



**Ministry
of Defence**

JSP 939
Defence Policy for Modelling & Simulation (M&S)
Part 2: Guidance

Foreword

This Part 2 JSP provides guidance in accordance with the direction set out in Part 1 of this JSP, and is sponsored by the Defence Authority for Capability Coherence. This guidance interprets the direction provided in Part 1, and provides the required guidance necessary to reduce the issues and risks that arise from incoherent decisions, processes and ultimately systems and services around the acquisition and use of Modelling & Simulation (M&S).

Coverage is focused on M&S in Defence and the application of the guidance should result in a more coherent, and therefore effective, enabling capability, and provide our country with the value for money from Defence spending that it needs, no matter how the M&S system is utilised.

Preface

How to use this JSP

1. JSP 939 is intended to provide Defence Direction and Guidance for the acquisition, development and usage of M&S across Defence. It is designed to be used by staff responsible for any M&S capability change. This JSP contains the policy and direction on M&S from a Defence Enterprise perspective and guidance on the processes involved and best practice to apply to any M&S development.
2. The JSP is structured in two parts:
 - a. **Part 1 - Directive**, which provides the direction that must be followed in accordance with statute or policy mandated by Defence, or on Defence by Central Government.
 - b. **Part 2 - Guidance**, which provides the guidance and best practice that will assist the user to comply with the Directive.

Coherence with other Policy and Guidance

3. This JSP is designed to be compatible with the following Defence directives.

Related JSP	Title
JSP 440	Defence Manual of Security and Resilience
JSP 441	Information, Knowledge, Digital and Data in Defence
JSP 465	Defence Geospatial Intelligence Policy
JSP 490	Defence Cryptosecurity Operating Instructions
JSP 604	Defence Manual for Information and Communications Technology (ICT)
JSP 745	Digital Publishing Policy
JSP 901	Technical Governance and Assurance of Capability
JSP 906	Defence Principles for Coherent Capability
JSP 920	MOD Standardization Management Policy
JSP 945	MOD Policy for Configuration Management

Training

4. There is no specific requirement to undertake training in order to make use of this JSP; however, relevant educational courses to support the requirement for Suitably Qualified and Experienced Personnel (SQEP) are delivered by Cranfield University at the Defence Academy. Recommended courses include the following:
 - An Introduction to Defence Simulation (IDS).
 - Simulation Employment Training (SimET).
 - Masters in Defence Simulation & Modelling (MSc DSM).
5. More details on these courses and other related courses can be found via the Defence Academy website at www.da.mod.uk.

Further Advice and Feedback – Contacts

6. The owner of this JSP is UKStratCom Cap C4ISR Dep Hd Joint Training & Simulation (JTS). For further information on any aspect of this guide, or to ask questions not answered within the subsequent sections, or to provide feedback on the content, please contact:

Job title/email	Project focus	Telephone
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Introduction

1. This JSP has been developed to define the Defence Policy for M&S. As described in Part 1, a set of Defence Modelling and Simulation Coherence (DMaSC) Rules have been designed to help provide coherence and governance for M&S enablers across the Defence Enterprise.
2. The DMaSC Rules specify how compliance with the DMaSC vision will be achieved, providing coherency and consistency with improvements in efficiency and effectiveness for M&S enablers across Defence. These rules lay down how these M&S enablers are to be developed and assists decision makers at all levels in understanding the risk and impact of new, modified or enhanced M&S enablers.
3. This JSP Part 2 provides guidance in ensuring maximum ability to interoperate between simulation systems, and between simulation systems and real systems (such as C4I), to enable force elements to train as they operate. It will also promote the sharing and re-use of assets across Defence in accordance with Systems of Systems Approach (SOSA) Principles.
4. The scope and application of this DMaSC Ruleset will continue to evolve in line with the following:
 - a. The scope of DMaSC addresses only the M&S Equipment and Interoperability DLoDs.
 - b. Work to develop the DMaSC domain using SOSA principles (as defined in JSP 906) will inform the future scope of DMaSC based on an analysis of the Issues Risks and Opportunities (IROs) across Defence and what resource will be required to manage these IROs.
5. The application of DMaSC compliance for M&S is supported by the common mandated M&S User Requirement statement as found in the Knowledge in Defence (KiD) tool.

