THE MILITARY DECISION-MAKING PROCESS: A
SOFTWARE TUTORIAL

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Preface

Today’s world is one in which bi-polar relations are no longer the defining distinction. Yet though a general sense of “peace” between traditional adversaries now prevails, the sense of order that was inherent in a single-threat world has given way to a world situation marked by instability. It is in this instability that the United States finds her new threats, and with it, a call for a new focus in conducting military operations. Add to this uncertain and often tumultuous global situation the United States’ broad scope of national and allied interests, and a dwindling military, it becomes clear that new national strategies will rely more heavily than ever on effective systems and procedures among its military forces. In short, the United States military, in fulfilling its national security objectives, must find better ways to do business, in potential involvement issues that run the gamut from major theater war (MTW) to Military Operations Other Than War (MOOTW). A failure to satisfy national directives in any area within this realm could well place the U.S. military—and subsequently the nation itself—at a precarious disadvantage for success.

With this in mind, it is paramount that all branches of the U.S. military be able to parry and thrust as a single body in conflict, to seize victory from the clutches of the foe, or to work as a combined services team as the peace-giver in MOOTW operations. To act in harmony, then, is for each branch to know the other’s operational doctrine and practices in order to act together as a cohesive U.S. military team.
The common denominator to a united approach lies in the joint services’ use of the Military Decision-Making Process (MDMP). It is the MDMP process which allows the production of comprehensive plans for commanders charged with operational responsibilities. This paper will outlay the purpose and application of the MDMP software tutorial.

The authors wish to acknowledge the guidance of LTC Bill Shurtz, Faculty Advisor for this paper. Also meriting mention is the ACSC AY98 student team who built the original MDMP tutorial foundation so that we might expand upon it.

All references within this text to “he,” or “him” is meant as a neutral reference. No offense in the use of these terms is intended to the reader.
Abstract

This HTML-based tutorial provides a comprehensive and in-depth program of instruction on key Army concepts for the student. It may be used and easily understood by both the novice and the experienced, singly or in-groups. It is designed to operate over a number of popular browsers, with a final goal of running in a stand-alone configuration from a CD-ROM. It also hosts online features, such as hot links to informational web sites, if Internet connectivity is available. The software architecture allows easy modification of current scenarios and introduction of additional scenarios without major code rewriting. This course of instruction was produced over two generations of Air Command and Staff College student officers, with its target audience of both Army and other services' officers. A major emphasis of this project was to add a second scenario to the previous product. Its focus on a multi-MTW (Major Theater War) has direct applicability to the AWC/ACSC wargame, Tandem Challenge. The lesson hosts four main areas: Military Decision-Making Process; Exercises; Reference; and Help. This tutorial draws its references from the most current editions of Field Manual 100-5 [Operations] (June 1993), and Field Manual 101-5 [Staff Organization and Operations] (May 1997). This tutorial has been organized in a user-friendly manner to promote learning. A document outlining the software architecture and programming code is provided for future maintenance activities. The universality of this tutorial is assured, as all information herein is of a non-classified origin and approved for public distribution.
Chapter 1

Introduction to This Product

The Military Decision-Making Process (MDMP), once a process exclusive to the Army, is today becoming a universal planning methodology for all services under the joint umbrella. MDMP allows for a measured, comprehensive process that steers the planner in his thinking through solutions to dynamic situations. In this Army-designed software tutorial you will find explanations and examples of how the MDMP aids in planning at the operational level.

The foundation document for this tutorial is U.S. Army Field Manual 101-5: Staff Organization and Operations. It contains the steps outlined in the Military Decision-Making Process. Field Manual 100-5 (Operations) is also used as input to this product, and outlines operational capabilities of Army forces.

Capabilities

This tutorial was designed with an easy interface for the user utilizing an internet browser. It is built on four individual and distinct sections: Military Decision-Making Process, Exercises, Reference, and Help. Through a frame-based interface format, each of these sections is constantly available for instant access by the user. Screens have been designed for maximum readability and simplistic function. Standardized pull down options are included as overlays over each screen slide so that the user, once familiar with
the look and feel of the Graphic User Interface (GUI), may focus more on the MDMP
instructional information rather than on the use of the program. Another feature is that
this product can easily be used for either individual or classroom instruction.

Technical Considerations

For further information on product architecture, technologies, and suggestions for
modifications, see Appendix A. It includes pertinent system requirement information,
file system layout, and installation instructions. As well, a readme.txt file is included
with the product for quick reference and help to users.

