

# MAP@SYST – GEOSPATIAL SOLUTIONS FOR RURAL AND COMMUNITY SUSTAINABILITY

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## ABSTRACT

Map@Syst is a part of the USDA Cooperative State Research, Education and Extension Service (CSREES) eXtension online Web information service. eXtension is an educational partnership of more than 70 universities to provide online access to objective, research-based information and educational opportunities. Map@Syst is a Wiki-based Web site assembled and maintained cooperatively by geospatial technology educational specialists and practitioners. Map@Syst is a primary source of geospatial information and expertise for individuals working applications in state, local and municipal government agencies, agriculture, natural resources, industry, recreation and tourism and youth activities. The materials and services include frequently asked questions (FAQ), interactive learning modules, English and Spanish translation fact sheets, “How to” instructional plans, pod casts and an online “Ask the Expert” question answering system. Map@Syst provides educational programming in global positioning system (GPS), geographic information systems (GIS) and remote sensing applications. The Web site includes articles, news and events, frequently asked questions (FAQ), ask the expert and learning modules. The educational specialist and practitioners includes individuals from 15 different universities within the United States. Others from academia, industry and individuals are invited to join Map@Syst leadership and contribute to the Wiki Map@Syst Web site. All materials included on the Map@Syst Web site are peer reviewed.

**Key Words:** GIS, GPS, Remote Sensing, Precision Agriculture, Precision Management, Precision Conservation

## Introduction

The Map@Syst resource team, and eXtension Community of Practice (CoP), began collaboration as an outreach and education effort through the National Geospatial Technology Extension Network (NGTEN) to provide

clientele and other Internet visitors with a single source of reliable and up-to-date information. We strive to provide baseline information on geospatial technologies, a knowledge base of frequently asked questions, and access to science based peer reviewed articles and guides. We are developing on-line learning modules that you can use as learning resources. Initial on-line modules focus on basic information about geospatial technologies; and future modules will focus on specific tasks and techniques. Map@Syst experts work directly with the Web site users enabling user to have access to a virtual network geospatial technology specialists.

## **Map@Syst Community of Practice**

### Community Leaders

John Nowatzki, North Dakota State University, Fargo, ND  
Greg Bonyne, University of Rhode Island, Kingston, RI  
Stewart Bruce, Washington College, Maryland  
Shane Bradt, University of New Hampshire, Durham, NH  
Amy Hays, Texas A&M Institute of Renewable Natural Resources, Gatesville, TX  
Nathan Mattox, University of Missouri, Columbia, MO  
John McGee, Virginia Tech, Blacksburg, VA  
Sandy Prisløe, University of Connecticut, Haddam, CT  
Barron Orr, University of Arizona, Tucson, AZ  
Phil Rasmussen, Utah State University, Salt Lake City, Utah  
Karisa Vlasek, University of Nebraska at Omaha, Omaha, NE  
Paul Mask, Auburn University, Auburn, AL  
Daniel Schmoltdt, USDA-CSREES

### Other Community Members

Keith Morris, Louisiana State University Ag Center, Baton Rouge, LA  
Scott A Samson, Mississippi State University, Starkville, MS  
May Yuan, University of Oklahoma, Norman, OK

## **Map@Syst Resource Areas**

Current resource areas included on the Map@Syst eXtension Web site are:

- Geographic Information Systems (GIS)
- Global Positioning Systems (GPS)
- Remote Sensing
- Web Mapping
- Geospatial Data
- Hardware and Software
- Land Use and Community Planning

- Precision Agriculture
- Natural Resource Management

### **2008-2009 Development Plans**

A primary Map@Syst focus during 2008 is to enhance the information and tools useful to people involved with precision agriculture. We propose to collaborate with agricultural crop producers, agricultural equipment manufacturers and dealers, crop consultants, farm chemical representatives and educational personnel to enhance the precision agriculture resource section in Map@Syst.

The materials and services included in the 2008 Map@Syst precision agriculture scope of work development of FAQ's on GPS, GIS and remote sensing applications to precision agriculture and basic articles on the following topics: 1) variable rate resource applications; 2) GPS guidance, auto-steer and crop monitoring; 3) satellite imagery and aerial photography in crop and range management; and 4) using GIS for crop production management.

The Map@Syst CoP precision agriculture team members will conduct a face-to-face meeting to develop and add precision agriculture materials to the Map@Syst Wiki. Members of the Map@Syst CoP will conduct illustrative presentations of eXtension to market Map@Syst with display booths and presentations at three regional or national meetings during 2008.

A second Map@Syst CoP goal is to mint 250 geocoins to promote Map@Syst in the sport of Geocaching particularly as a 4-H youth activity. The Map@Syst geocoins will be trackable on the internet using a serial number and website address engraved on the coin.

### **Wiki-Based Development**

The entire eXtension Web site is developed using WikiMedia software. MediaWiki is a free software wiki package originally written for Wikipedia. Map@Syst members use WikiMedia available on the eXtension Web site to add material to the Map@Syst Web site. Map@Syst CoP members upload existing materials into the Wiki for collaborative development and peer review or use the Wiki to develop new materials.

### **Joining Map@Syst**

Individuals can become a part of the Map@Syst Community of Practice either by nomination by an existing CoP member or by completing a letter of interest and sending it to one of the existing CoP members. Existing CoP members review the candidate application evaluating the application for objectivity and accomplishments in geospatial technology. The CoP reviews the applicant's expectations and explains the Map@Syst Code of Ethics with candidate. Admittance into the Map@Syst will be based on a simple majority vote of existing members.