



by Kelly M. Dilks

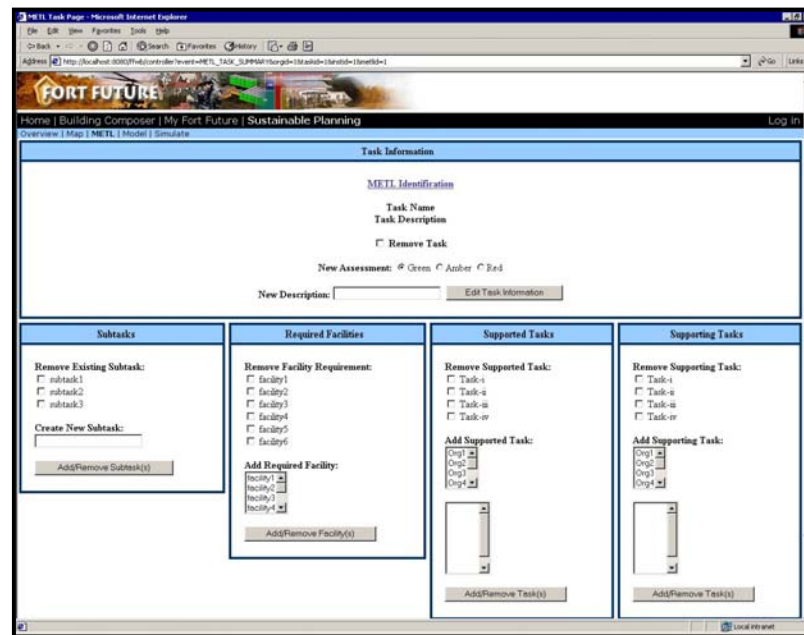
ERDC/CERL TN-02-2

October 2002

Integrated Installation Planning: Technology for Sustainable Installations

Requirements Builder — Tom Bozada

The Requirements Builder is both a requirements determination process and an assessment tool. It establishes a language and a process for installations to quantify their tenant support requirements and then measures how well they satisfy those requirements. Activities use the metrics established by the process to plan, monitor, analyze, and improve internal processes.



Facility Charrette Process — Annette Stumpf

Installation sustainability plans should address the physical components of Army installations and their interactions and interrelationships, to create a sustainable environment inside the fence, while maintaining an adaptive ability to support current and future mission requirements. The charrette process is integral to sustainability planning and synthesizing the requirements and needs of many stakeholders.



**US Army Corps
of Engineers®**

Engineer Research and
Development Center

Contact

U.S. Army Engineer Research and
Development Center
Tom Bozada, Mike Case, Kelly Dilks,
Suzanne Loechl, Annette Stumpf
Phone: (217) 352-6511
FAX: (217) 373-7222
URL: <http://bc.cecer.army.mil/ff>

Background

Fort Future is a research program designed to produce capabilities critical to the Army's ability to transform its installations in the tight timeframe required to support our emerging forces. Much as field commanders gain a superior advantage by visualizing the battle space, installation planners will be able to make strategic decisions by visualizing results of many different scenarios.

The U.S. Army Engineer Research and Development Center (ERDC) is conducting Fort Future research and development in support of the Assistant Chief of Staff for Installation Management (OACSIM). Fort Future will create a system-of-systems that unites existing and new computer models to form a "virtual installation." Building on currently available and planned Standard Army Management Information Systems (STAMIS) that provide a snapshot of the present, Fort Future will use modeling and simulation

to help decisionmakers explore potential consequences of their decisions.