Background

6. This guidance has been developed to define the set of DMaSC Rules that will be applied to all M&S based systems to include all resources as well as best practices. The scope includes those that are either funded by, or interact with, Defence's current and planned M&S-based systems.
7. It should be noted that non-compliance with the DMaSC Rules will be exposed by the relevant SCTA to the DMaSC TA Hd. A period of arbitration will follow but should non-compliance remain unresolved it will be escalated to the MCB for a decision in line with its mediation and arbitration process.

Summary of the DMaSC Rules

8. The following is a summary of the eight M&S Rules with full details following at the end of the document:
 - a. **Rule 1: Reuse Existing.** Any available existing systems, components, services,

data and licences that meets the M&S requirement must be used as the default or 'Do Minimum' option.

- b. **Rule 2: Procuring for Reuse.** Any new/modified/enhanced M&S components, services and data acquired by a project shall be made available for reuse via the DMaSC M&S Catalogue in formats specified in Def Stan 03-50 where applicable and practicable.
- c. **Rule 3: M&S Standards.** Any M&S standards selected for use by the capability or technical solution change must be compliant with Def Stan 03-50.
- d. **Rule 4: Enumerations.** All new and revised distributed simulation enumerations must comply with the DMaSC Enumerations Policy and be registered with the Defence Simulation Centre (DSC).
- e. **Rule 5: M&S Enterprise Architecture.** All M&S-based capability must be developed in accordance with the DMaSC Enterprise Architecture approach (both in terms of engineering approach to implementing the architecture and the agreed physical architecture itself) as advised and approved by the relevant SCTA.
- f. **Rule 6: Technical Documentation.** In order to support interoperability and reuse, suitable documentation must be made available for all M&S-based capabilities; this is to include Interface Control Documents (ICDs), 3D model metadata etc.
- g. **Rule 7: Synthetic Environment (SE) Data.** All are to attempt to source all M&S-based capability needs for SE Content Data via the DSC; this includes terrain data, 3D models, hydrographic data etc.
- h. **Rule 8: Research and Reports Exploitation.** All M&S-related research and decision support activity, including any outputs, is to be registered with the DSC.

Ownership and Authority

9. UKStratCom Cap C4ISR Dep Hd JTS has approved the issue of this document and will continue to sponsor, control, maintain and publish it. It is a Defence policy that is to be followed in the Service Command environments. It is designed to be adaptive and will evolve in accordance with the direction given by the DMaSC TA. SCTAs are empowered to enforce the rules laid out in this document within their environment.

Applicability

10. Application of the DMaSC Rules is directed by DCDS (Mil Cap) for all projects and/or programmes across Defence that are funded by Defence and deliver a M&S-based capability.

11. All M&S projects and/or programmes are required to apply the DMaSC Rules through-life when considering any change¹ to any M&S-based capability. There will be a particular focus at certain change milestones as agreed at the outset between the project

¹ A change in this instance can be defined as new capability, an upgrade, mid-life update, mid-life improvement, post design service work etc that results in a business change or a capability change as opposed to business as usual.

and the relevant SCTA². There is therefore a requirement to ensure that any change made to any M&S-based capability also complies with the rules extant at that time. It is a Project Manager's (PM) responsibility to engage with their DMaSC SCTA to determine what level of DMaSC assurance their change will require based on the complexity of change and inherent levels of risk. It is expected that for minor, low risk change, subject to DMaSC TA agreement, the aim will be to enable projects to self-assure.

12. Whilst project teams may choose to delegate responsibility for the provision of evidence, overall responsibility shall rest with the project team to present its case to the relevant SCTA through the PM to demonstrate compliance with this JSP as required.

Governance

13. The DMaSC Rules inherently support the intent of the Defence Information Reference Model (DIRM) for DMaSC purposes which is to 'provide Defence with a means to compare new information and communications technology (ICT) requirements against the existing ICT assets reusing those that are suitable'.

