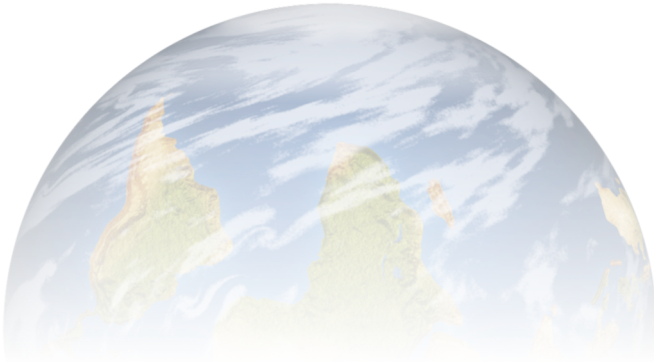




GeoMoose



JULY
2013

GEOMOOSE

NOMINATION FOR A GOVERNOR'S GEOSPATIAL COMMENDATION AWARD

It is our pleasure to nominate Geographic Map Objects Open Source Environments (GeoMOOSE) for commendation consideration. We wish to recognize both the value of the project and the long and exceptional work of the City of St. Paul, including those involved in project duties on the city's behalf—

Mr. Robert Basques, Mr. James Klassen, and Mr. Daniel Little .

July 31, 2013

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar Street
St. Paul, MN 55155

Dear Governor's Geospatial Commendation Awards Committee,

We are very pleased to nominate the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little for the 2013 Governor's Geospatial Commendation Award. We believe their efforts to create the geospatial project GeoMOOSE (Geographic Map Objects Open Source Environments), along with its public release as open source software are worthy of this distinguished award.

In April 2013, the Open Source Geospatial Foundation (OSGeo), the worldwide governing and standards body for open source geospatial software, officially blessed GeoMOOSE as software sanctioned by the organization. As such, GeoMOOSE became one of only 19 software programs so approved for global use, and joins MapServer as only the second Minnesota program granted this distinction. This unique level of accomplishment among open source geospatial products is indicative of the strong foundation that was laid down during the project's initial development at the City of St. Paul during years 2002-2006. Through a visionary approach to data management that was many years ahead of its time, and the selfless act of releasing software which others could use free of charge, the City of St. Paul and its dedicated team of GeoMOOSE developers substantially contributed to the greater good by setting in motion an effort which is now providing benefit across the nation and world.

In testament of the value of GeoMOOSE, know that significant user communities now exist in at least seven states and three foreign countries. Furthermore, in support of this nomination, find attached seven letters of support which highlight the substantial value and diverse impact that the GeoMOOSE project has had on a wide variety of organizations. It is for this exceptional level of accomplishment that we ask award of the 2013 Governor's Geospatial Commendation Award to the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little.

Sincerely,



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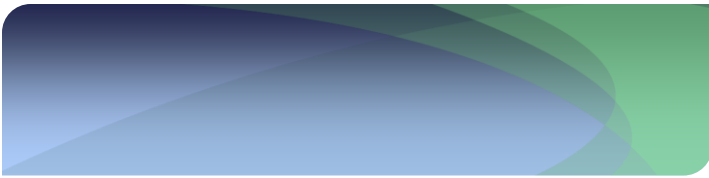


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Introduction

GeoMOOSE (Geographic Map Objects Open Source Environments) is an open source Web Client for displaying distributed cartographic data which began as its existence as an in-house project at the City of St. Paul, Minnesota. Recently, it became sanctioned as an official project of the Open Source Geospatial Foundation (OSGeo), demonstrating it is now supported by a successfully operating open and collaborative development community. Its user's list now includes almost 8000 people from around the globe. Therefore, this nomination serves as a way for Minnesota's geospatial community to honor the exceptional achievement of this project within multiple categories of consideration.

Project Description

The design of GeoMOOSE focuses on the integration and display of cartographic data from multiple sources. It is a lightweight tool for servers, which means it can easily handle a large number of users, with a large number of layers, and a large number of services, without stressing a server. It can be set up by a non-programmer without a single line of code or by a seasoned programmer who will be pleased with the modular and configurable nature of the program. Because it makes extensive use of geospatial standards, GeoMOOSE is a great way to manage both internal and external data sources. In all, GeoMOOSE is a program designed to make cartographic data affordable and easy to store, use, and share.

