

MONTANA ASSOCIATION OF
GEOGRAPHIC INFORMATION PROFESSIONALS

MSDI FRAMEWORK TECHNICAL REVIEW
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Submitted by

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INTRODUCTION

Tasked with providing a technical review of the Montana Spatial Data Infrastructure (MSDI) Framework Themes, the Montana Association of Geographic Information Professionals (MAGIP) sought out seven individuals with an interest in the technical workings of those themes to read and discuss the Framework Theme Review document (available online at http://itsd.mt.gov/content/policy/councils/mliac/MSDI_2009_Theme_Review/responses). The goals of the group were to look for common technical issues across themes and to make recommendations to the Montana Land Information Advisory Council (MLIAC) as to how to advance Montana's framework data effort.

As the review progressed, however, it became apparent to the group that the initial questionnaire failed to seek out technical responses from the Framework Stewards (in fact, stating that “well-constructed responses to the questions are preferred over highly-technical explanations”). Due to this lack of technical information, the task became difficult to accomplish and several members chose to remove themselves from the group as frustrations set in. In spite of these difficulties, the remaining members felt that there were indeed technical issues that were identified during the review process—as general as they may be—and it was in the best interest of MAGIP, MLIAC, and the Montana GIS community that they outline those concerns rather than dissolve the group and provide nothing at all. In the end, the group identified three areas of technical concern where it believes MLIAC should focus its efforts:

1. Framework Theme Dependencies
2. Adoption and Use of Framework Themes / User Buy-In
3. Coordination and Collection of Framework Theme Data

The following discussion addresses each of the three topics and outlines recommendations that might be implemented to advance the MSDI Framework Themes.

1. Framework Theme Dependencies

Many of the framework themes are dependent on other themes for spatial accuracy and reliability, yet there was little documentation found in the review as to how or when updates cascade from one theme to another.

Recommendation

MLIAC (and MAGIP) should promote and support regularly scheduled meetings of the framework theme stewards. Discussion of current issues and advancements would be beneficial in providing information to theme stewards as other themes are developed and would ensure that nothing is “lost in the shuffle”. Additionally, the group felt that a visual depiction of the interworking relationships between framework themes should be developed. Not only would this help to identify areas where error may be introduced, but it might also improve user buy-in of the framework themes (see No. 2 below).

2. Adoption and Use of Framework Themes / User Buy-In

Several theme stewards expressed their frustration with the fact that framework data are not being used. There are many possible reasons why an entity might use (or not use) framework data in its operation(s), but it is in the best interest of the GIO, MLIAC, and MAGIP to promote the use and visibility of framework layers across all sectors of the community.

Recommendation

The end goal should be for MLIAC to promote policy that requires the use of framework data by state agencies where decisions are being made that affect the public. While there would obviously be exceptions to this type of policy, its development and support would not only promote consistency and transparency amongst geographic analyses and the resulting decisions, but it would also aid in reducing the duplication of efforts to create and maintain datasets throughout the state of Montana. It should be noted that this recommendation is in many ways a longer term goal, as some framework themes may currently be ready for such a mandate while other themes are not.

Additionally, development of a visual depiction of the framework themes (as described in No. 1 above) would provide the public with a better understanding of the interworking relationships of the framework themes. With increased knowledge of how the framework layers are developed, it is thought that users who are not mandated by policy will then be more likely to trust and use the data.

3. Coordination and Collection of Framework Theme Data

There was concern amongst the group regarding the quality and reliability of data that is collected in a federated system. While it is often felt that the local source for data is always the best source for data, framework stewards must be careful to ensure that only the highest quality data is entered into the system.

Recommendation

MLIAC (and MAGIP) should promote and support educational opportunities throughout Montana. Best practices should be developed to provide the basis for sound and reliable data. To ensure that only the highest quality data is being used, a formal and transparent process for QA/QC should be developed and implemented, including some sort of mechanism for two-way communication between data users and theme stewards.

CONCLUSION

While not technical in nature, nearly all of the theme stewards expressed a need for stable and reliable funding to assure continued development and maintenance of the framework themes. Without stable sources of funding, the considerable investment that the Montana GIS Community has already put into framework data is indeed jeopardized. It is the hope of this group that solutions to the technical issues outlined in this document, as well as sources of stable funding, are sought out and implemented in some form by MLIAC to further the development and use of the MSDI Framework Theme Layers.