

EarthNC Plus Manual v1.0

Disclaimer:

EarthNC charts are not replacements for official nautical charts and should not be used as a primary means of navigation. No warranty of data accuracy or completeness is expressed or implied.

EarthNC Contact Information

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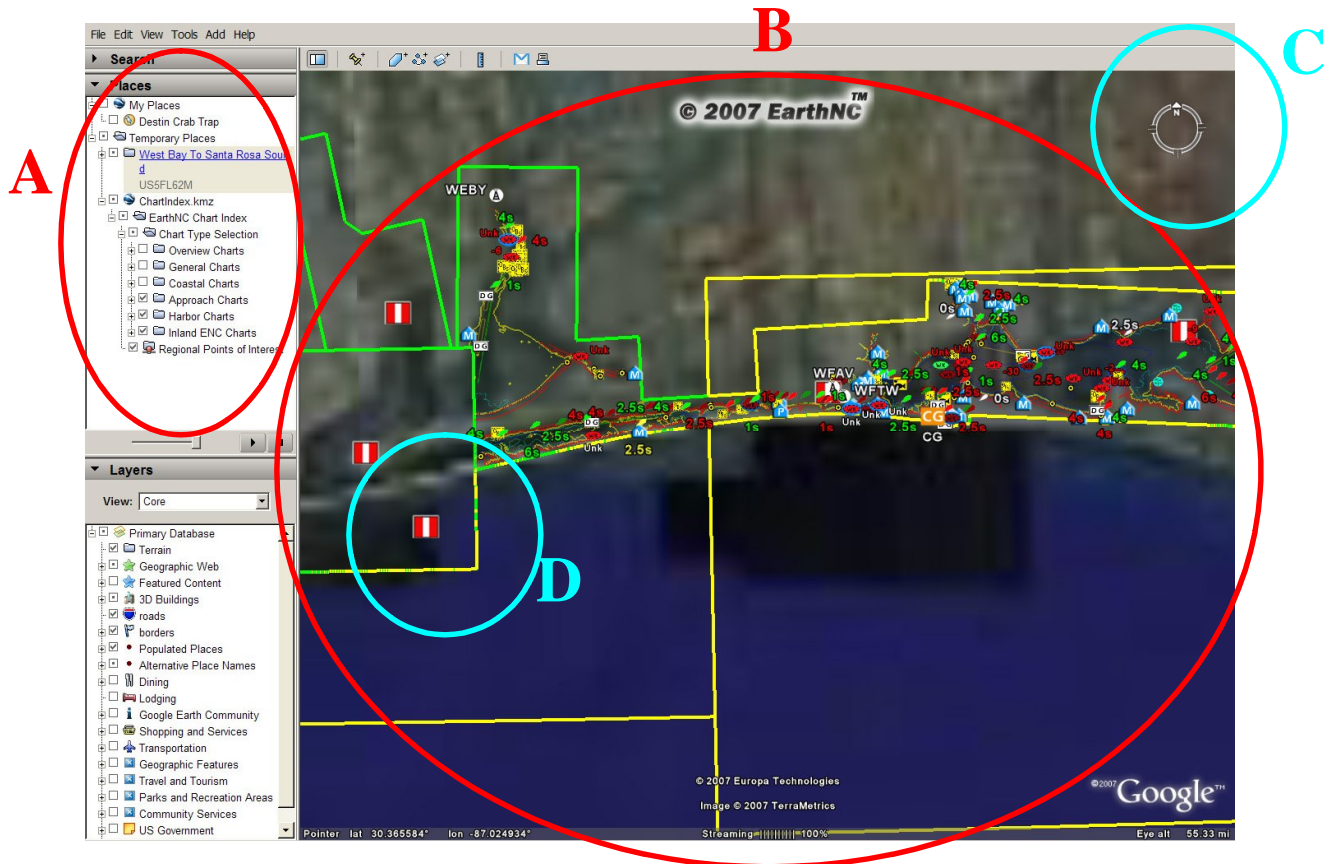
Quick Start Guide:

1. Install the latest version of Google Earth

- Download it from <http://earth.google.com> and doubleclick on the resulting file.

EarthNC works with all versions of Google Earth 4.

