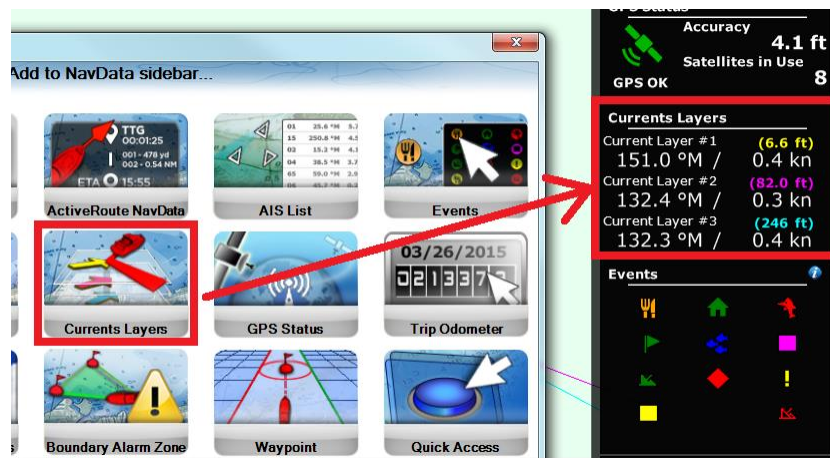
In order to provide an alternative, a new chlorophyll source (that can be selected from the Weather Options) is now available:



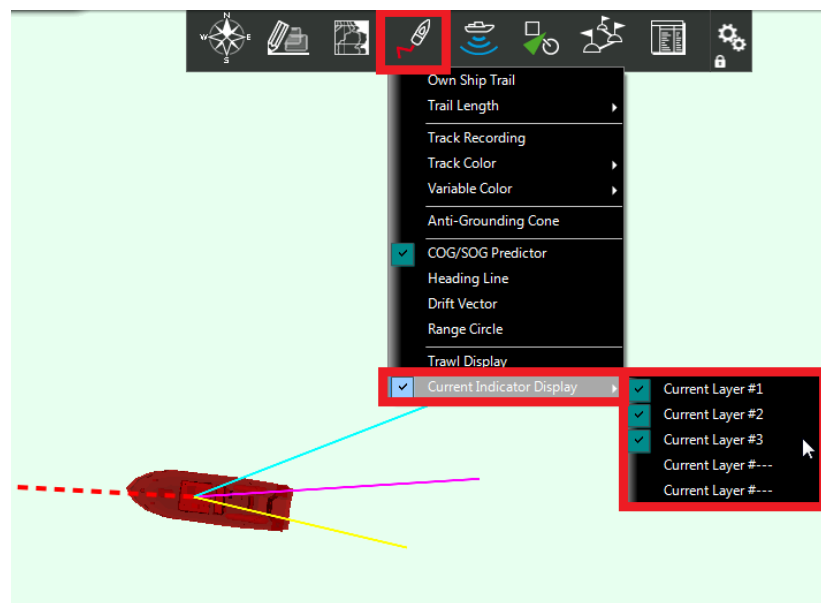
Note that this new "BIO" model data is not as accurate as the observation.

# Current Indicator Compatibility

TZ Professional V4.1 introduces compatibility with current indicator (tested with Furuno CI-68 and CI-88). A new "Currents Layers" NavData can be configured to display up to 5 real-time currents under the boat at various depths (as setup on the current indicator hardware):



Currents vector can be displayed from the new "Own Ship" button:

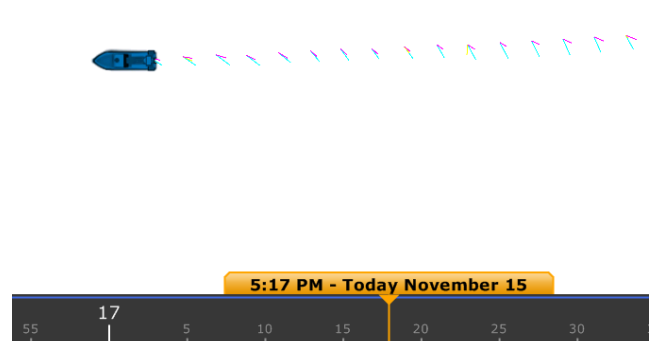


Current vectors are displayed using color coded lines (that match the color displayed in the NavData).

A Current Trail can also be enabled from the “Ship & Tracks” Options allowing current data to be displayed on the chart up to two days in the past:

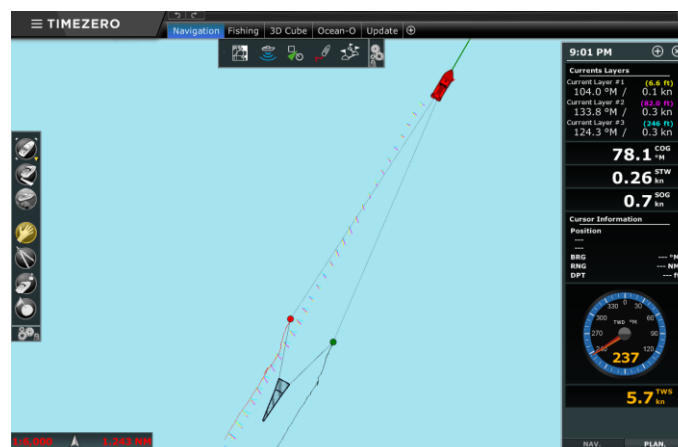


To display current data older than 2 days, the Planning WorkSpace (with the Time Bar) can be used. It is possible to set any date/time in the past (or select a trip from the new calendar window) and the current trail will also be displayed behind the blue boat icon (replay boat).