Although the GeoMOOSE project began development as a tool exclusive to the City of St. Paul, over time it has evolved into a public resource capable of addressing significantly more geospatial data issues than was originally envisioned when the project commenced. This includes efficient investments in geographic information; a drive to keep information serving multiple purposes; time capsule viewing for information gaining temporal value once that data is kept, labeled, and layered year after year; and, making access to this data as affordable, reliable, and easy as possible, for *all* types of users and purposes.

GeoMOOSE closes gaps between access and efficient management of geospatial data, an operational area which previously was limited to large, big-budget software. GeoMOOSE invested in the service model of enabling *all* communities that could benefit from geographic information, such as small governmental entities and private citizens. The result is GeoMOOSE is understandable, inexpensive, easy to manage and operate, and completely accessible. By achieving all of these design goals, GeoMOOSE has encouraged communities to take charge of their own geographic records, even helping convince unlikely candidates of the importance of recording geospatial information. GeoMOOSE's biggest success stems from its complete approachability: by making the program accessible, new users find themselves using data in ways that they hadn't been able to before, enabling multiple-purpose usage and expanding the benefits of geographic information.

Project History

GeoMOOSE tracks its history back to the early 2000s in the City of St. Paul Public Works Department. The City had just collected a massive amount of aerial photo data, and everyone in Public Works was making their own copies of the images, which was both inefficient and overloaded the backup system. However, it was important that these photos were conveniently available to everyone, especially Auto-CAD users for critical City design projects such as waste management, road construction, and similar. Mr. Robert Basques, a Public Works employee, took it upon himself to make this critical but overwhelmingly large data set more manageable by creating a webserver for this single data set, which ran off his office desktop. Everyone else was then directed to delete that data from their hard drives.

The visualization component of this data organizer became the basis of GeoMOOSE. This web-based approach was key to opening up access to a set of proprietary SID files. Then, by using open source software, the file and tiles could be cut up into manageable sizes. Additionally, this visualizer used a tiling system to organize and load the data, but performed tiling on the backside of the program, thereby making a new, single tile from the SID file tiles for each redraw. Consequently, the process was much faster for users as they no longer had to keep files or tiles on their own computer systems. Although at this point the first version of GeoMOOSE only used the aerial photo data in construction of the viewer's tiles, it proved to be a very basic, helpful online utility.

As the program began to circulate around the City, it acquired its first name: MOOSE. A more updated version of the program was written by Mr. Basques, this time enabling the system with four layers of data. It was based on much the same framework and still used the aerial data at its core. Although still built primarily for Auto-CAD designers, it was gaining a more and more complex online format, and, shortly, people would begin to see it as a resource for more than just City planning.

Beginning in 2004, MOOSE caught the attention of two Information Systems personnel, Mr. James Klassen and Mr. Daniel Little. From 2004 to 2006, the two got involved and began to make their own, more sophisticated interface for the program. They took over coding obligations, making the program first support 12 layers, then 27 layers, then 30+ layers and so on. Finally, the project became a stand-alone tool. The previous focus on benefiting Auto-CAD users became secondary to rounding out a revolutionary program with the capabilities to be both a spatial data management resource and a filing cabinet. The version of MOOSE began to align with Open Geospatial Consortium (OGC) web standards and provided every data set as WMS with selected sets available as WFS as well. MOOSE now included pop-up information provided by the open source Internet mapping engine MapServer on feature-level data, making the usage of the tool more interactive and informative. It extended the ability of other open source tools like MapServer and OpenLayers to provide built-in services, like drill-down identify operations for viewing and organizing multiple layers, selection operations, and dataset searches. During this time, MOOSE's data repository also accumulated time-stamped versions of data, adding a temporal

“GeoMoose is designed around a services-oriented architecture, which means it can use other web servers on the Internet and distributed application components on your own servers. Map layers can come directly from web mapping services published by a variety of government agencies or by accessing your own data using MapServer. This minimizes the need to copy and process large volumes of data. Other web-based information services can be accessed to integrate associated systems dynamically based on user interaction with the application. As a result, GIS applications can be provided on most servers or workstations without requiring special performance capabilities, disk space, or database software.”—[Dakota County GIS Newsletter](#)

dimension—users could use the data, captured through different periods in time, to spot trends and initiate planning.

