



# **HydrOffice QA Checks Manual**

*Release 1.0.0*

**2019, CCOM/JHC, UNH**

**Jul 04, 2019**



# CONTENTS

<b>1</b>	<b>In brief</b>	<b>1</b>
<b>2</b>	<b>User manual</b>	<b>3</b>
<b>3</b>	<b>Developer’s guide</b>	<b>7</b>
<b>4</b>	<b>License</b>	<b>9</b>
<b>5</b>	<b>Credits</b>	<b>13</b>



**IN BRIEF**

QAX provides functionalities to perform quality assurance on ocean mapping data.

Accepted data inputs are bathymetric grids, feature files, sounding selections, and directory structures. The output is GIS-layers that alert to the user various parts of their data that might require more attention. Summary reports are also printed for the record and review.

The objectives are to improve data accuracy, while also reducing the overall time required for ping-to-chart.



## USER MANUAL

## 2.1 Installation

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**Note:** If you download the frozen application ([from the download page](#)), you don't need to care about installation and dependencies (so you may just skip this section).

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### 2.1.1 Installation using the Pydro distribution

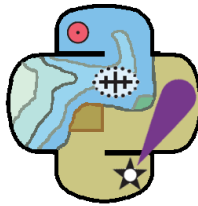


Fig. 2.1: The Pydro logo.

If you are on Windows, you can easily install QC Tools 2 as part of the [NOAA Office of Coast Survey Pydro](#) distribution.

Pydro is a suite of software tools used to support hydrography. It is (almost exclusively) built from open source components as well as public domain custom developed software. Pydro is maintained by the Hydrographic Systems and Technology Branch (HSTB) to support NOAA operations (aiding Office of Coast Survey fleet) and is made available for public use.

You can download the latest Pydro installer from [here](#).

## 2.2 QA Checks

### 2.2.1 Overview

N/A.

### 2.2.2 Data inputs

N/A

### 2.2.3 Mate

N/A.

### 2.2.4 QC Tools

N/A.

### 2.2.5 CA Tools

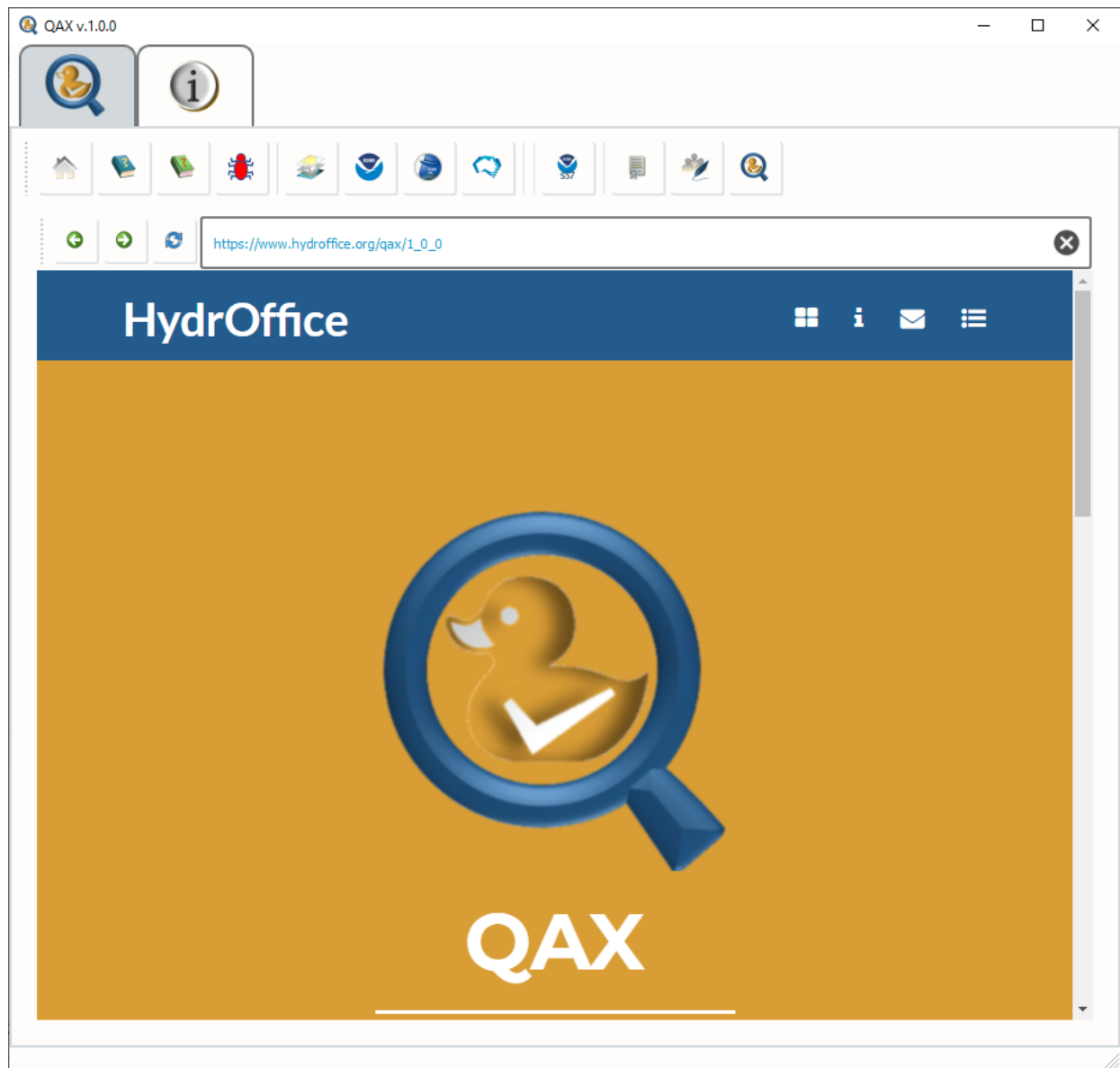
N/A.