14. The DMaSC TA is responsible for the overall technical coherence, performance and integrity of all aspects of M&S-based capability to support the needs of the Ministry of Defence. The SCTAs are responsible for the technical coherence, performance and integrity of the M&S-based capability managed within their respective Service Command.

15. The DMaSC Operating Model (OM) is shown below at Figure 1 and describes diagrammatically how DMaSC Governance will be effected.

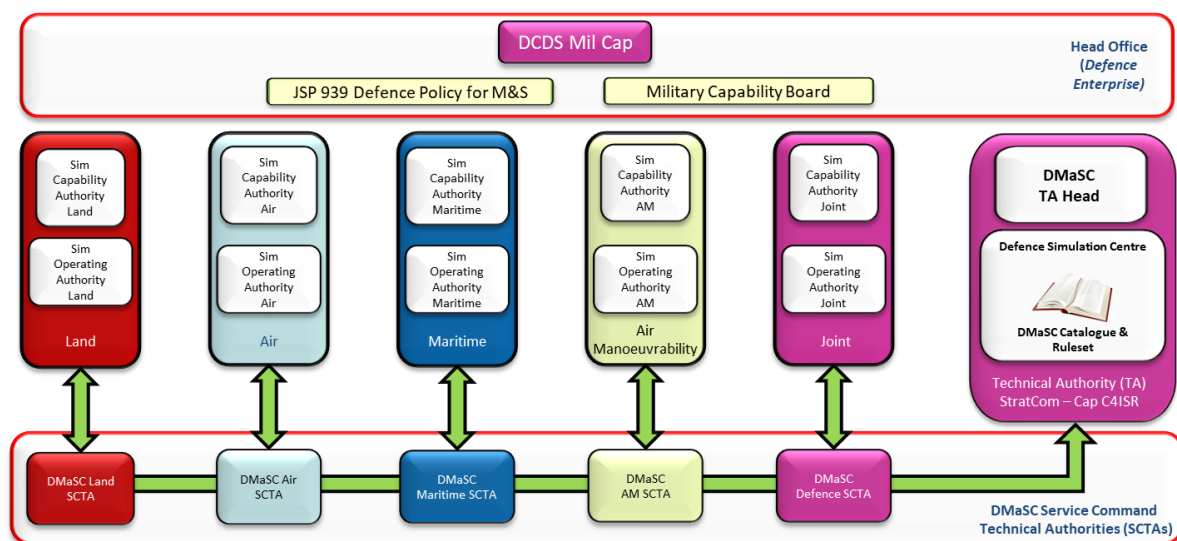


Figure 1: The DMaSC Operating Model

16. The DMaSC TA will assure that:

- a. all M&S-based systems are designed from the outset to have the ability to be able to interoperate with other M&S-based systems, should the requirement exist or the possibility of a requirement be likely to emerge in the future.

² Contact details for DMaSC project support to identify the relevant SCTA can be found at: <https://www.gov.uk/the-defence-training-and-education-capability-programme>.

- b. the ability for data and component sharing and reuse is maximised and identified best practice followed (to include outputs from research and decision support).
- c. SOSA principles have been followed.
- d. coherence with OGD, NATO and Allies is applied where appropriate.

Principle, Rules and Criteria Structure

17. This JSP introduces the concept of a 'Principles, Rules and Criteria' construct. This approach has been used to ensure the DMaSC Rules support a fundamental attribute of DMaSC, the Principle. The following definitions explain the Principle, Rule and Criteria levels.

