



FEMA

Summary

NIMS STEP

National Incident Management System Supporting Technology Evaluation Program (NIMS STEP) activities are managed by the Incident Management Systems Integration (IMSI) Division of the National Preparedness Directorate (NPD), Federal Emergency Management Agency (FEMA). The purpose of NIMS STEP is to provide an objective evaluation of commercial and government software and hardware products to assist in the implementation of NIMS. The program is designed to expand technology solutions and provide the emergency management/response community with an objective process to assist in the purchasing of incident management products. NIMS STEP objectives include:

- Conducting practitioner-relevant assessments of emergency responder software and supporting hardware.
- Providing information that enables responders and emergency management staff to better select, procure, use, and maintain emergency responder software and supporting hardware.
- Inspecting products for their incorporation of NIMS concepts and principles.
- Determining product's adherence to applicable NIMS recommended technical standards - the Organization for the Advancement of Structured Information Standards (OASIS) Emergency Data Exchange Language (EDXL) suite of standards including Common Alerting Protocol (CAP).

For more information about NIMS STEP visit:

www.nimsstep.org or www.fema.gov/nims

Contact NIMS STEP staff at:

nimsstep@nimssc.net

DISCLAIMER: The evaluation results and use of trade names in this document do not constitute a DHS or FEMA certification or endorsement of the use of such commercial hardware or software.

Special Population Planner (SPP) 4.0

This summary presents an evaluation of Western Pennsylvania Search and Rescue Development Center (WPSARDC)'s system Special Population Planner (SPP) 4.0. The evaluation was conducted from 18 through 21 January 2010 as part of NIMS STEP. The objective of this evaluation was to determine the incorporation of NIMS concepts and principles.

System Description

According to WPSARDC, SPP is a Geographic Information System (GIS)-based software tool designed to facilitate emergency planning for special needs populations. The system provides users the ability to create and update a volunteer registry of persons with special needs, create and update GIS data, identify potential hazards and planning zones, and use data to develop response plans on behalf of the special needs population. SPP graphically displays data for persons with special needs, facilities requiring special planning, evacuation routes, control points for managing traffic flows, alert routes, shelter in place zones, and resources. Additionally, SPP gives users the ability to generate maps via Environmental Systems Research Institute (ESRI) ArcGIS software and automated reports using Crystal Reports. As a non-profit, 501(c) (3) organization staffed by volunteers, WPSARDC provides SPP as open-source software available for download from SourceForge.net. The figure below reflects a system-generated, hypothetical plume in relation to persons identified as being part of the special needs population for a given area.

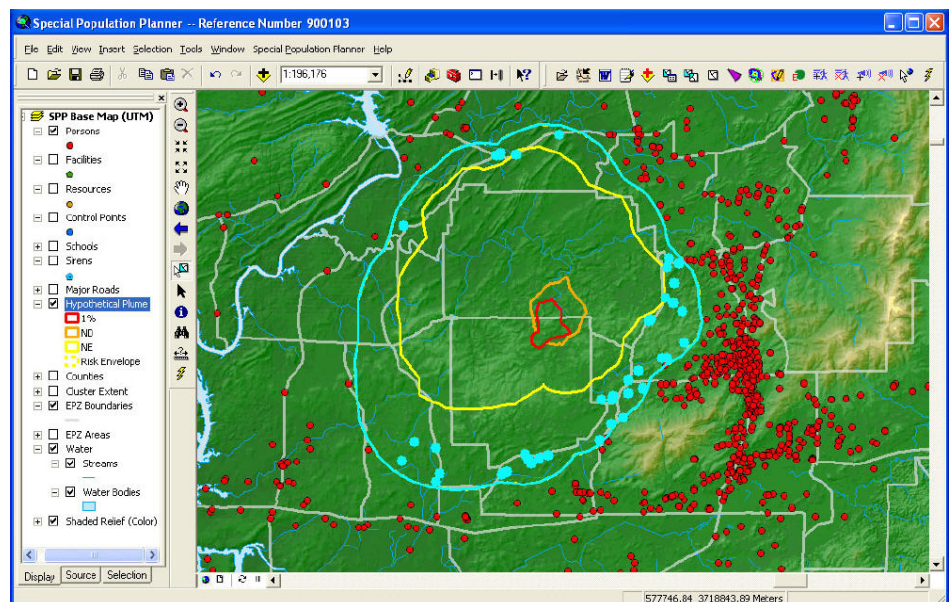


Figure 1: Special Population Planner

Evaluation Results

MINIMUM PRODUCT REQUIREMENTS

Key elements identified within each NIMS criterion are cited as Minimum Product Requirements. These requirements were derived from the NIMS document and impact the overall rating of the product's adherence to NIMS concepts and principles. The numbers provided in the NIMS Criteria Summary Rating table summarize ratings (Agree, Disagree, Not Applicable) for Minimum Product Requirements within each NIMS criterion.