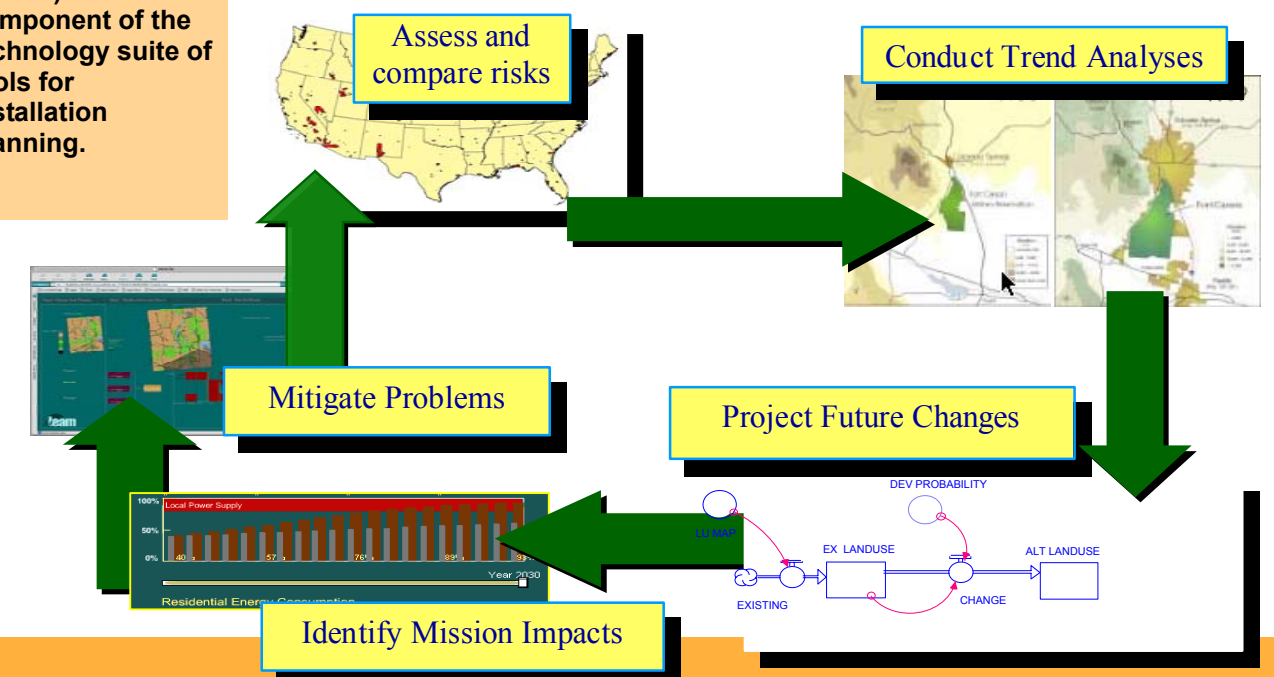
Problem

The Army's installations are currently undergoing a transformation that is necessary to "meet our combatant force requirements and soldier expectations."¹ Appropriate sustainable planning is a component of transformation and includes the integration of mission essential task list (METL) analysis, installation support requirements, and various aspects of the planning process such as master, natural, and cultural resource planning.

To join together numerous pieces of the planning process, and to proactively plan to support current and future military activities, various tools must be developed and integrated together through scientific practice, coordination, and technology.

¹MG Robert L. Van Antwerp and MG Hans A. Van Winkle, "Transforming Installations To Serve the Army's Objective Force," *Army AL&T* (Headquarters, Department of the Army, May-June 2002), accessible through URL: <http://dacm.rdausa.army.mil/>

Sustainability, Encroachment and Room to Maneuver (SERM) is one component of the technology suite of tools for installation planning.



REPORT DOCUMENTATION PAGE

Form Approved OMB No.
0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 01-10-2002	2. REPORT TYPE Technical	3. DATES COVERED (FROM - TO) 06-06-2002 to 01-10-2002
--	------------------------------------	---

4. TITLE AND SUBTITLE Integrated Installation Planning: Technology for Sustainable Installations Unclassified	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S) Dilks, Kelly M. ; Author Wolfe, William J ; Editor	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME AND ADDRESS Engineer Research and Development Center (ERDC) Construction Engineering Research Laboratory (CERL) PO Box 9005 Champaign, IL61826-9005	8. PERFORMING ORGANIZATION REPORT NUMBER ERDC/CERL TN-02-2
--	--

9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS Headquarters, U.S. Army Corps of Engineers (HQUSACE) 441 G St., NW. Washington, DC20314-1000	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
APUBLIC RELEASE

13. SUPPLEMENTARY NOTES
Copies are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

14. ABSTRACT
The Army's installations are currently undergoing a transformation necessary to meet our combatant force requirements and soldier expectations. Appropriate sustainable planning is a component of transformation and includes the integration of mission essential task list (METL) analysis, installation support requirements, and various aspects of the planning process such as master, natural, and cultural resource planning. A sustainable planning approach is required to ensure that the U.S. military has the facilities and resources to support future combat systems and training doctrine. Integrated installation planning will combine with modeling and simulation to compare and contrast various scenario results, and to provide for optimal solutions. The Integrated Installation Planning mission and application suite will provide the primary software tools to accomplish these tasks.

