




GEOMORPHIC CHANGE DETECTION

G. INTRODUCTION TO GCD SOFTWARE


USACE Workshop
Kansas City
May 30- June 1, 2012

WORKSHOP PLAN – DAY 1... (AFTERNOON)

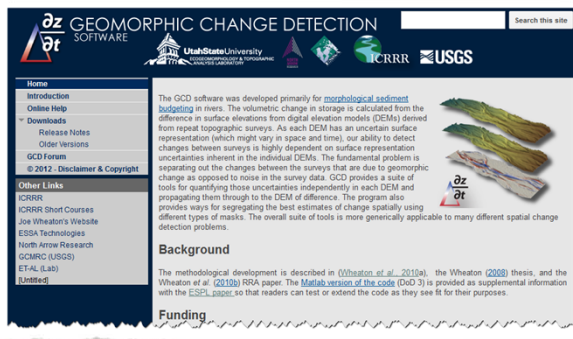
F. Traditional Approaches to Change Detection	13:30 to 14:30
G. Intro to GCD Software	14:30 to 15:00
H. Thresholding Alternatives	15:00 to 15:30
I. Alt. Approaches (Spatial Coherence + Bayesian)	15:30 to 15:45 Break
J. Spatially Variable Error	15:45 to 16:15
K. Multi-Method Surveys	16:15 to 16:30
L. Recap & Preview of Day 2	16:30 to 16:45
	16:45 to 17:00ish

A Plan.. Not a Contract



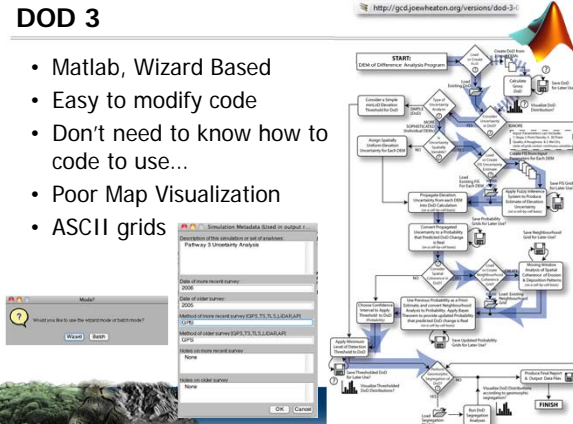
GCD SOFTWARE

gcd.joeheaton.org





DOD 3

- Matlab, Wizard Based
- Easy to modify code
- Don't need to know how to code to use...
- Poor Map Visualization
- ASCII grids





GCD 4

- ArcGIS Plugins (9 & 10)
- Stand Alone Version
- Big Effort was on Underlying C++ Library
- Can be ported into stand-alone apps, web apps, or Arc plugins

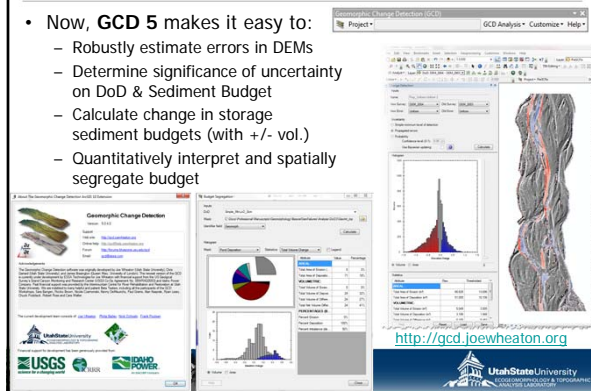
GCD 5.0.28

- More focus on User Interface
- Flexible Analyses
- Extended Functionality
- More Interactivity w/ Analysis

THIS ANALYSIS USED TO BE CUMBERSOME

- Now, GCD 5 makes it easy to:
 - Robustly estimate errors in DEMs
 - Determine significance of uncertainty on DoD & Sediment Budget
 - Calculate change in storage sediment budgets (with +/- vol.)
 - Quantitatively interpret and spatially segregate budget



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- Steve Darby & David Sear



GCD 5 Software developed with

- Philip Bailey
- Nick Ochoski
- Frank Poulsen



GCD 4 Software developed with:

- Chris Garrard



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