By 2006 St. Paul staff recognized that MOOSE had potential value for others beyond the City. In 2006-2007a Minnesota and North Dakota collaborative program (OpenMNND) funded by an FGDC CAP grant and managed by Brian Fischer at Houston Engineering supported the open source launch of a rebuilt

MOOSE, known as GeoMOOSE version 1.0.0 (released on September 24 2007). Quoting from the project's final report, the aim of this process was to *"improve the ability of local government agencies to deliver enhanced public access to GIS data through the development of client applications providing a consistent look and feel across jurisdictions. These development efforts center on providing public users greater access to data from multiple agencies without the need for learning new Graphical User Interfaces (GUI) or presentation techniques."* Also included was a focus to improve the public's ability to understand and use the FGDC framework data for their own purposes, meaning the client-side interactive mapping tools needed to be consistent between multiple sites. Since this launch, GeoMOOSE can be run as a service on a webserver or as a localized, standalone page.

In order to meet some of the OpenMNND project's requirements for a fast and user-friendly product, portions of the ahead-of-their-time innovations originally added by Mr. Klassen and Mr. Little were dropped. Some of these features are recently being reintroduced to the software, including a data matrix table that shows pop-up information, 3-D visualizations, and draggable control features.

"OpenMNND focused GeoMoose on local government needs and packaged it so it can be easily downloaded, configured, and deployed using basic web publishing skills. No programming is required. Based on open standards and open-source software, entire applications can be built without having to purchase any software."— [Dakota County GIS Newsletter](#)

Continuing Growth

Since its 2007 release as an open source project, GeoMOOSE has continued development, and has gained a worldwide following. A web site (www.geomoose.org) provides information and downloads for potential users and potential developers, as well as methods to communicate directly with developers. Workshops on GeoMOOSE have been presented at MN GIS/LIS and at national and international conferences (Free and Open Source Software for Geospatial: FOSS4G 2011, FOSS4G-NA 2013). Mr. Little, Mr. Klassen and Mr. Basques have continued to provide both continued upgrades and user support, as their time allows. Companies such as Houston Engineering provide commercial support to end users and have in turn supported upgrades to the code base (see http://www.geomoose.org/info/commercial_support.html). In 2011 an official Project Steering Committee was established, and additional developers have gotten involved in code and documentation support.

In 2013, GeoMOOSE was officially sanctioned by the [Open Source Geospatial Foundation](#), OSGeo, "whose mission is to support the collaborative development of open source geospatial software, and promote its widespread use." The process for software to become officially sanctioned by OSGeo is significant. For GeoMOOSE, it took six years to go through the OSGeo incubation process, which includes a review of software licensing, the creation of a community-run Project Steering Committee, and the addition of

Principles of OSGeo Projects (The OSGeo Way)

- *Projects should manage themselves, striving for consensus and encouraging participation from all contributors - from beginning users to advanced developers.*
- *Contributors are the scarce resource and successful projects court and encourage them.*
- *Projects are encouraged to adopt open standards and collaborate with other OSGeo projects.*
- *Projects are responsible for reviewing and controlling their code bases to insure the integrity of the open source baselines.*

promotional support from OSGeo. The process to sanction the GeoMOOSE project was facilitated with support from OSGeo volunteer Jody Garnett, the GeoMOOSE project mentor. As officially sanctioned software, GeoMOOSE is a featured project on the OSGeo website and joins [MapServer](#) as only the second program with Minnesota origins to be recognized by OSGeo. GeoMOOSE software is downloadable for free, and

useable under an OSI-certified open source license.