Note that when replaying data, the trail behind the blue boat is fixed to one day.

The current indicator feature in TZ professional v4.1 is very useful especially when used with a Trawl Positioning system:

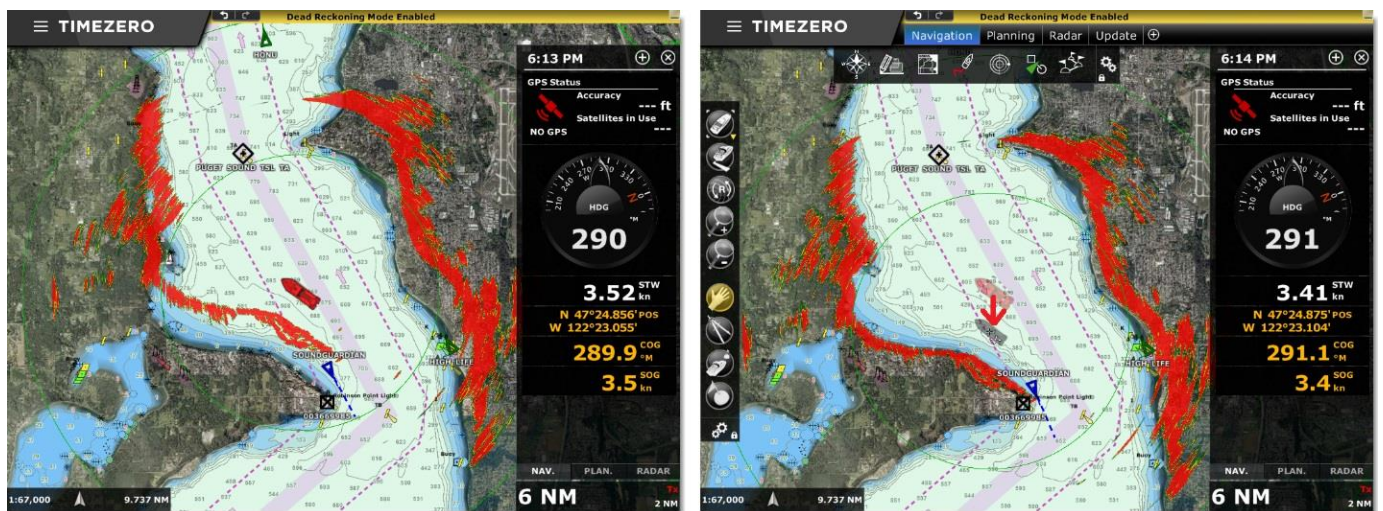


It is possible to visualize the influence of the net according to currents and make it easier to position the net where you want it to be.



# Dead Reckoning Mode

In case of GNSS (GPS) failure, TZ Professional v4.1 can use Heading (Magnetic or Gyrocompass sensor) together with Speed Through Water (doppler sensor recommended) to estimate position (using Heading as COG and Speed Through Water as SOG). If a compatible Furuno Radar is connected to TZ Professional (providing a radar picture through Ethernet), the radar overlay can be used to adjust the position by simply dragging the boat icon until the radar overlay matches the coastline or any other specific target (AIS or Buoy):

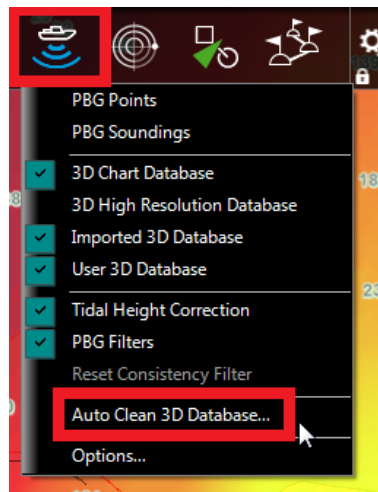


After adjusting the position thanks to the radar overlay, TZ will then continue to estimate the new refined position automatically (until further adjustments are needed because of currents or wind).

## PBG Auto Clean

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A new “Auto Clean 3D Database” feature is available under the “PBG” button:

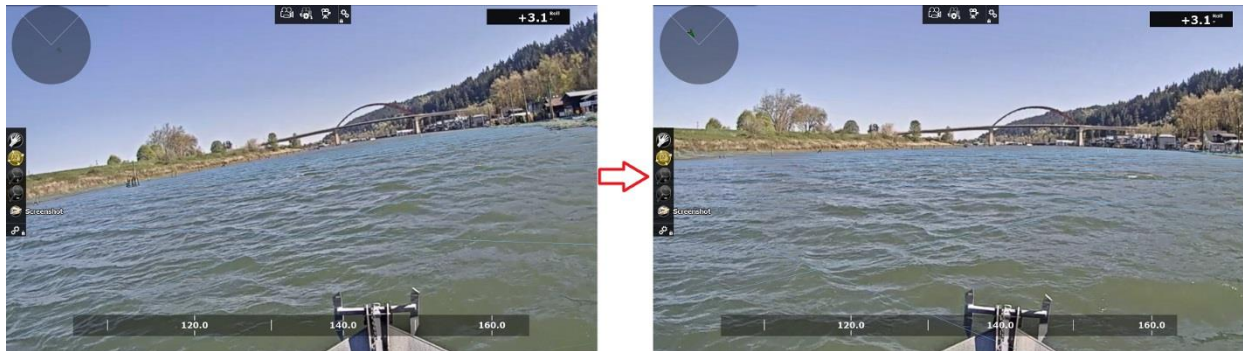


When activated, a window appears allowing the user to launch a process that will detect and erase suspicious depth points (based on statistical analysis) using three thresholds. When set to “High”, more depth points will be removed with a slight chance of removing isolated seabed features. When set to “low” some bad depth points might be missed. Note that it is possible to back up the PBG database before the process starts in case the user wants to revert (backup can be recalled from the PBG Options).