## 2.3 Info Tab

The Info Tab contains numerous helpful links and utilities:

- The HydrOffice QAX website
- The Online User Manual
- The Offline User Manual (PDF)
- A User Bug Report Tool
- The HydroOffice Main Page
- The NOAA Nautical Charts Home Page
- The Center for Coastal and Ocean Mapping Main Page
- The AusSeabed Main Page
- [NOAA S-57 Support Files for CARIS](#)
- License Information
- Contacts List
- QAX Software Information







## DEVELOPER'S GUIDE

### 3.1 How to contribute

Every open source project lives from the generous help by contributors that sacrifice their time and this is no different. To make participation as pleasant as possible, this project adheres to the [Code of Conduct](#) by the Python Software Foundation.

Here are a few hints and rules to get you started:

- Add yourself to the [AUTHORS.txt](#) file in an alphabetical fashion. Every contribution is valuable and shall be credited.
- If your change is noteworthy, add an entry to the [changelog](#).
- No contribution is too small; please submit as many fixes for typos and grammar bloopers as you can!
- Don't *ever* break backward compatibility.
- *Always* add tests and docs for your code. This is a hard rule; patches with missing tests or documentation won't be merged. If a feature is not tested or documented, it does not exist.
- Obey [PEP 8](#) and [PEP 257](#).
- Write [good commit messages](#).
- Ideally, [collapse](#) your commits, i.e. make your pull requests just one commit.

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**Note:** If you have something great but aren't sure whether it adheres – or even can adhere – to the rules above: **please submit a pull request anyway!** In the best case, we can mold it into something, in the worst case the pull request gets politely closed. There's absolutely nothing to fear.

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Thank you for considering to contribute! If you have any question or concerns, feel free to reach out to us (see [Credits](#)).

### 3.2 How to build the documentation

#### 3.2.1 Requirements

The documentation is built using `sphinx`, so you need to have it:

- `pip install sphinx sphinx-autobuild`

### 3.2.2 First-time creation of documentation template

Just once for each project, you can create the documentation template as follows:

- `mkdir docs`
- `cd docs`
- `sphinx-quickstart`

### 3.2.3 Generate the documentation

To create the html:

- `make html`

To create the pdf, you first need to install a latex distribution, then:

- `make latexpdf`

**LICENSE**

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*Version 3, 29 June 2007*

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## CREDITS

QAX is based on an ongoing joint development between the NOAA's [Ocean of Coastal Survey](#) and UNH's [Center for Coastal and Ocean Mapping](#).

For bugs and feature requests: [qax@hydrooffice.org](mailto:qax@hydrooffice.org)

NOAA bugs and feature requests: [OCS.QCtools@noaa.gov](mailto:OCS.QCtools@noaa.gov)

Feel free to contact us for comments and suggestions:

- [Giuseppe Masetti](#)
- [Tyanne Faulkes](#)
- [genindex](#)
- [search](#)

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