15. SUBJECT TERMS
decision support tools; Fort Future; facility management; installation planning; integrated software; simulation support tools; sustainability; sustainable facilities

16. SECURITY CLASSIFICATION OF:	17. LIMITATION OF ABSTRACT OF ABSTRACT	18. NUMBER OF PAGES	19. NAME OF RESPONSIBLE PERSON
a. REPORT Unclassified	Same as Report (SAR)	4	Wolfe, William William.J.Wolfe@erdc.usace.army.mil

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">b. ABSTRACT Unclassified</td> <td style="width: 33%;">c. THIS PAGE Unclassified</td> </tr> </table>	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified	19b. TELEPHONE NUMBER
b. ABSTRACT Unclassified	c. THIS PAGE Unclassified		
	International Area Code Area Code Telephone Number 217352-6511 DSN -		

Approach

A sustainable planning approach is required to ensure the U.S. military has the facilities and resources to support future combat systems and training doctrine. Integrated installation planning will combine with modeling and simulation to compare and contrast various scenario results, and to provide for optimal solutions.

Benefits

Integrated installation planning will enable users to:

- Identify potential encroachment concerns
- Transform management practices before resource pressure becomes critical
- Mitigate potential areas of concerns
- Facilitate planning to support current and future installation tenants.

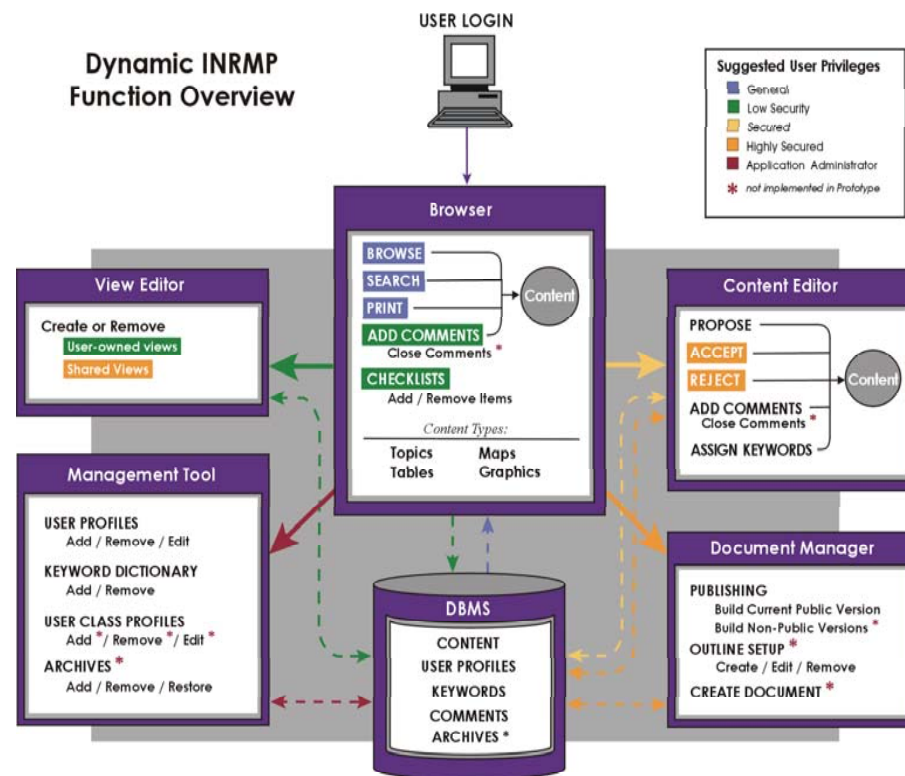
Tools

The primary tools in the Integrated Installation Planning mission and application suite are:

- SERM Technology Suite, which will assess and compare risks, conduct trend analysis, project future changes and identify impacts to mission, and mitigate potential problems
- DINRMP (Dynamic Integrated Natural Resource Management Plan) tool will facilitate workflow and resource management
- ICRMP Toolbox, which will provide a process to assist Cultural Resource Managers develop Integrated Cultural Resource Management Plans (ICRMPs).
- Requirements Builder, which will enhance the installation commander's ability to develop a mission essential task list
- Facility Charrette Process, a brainstorming technique in which participants from differing disciplines and backgrounds share in the design process.

