

Introduction to Variable Message Format (VMF)

18–19 August 2009

Presenter: Mr Tony Castle, SyntheSys

Parkview Hotel
562 St Kilda Rd, Melbourne VIC

Teaching Arrangements

The course will be conducted from 9.00am to 5.00pm. Morning tea will be available at approximately 10.00am to 10.30am, lunch from 12.30pm to 1.30pm and afternoon tea at approximately 3.00pm to 3.30pm.

Registration Fee:
AU\$1320 (including GST)

Group and PhD student discounts available. Please enquire.

How to Register

To register fill out the registration form (overleaf) and

- fax it to +61-8-8343-8711
- or
- scan and email it to industryeducation@nicta.com.au

Cancellation Policy

At least **4 weeks** notice is required for cancellation of a place in a short course for full reimbursement. If cancellation is later than 4 weeks then the place can either be given to another person or the registrant can be provided with a credit towards other NICTA training.

For details of further courses please see our web site:
www.nicta.com.au/short_courses
or contact the NICTA Industry Education Manager.

About this course

This course familiarises the delegates with all aspects of current VMF operations. The course is based around the US MIL-STD-188-220, MIL-STD-2045-47001 and MIL-STD-6017. Currently used mainly by the US armed forces, this TDL is emerging as the fastest growing system in today's modern armed forces.

The transmission protocols are considered in detail, as are the message headers, structure, and use of the K-Series VMF messages. Interoperability is an important feature of this course. Attendees will also receive a copy of the manual 'An Introduction to VMF' plus a CD containing the course presentations.

Target Audience: This course has been developed for military, government and defence industry representatives who are involved in the operation, support, management and provision of VMF systems. The course includes both an operator and engineering perspective to the establishment and management of effective VMF networks.

Brief Course Outline

- VMF history
- VMF requirements, principles, Ethernet, Open Systems Interconnection (OSI) 7 layer model, definitions of throughput
- Frames, Types of Service
- Modes of Operation, Asynchronous Balanced Mode (ABM) etc., Addressing, Unit Reference Number (URN)
- Network Access Delay (NAD), Net Access Control (NAC), Automatic Repeat Request (ARQ), Sliding Window
- Radios, terminals, modems – Tactical Communication Interface Module (TCIM), TacLink, F/A-18 Digital Communication System (DCS), Internet Controller (INC)
- Networks - joining, leaving
- MIL-STD-2045-47001 - Application Header
- MIL-STD-188-220 - CNRs
- VMF Syntax - Field Presence Indicator (FPI), Field Repetition (Recurrence) Indicator (FRI), Group Presence Indicator (GPI), Group Recurrence Indicator (GRI)
- K-Series messages, Functional Area Designators (FAD)
- VMF Uses - Interoperability
- Tactical Internet, User Datagram Protocol (UDP), Transmission Control Protocol / Internet Protocol (TCP/IP), intranet protocol (ip), Situational Awareness (SA)
- MIL-STD-188-220 C version changes
- URN Issues
- Entity ID Reference Number (EIRN)
- SA Issues
- Data Forwarding Issues
- VMF for CAS

See the **"more info" web page** for other topics (time permitting).

About SyntheSys

SyntheSys is a specialist training and consultancy company working in the field of military tactical data links (TDLs). With over 20 years of TDL experience, SyntheSys provides independent, up to date and operationally relevant TDL training. SyntheSys consultants are either highly qualified systems engineers, or former military operational experts with many years of TDL experience. SyntheSys is recognised as a leader in the field of VMF training and consultancy both in the UK and the USA.

About NICTA and Short Course Program

National ICT Australia (NICTA) is Australia's ICT Centre of Excellence and was established to drive innovation through high quality research, research training and technology transfer. As a world-class research institute NICTA uniquely combines excellence in research, education, commercialisation and collaboration. We are working to ensure that Australia is well placed to benefit from the significant opportunities that ICT research delivers.

NICTA is funded by the Australian Government as represented by the Department of Communications, Information Technology and the Arts and the Australian Research Council through *Backing Australia's Ability* and the ICT Centre of Excellence program. NICTA members are the Australian Capital Territory Government, the New South Wales Government, the University of New South Wales and the Australian National University.

NICTA short courses offer scientists, engineers and managers technical training with a leading edge in areas such as telecommunications, transport, security, defence, logistics, e-government, mining, finance and biotechnology.

There will be ample opportunities for discussion and questions and answers. Morning and afternoon tea/coffee and a light lunch will be provided. Extensive workshop materials will be made available to participants.

How to register

Please complete the registration form below and

- Fax it to +61-8-8343-8711 or
- Scan and email it to industryeducation@nicta.com.au

Send the form as soon as possible to secure your place.

For further information please contact
Anne-Marie Eliseo
Industry Education Manager
Telephone: +61-8-8343-8710
Email: anne-marie.eliseo@nicta.com.au

Registration Form and Tax Invoice* ABN 62 102 206 173

*Upon completion of this form, including the relevant payment, this form will become a Tax Invoice.

Please register me for Introduction to VMF on 18-19 August 2009.

PLEASE PRINT

Date: _____

Title: _____ First Name: _____ Surname: _____

Position: _____ Organisation/Division: _____

Postal Address: _____

Telephone No: _____ Facsimile No: _____ Email: _____

Dietary preference: _____

Course Fees: Full fee: AU\$1320 (incl. GST)
(Register before **Aug 4th, 2009.**)

Method of Payment (please tick below):

Cheque (payable to National ICT Australia Ltd)
Forward the cheque and a copy of THIS registration form to:
Anne-Marie Eliseo, Industry Education Manager, NICTA, Innovation House, First Ave, Mawson Lakes SA 5095, Australia.

Credit Card: Credit Card No.: _____ Expiry Date: _____

Visa Master Card Name on card: _____

Amount: AU\$ _____ Signature: _____ Tick if receipt required

Email address of card holder: _____

Electronic Funds Transfer
Please advise by email to Annette Van Bramer
annette.vanbramer@nicta.com.au
when payment is made

BANK	Commonwealth Bank of Australia
ACCOUNT NAME	National ICT Australia Limited
BSB	062 900
ACCOUNT NUMBER	1032 4576
REFERENCE NUMBER	180809

FAX the form to +61-8-8343 8711 or EMAIL it to industryeducation@nicta.com.au

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- Send an email to comments@nicta.com.au or
- Phone NICTA's Industry Education Manager on +61 8 8343 8710.