- a. **Principle.** A Fundamental Attribute supporting the DMaSC Vision: An enduring generalised statement that informs and supports the way in which an organisation sets about fulfilling its mission. A principle may be just one element in a structured set of ideas that collectively define and guide the organisation, from values through to actions (defined by the Rules and Criteria) and results. The JSP 906 Principles which guide DMaSC Implementation are based and drawn from SOSA principles and in the context of M&S have been identified as follows:

Principle	Context
P1: Unifying the Enterprise	Through adoption of the DMaSC governance framework the enterprise will achieve unified business and operational goals and priorities for M&S. The DMaSC Operating Model assigns authority and guides delivery units who will be responsible for ensuring collaboration in achieving these goals, both in the delivery of coherent solutions and in their exploitation.
P2: Driving business and operational effectiveness	Solutions will be developed to deliver business and operational effectiveness that is informed by use. Solution requirements will include the through-life dimensions of development, use and support, across all Defence Lines of Development (DLoDs). Dimensions will include financial, collaboration, performance, assurance, dependability, safety and supportability.
P3: Minimising diversity³	Solutions will be delivered to ensure that the total cost of managing and supporting the portfolio of systems, components, tools, facilities, infrastructure and suppliers for the enterprise is minimised across all DLoDs.
P4: Design for reuse	Business partners will deliver solutions by exploiting legacy and ensuring that new solutions and their constituent parts are designed in a way that does not preclude their reuse across the enterprise.

³ Note that in this context, 'diversity' is not referring to diversity in the ED&I sense.

P5: Building with proven solutions	Training delivery will minimise the use of bespoke solutions and practices which do not meet the Enterprise architecture.
P6: Ensuring commonality of services across the Defence Enterprise	Common training output will be provided by the same solution irrespective of organisational and operational location, security domain and infrastructure. User familiarity enhances productivity, minimises training and enhances staff mobility across the enterprise.
P7: Designing for flexible interoperability	Solutions will be of modular design aligned to business process allowing for flexibility, during acquisition and use within the end to end enterprise.
P8: Adopting open standards	Solutions will be designed with open standards in a manner that is not detrimental to security, innovation and operational superiority. In the event of lack of availability of appropriate open standards, common standards ⁴ may be acceptable but proprietary standards are to be treated as a liability and avoided where possible.
P9: Information as an Asset	Solutions will be developed by ensuring that information is managed and shared across the Defence Enterprise.

b. **Rule.** What is expected of the system: A statement that prescribes the required effect of the DMaSC-related system. Rules should be directly linked to one, or more, principles.

c. **Criteria.** How a Project Shall Demonstrate Compliance with a Rule: Describes the maturity of evidence required for compliance to each rule. The evidence is expected to mature through the project's lifecycle and shall be provided by the project.

18. While the Principles are key to the need for the rules they are not used in the assessment process. For this reason, they are contained in the Annex.

The DMaSC Rule Format

19. Tables 1 and 2 below provide an explanation of the component elements of a DMaSC Rule so users of this document can understand its construct and the intent of the information it contains.

⁴ A common standard is defined as standard that can be edited by multiple COTS tools.

RULE TITLE AND IDENTIFICATION NUMBER	
Rule Owner	<i>This is the Organisation, Department and Section (e.g. DMaSC Technical Authority) that owns the rule and is responsible for its currency. Each rule will have a single owner identified.</i>
Parent Principle(s)	<i>Identifies the parent Principles that guide the behaviour required from application of the Rule. These Principles are identified in Annex A. More than one Principle may be identified per rule.</i>
Rationale	<i>This is the reasoning why the rule is in place. This may reference wider strategy and policy.</i>
Policy References	<i>Contains references and links to relevant policy, governance and supporting sources of information.</i>
Subject Matter Expertise POCs	<i>Identification of Subject Matter Experts (SME) which have specialist knowledge within the rule area.</i>
Rule Requirements	<i>Statement of the requirements(s) that shall be met to comply with the rule. This area may refer to specific supporting guidance, policy etc.</i> <i>Multiple requirements may be listed in this area.</i>

Table 1: DMaSC Rule Format

Development Lifecycle Criteria Evidence

The table below provides a development lifecycle view of the maturity of project progress, demonstrated through Criteria Evidence, toward achieving the Rule Requirement. The assessment points shown are based on EP projects, where this is not applicable the assessment points may need to be tailored by the SCTA.