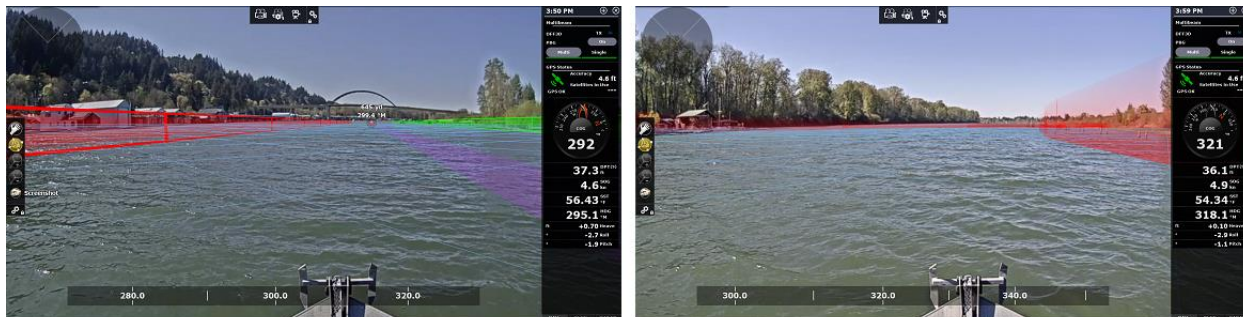
While the cleaning process is ongoing, TZ will move the chart and display the changes for immediate feedback. According to the size of the PBG database, the process could be long, but it can be interrupted at any time.

# Augmented Reality Improvements

The objects displayed in the Camera WorkSpace can now be stabilized using a Furuno Satellite compass SC30, SC33 or SCX20 (using Pitch and Roll data). TZ can also stabilize the camera picture using digital cropping for a smoother display even in rough seas and display the horizon perfectly aligned:



The route XTE lines can be displayed on the camera feed as well as depth area (from vector charts) that are below the safety depth:



*Note: Isolated danger and depth areas (below safety depth) are also now displayed for added security.*



The augmented reality has also been improved with the display of a grid directly in the camera feed.



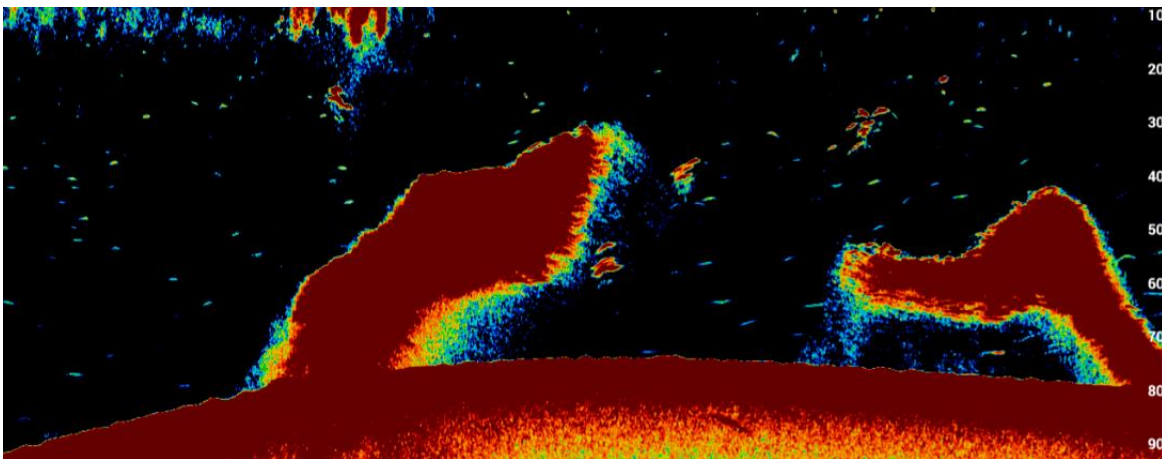
Augmented Reality is compatible with any fixed or PTZ camera that can be connected to TZ Professional v4.1.

**IMPORTANT: Result might be poor with a camera that is already stabilized. We recommend disabling external stabilization for best performance.**

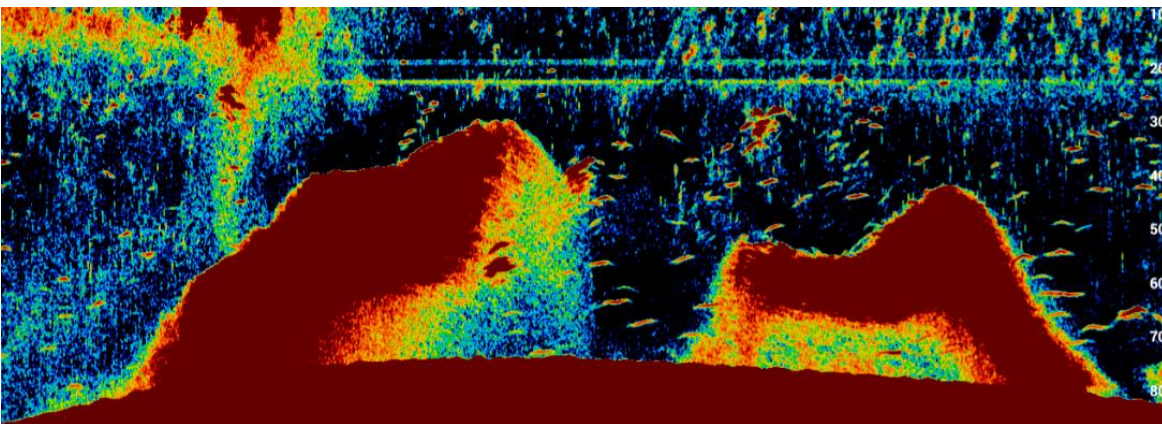
## New Post-Processing Gain with Furuno Sounder