NIMS Concepts and Principles

The system can enhance a user's ability to do his/her job as SPP is a planning, management, and decision making tool specifically designed for special needs populations. The primary benefit of this system is that SPP offers a better interface for effective preplanning and incident/event response related to special needs persons and facilities.

The NIMS Criteria Rating Summary table below provides a summary of findings for NIMS criteria. The system is consistent with 2 of 5 NIMS criteria (Emergency Support and Hazards). The system is inconsistent with the NIMS criteria Communications and Information Management, Resource Management, and Command and Management as each received a rating of "Disagree" for at least one Minimum Product Requirement. Overall, SPP applies to 11 of 20 Minimum Product Requirements; of which 8 are consistent with NIMS concepts and principles.

Table 1: NIMS Criteria Rating Summary

NIMS Criteria (# of Minimum Product Requirements)	# Agree	# Disagree	# Not Applicable
Emergency Support (1)	1	0	0
Hazards (1)	1	0	0
Communication and Information Management (6)	3	1	2
Resource Management (10)	3	1	6
Command and Management (2)	0	1	1

NIMS CRITERIA DEFINITIONS

Emergency Support: This category groups criteria related to the applicability of the system to Emergency Support Functions (ESF) and/or the Incident Command System (ICS).

Hazards: This category groups criteria related to the product's applicability to natural and manmade hazards.

Communication and Information Management: This category groups criteria related to common operating picture, interoperability, scalability, plain language, and information security.

Resource Management: This category groups criteria related to the product's capabilities to manage resources including personnel, equipment, supplies, and facilities.

Command and Management: This category groups criteria related to the product's applicability to each of the 14 management characteristics of ICS.

The NIMS STEP team also evaluates each product against Implementation criteria, including time and training impacts on governmental entities.

An overview for each criterion is provided below; refer to the complete inspection report for additional information on NIMS criteria, Minimum Product Requirements, and detailed explanations for results.

Emergency Support: SPP meets the Minimum Product Requirement for Emergency Support as the system is consistent with applicable ESFs and core functions of ICS. SPP applies to 13 of 15 ESFs and 8 of 9 Incident Command functions.

Hazards: SPP meets the Minimum Product Requirement for Hazards as the system is applicable to at least one hazard. The system applies to all hazards; natural and manmade.

Communication and Information Management: SPP meets 3 of 6 Minimum Product Requirements for Communication and Information Management. SPP is not pre-populated with ICS forms, though users can insert ICS forms into the system. SPP can be used during small- and large-scale events and is scalable to support the full spectrum of multi-agency and multi-discipline incidents and events.

SPP meets [SAFECOM's Interoperability Continuum](#) for data sharing at the first level of swapping files (i.e., exchange data/application files or documents through physical or electronic media). For information security, users are responsible for securing their system at the policy, computer, and network levels.

Resource Management: SPP meets 3 of 10 Minimum Product Requirements for Resource Management. Users can inventory FEMA typed and non-typed resources. Resource typing definitions are not integrated in the system, but users can manually insert data files that support resource typing. SPP can assist in identifying additional reimbursement cost related to special needs populations through the use of attribute tables and reporting.

SPP is not designed to track resources but it does provide users the ability to customize data tables and manually track resources. SPP provides users the ability to generate various reports by querying attributes.

Command and Management: SPP does not meet either of the 2 Minimum Product Requirements for Command and Management.

SPP is applicable to 9 of 14 management characteristics of ICS, of which, the system is consistent with 8. The system indirectly supports the management characteristic Comprehensive Resource Management as resource management capabilities are restricted through the use of the system's attribute tables.

Implementation: It should take less than one month for a department/agency to implement this system. Certain software is required for a department/agency to implement the system: ESRI ArcGIS, Crystal Reports, Microsoft (MS) Access and Word, D2-Puff Plume, and WebPuff. A department/agency will need current GIS data, as well as personnel with GIS and programming experience to implement the system.

For Further Information

WPSARDC may have updated the product after the evaluation. Summaries and evaluation reports of products in this series are available through the Responder Knowledge Base (RKB) website at: <https://www.rkb.us>.

NIMS STEP activities are managed by the IMSI Division of NPD within FEMA.

For more information on this evaluation program, please visit:

www.nimsstep.org

www.fema.gov/nims

or contact NIMS STEP staff at nimsstep@nimssc.net