RULE TITLE AND IDENTIFICATION NUMBER						
Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Capability Technical Assessment Report (CTAR)	DMaSC TA Review
1. Rule Requirement Title	<i>Description of the maturity of criteria evidence at this point.</i>	<i>Description of the maturity of criteria evidence at this point.</i>	<i>Description of the maturity of criteria evidence at this point.</i>	<i>Description of the maturity of criteria evidence at this point.</i>	<i>Description of the maturity of criteria evidence required by the DMaSC TA to enable the production of the DTCA</i>	<i>Description of the maturity of criteria evidence at final review.</i>

Table 2: DMaSC Rule Format (Continued)

How the Rules are Applied

20. Responsibility lies with the PM to approach their DMaSC SCTA, via the DSC Front Door, at the earliest opportunity. The SCTA will discuss and complete an initial assessment of the capability and advise the PM as to the degree of engagement – it may place responsibility with the PM to effectively self-assure against the DMaSC Rules.

21. Nominally, the through-life nature of JSP 939 requires:

- a. an Identification of Project Specific Rules and Criteria.
- b. an Assessment of the Evidence.
- c. the production of a DMaSC Capability Technical Assessment Report (CTAR).

22. However, for small capability or business changes the SCTA may decide upon examination that a CTAR is not required. If this is the case, and once agreed by DMaSC TA Hd, a simple email from the SCTA to the PM will act as a record of this decision.

23. JSP 939 is applied by the DMaSC SCTAs, with support from the DMaSC TA and any identified rule SMEs; paragraphs 24 to 29 provide a high-level view of the DMaSC TA assessment process and Figure 2 below shows this process diagrammatically and is designed to cover all change and not just that reflected in the CADMID cycle.

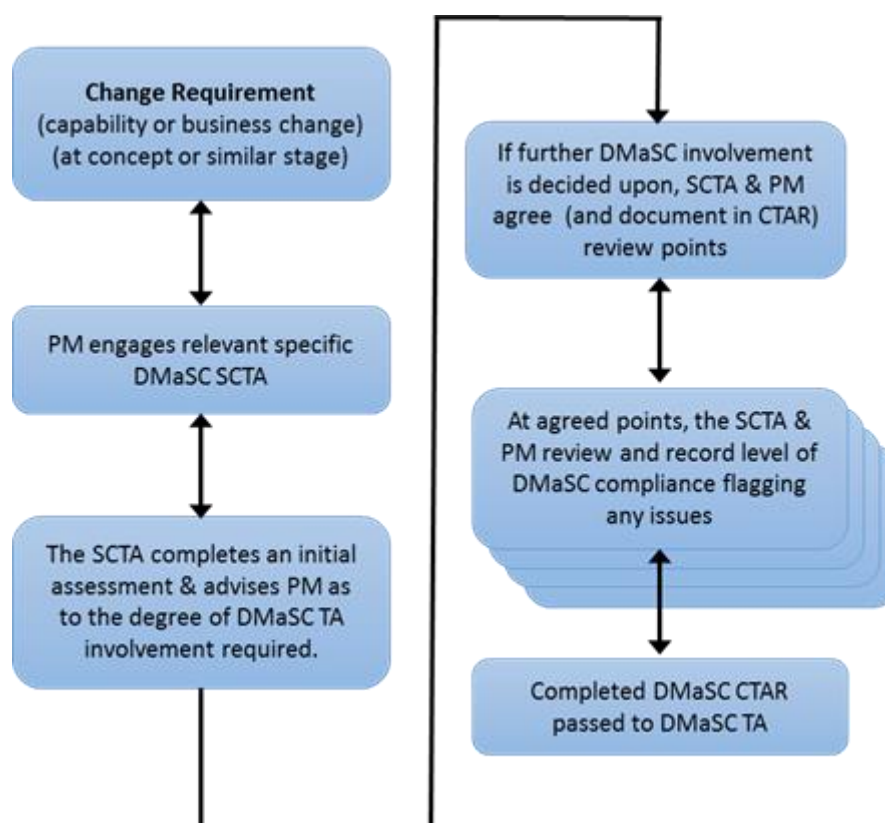


Figure 2: The DMaSC CTAR Process

Identification of Project Specific Rules and Criteria

24. It is vital that projects engage with their DMA SC SCTA early in their lifecycle. The majority of rules require identification and planning in the concept (or similar) stage of a project and a failure to do so may impact project timescales and cost.