GeoMOOSE is acknowledged by more than thirty organizations around the world for providing the application that each community developed to suit their needs (See the GeoMOOSE Gallery Wiki: http://www.geomoose.org/wiki/index.php/GeoMOOSE_Gallery). This number only reflects those that have allowed recognition on the Wiki—meaning that user numbers are still growing beyond what this list shows. By having its representatives regularly attend workshops, lectures, and conferences, GeoMOOSE continues to spread its reach. Meeting the goal of efficient and effective use of geospatial information remains the program's priority.

The City of St. Paul's public web site, running on GeoMOOSE, continues to provide an important service. In the first fourteen weeks of 2013, a LOG file analysis showed that 6 million map views had registered within the City and 2.5 million had occurred on outside browsers. Each redraw, including maximizing/minimizing or otherwise moving the map within the viewing portal, counts as a map view. However, the program clearly reaches many users from the City and otherwise, including city residents.

Impact

"We were looking for a way to serve the public, but like many small counties we didn't have a lot of money to spend. GeoMOOSE lets us provide a great mapping service for only the cost of hosting and set-up. The staff use and feedback has been wonderful but the public's comments are really what drove this home for us. We've received lots of e-mails from surveyors, banks, realtors and citizens – they are so happy to be able to get information they need, whenever they want it. We had over 200 new users just in the first 2 weeks the mapping application was up. Overall it has been a huge success with the addition of GeoMOOSE, both in the communication between departments and neighboring counties, as well in serving the community."—Christy Christensen, McLeod County GIS Director

"Response from our citizens has been very positive—people are asking for more. We had been looking at ways to do this for a while but other options needed huge dollar amounts that we couldn't support politically. We just needed to get something up that people could see, and GeoMOOSE allowed us to do this at a fraction of the cost. Some members of our County Board had trouble seeing the value in computers and mapping before this. With GeoMOOSE we could do the project in stages, and once the seed was planted it grows pretty well! Farmers in this area love to look at the photos and use the tools to measure acres, and we added historic trails and sites as well to get average people interested. Now our Police Dept. is asking for more, and we're looking at adding more tools."—Chuck Mormon, Morton Co., ND

"We're a small government unit with a big area of responsibility – the 70,000 wetlands that can produce mosquitoes in the 7 county Metro area. We had desktop GIS at our field offices but needed an easy way for anyone in the organization to see each other's maps, and keep those updated with daily treatment data. And we needed to do it without a lot of IT overhead. With GeoMOOSE we were able to use the web for putting our maps and data together and making that information available not just for our staff but for the public as well."—Nancy Read, Metro Mosquito Control, St. Paul, MN

We believe that the GeoMOOSE project is worthy of the recognition because it advances several of the principles defined in the nomination criteria.

- Promote efficient investments in geographic information

As demonstrated earlier in this nomination, efficiency has always been a core goal of the GeoMOOSE project. Providing an economical web mapping option enables small, resource-stressed agencies and organizations an entry point into serving geographic information via the web.

- Promote geographic information as a public resource that should be both widely shared with and available as a public resource

The very fact that GeoMOOSE provides a web mapping framework in itself speaks directly to this goal. By serving geospatial data widely and freely, GeoMOOSE contributes to government transparency of geospatial data and provides free access to those data to customers and residents alike.

- Support the establishment and use of geographic data standards and guidelines to better exchange and share information resources

GeoMOOSE is built on open source GIS data and software standards. GeoMOOSE has helped advance these standards among the larger developer community and was recently recognized by the OSGeo for adherence to compliant standards. GeoMOOSE can also consume and display nearly any data format, including proprietary and open source standards like WMS and WFS.

- Promote the beneficial uses of geographic information in the development of policy and the management of public resources

GeoMOOSE is deployed by numerous large and small governments, both in the US and internationally. Making data broadly available enables its use to inform public policy and manage resources. The letters attached and testimonials above illustrate how various users rely on GeoMOOSE to help inform policy and resource decisions.