Designers used FrontPage Express as the product’s primary design tool. This
product runs on any commonly available browser. The user may provide their own
browser when using this product; however, a browser is already included on the CD
ROM, along with the product. Screen settings need to be set at a minimum of 640 by 480
pixels, with the browser maximized for full screen view.

This product extensively employs animated GIF files. Animated GIFs allow several
advantages. First, they are extremely popular and well supported with well-known
standards. This reduces the chance for problems that users will have using the product.
Second, using GIFs instead of other technologies allows system administrators in the
field to modify the product with a GIF editor.
Chapter 2

Concept and Content

AY99 Exercise Student Feedback

For the first time ever, Army students attending AY 99 ACSC presented the MDMP Tutorial software program designed by AY 98 Army students to the student class. The product was overhauled based on feedback from sister service officers, and from a comprehensive review of the program’s functionality as both an in-class presentation medium and as an individual tutorial.

Concept

The intent of this product is to reinforce initial instruction through subsequent practice. In other words, learn first, apply second. Its contextual format is designed to accommodate anyone from the novice student to the experienced planner. It may be set up to teach a single individual or a group. It is styled for a logical, progressive sequence of one step to another, excluding excessive details that might confuse the first-time user.

Although the aim of this program is to teach the MDMP, the user may also wish to learn about the capabilities of the U.S. Army. The Reference section of the product includes an option for students to explore in depth the greater details of any particular item.
This tutorial offers the student two scenarios for consideration. In the first scenario, the student is asked to consider possible solutions—or courses of actions—through selection of pre-templated options. This is the “structured” method. The point here is that user input is simple and accommodating, much like the Air Force Exercise mission package-building software tutorial used at Air Command and Staff College.

In the second scenario, the student may elect to follow along in the structured, step-by-step review of the MDMP, or proceed in a “freeform” mode. In the freeform mode, the student creates his own course of action. In this case, the product does not provide a solution as in the structured option.

The use of pre-formatted solution templates allows the student to concentrate on learning the Military Decision Making Process itself, rather than having to focus on the process of using the tutorial software. The structured option approach streamlines the learning process by significantly reducing the amount of time the student spends inputting his solution. The student decides which option he desires selects it, and the product displays how his answer is put into effect. This display offers a “school solution.” By this, the student may understand how to approach the second scenario within the tutorial, but most importantly, he will begin to understand the comprehensive nature of the MDMP in problem solving.

Content

**MDMP Instruction and Synchronization Matrix**

A succinct, by-the-numbers approach to the MDMP in its entirety is provided in this section. Included in this section are COA Generation and Analysis, COA Development,
COA Comparison, and COA Briefing. A key component is the Synchronization Matrix, or Sync Matrix. The Sync Matrix is an incremental process technique which allows the planner to see by element across time and space the activities which take place in fulfillment of the overall mission objective.

**Exercises**

The warfighting focus of today’s military rests on the premise of fighting the Major Theater War (MTW). Two MTW scenarios are offered in this section for the user’s consideration. The first provides an example format for the student to gain an elementary understanding of how to use the MDMP. This beginning exercise uses a Korean theater scenario.

The product’s second scenario, set in the Southwest Asia theater of operations, offers either a structured, step-by-step walk-through, or the freeform method.

**References**

The tutorial has a complete glossary of acronyms used in the program. The glossary listing is available in the Reference section and is accessible from any screen. A product feature allows the student a quick return back to the topic screen once the term in question has been located, read, and understood. The user may elect to print this acronym list to keep as he works through the program. The glossary listing also includes a basic military symbols graphics page. Within the Army section in this Reference section is included an explanation of Army branches and capabilities, plus a logistics section, as well as a summary of FM 100-5 (Operations). The Reference section contains a listing of web resource links; that is, related-topic area links to World Wide
Web sites that might be of interest to the user. It also includes additional off-line references from hard-copy libraries that are pertinent to the MDMP and similar topics.

**Help Directory**

Available on the opening screen of the program is a link to the Help Directory. It is recommended that the student first stop here for a quick review of usage rules. The help menu is easy to use and to understand, and is accessible from any screen within the tutorial.
Chapter 3

Scenarios

The MDMP software tutorial takes into account the varying experience levels of students using the program. As such, it has been designed to provide a general accommodation approach, from the novice to the experienced.

Korea

The Korean Theater scenario provides the student a step-by-step walkthrough using the MDMP during operational planning. Its sole aim is to familiarize the student with using the MDMP, and not on the most correct way to employ forces through tactics. As such, its simply designed, structured options format leads the student through the process and offers the “school solution” at the end.