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TZ Professional V4.1 is compatible with the latest firmware update of Furuno Black Box sounders (DFF1, DFF1-UHD, DFF3, and BBDS1) that allows Post Processing Gain Control. This new feature allows you to adjust the gain for previously received echo targets, allowing the user to instantly see how gain adjustments affect target returns that are already visible on-screen. You will no longer have to wait to see how gain adjustments will affect target returns.



*Original gain setting*



*Same returns with gain increased*

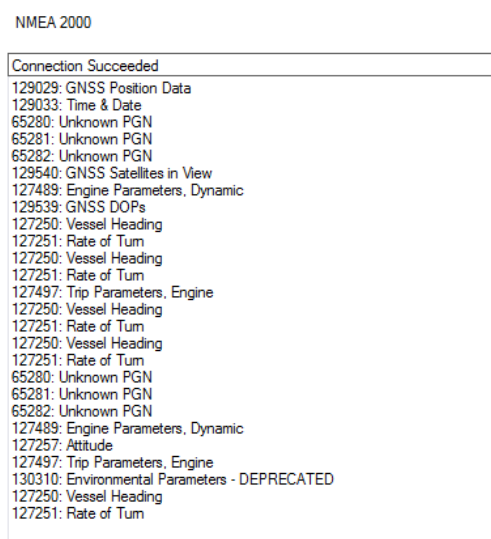
## Miscellaneous

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### NMEA2000 Actisense NGT-1 USB Improvements

TZ Professional V4.1 is now compatible with the Actisense NGT-1 USB when set at higher baudrate (230,400 bps). Since the default operating speed of the NGT-1 (115,200 bps) is about half the speed of the NMEA2000 bus (250 kbps), this can lead to some issues on larger NMEA2000 networks (dropped PGNs). So, some users may have to change the baud rate of the NGT-1 USB and increase it using the Actisense NMEA Reader tool. TZ Professional V4.1 is now compatible with both baud rate and will automatically configure it.

In addition, when configuring a NMEA2000 connection (using the Connection Wizard), the port monitor window will now display the decoded PGN number and corresponding description (instead of just displaying binary data like in the previous version):



The screenshot shows a window titled "NMEA 2000" with a list of received data packets. The first packet is "Connection Succeeded". Subsequent packets are listed with their PGN numbers and descriptions, such as "129029: GNSS Position Data", "129033: Time & Date", and several "Unknown PGN" entries. The list continues with "129540: GNSS Satellites in View", "127489: Engine Parameters, Dynamic", "129539: GNSS DOPs", "127250: Vessel Heading", "127251: Rate of Turn", "127497: Trip Parameters, Engine", "130310: Environmental Parameters - DEPRECATED", and ends with "127250: Vessel Heading" and "127251: Rate of Turn".

PGN	Description
Connection Succeeded	Connection Succeeded
129029	GNSS Position Data
129033	Time & Date
65280	Unknown PGN
65281	Unknown PGN
65282	Unknown PGN
129540	GNSS Satellites in View
127489	Engine Parameters, Dynamic
129539	GNSS DOPs
127250	Vessel Heading
127251	Rate of Turn
127250	Vessel Heading
127251	Rate of Turn
127497	Trip Parameters, Engine
127250	Vessel Heading
127251	Rate of Turn
127250	Vessel Heading
127251	Rate of Turn
65280	Unknown PGN
65281	Unknown PGN
65282	Unknown PGN
127489	Engine Parameters, Dynamic
127257	Attitude
127497	Trip Parameters, Engine
130310	Environmental Parameters - DEPRECATED
127250	Vessel Heading
127251	Rate of Turn

This should greatly help the configuration and make sure that the proper PGN are properly received by TZ.

*Note: This new PGN display is also available when selecting the Port Monitor in the Connection Wizard*

## Generic Camera (H264) Improvements

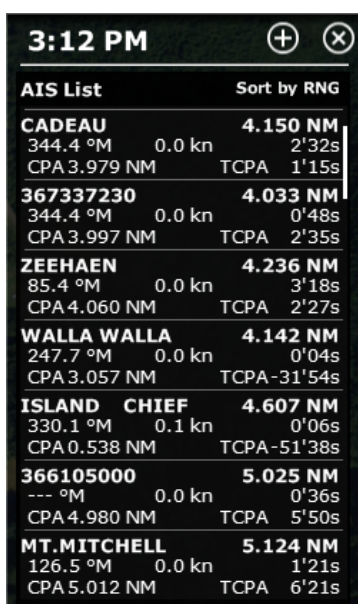
TZ Professional v4.1 is compatible with more H264 cameras and encoders thanks to an improved decoder. Expanded compatibility will allow integrators to connect a wider range of (fixed) IP cameras to TZ Professional and even use HDMI/VGA to H264 encoders to bring screens from various devices directly into TZ.

## FLIR M300 Compatibility

TZ Professional v4.1 is compatible with the latest FLIR M300 camera series. This new range of camera replaces the old M-Series. It has the advantage of being fully IP (for control and video) like the M200 and M400/500 range (no need for a separate AXIS IP Encoder to get the video).