- Provide a major forum where ideas and issues of the GIS community in Minnesota can be brought forward, discussed and acted upon, as appropriate

GeoMOOSE has an active user/developer community--one of the criteria for OSGeo certification. Because GeoMOOSE is a Minnesota Grown product, many of the GeoMOOSE users, supporters and developers are in Minnesota. The OSGeo GeoMOOSE listserv provides a place for active conversation and participation on a daily basis. In fact, there are 7955 registered users and that same page reports more than 200 comments in the last 2 months alone.

GeoMOOSE meets the goals of efficient and effective use of geospatial information because it offers a low cost solution to serve spatial data to the public with little investment. It was created as a tool to enable local governments with a low-cost, extensible solution to share data and serve residents via the web. The GeoMOOSE program appeals to its customer base by adhering to five simple promises:

- It's **open source**. There's no charge for this software. It was developed by users, for users. Everyone chooses to support it by making his or her input heard.
- It's **easy to set up**. It can run on any platform—which means choosing the server type to run it on is entirely up to the user when considering expected user demand. It also requires only basic web publishing skills to manage.
- It has a **stable, flexible structure**, meaning that users' departments can each contribute—and still maintain control over—their data, allowing for an easy-to-update management system.
- It features a **smooth user interface** with navigation tools similar to those found in other popular mapping sites so as to provide an easy transition for newcoming clients. Or users could customize the interface themselves to suit their own needs.
- It's **fast**. Using aerial photos from live web services sites—like LMIC or DNR—GeoMOOSE brags a quick redraw time, every time.

As stated, it has focused itself on providing a geographic data storage and viewing system that can be used by anyone, regardless of budget, skill level, or intended application of the data. Particularly, though, GeoMOOSE has opened up the world of small government entities to the benefits of investing in a geospatial data standard, of learning how to manage and utilize cartographic data and apply that knowledge to benefit themselves. As stated in their OpenMNND final report, "*Our goal is to change the*

way local governments think about framework data and demonstrate how they can leverage data services with our client software."

GeoMOOSE has a long history of meeting the goals this Geospatial Commendation has outlined. Its founding principals illuminate the priority of efficient investments in geographic information, such as those that either serve multiple purposes and users or have exceptional cost-benefit ratios. This is apparent in GeoMOOSE's focus on providing easy-to-use, up-to-date data and software freely in an online setting. Its open source packaging promotes the sharing of geographic data, expertise, and technology and the development of geographic data as a public resource, widely available at reasonable cost. In short, the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little are well deserving of the 2013 Governor's Geospatial Commendation Award for the creation of geospatial project GeoMOOSE and its public release as open source software.

"Now, anyone can create web mapping applications. They don't require sophisticated hardware or software [or even a large budget]. This makes them practical for smaller cities and counties that may find it difficult to justify the expense required by other options. It means that other government agencies can easily justify providing interactive mapping applications to their constituents in support of their business. It also means that any governmental unit can use the same techniques for creating internal applications, putting interactive GIS in the hands of anyone in their organization. With barriers removed, these applications will become more prevalent. As that happens, users of those applications will experience greater consistency between applications deployed by multiple agencies and all will benefit by creating a thriving community to continue the collaborative model of working together to add even more capabilities and share application components."—Dakota County GIS Newsletter

Sources

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GeoMOOSE 1.0.0. Advertisement. *The OpenMNND Project: A Minnesota -- North Dakota Application Development Collaborative*. Federal Geographic Data Committee, 24 Sept. 2007.

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"Now, Anyone Can Create Web Mapping Applications – Announcing GeoMoose!" *MN GIS/LIS News*. Fall 2007, Issue 50. Reprinted from *Dakota County GIS Newsletter*. Summer 2007. <http://www.mngislis.org/displaycommon.cfm?an=1&subarticlenbr=263>

The Open MNND Project. Collaborative Client Software Development for Local Governments. *Final Report*. Richland County, ND, 13 May 2008.



Website: www.mmcd.org

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Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar Street
St. Paul, MN 55155

July 31, 2013

Dear Governor's Geospatial Commendation Awards Committee:

I am writing this letter in support of the nomination of GeoMoose for a Governor's Commendation Award, along with the City of St. Paul and geospatial developers Bob Basques, Jim Klassen and Dan Little for its creation and public release as open source software.