In referring to Google Earth interactions throughout this documentation, please refer to the illustrated guide below:



A. 'Places' Menu – Double click on Folder Icons to Expand. Use Checkboxes to set visibility

B. Map Window

C. View Controls – you can also use the mouse

D. Range Mark Icon – Hover to see chart name, click to access link to chart

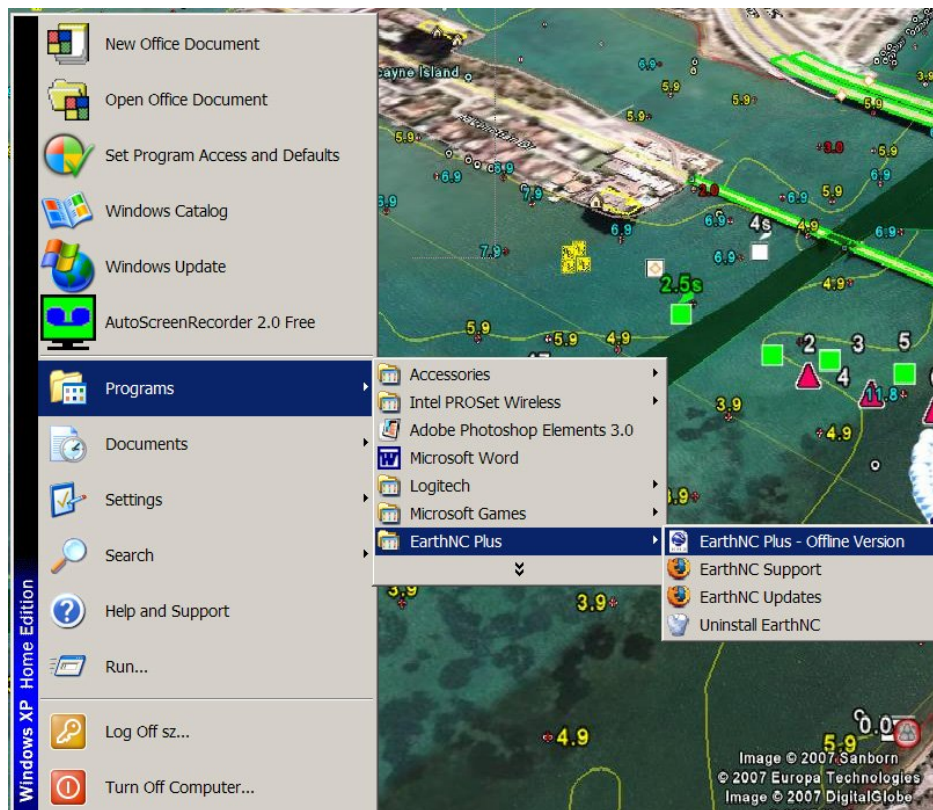
2. Install EarthNC

- If the installation program does not start when you insert the EarthNC CD, browse to your CD drive in 'Start - My Computer' and double click on 'EarthNCPlus.exe' to begin installation

- Follow the on-screen instructions to complete your installation.

3. Load EarthNC Charts into Google Earth

- Open the EarthNC Chart Index by clicking on 'Start - Programs- EarthNC Plus - EarthNC – Offline Version'.



- When Google Earth loads you will see outlines of the EarthNC charts. Click on a red/white range icon to select a chart and then click the 'View Chart ...' link. Some charts are quite large and may take a few minutes to load depending on your computer.

4. Chart Basics

- EarthNC charts present the same layers found in NOAA vector chart products. The number of layers in view is determined by the zoom level. Zoom in to load increasing detail down to point depth soundings.

- Chart elements (buoys, lights, etc.) present additional data when you hover the mouse over an icon or left click on an icon. If multiple elements exist in the same location (such as a light on top of a buoy), clicking on either element will expand the icons in a star pattern to allow for clicking on an individual icon.