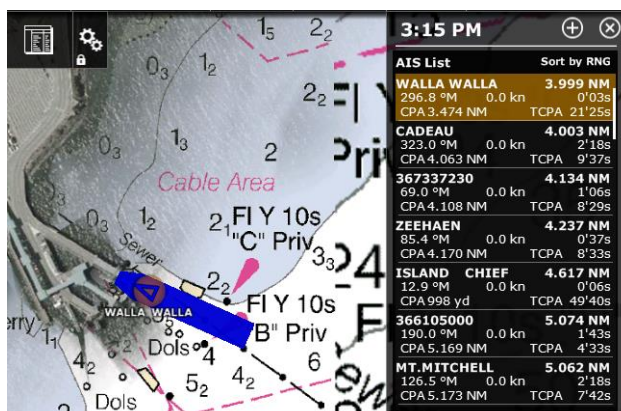
## New AIS / ARPA List NavData

TZ Professional v4.1 greatly improves the AIS and ARPA List NavData. Each cell displays more information (Name or MMSI, Range, Bearing, Speed, Last Update time, CPA and TCPA) and it is possible to scroll in the list:



3:12 PM		+	×
AIS List		Sort by RNG	
<b>CADEAU</b>	<b>4.150 NM</b>		
344.4 °M	0.0 kn	2'32s	
CPA 3.979 NM	TCPA 1'15s		
<b>367337230</b>	<b>4.033 NM</b>		
344.4 °M	0.0 kn	0'48s	
CPA 3.997 NM	TCPA 2'35s		
<b>ZEEHAEN</b>	<b>4.236 NM</b>		
85.4 °M	0.0 kn	3'18s	
CPA 4.060 NM	TCPA 2'27s		
<b>WALLA WALLA</b>	<b>4.142 NM</b>		
247.7 °M	0.0 kn	0'04s	
CPA 3.057 NM	TCPA -31'54s		
<b>ISLAND CHIEF</b>	<b>4.607 NM</b>		
330.1 °M	0.1 kn	0'06s	
CPA 0.538 NM	TCPA -51'38s		
<b>366105000</b>	<b>5.025 NM</b>		
--- °M	0.0 kn	0'36s	
CPA 4.980 NM	TCPA 5'50s		
<b>MT.MITCHELL</b>	<b>5.124 NM</b>		
126.5 °M	0.0 kn	1'21s	
CPA 5.012 NM	TCPA 6'21s		

You can directly click inside the NavData to select the corresponding target on the chart and center the screen around it:

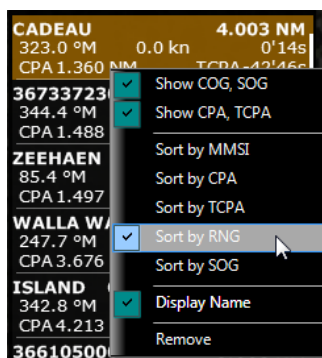


Also, if you click on a target on the chart, it will automatically scroll and highlight it in the NavData list.

Like the Active Route NavData (introduced in v4.0), the new ARPA and AIS List NavData will automatically adjust its size to take the remaining space of the entire NavData container.

*Note: If you undock the NavData, you can select its size.*

Right Clicking on the NavData allows you to change the sorting parameter and select which data you want to display:



## Automatic NavNet Output in standalone mode

When NavNet sensors such as DRS radars, DFF sounders or the DFF3D multi-beam sounder are connected directly to TZ Professional (without MFD), TZ needs to send data over the network. Previously this configuration was achieved manually through the Connection Wizard (with a checkbox displayed on the last page). With complex installations (when multiple PC's are installed on the same network), you had to manually make sure that only

one computer was setup to output the data on the network. Similar misconfiguration issues could also happen if TZ Professional was configured without the MFD being turned ON (in that case, it was possible for both TZ and the MFD to output data on the network).

TZ Professional v4.1 is now able to dynamically detect the “standalone mode” (when there is no MFD on the network) and other TZ on the network to adjust its output automatically. TZ Professional will automatically enable the network output for NavNet sensors and make sure only one PC is sending data over the network only when no MFD is detected.

This new dynamic mode allows TZ Professional to take over the MFD network output automatically (in case the MFD is powered OFF) or, to the opposite, stops its output when an MFD is powered ON.

*Note: When multiple TZ Professionals are on the same network, the one with lowest IP will activate its output.*

Also, TZ Professional v4.1 is now able to adjust the network output priority of the DFF series and DFF3D. If a DFF3D and DFF single beam sounder are on the same network, priority will be given to the single beam sounder for depth data.

## **Ethernet Sounder Heave Compatibility**

Thanks to the new Automatic NavNet Output detection, TZ Professional V4.1 (when connected to SC30/SC33) will be able to send heave information to DFF/BBDS1 sounders for heave compensation. This means that the heave compensation of these networked sounders can now be enabled without an MFD.

*Note: This does not apply to the FCV-1150 that needs to have heave compensation data wired over serial port (the FCV1150 cannot read data over the network).*

## **RTZ Route Format Compatibility**

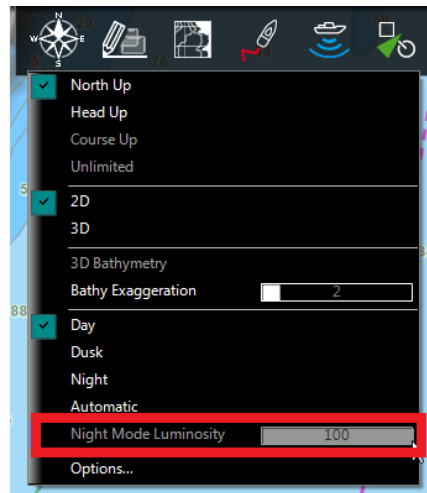
TZ Professional v4.1 can import and export routes using the RTZ format commonly used with ECDIS.

