

**Modern Surveying, 3-D, and the Global Spatial Data Model (GSDM)**  
**Or**  
**Building the Future of Surveying!**

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The traditional outline for this seminar is given on a separate sheet. This alternate title is offered because the session is envisioned to concentrate more on discussion and less on lecture. Of course, the inclination of the presenter will be to show how the global spatial data model (GSDM) can be used in support of modern goals for professional surveying practice.

- I. Surveying practice in the future will include:
  - A. Boundary and cadastral – surveyors are uniquely qualified in boundary issues.
  - B. Instruments – GPS, EDM, levels, photogrammetry, LiDAR, computers, and robots.
  - C. All activities involve some aspect of working with spatial data.
  
- II. Economics/Business/Professionalism:
  - A. All surveyors provide a product/service – why? Someone will pay for it!
  - B. Challenge is to establish unquestioned value for client.
  - C. What are consequences if customer is not happy?
  - D. Goal is to engage in meaningful productive work.
  
- III. What questions can I expect from attendees? Feedback is important!
  - A. Feel free to send questions to Burkholder prior to session – [eburk@globalcogo.com](mailto:eburk@globalcogo.com).
  - B. Get ideas from [power point](#) presentation given at NMPS 2012 Convention.
  - C. Visit surveying bulletin board such as <http://surveyorconnect.com/index.php>
  - D. What about education? See - <http://www.geoscholar.com/Sages/>
  
- IV. Citizenville – a new book that:
  - A. Describes digital immigrants and digital natives.
  - B. Promotes transparency in government and acceptance of responsibility.
  - C. Claims that status quo needs to be questioned and
  - D. Shows that people need to have “standards” within which to operate.
  
- V. Why should I attend the session?
  - A. Discuss future of surveying profession.
  - B. Learn more about concepts affecting practice - Surveying Body of Knowledge.
  - C. Gain an overview of issues affecting all spatial data users – no one has a monopoly!
    1. Surveyors/engineers/photogrammetrists.
    2. GIS users in many disciplines.
    3. Applications in navigation – air/land/sea
    4. Personal GPS applications.
  
- VI. Update on issues of local and network accuracies handled with the GSDM.
  - A. Standard deviation of measurements.
  - B. Standard deviation of coordinates.
  - C. Standard deviation of derived quantities.