25. For Equipment Programmes and Projects, the expected normal criteria evidence points are likely to include Outline Business Case (BC), Strat BC and Full BC, PDR and CDR. A key aspect of the early engagement with the SCTA will be to understand the nature of the change and to therefore determine with the project what the appropriate assessment points are and where they fit in the Project's Development Plan.

Assessment of Evidence

26. The SCTA will, through their engagement, assess the project's progress in achieving compliance with each of the applicable rules.

27. Where there is concern that an adequate degree of compliance may not be achieved, then the SCTA may escalate the issue to the DMA SC TA Hd who may in turn pass the matter to the MCB.

Production of a DMA SC CTAR

28. During early engagement with their SCTA by the PM, if the change to the M&S capability is deemed by the SCTA as sufficiently significant to warrant it, a DMA SC CTAR report will be raised.

29. If a CTAR report is raised, responsibility rests with the PM to provide their SCTA with the set of interpreted evidence to demonstrate the degree of compliance with the identified rules and criteria. The SCTA will use this evidence to write the CTAR Report using a standard format unless the change is deemed as being not of significance to DMA SC by the SCTA and agreed with the PM at the outset. A CTAR provides core evidence that the capability will be DMA SC compliant.

Document Governance

30. This document is managed by the DMA SC Defence SCTA on behalf of UKStratCom Cap C4ISR Dep Hd JTS. Any changes to this document must be submitted to the UKStratCom Cap C4ISR Dep Hd JTS for necessary comment and circulation prior to UKStratCom Cap C4ISR for approval.

31. Projects shall apply the latest version of the DMA SC Rules from the date of publication. Those projects that have already engaged with the DMA SC TA and have been applying an earlier version of the DMA SC Rules may continue to do so, although it may be in their interest to adopt the latest version.

Annex

A. The DMA SC Rules with Evaluation Criteria.

THE DMaSC RULES WITH EVALUATION CRITERIA

RULE 1: Reuse Existing. Any available existing systems, components, services, data and licences that meets the M&S requirement must be used as the default or 'Do Minimum' option.	
Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness ; P3: Minimising diversity; P4: Design for reuse; P5: Building with proven solutions; P6: Ensuring commonality of services across the Defence Enterprise; P7: Designing for flexible interoperability; P8: Adopting open standards; P9: Information as an Asset.
Rationale	<p>This rule embodies 'service above self'. Decisions made from an enterprise-wide perspective have greater long-term value than decisions made from any particular organisation perspective. Maximum return on investment requires decision makers to adhere to enterprise-wide drivers, policies and priorities. No minority group will detract from the benefit of the whole.</p> <p>Some organisations may have to concede their own preferences for the greater benefit of the entire enterprise.</p>
Policy References	JSP 906: Design Principles for the Acquisition of Capability
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	PMs are to ensure that there are no other M&S based Systems available as listed in the DMaSC M&S Catalogue that can be used to satisfy their requirement.

Development Lifecycle Criteria Evidence

RULE 1: Reuse Existing. Any available existing systems, components, services, data and licences that meets the M&S requirement must be used as the default or 'Do Minimum' option

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Points						
The functionality of existing training systems must be examined to see if they are suitable to meet requirements.						

RULE 2: Procuring for Reuse. Any new/modified/enhanced M&S components, services and data acquired by a project shall be made available for reuse via the DMaSC M&S Catalogue in formats specified in Def Stan 03-50 where applicable and practicable.

Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness; P3: Minimising diversity; P4: Design for reuse; P5: Building with proven solutions; P6: Ensuring commonality of services across the Defence Enterprise; P7: Designing for flexible interoperability; P9: Information as an Asset.
Rationale	<p>This rule embodies 'service above self'. Decisions made from an enterprise-wide perspective have greater long-term value than decisions made from any particular organisation perspective. Maximum return on investment requires decision makers to adhere to enterprise-wide drivers, policies and priorities. No minority group will detract from the benefit of the whole.</p> <p>Some organisations may have to concede their own preferences for the greater benefit of the entire enterprise.</p>
Policy References	JSP 906: Design Principles for the Acquisition of Capability
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	PMs are to ensure that preference is given to components, services and data available as listed in the DMaSC M&S Catalogue that can be used to satisfy their requirement. Any new, modified or enhanced M&S data or components must be procured with IPR that allows it to be reused across Defence.