Southwest Asia

The second scenario is set in Southwest Asia. The student has the option to work through the scenario using either the structured or the freeform option.
Chapter 4

Conclusion

This MDMP Tutorial should be a first step for the military planner in a joint operations environment to learning decision-making procedures for operational planning tasking. The MDMP methodology it contains provides the comprehensive framework for a joint force headquarters to use in campaign planning in both war and military operations other than war. Through an in-depth understanding of the military decision making process, today’s joint planners will save time and, more importantly, conduct their operational planning from a comprehensive understanding of all pertinent aspects of objective accomplishment.
**Glossary**

AA  Assembly Area; Avenue of Approach; Air Assault  
ABN  Airborne  
ACR  Armored Cavalry Regiment  
ACSC  Air Command and Staff College  
ADA  Air Defense Artillery  
AF  Air Force  
AFB  Air Force Base  
AG  Adjutant General  
AI  Area of Interest  
ALO  Air Liaison Officer  
ANGLICO  Air Naval Gunfire Liaison Company  
AO  Area of Operations  
ASCC  Army Service Component Commander  
AVN  Aviation  
BDA  Battle Damage Assessment or Bomb Damage Assessment  
BMNT  Beginning of Morning Nautical Time  
C2  Command and Control  
C2W  Command and Control Warfare  
C3  Command, Control, and Communications  
C4I  Command, Control, Communications, Computers, and Intelligence  
CA  Combat Arms  
CCIR  Commander’s Critical Information Requirements  
CDR  Commander  
Cdr  Commander  
CMD & SIG  Command and Signal  
Cmdr  Commander  
CML  Chemical  
CMO  Civil-Military Operations  
CMOC  Civil-Military Operations Center  
CNR  Combat Net Radio  
COA  Course of Action  
CofS  Chief of Staff  
CP  Command Post  
CSA  Combat Support Arms  
CSS  Combat Service Support
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<tr>
<td>D+</td>
<td>Date an Operation Begins (“+” is the number of days after D-Day)</td>
</tr>
<tr>
<td>DOD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DS</td>
<td>Direct Support (Maintenance)</td>
</tr>
<tr>
<td>DSA</td>
<td>Division Support Area</td>
</tr>
<tr>
<td>EA</td>
<td>Engagement Area</td>
</tr>
<tr>
<td>EEFI</td>
<td>Essential Elements of Friendly Information</td>
</tr>
<tr>
<td>ENENT</td>
<td>End of Evening Nautical Time</td>
</tr>
<tr>
<td>ENGR</td>
<td>Engineer</td>
</tr>
<tr>
<td>EOD</td>
<td>Explosive Ordnance Detachment</td>
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<tr>
<td>EPW</td>
<td>Enemy Prisoner of War</td>
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<td>FEBA</td>
<td>Forward Edge of the Battle Area</td>
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<tr>
<td>FFIR</td>
<td>Friendly Forces Information Requirements</td>
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<tr>
<td>FIN</td>
<td>Finance</td>
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<td>FLOT</td>
<td>Forward Line of Troops</td>
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<td>FM</td>
<td>Field Manual</td>
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<tr>
<td>FRAGO</td>
<td>Fragmentary Order</td>
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<td>FSCL</td>
<td>Fire Support Coordination Line</td>
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<tr>
<td>FSCOORD</td>
<td>Fire Support Coordinator</td>
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<tr>
<td>FSO</td>
<td>Fire Support Officer</td>
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<td>G1-G6</td>
<td>General Staff Level Divisions</td>
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<td>GS</td>
<td>General Support (Maintenance)</td>
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<td>GS-R</td>
<td>General Support-Reinforced</td>
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<tr>
<td>HQ</td>
<td>Headquarters</td>
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<td>HQS</td>
<td>Headquarters</td>
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<tr>
<td>HVT</td>
<td>High Value Target</td>
</tr>
<tr>
<td>ID</td>
<td>Identify</td>
</tr>
<tr>
<td>IEW</td>
<td>Intelligence and Electronic Warfare</td>
</tr>
<tr>
<td>IPB</td>
<td>Intelligence Preparation of the Battlefield</td>
</tr>
<tr>
<td>IR</td>
<td>Intelligence and Reconnaissance</td>
</tr>
<tr>
<td>JFC</td>
<td>Joint Force Commander</td>
</tr>
<tr>
<td>JSOTF</td>
<td>Joint Special Operations Task Force</td>
</tr>
<tr>
<td>JTF</td>
<td>Joint Task Force</td>
</tr>
<tr>
<td>JTFC</td>
<td>Joint Task Force Commander</td>
</tr>
<tr>
<td>KEYMAT</td>
<td>Keying Material</td>
</tr>
<tr>
<td>KM</td>
<td>Kilometer</td>
</tr>
<tr>
<td>LD/LC</td>
<td>Line of Departure/Line of Contact</td>
</tr>
<tr>
<td>LNO</td>
<td>Liaison Officer</td>
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MDMP  Military Decision Making Process
MI    Military Intelligence
MR    Motorized Rifle
MRC   Major Regional Conflict (now replaced by MTW)
MSRT  Mobile Subscriber Remote Terminal
MTW   Major Theater War (formerly MRC)

