

HARBOR MASTER'S OFFICE

Interfacing GIS and GPS to Mooring Management Software for Harbormasters



HARBOR MASTER



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Harbormaster System

- Collaboration between Dirigo Spatial Systems and Newburgh Associates
- Developed as a comprehensive harbor asset management system
- Optional GIS Interface with ESRI ArcGIS
 - Great flexibility, but:
 - Too complex for many harbormasters
 - Too costly





Needs

- Needed lower cost mapping utility
- Requirements
 - License and royalty free
 - Support object-oriented development environments
 - Support vector and raster data
 - Support basic GIS functions



Components Used

- Selected MapWindow ActiveX Control
 - <http://www.mapwindow.org/>
 - ISU Geospatial Software Lab
 - Open source, royalty-free
- GPS Component 1.0
 - Charles Seitz, Tannersville PA
 - <http://www.programmersheaven.com/download/48584/download.aspx>
- CS-Map Coordinate Projection Library
 - Mentor Software, now AutoDesk



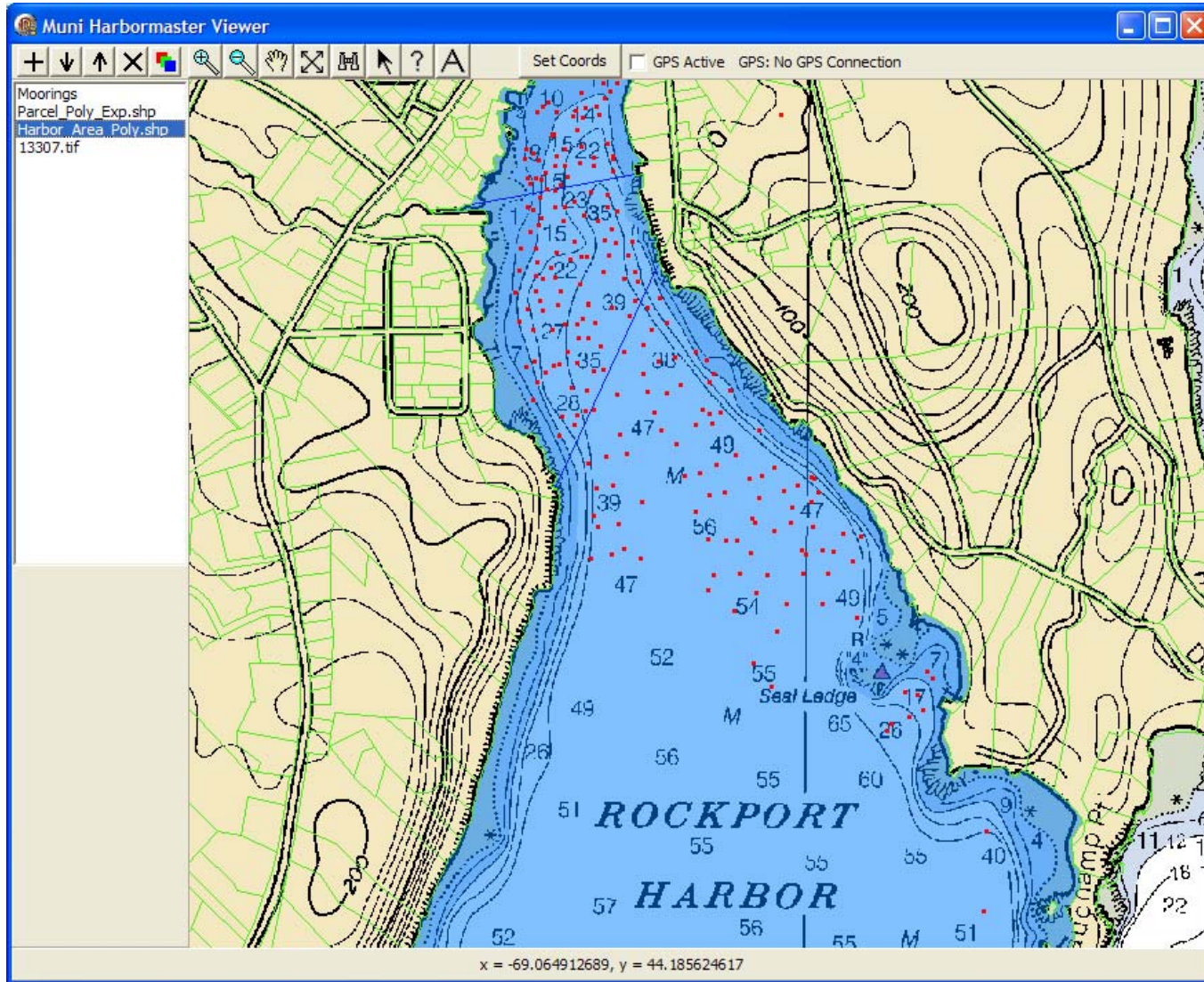


Development

- Started with sample Delphi Project
- Modified interface
- Added query moorings from HM database
- Added support raster images (nautical charts)
- Added tools for review of moorings
- Endured lots of debugging, trial and error!



Demonstration





Issues

- MapWindow ActiveX
 - Lack of documentation and support
 - Cannot use ESRI Geodatabases
 - Cannot mix layers with different projections
- Would like web-based solution too
 - Very little information on MapWindow Web



Conclusion

- Highly tailored, custom solution
- Incorporates GIS and GPS needs
- Flexible and can enhance in future
- License and royalty free
- Package with Harbormaster system
- Requires medium to advanced programming skills

