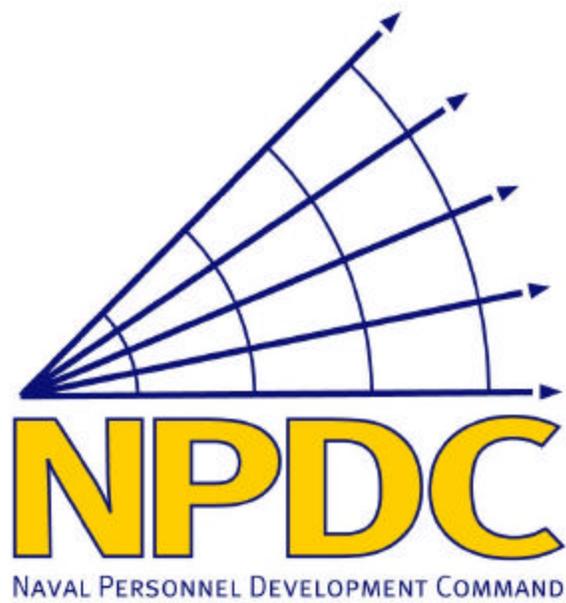


Integrated Learning Environment  
Guidance for NMCI/IT-21  
Standards and Certification



Draft

# Integrated Learning Environment Guidance for NMCI/IT-21 Standards and Certification

## Overview

With several different Navy baseline and certification standards looming over the development of training content the addition of just one more could disrupt the capability to produce meaningful, rich media content. Major Navy components have developed different computing standards to facilitate their own infrastructure needs mostly to maintain some sort of configuration management. The two major contributors are SPAWAR IT-21 infrastructure baseline and certification requirements and Navy/Marine Corps Intranet (NMCI) Gold Disk and certification standards. Those of you who have developed content for these environments in the past have found it difficult to develop two separate and distinct instances.

This document serves as interim guidance in lieu of NPDC policy, which will be promulgated by NPDC N9, Innovations and Analysis in the future.

## Background

### What is IT-21?

The Navy has embarked on an ambitious networking initiative called "Information Technology for the 21st Century (IT21)." This initiative, which involves acceleration of Command, Control, Communications, and Computer (C4) programs, is being implemented as a team effort among the Fleet, CNO N6, the Space and Naval Warfare Systems Command, and the Naval Computer and Telecommunications Command. IT21 significantly improves warfighting capability, reduces Fleet operating and support costs and enhances the quality of life of deployed Sailors and Marines. It does so by providing the Fleet with an essential, modern "information backplane" to enable "Network Centric Warfare" and warfare support. IT-21 is a FLTCINC-initiated effort to fundamentally transform the way the Department of the Navy (DON) plans and budgets for information technology (IT) acquisition.

IT-21 is not a program. It is a strategy to optimize IT acquisition across all DON involving extensive coordination among many DON programs of record involved with fielding IT infrastructure. IT-21 is a reprioritization of existing C4I programs of record focused on accelerating the transition to a PC/workstation-based tactical and support warfighting network. And the impetus for IT-21 comes from the deckplates of Norfolk and Pearl Harbor.

## **Configuration Management Policy and Procedures for IT-21**

081804Z FEB 02 IT-21 Interface Configuration Management Policy and Procedures, describes the IT-21 interface configuration management (CM) procedures for the LAN/WAN infrastructure which consist of Integrated Shipboard Network System (ISNS), Tactical Integrated Digital System (TIDS), Automated Digital Network Systems (ADNS) and Fleet Network Operations Centers (NOCS). This includes UNCLAS, GENSER and SCI enclaves; SCI networks, NT servers and PCs/workstations.

The introduction of the IT-21 LAN/WAN infrastructure into the fleet provides an opportunity to standardize the IT-21 network configuration. This policy, procedures and all related fleet C4I advisories will enable the identification of software, hardware and systems configurations that have been demonstrated or proven in shore-based test facilities to interoperate with that infrastructure.

161735Z JAN 03 Transition From Windows NT To Windows 2000 Environment details the transition away from the Windows NT Operating System and into the Windows 2000 OS. It also introduces the transition from the Government Off The Shelf (GOTS) Delta Load to the Common PC Operating System Environment (COMPOSE).

150100Z MAR 03 Instructions For Windows 2000 and Windows XP OS Integration With ISNS provides guidance to the fleet for incorporating newly purchased PCs/workstations that come with Windows 2000 (WIN2k) or Windows XP (WINXP) operating system (OS) into the WINNT ISNS IAN environment.