Initial Components of the Installation Planning Suite Include:

- SERM
- DINRMP
- ICRMP Tool Box
- Requirements Builder
- Facility Charrette Process.

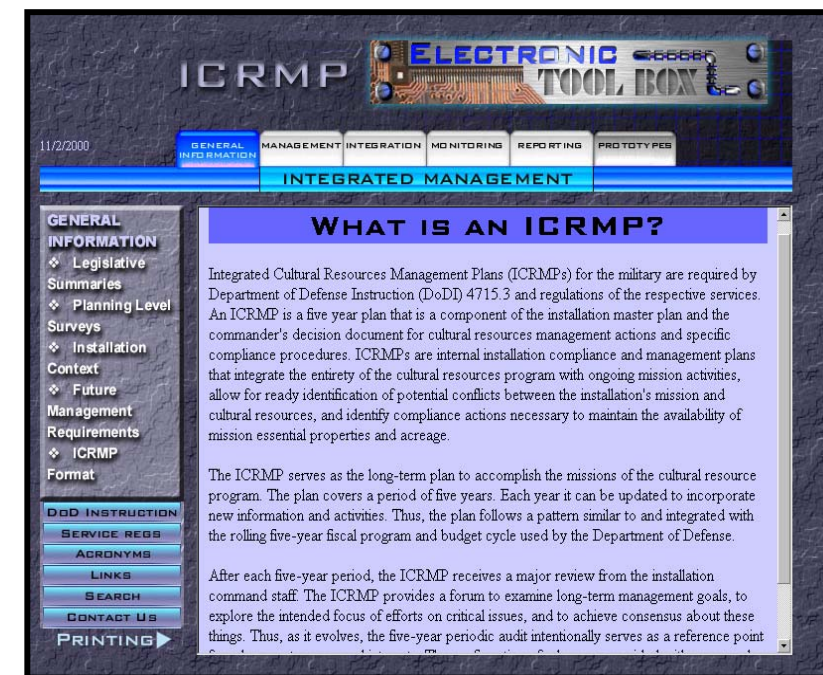
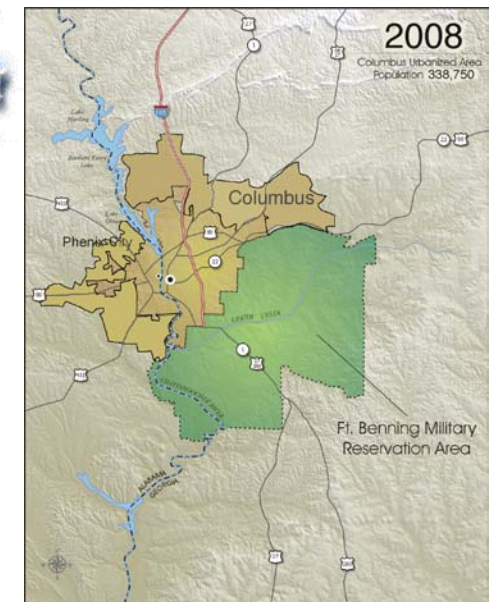


DINRMP provides a secure environment to develop and manage the INRMP development process by tracking changes and monitoring progress, with the potential to link the plan with the decision environment upon which it is based.

SERM Sustainability, Encroachment, and Room to Maneuver

SERM — James Westervelt

The ability to use military land within the fence is partially determined based on what is happening “outside the fence line.” The SERM program provides technologies and data to help installations create a proactive environment to protect critical existing assets.



ICRMP Toolbox — Suzanne Loechl

The ICRMP Toolbox provides a process for assisting cultural Resource managers to develop ICRMPs. It contains legislation, context information, management tools, links, and prototypes.

DINRMP – Kelly Dilks

The DINRMP provides procedural requirements for the INRMP development, a GUI via hyperlinks in text, tables, and maps, access to supporting data such as GIS maps, tracks and archives plan changes, and provides for secure access to the system and associated data.