## **Speed and Sea Surface Temperature NMEA0183 output**

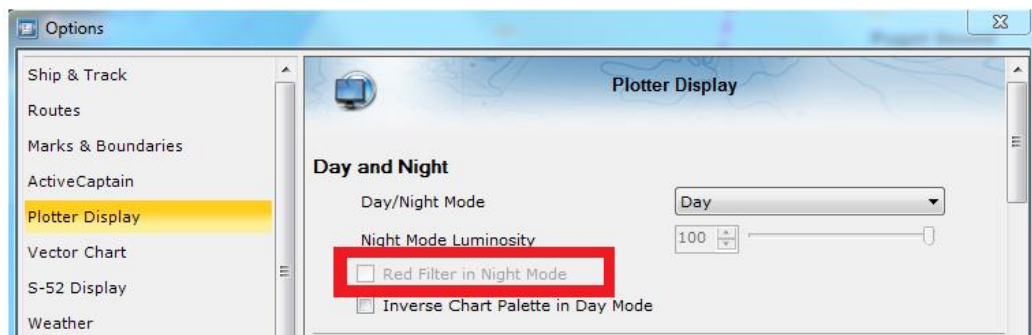
The Connection Wizard output of TZ Professional v4.1 allows to select Speed (STW) and Sea Surface Temperature (SST). This can be useful when TZ is getting SST and STW via a network sounder and when you want to output this data to a NMEA0183 repeater.

## Night Mode improvements

Customers can now adjust the intensity of the Night mode using a slider directly from the “Mode” button located in the ribbon:



It is also possible to enable a “red filter” in night mode from the Plotter Display options:



## New Shortcuts

Shortcuts can now be configured to select an Ocean-O Preset. It is also possible to use a shortcut to select a specific WorkSpace. This can be useful when using a dedicated USB Keyboard or when sending HTTP command with the OEM module (for integrator). The WorkSpaces configured in TZ are assigned with a number from left to right across all monitors. You can select a specific WorkSpace using the corresponding number.

*Note: The WorkSpace configuration should not be edited after assigning shortcuts. It is recommended to lock the User Interface.*



## New Furuno Radar Compatibility

TZ Professional v4.1 is now compatible with the new Furuno Radar DRS12A-NXT, DRS25A-NXT and FAR2xx8.

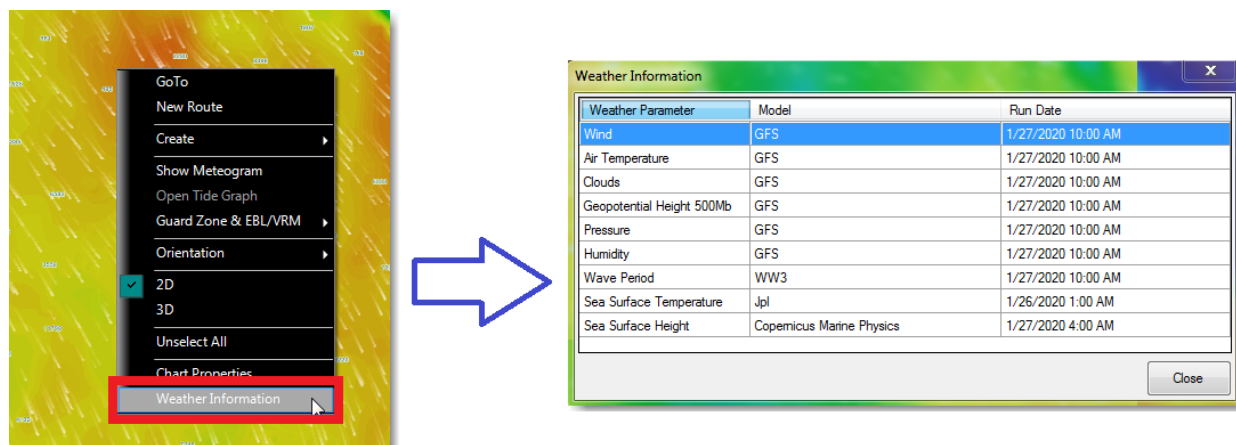
*Note:* The FAR2xx8 is similar to the FAR3xxx and requires the computer to be setup on the 192.168.31.x network. FAR2xx8 and FAR3xxx **cannot be mixed** and networked together with other NavNet sensors (such as DFF sounders).

## Workspace Name

It is now possible to rename full screen WorkSpaces. For example, if you create multiple "Navigation" WorkSpaces for different scenarios, you can now rename them (for example "Docking" and "Navigation").