As a government organization with a large territory and small number of technical staff, MMCD has always been interested in cost-effective ways to manage geospatial information and communicate with our 7 facilities and with the 2.9 million citizens we serve. For that reason in 2006 we joined the OpenMNND project in search of an appropriate and manageable solution for making mapped information accessible through the web. We were pleased to find that the City of St. Paul was making their valuable, tested software available for others as an open source project.

In 2007 we switched our public and internal web maps to GeoMoose (plus MapServer). The site (available at www.mmcd.org) has proved to be useful for the public, typically garnering several thousand hits per year, with major peaks whenever it is featured on TV news. It has also formed the basis for enterprise data sharing within the organization, allowing those with no desktop GIS software or specialized expertise to have a wealth of data accessible from wherever they are.

We have worked extensively with Houston Engineering Inc. to set up and host our system, but with GeoMoose I have been able to make changes and update data layers myself, without having to be an expert in MapServer or other services (definitely a cost savings!). With its emphasis on Service-Oriented Architecture, we have been able to add outside services such as rainfall and aerial photography easily.

For our organization, open source software has been an important enabler. We are not part of an enterprise esri license, and whenever I have looked at proprietary systems to do

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the kinds of things we are doing with GeoMoose, MapServer, and PostgreSQL/PostGIS, I have found it to be cost prohibitive. We have paid for hosting and for custom application development, but with our open source geospatial "stack" we have not had to pay for licensing. I believe this choice has been beneficial for our organization and the citizens we serve.

In the spirit of open source, MMCD has also lent support to code sprints and other activities when we can, to ensure the future of this project. I was very pleased when GeoMoose reached the status of a recognized OSGeo project, demonstrating that it passed the "peer review" tests for maturity and sustainability.

I hope you will consider recognizing GeoMoose and the achievements of its core developers in inaugurating and continuing to support this broadly useful open source project.


A handwritten signature in black ink that reads "Nancy Read". The signature is written in a cursive, flowing style.

Nancy Read
Technical Coordinator
Metropolitan Mosquito Control District

nancread@mmcd.org

651-643-8386

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July 31, 2013

Commissioner Carolyn Parnell
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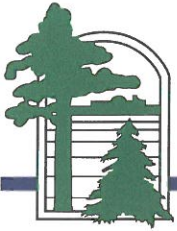
Support Letter for Governor's Geospatial Commendation Award

Dear Governor's Geospatial Commendation Awards Committee:

The City of Blaine is pleased to support the nomination of the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little for the creation and public release of open source software GeoMOOSE.

The initial investment by the City of St. Paul facilitated a direct cost-saving for the City of Blaine. Choosing GeoMOOSE, over canned commercial applications, saved the City tens of thousands of dollars in initial software & development costs and yearly maintenance, as well as staff time to install and maintain software on the desktop. These savings allowed us to create not one, but multiple applications to serve external and internal information requests. The public web portal allows free and easy access to GIS data and services for citizens, businesses and staff. We have also created an internal application for our Public Works staff that allows for "in the field" lookup of scanned images based on location, saving the time and effort of returning to the shop to review documents. The negligible cost of GeoMOOSE allows us to explore new ways to disseminate information to our customers.

The ease with which GeoMOOSE is deployed is a direct result of the hard work and meticulous documentation of the City of St. Paul and the development staff. The step-by-step process for downloading and implementing the initial application could not have been simpler to follow. From there, the customization of Blaine's application went fairly smoothly, but when it did not, Robert, James and Daniel have created a community of developers who are eager to share their knowledge and solutions. The open collaboration, more so than the application itself, is what the GeoMOOSE project is all about.



City of Blaine

10801 Town Square Drive NE
Blaine, MN 55449-8101
www.ci.blaine.mn.us

Because of this, the City of Blaine would like to highly recommend the GeoMOOSE development team and the City of St. Paul, for the 2013 Governor's Council Geospatial Award.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Johnson', written over a white background.