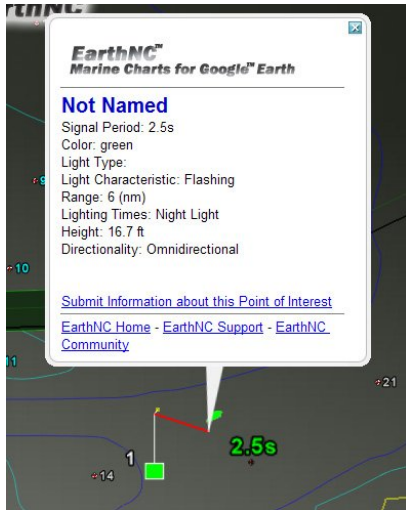
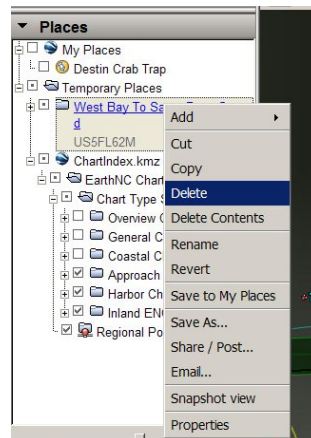


Figure – Exploring Chart Elements

- Left click on the combined light and daymark icons to ungroup
- Left click over the desired chart element to reveal detailed information

- You can obtain the latitude and longitude of the mouse pointer in the lower left portion of the map window (see Figure 1). To obtain the exact coordinates of a map element, right click over its icon on the screen and select 'Properties'.

- Due to the size of EarthNC charts, we recommend that you unload charts not in use by right clicking over the chart name in the 'places' menu and selecting 'Delete'. This does not remove the file from your computer – it only removes it from display in Google Earth. You may reload it any time via the EarthNC Chart Index.



Using EarthNC Charts

1. Chart Catalog

The EarthNC version 1.0 chart catalog includes 617 NOAA ENC® charts updated as of 15 March 2007. It also includes 59 Army Corps of Engineers Inland ENC charts as of the same date. EarthNC charts are updated once monthly to reflect published ENC and IENC revisions. Instructions for updating your EarthNC Plus chart set are found in the next section of this manual.

2. Chart Organization

NOAA ENC® charts are published in 5 major categories based on the overall chart scale and usage intent. The categories are Overview (Level 1), General (Level 2), Coastal (Level 3), Approach (Level 4), and Harbor (Level 5) – this categorization is used in the EarthNC Chart Index. IENC charts are listed as a separate category. In general, Harbor and Approach charts contain the most detail – especially of inshore areas such as the inter-coastal waterways of the Gulf and Atlantic coasts.

Each chart has a corresponding Point-of-Interest(POI) file which contains non-chart information such as marinas and their services, boat launching points, and other information from EarthNC, our partners, and users.

3. Managing Displayed Charts

EarthNC charts are accessed via the EarthNC Chart Index. The index file displays the locations and coverage areas of each chart in the catalog. Two Chart Index files are available – the ‘Offline’ shortcut loads POI files from the EarthNC installation on your hard drive while the ‘Online’ version loads the POI files from the EarthNC website to ensure the latest content. Updates for the offline layers are available as part of the EarthNC update process discussed later.

Once the desired shortcut is selected, Google Earth will load and display the outlines of available charts. The charts are organized by chart type with Approach, Harbor, and IENC charts are visible by default. To view Overview, General, and Coastal charts, you can use the visibility check boxes in the Places menu.

To view a chart name, hover over its corresponding range mark icon. To load a chart, click on the icon and click on the ‘View Chart’ link. Multiple charts may be loaded at the same time, but this may cause Google Earth to run slowly depending on chart sizes and your system configuration. We recommend that charts not in use be unloaded by right clicking in the Places menu over the chart name and selecting ‘Delete’ (this will not remove the chart from the hard drive). You may also highlight the chart with a left click and press the ‘Delete’ button on your keyboard.


If you prefer to have certain charts loaded automatically each time Google Earth starts, left click on the desired chart in the Places menu and drag it into the ‘My Places’ folder. Loading charts automatically on Google Earth start may delay the startup time

significantly. You may remove charts from the My Places folder at any time via Right-click - 'Delete'

4. Chart Layers

The Electronic Navigation Chart standard, from which EarthNC charts are derived, supports over 185 unique layer types. The total number of layers in each chart varies somewhat based on the geographic region and chart category. These layers are divided into 4 folders within each EarthNC chart – Minimum Zoom Level, Mid Zoom Level, Close Zoom Level, and Point Soundings.

To explore the contents of each folder and individually apply visibility settings, double click on the chart name in the Places menu, then double click on a sub folder. You may remove entire zoom levels or individual layers from view by unchecking the given folder. The view settings will be reset when you reload the chart.