## Weather Information

It is now possible to display a Weather Information properties window allowing you to see the source and run date of every weather and oceanic parameters:



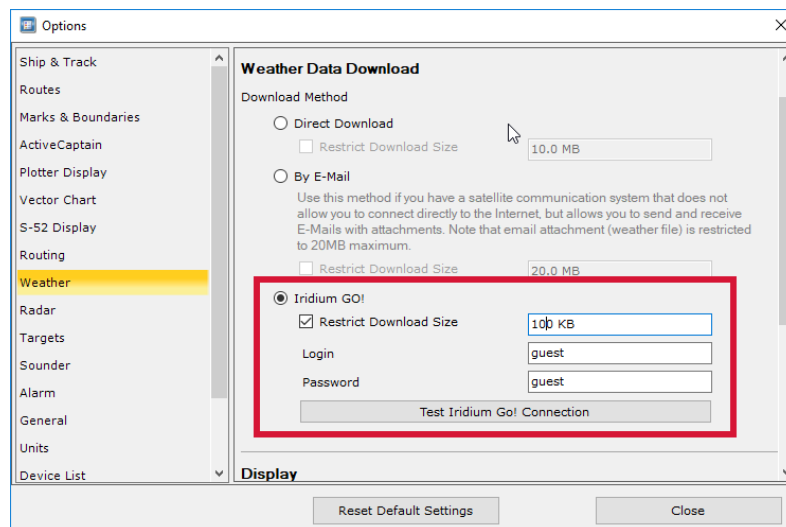
## Iridium Go! Compatibility

TZ Professional V4.1 is now compatible with the "Iridium Go!" which is a satellite communicator that creates a Wi-Fi Hotspot for your computer:

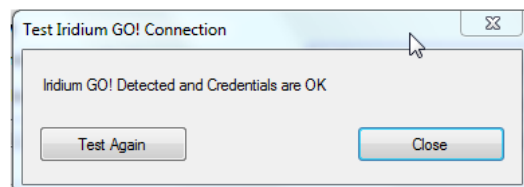
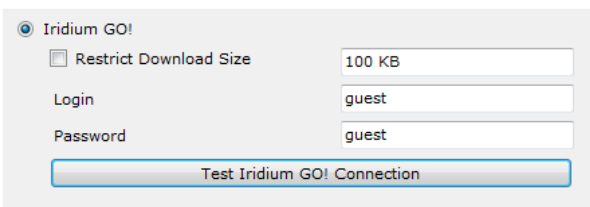


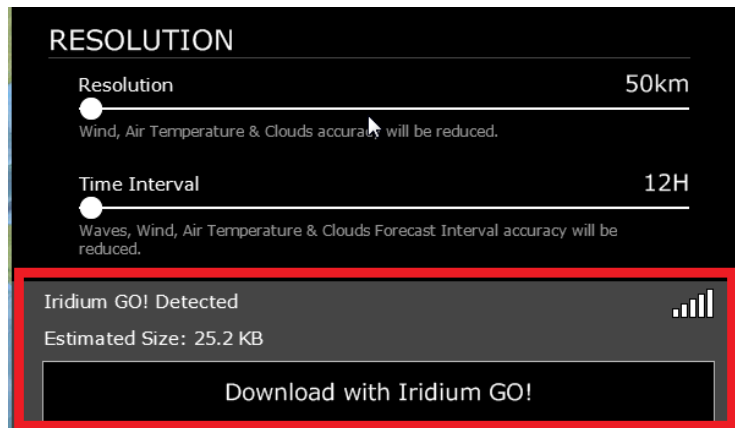


Although very slow (2Kbps), the Iridium Go offers an unlimited data plan for about \$150 per month that can be a very good solution to download weather at sea. A new option in TZ v4.1 allows the weather to be downloaded using the Iridium Go:



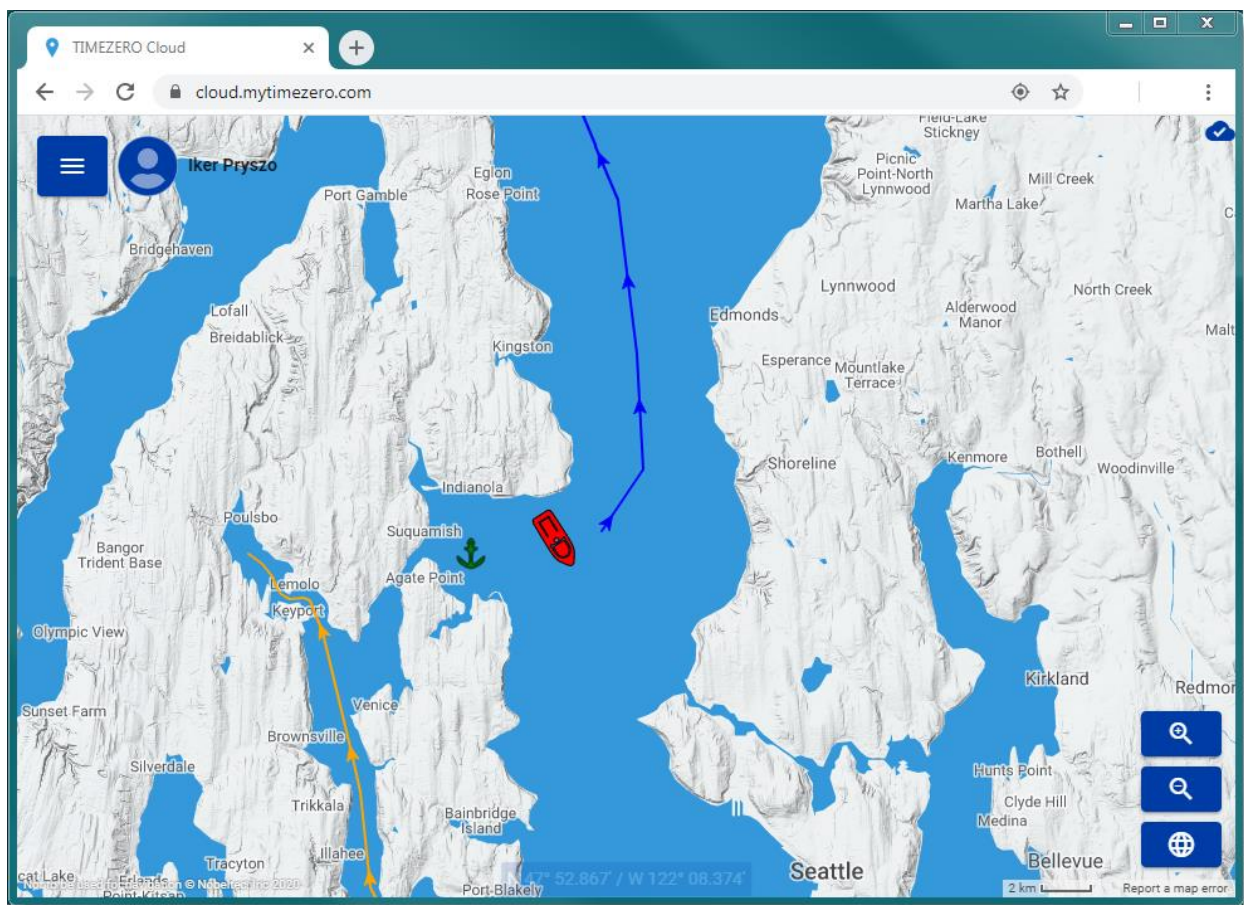
When downloading a weather file, TZ V4.1 will control the Iridium Go (establish and close the Internet Call) and handle interruptions automatically allowing you to press the download button and forget about it until the weather is available in TZ.