Jeremy Johnson, GISP
GIS Coordinator
City of Blaine
763.717.2639
jjohnson@ci.blaine.mn.us



07/30/2013

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar Street
St. Paul, MN 55155

Support Letter for Governor's Geospatial Commendation Award

Dear Governor's Geospatial Commendation Awards Committee:

Houston Engineering, Inc. is pleased to support the nomination of GeoMoose for a Governor's Commendation Award, along with the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little for its creation and public release as open source software.

GeoMoose is a unique project that started out of a need by the City of St. Paul and has grown into a mature Open Source GIS software project. GeoMoose has impacted numerous organizations throughout the United States, but in particular has been the foundation for numerous Counties, Cities, Watershed Districts and nonprofits web mapping presence. Without a project like GeoMoose these smaller organizations could not have afforded to have web mapping and utilize GIS in the way they do today. GeoMoose has also saved these organizations tens of thousands of dollars over the past 5 years by having license free web mapping software.

Today GeoMoose is used by organizations around the world and has an active user community with dedicated project supporters to help continue the enhancement of the software from the initial investment made by the City of St. Paul and other organizations. We hope the State recognizes this unique project and the benefits it has provided numerous organizations over the past 5 years. This is truly a shining star for the State of Minnesota and speaks to the ideology of collaborative software development as well as the talented GIS professionals we have in this state.

Sincerely,



Brian Fischer
Principal | GIS Project Manager



COUNTY OF LINCOLN

John Waffenschmidt, P.L.S.
Director
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July 29, 2013

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar St
St. Paul, MN 55155

Dear Commissioner Parnell,

Lincoln County, Oregon provides this letter of support for nominating GeoMoose for the Governor's Geospatial Commendation Award.

GeoMoose was one of the best available web mapping applications for government use when we evaluated twenty or more different options in 2009. Since then, we have been using GeoMoose for internal County business needs as well as providing Lincoln County's geographic information to the public on the internet.

GeoMoose provides an effective way to share geographic information widely. Part of the reason that GeoMoose is so effective at sharing geographic information is due to excellent support of Open Geospatial Consortium standards like Web Map Service and Web Feature Service.

Since GeoMoose uses an open-source development process, we were able to start from a great application built by others and focus our efforts on improving GeoMoose even further. This made for efficient use of our time and funding. The open-source process helps Lincoln County, and also helps all other users of GeoMoose, whether in Oregon, in Minnesota, or anywhere else in the world, as all improvements are shared with any entity using GeoMoose.

Lincoln County, Oregon recommends GeoMoose as an excellent web mapping project and as a worthy selection for the Minnesota Governor's Council Certificate of Commendation.

Sincerely,

John Waffenschmidt
Information Technology Director

Polk County Oregon
850 Main St
Dallas Oregon 97338

7/31/13

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar Street
St. Paul, MN 55155

Support Letter for Governor's Geospatial Commendation Award

Dear Governor's Geospatial Commendation Awards Committee:

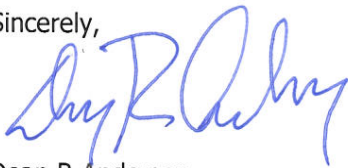
Polk County, on behalf of the Oregon Open Source Web Mapping Consortium, is pleased to support the nomination of the City of St. Paul and geospatial developers Robert Basques, James Klassen and Daniel Little for the creation and public release of open source software GeoMOOSE.

The GeoMOOSE web mapping system is the cornerstone of Polk County's public web mapping presence. The system is used daily by a wide variety of users to meet many public and private business needs. The system allows these businesses to access and use our county geographic information in a remote and mobile environment which reduces their costs for doing business.

The tool is not just used by Polk County but is used by several other counties and cities in the Oregon Consortium. The Consortium selected GeoMOOSE as our development platform because of the software reviewed it best met our needs. The initial development of GeoMOOSE provided our consortium with a starting point for our development process that greatly reduced our implementation effort. We have then been able to return the favor to these initial organizations by contributing investments and resources to enhance the product even more for future users.

In summary, the initial development of GeoMOOSE in an open source environment has been a great benefit to our organizations and deserves your recognition.