NBC   Nuclear Biological Chemical

OBJ   Objective
OPLAN Operations Plan
OPORD Operations Order

PIR   Priority Intelligence Requirements
PL    Phase Line
PM    Provost Marshal
PSYOP Psychological Operations

(R)   Reinforced
RAU   Radio Access Unit
Recon Reconnaissance

S1-S6 Battalion and Brigade Level Staff Divisions
SJA   Staff Judge Advocate
SOCCE Special Operations Command and Control Element
SOI   Signal Operating Instructions (formerly CEOI)
SOP   Standing Operating Procedure or Standard Operating Procedure
SUPCOM Support Command
SWA   Southwest Asia
SWO   Special Weather Officer

TACSATCOM Tactical Satellite
TAI   Target Area of Interest
TBD   To be Determined
TBP   To be Published
TMD   Theater Missile Defense
TMDE  Test, Measurement and Diagnostic Equipment
TOC   Tactical Operations Center
TPL   Time Phase Line
TRADOC Training and Doctrine Command (US Army)
TSA   Theater Support Area
TTP   Tactics, Technologies and Procedures

UAV   Unmanned Aerial Vehicle
USAR  United State Army Reserve
<table>
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<tr>
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<th>Description</th>
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<tr>
<td>USJTF</td>
<td>U.S. Joint Task Force</td>
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<tr>
<td>WMD</td>
<td>Weapons of Mass Destruction</td>
</tr>
<tr>
<td>WO</td>
<td>Warning Order</td>
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</tbody>
</table>
Appendix A

Technology

Installation procedures:

Create a directory on your hard drive and copy the files in the AIP directory in it.

Run each of the following setup files (these files are also available through the help menu):

\AIP\SETUP\SETUP.EXE (LOADS THE VB 5.0 RUNTIME, ARMEX2 AND ARMEX3)

\AIP\SETUP\AXPLAYER.EXE (LOADS THE POWER POINT ANIMATION PLAYER)

\AIP\SETUP\TB5-0\SETUP (LOADS THE TOOLBOOK RUNTIME FILES)

After completion, open index.htm with a browser.

Minimum System requirements:

Windows 95

70MB in installation directory.

2MB in \windows\system directory.

Screen resolution 640x480 @ 256 colors (800x600 preferred)

Netscape 3 or Internet Explorer 4

Sound card recommended
Optional—Printer

CD-ROM or network access to CD-ROM required.

Internet access is recommended.

**MDMP product directory layout:**

- **admin:** general index files
- **exercise:** exercise files. Subdivided into Korea and SWA exercises
- **help:** help information
- **mdmp:** MDMP tutorial files
- **media:** multimedia files. Subdivided into audio, media, and video
- **reference\THE ARMY:** Army reference information
- **setup:** setup files. Has TB subdirectory for Toolbook 5.0

2FUNDOP, 3ARTOP, 4 CONDOP, 5ENOP: FM 100-5 Information

**Technology:**

This product was developed for use in the field as well as for ACSC. As such, it was developed for the lowest common denominator of hardware and software using only basic HTML. This will minimize problems encountered by users. Frames have been used extensively throughout the project. Maintenance of the project can be accomplished by using any HTML editor. For example, a scenario can be added to this product by adding the information files in a directory under “\exercise” and a calling link on “\exercises\startexr.htm.” For completeness, “\admin\indexqck.htm” should also be edited to reflect the new scenario. Images are saved in JPG, GIF, or animated GIF format. These can be edited by an image editor. Several places in the project PowerPoint PPZ presentation files are used. These can be edited through PowerPoint. This
product uses relative links so it can be installed onto any hard drive directory, or run from a CD ROM, or a network drive, or even from an intranet, with minimal installation requirements on the user’s computer.
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