### **What is NMCI?**

NMCI is a comprehensive information and communications solution. Replacing the Navy's numerous shore-based networks, NMCI will deliver access, interoperability, and security to the DON by providing voice, video, and data services to all Navy and Marine Corps personnel. Coupled with the Navy's shipboard Information Technology for the 21st Century and the Marine Corps' Marine Tactical Network (MCTN), NMCI will provide a worldwide reach-back capability for our deployed forces.

NMCI is a performance-based, enterprise-wide services contract incorporating the newest strategic computing and communications capabilities. NMCI is managed much the same as any "utility." It is purchased from the commercial sector just as we buy other types of utilities (e.g., water, telephone, gas, and electricity), paying for the service as it is delivered. NMCI is:

- a faster, better, more secure computer network
- replacing numerous independent networks ashore with one secure network
- a necessary part of the Global Information Grid (GIG), communicating with the afloat information infrastructure

- voice, video, and data communications service for all civilian and military personnel within the Navy and Marine Corps, including deployed forces
- training, maintenance, operation, and infrastructure ashore
- long-term contract based on customer needs and satisfaction
- DoN's commitment to its revolution in military affairs and business process reengineering
- common IT tools throughout the Department of the Navy

## NMCI Legacy Applications Submissions Guidelines

This document describes the information and materials an activity must submit before the NMCI Certification/Validation testing of unclassified and classified applications can begin. Legacy applications are described as an existing customer software application that is not included in the NMCI standard set services or the CLIN 0023 catalog. Legacy applications are not elements of the standard set services known as the Gold Disk.

### Guidance

The Integrated Learning Environment (ILE) Developer Tool Kit addresses the disparity in standards across the fleet and offers the “middle-of-the-road” tool set. These Commercial Off The Shelf (COTS) tools will align with the current standards and certification requirements. Tools used in development not listed, with the exception of Outstart Evolution, will require separate certification in both discussed environments. It is recommended that only the tools listed below be utilized in the development of supporting media for training content.

#### ILE Developer Tool Kit

- |                              |      |
|------------------------------|------|
| • Macromedia Homesite        | V5   |
| • Adobe Premier              | V6.0 |
| • Adobe Photoshop            | V7.0 |
| • Corel Draw                 | V10  |
| • Microsoft Visio 2002       |      |
| • Microsoft Project Standard |      |
| • Macromedia Flash           | MX6  |
| • Ulead Gif Animator         | V5.0 |

This guidance document will lend itself to the pursuit of a single Naval standard for certification. Granted, at present the requirement for separate and per content certification is still valid. Certification can be lengthy and costly. In the case of training content, most of our development efforts will shift toward web-enabled content that only requires Internet browsers and limited plug-in's. In this light, the only real requirement is ensuring that the browsers and plug-in's are certified for use which, in our case, they are. Both NMCI and IT-21 policy holds that applications that modify the registry will not be allowed or simply blocked from installing to the PC/workstation. The ILE Program

Manager will go forward with efforts to put in place a blanket certification to cover content developed within the ILE guidelines.

Once a blanket certification is attained developed outside of these guidelines will require separate certification for both the NMCI and IT-21 infrastructures. 271356Z JUN 03, Software Testing and Approval Processes for NMCI and SPAWAR ISNS / IT21, this message discusses the coordination to consolidate NMCI and IT-21 software testing and approval processes to eliminate duplication of effort and to provide more rapid fielding of applications both ashore and afloat. A complete list of IT-21 software presently approved may be found at <https://navalnetworks.spawar.navy.mil/>, PEO C4I and Space IT 21 Configuration Management, Preferred Products Listing (PPL). Note; you will need a PKI certificate to access this site. For a complete listing of software presently approved by NMCI please consult your NMCI representative or visit <http://www.nmci-eds.com>, Legacy Applications Database. You will need to request a user name and password from the local ACTR, (Activity Customer Technical Representative).

Both the shore based and shipboard infrastructures currently support different Operating Systems and differing security standards. Typically the shipboard baseline software lags the shore based and creates significant deltas in capabilities. For developers, this dramatically increases costs and labor hours, if not in the initial stages then during reengineering of the content.