Sincerely,



Dean R. Anderson
IT Director
Polk County



www.maine.gov

MAINE OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS

Dept. of Administrative & Financial Services

Office of Information Technology

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Paul LePage
Governor

Sawin Millett
Commissioner

Jim Smith
Chief Information Officer

Michael Smith
State GIS Manager

July 30, 2013

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar St
St. Paul, MN 55155

Dear Commissioner Parnell,

I am writing this letter to support the nomination of GeoMoose for the annual commendation award from the Minnesota Governor's Office.

I am the lead Applications Developer for the Maine Office of Geographic Information Systems (MEGIS). Our responsibilities include building web mapping applications for various state agencies.

Several years ago, MEGIS was searching for a front end solution for our internet mapping applications. We considered a number of products, including commercial software, open source, and in-house-built products. None of the products we found were totally suitable until we discovered GeoMoose.

We have since built several internet mapping applications using GeoMoose, with more in development. Our experience with GeoMoose has been very positive. It is well suited to our web mapping needs, and we can customize applications to meet customer requirements.

Because GeoMoose is built on open source technologies, we have realized a large cost savings over proprietary web mapping solutions, both in terms of development and hosting.

GeoMoose also has an extremely knowledgeable and helpful user community, which I have actually found quicker to respond, and more helpful, than paid technical support of commercial software.

In summary, we are very pleased with GeoMoose as a key component of our enterprise web mapping strategy. I hope you will consider it for this commendation.

Sincerely,
Bob Bistras, GISP
Senior Programmer-Analyst
Maine Office of Geographic Information Systems
(207) 215-1699, bob.bistras@maine.gov



July 31, 2013

Commissioner Carolyn Parnell
State of Minnesota Chief Information Officer
200 Centennial Building
658 Cedar Street
St. Paul, MN 55155

Dear Commissioner Parnell:

It is my pleasure to offer a letter of support for a Governor's Award to the GeoMoose open source software project. As an outreach office at the University of Wisconsin-Madison, the State Cartographer's Office has extensive experience building public service online mapping applications for our Wisconsin constituency. Being in an academic environment, we have a long history of utilizing open source software for these applications, which provides our student development teams with an inside look at software development and utilization for effective online mapping.

In the last four years, we have updated two long-standing online mapping and data delivery applications (ControlFinder and PLSSFinder) and added a third application (the Wisconsin Historical Aerial Imagery Finder, or WHAIFinder) to our portfolio. In preparation for the development effort, we sought out and tested open source frameworks that would support necessary application features, provide the service learning opportunities we desire for our students, and allow these students to achieve success during their sometimes short tenure in the office. Ultimately we chose GeoMoose as our development platform for all three applications.

GeoMoose provided an open source application development framework that utilized existing open source components (such as the MapServer map engine, with which we were already familiar), while providing us with a customizable PHP framework to build our applications. Not only were our students highly successful in utilizing the framework -- which speaks to its architecture and documentation -- but the applications have stood the test of time in online duration and robustness. This is no small feat in an ever-changing web application software environment. Our newest application built on GeoMoose, the WHAIFinder, received a Wisconsin Governor's Award for Archival Innovation.

As we've followed the GeoMoose project team, we've been impressed by their desire to provide continued support for the software as well as helping it mature within the open source geospatial software community. This is reflected, for example, by GeoMoose's recent acceptance and sanctioning under the OSGeo Foundation software umbrella.

One of the strengths of GeoMoose is that it is a community-driven software product that fills a sustained need within the geospatial and web mapping arenas. GeoMoose has been used extensively, not only within Minnesota, but in peer states like Wisconsin that have many of the same opportunities and constraints underlying geospatial technology use. This is noteworthy in terms of the return on investment that GeoMoose has been able to proffer.

STATE CARTOGRAPHER'S OFFICE

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Minnesota has a strong tradition of developing innovative open source geospatial software. Recognizing the contributions of the GeoMoose program through a Governor's Award would be an appropriate and compelling statement about how Minnesota has helped shape the open source geospatial landscape across the country

Sincerely,

A handwritten signature in black ink, appearing to read "m. v.", with a stylized flourish at the end.

Howard Verigin, PhD, GISP
State Cartographer