## Real Time Position Uploaded to TZ Cloud

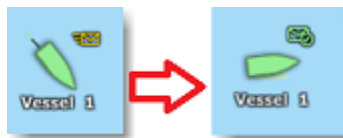
If you have an Internet connection on-board, you can enable a setting in the “My TimeZero” Options that will send your position automatically to the TZ Cloud allowing a family member (that has your My TimeZero credential) to see your live position on any Web Browser.



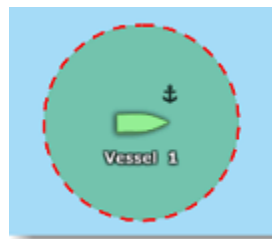
## Fleet Tracking

With TZ Professional v4.1, a new "Fleet Tracking" service becomes available. This new service is geared toward governmental agencies (Coast Guard, Search and Rescue...) and Fishing Fleets.

When an Internet connection is available, TZ Professional can send its position (and basic sensor data such as depth and wind) via the Internet. This data can be retrieved by all Fleet members and displayed on the chart (like a private and secure AIS). Fleet members can exchange User Objects with each other (Marks, Routes, SAR Patterns, Boundaries and Photos) while retaining their own TZ Cloud User Object database independent. Note that when you exchange User Objects with another Fleet member, a visual acknowledgement and a notification will be displayed when the object has been uploaded to the server and then retrieved by the other vessel:



You can also activate an Anchor Alarm on any member of the fleet:



*Note: Fleet Targets can also trigger boundary area alarms when the area is set to "Target Alarm"*

Example of use cases:

- Agency that needs to temporary turn OFF their AIS while still being able to track their own assets (the Fleet Tracking feature acts like a private and encrypted AIS via Internet).
- SAR operation that need to exchange routes easily and automatically via Internet, with acknowledgment (to be guaranteed that the object was delivered to the vessel)

- Fishing Fleet that needs to monitor boat activity and send forbidden fishing areas via Internet to each vessel or monitor themselves and/or their assets with boundary area alarms

# Regression & User Interface Modification

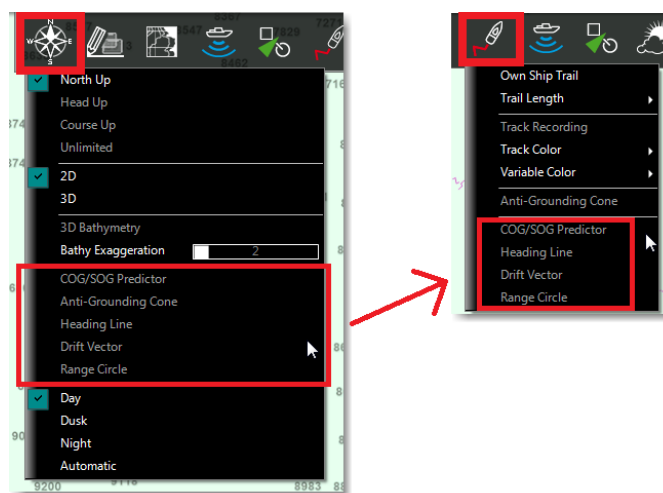
## Routes

With TZ Professional v4.1 all routes will be automatically transferred to the TimeZero layer (the first time you open the new version) to enforce the full synchronization of all routes (especially important since routes can be activated). Note that this means that the total number of routes that can be created and stored by TZ Professional v4.1 is limited to 200 routes (with 500 waypoints each) just like with any other TimeZero Platforms. It is not possible anymore to manage routes using "custom" layers.

*Note: If a customer has more than 200 routes in V4.0 or below, only the last modified/created 200 routes will be kept with TZ v4.1. If a route contains more than 500 waypoints, it will be truncated.*

## Repurposed "Track" button into "Own Ship" button

The "Track" button was renamed "Own Ship" and some features that were previously available under the "Mode" button, can now be found under this new "Own Ship" button (that consolidates all features related to Own Ship):



## Dynamic Lists

User Objects and Target lists are now dynamic (they will only appear if at least one corresponding User Object is available or if an AIS or ARPA input was configured). So, users that may never use some user objects (such as the new Photos user object) will not be bothered with an empty list