A close look will reveal the lag felt by the shipboard infrastructure. Major changes affecting the shipboard infrastructure due to OS support of older software will revitalize the environment bringing the standards to an equal with the shore-based component, as per message 161735Z JAN 03, Transition From WIN NT to WIN 2K Environment This change is titled COMPOSE and will open the door to richer content that is compatible to the ILE Developers Tool Kit and NMCI standards more closely. Baseline software will improve and support Windows 2000 Office software. But because of security issues not solved by the upgrade certain Baseline software will remain the same.

User PC/workstations on both infrastructures are limited in capabilities to download or install softwares, plug-in's or other type of executables. Anything that modifies the register or attempts to write to the system files will be disallowed from loading to the PC/workstation.

Since there are security and compatibility issues with newer versions of Internet browsers, NPDC will hold to developing with Microsoft Windows Explorer 5.5 or Netscape 4.76. Baseline restrictions in both NMCI and IT-21 force the ILE Program Manager to remain with these versions.

There isn't a need to support Multimedia players, i.e., Authorware Web Player; ILE will develop voice/video utilizing Macromedia Flash MX6 and rely on browser plug-in's. Web Controls for the shipboard infrastructure are in the process of certifying within the IT-21 environment.

IT-21 is intended to have a standard "common core" load for both servers and workstations, so that the machines used on classified and unclassified LAN's are essentially identical, and can be loaded by the vendor prior to delivery.

#### **IT-21 PCs/workstations COTS Common Core applications:**

- WINNT 4.0 through Service Pack 5 (128bit encryption) and hotfixes :
  - Applicable Microsoft Security Fixes
- Office 97 Professional with Service Release 2 and Excel recalculation patch
- Norton Anti Virus 5.0 (From DoD contract)
- MS Office Draw 98 (Freeware)
- WinZip 7.0 or later.
- BackOffice Client license.
- Netscape Communicator 4.51 or later
- MS Internet Explorer Ver 5.01
- MS Net Meeting 2.1 (Freeware).
- AOL Instant messenger
- MS Chat 2.5 (Freeware)
- DiskKeeper Lite 2.0 (Freeware).
- Outlook 98 with Y2K Hotfix
- Outlook routed message form (Freeware)
- Adobe Acrobat PDF reader 3.02
- Outlook LDAP service

IT-21 Preferred Product Listing (PPL) are software components that have been submitted for testing against the IT-21 infrastructure and approved for use on the shipboard LAN. These items are NOT baseline loads.

#### **IT-21 Preferred Products Listing for use aboard all afloat platforms:**

- Macromedia Shockwave Ver 8.5 (updated as of 14 APR 03)
- Macromedia Flash Player Ver 6.0.65.0 (updated as of 2 JUL 03)

This same intent carries over to the NMCI arena where the standard vendor PC/workstations load out refers to the common core or Gold Disk referring to the standard load.

#### **NMCI (Gold Disk) PCs/workstations COTS Common Core applications:**

- Microsoft Windows 2000 Build SP3/SRP1
- Microsoft Office Suite 2000 Professional

- Word
- Excel
- PowerPoint
- Access
- MS Outlook 2000
- MS Internet Explorer 5.5 SP-2 128 bit
- Norton Anti Virus V7.5
- Adobe Acrobat Reader V5.05
- Winzip V8.1
- Net Meeting V3.01
- RealPlayer 8
- Windows Media Player V9
- Netscape Communicator 4.76
- Macromedia Shockwave V8.0
- Macromedia Flash Player 5.0
- Apple Quick Time V5.0
- IPIX V6, 2,0,5

Policy and procedures for submitting content to both NMCI and IT-21 are referenced at the end of this guidance. Cost for certification will be assessed by the amount of engineering effort required to configure the test suite for the specific content tested. Currently each instance requires separate testing and certification.

1. COMSPAWARSYSCOM Message 161735Z JAN 03  
Transition from WIN NT to WIN 2K Environment
2. PEO C4I AND PMW165 Message 150100Z MAR 03  
Instructions For WIN2k and WINXP Os Integration With ISNS
3. ALCOMLANT / ALCOMPAC Message 081804Z FEB 02  
IT-21 Interface Configuration Management Policy and Procedures
4. NMCI Legacy Applications Submissions Guide
5. Navy Integrated Learning Environment (ILE) Technical Specifications and Guidance
6. COMFLTFORCOM Message 271356Z JUN 03 Software Testing and Approval Processes for NMCI and SPAWAR ISNS / IT21