Each chart also contains a Point-of-Interest (POI) folder that contains supplemental information for the given area. POI's include marinas, ramps, marine businesses, and EarthNC user submitted descriptions and photos. The presence of a POI icon  adjacent to a normal chart element (such as a buoy) indicates additional information is available. Click on the POI icon to view this extra data.

5. Interacting with Chart Content

There are 3 primary levels of interaction with chart layers – normal, hover, and left mouse click. The normal view is just the identifying icon for most layers. Lights include a colored label indicating the signal period. Lateral beacons and buoys display their identifying number or letter to assist in navigation.



Figure - Left-Hand Lateral Beacon with Light

- Green light icon and 2.5s label indicates a green light with 2.5 second signal period
- White #1 is the beacon identifying number

To hover over an element, simply pass the mouse pointer over the element's icon. Special purpose beacons and buoys as well as most POI layers will display the element name via a hover.

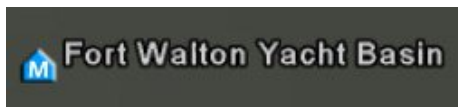


Figure - Hover Labels

- Marina name is revealed on mouse-over

Finally, all layer icons have additional information accessible via a left mouse click on their icons. If the icon is part of a multi-element set (such as a light on a beacon), left click on the icon set to ungroup the icons and then left click on the icon desired. The information window displayed may contain additional links to extra content. These links will open a web browser to display information.

6. Contributing Chart Content

The info window for each EarthNC chart element includes a link to submit additional information. The link will open a blank e-mail message and pre-fill the e-mail address and subject line to uniquely identify the chart element. You may then add text comments, reviews, descriptions, and links to related websites in the e-mail.

If you have digital photographs of the area, you may attach them to the e-mail (only submit your own photos). Please limit photos to 2mb in size. Note that submitted content becomes property of EarthNC, Inc. In the future, this submission process will be automated via the EarthNC Community Forum at EarthNC.com.

If you publish nautical content of interest or know of other nautical data you'd like available as an EarthNC layer, please contact us at poi@earthnc.com with details.

Updating Charts

EarthNC updates are available for download at EarthNC.com. To download updates, users must have an active EarthNC Plus subscription. The initial purchase of EarthNC Plus includes a 12 month update subscription to product enhancements, chart revisions, and POI updates. This subscription is activated as part of the EarthNC registration process.

1. Registration Instructions

- Browse to the EarthNC registration page at <http://earthnc.com/user/register>
- Select a username and supply your e-mail address
- Copy the EarthNC Plus product serial number found on the back of your CD case into the provided input box and click 'Create New Account'.
- You will receive a confirmation e-mail and initial password. Upon validation of your serial number your EarthNC Plus subscription account will be activated.

Following the initial 12 months, you may renew your update subscription for \$49.95 per year via the EarthNC website.

2. Update Types

Chart Revisions – NOAA and the Army Corps continually update existing charts and may add additional charts at any time. EarthNC will provide monthly chart revision downloads to update revised charts and add new ones.

POI Updates – POI layers will be updated as required. Users may access the most recent POI layers at any time via the 'Online' Chart Index option. Downloadable POI updates will be processed as quickly as possible.

Product Enhancements – Should enhancements be made to the core EarthNC Plus product, they will be made available for download to all active EarthNC Plus account holders at EarthNC.com .

Extending EarthNC

EarthNC Plus can be extended via a growing number of free and low-cost add-ons. For the latest list of available add-ons, please visit the EarthNC website. Below are a few highlights of existing and in-the-works applications:

Compatible Hardware and Software:

- Realtime GPS for Google Earth – GooPs EarthNC Edition \$15

Upcoming Add-on Data Layers:

- Realtime NEXRAD, METAR, and Vessel Weather Observations
- AIS Vessel Tracking by VesselTrax.com
- Shaded Estuary Bathymetry by NOAA

Appendix A – Software License

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8. TERM/TERMINATION. This Agreement is effective upon purchase and/or use and shall remain in force for until terminated. In the event the user violates this agreement, the agreement will effectively terminate. All protections afforded EarthNC in this agreement that pertain to indemnification, confidentiality and non-distribution terms will survive such termination.

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