The CoastWatch Utilities: Ten Years in the Making

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CoastWatch Operations Managers Meeting, June, 2007
Talk Outline

• About the Utilities
• Current Release
• Future Releases
Historical Timeline

- **1997**: v1.0, internal release, La Jolla lab
- **1998**: v2.0, public release, West Coast website
- **1999**: v2.2/3, Caribbean website
- **2000**: v2.4, Gulf of Mexico website
- **2001**: v3.1.0, Java version, CDAT beta release in C
- **2002**: v3.1.1/2, reprojection and rendering
- **2003**: v3.1.3/4/5/6, NOAA 1b, math, GeoTIFF
- **2004**: v3.1.7/8/9, new CDAT, install wizard, autonav
- **2005**: v3.2.0, OPeNDAP, datum shifts
- **2006**: v3.2.1, GUI updates, units, expression masks
- **2007**: v3.2.2-pre, navigation analysis, GRIB data
User Groups

• NOAA/NESDIS researchers: verify products, web page images, analysis

• Academic researchers: data conversion, analysis, comparison to biological data

• Casual and commercial users: fishing, weather, redistribution
Home Page

- coastwatch.noaa.gov/cw_cwf3v3.html
- Installation packages, documentation
- Errata, prereleases
Development

- New versions released every 4-6 months
- Major feature requests from NESDIS (approval and funding)
- Minor feature requests from users
- Bug fixes (normally minor) are an ongoing task

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Documentation

- Data users: User’s guide, help menus
- Software developers: Java API in HTML (Javadoc), user’s guide chapter (coming soon)
- Data providers: User’s guide appendices on supported formats & metadata
New Features (3.2.1)

- Java now included
- Units conversion
- GUI updates
- Context help buttons
- Expression masking
New Features (continued ...)

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User Distributions

Network Domain
- Other: 85%
- .edu: 9%
- .gov: 6%
- Other: 85%

Operating System
- Windows: 91%
- Mac: 5%
- Unix: 4%
- Windows: 91%
User Distributions (continued ...)

Geographic Location
User Installations

• Total of 1953 users since April 2006 (~140 new users per month)

• Many more users installing than actively using:

Inactive 88%
Active 12%
Current Development
(3.2.2)

- CDAT chapter in user’s guide
- Developers chapter in user’s guide
- Support for GRIB data
- Bug fixes
Feature Ideas

- Full screen viewing mode
- Google Earth KML output
- Vector data & time series display
- ESRI shape file point display
Feature Ideas (continued...)

- Intelligent data import wizard
- Support for CF 3D/4D datasets (multi-level, multi-timestep)
- Easier integration of user programs & data formats
- Generic shape import in XML
- Scriptable operations in CDAT
Summary

• About the Utilities: history, users, web site, development, docs

• Current Release: new features, current user stats

• Future Releases: development for 3.2.2, feature ideas
Acknowledgements

- CoastWatch node and central operations staff
- CoastWatch data users