Development Lifecycle Criteria Evidence

RULE 2: Procuring for Reuse. Any new/modified/enhanced M&S components, services and data acquired by a project shall be made available for reuse via the DMaSC M&S Catalogue in formats specified in Def Stan 03-50 where applicable and practicable.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMASC TA Review
Definition of Agreed Review Point						
M&S components, services and data made available for reuse via the DMaSC M&S Catalogue must be selected as a preference.						

RULE 3: M&S Standards. Any M&S standards selected for use by the capability or technical solution change must be compliant with Def Stan 03-50.

Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness; P3: Minimising diversity; P4: Design for reuse; P5: Building with proven solutions; P6: Ensuring commonality of services across the Defence Enterprise; P7: Designing for flexible interoperability; P9: Information as an Asset.
Rationale	<p>Maximum return on investment requires that any new/modified/enhanced data/components are procured allowing them to be reused and shared across Defence. No minority group will detract from the benefit of the whole.</p> <p>Some organisations may have to fund licences in excess of their own particular requirement for the greater benefit of the entire enterprise.</p>
Policy References	JSP 906: Design Principles for the Acquisition of Capability
Subject Matter Expertise POCs	DMASC TA, SCTA
Rule Requirements	Simulation standards selected must be declared and shown to be included in the DMaSC M&S Standards Profile (DMSP) the latest version of which can be found at: https://www.gov.uk/the-defence-training-and-education-capability-programme .

Development Lifecycle Criteria Evidence

RULE 3: M&S Standards. Any M&S standards selected for use by the capability or technical solution change must be compliant with Def Stan 03-50.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
Any new, modified or enhanced M&S data or components must be procured with IPR/licenses that allows reuse across Defence.						

RULE 4: Enumerations. All new and revised distributed simulation enumerations must comply with the DMaSC Enumerations Policy and be registered with the Defence Simulation Centre (DSC).

Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P3: Minimising diversity; P4: Design for reuse; P6: Ensuring commonality of services across the Defence Enterprise; P7: Designing for flexible interoperability; P8: Adopting open standards; P9: Information as an Asset.
Rationale	<p>This rule promotes and underpins some of the basic SOSA principles through improving reuse and interoperability. The selection of open and common standards from a provided list will also help drive coherence, agility and commonality.</p> <p>Not wishing to stifle controlled innovation though, it shall be possible to select a standard not from the DMSP, but it must be justified from SOSA & whole life costs' perspectives.</p>
Policy References	JSP 906: Design Principles for the Acquisition of Capability Def Stan 03-50
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	PMs are to follow the Enumerations Policy for any new 3D models to ensure coordination and coherence.

Development Lifecycle Criteria Evidence

RULE 4: Enumerations. All new and revised distributed simulation enumerations must comply with the DMaSC Enumerations Policy and be registered with the Defence Simulation Centre (DSC).

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
PMs are to follow the Enumerations Policy for any new 3D models to ensure coordination and coherence.						

RULE 5: M&S Enterprise Architecture. All M&S-based capability must be developed in accordance with the DMaSC Enterprise Architecture approach (both in terms of engineering approach to implementing the architecture and the agreed physical architecture itself) as advised and approved by the relevant SCTA.	
Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness; P3: Minimising diversity; P4: Design for reuse; P5: Building with proven solutions; P6: Ensuring commonality of services across the Defence Enterprise; P7: Designing for flexible interoperability; P8: Adopting open standards; P9: Information as an Asset.
Rationale	Conformity of development of M&S capability with the DMaSC Enterprise Architecture as defined by the environment SCTA will ensure that coherence and adherence to the identified parent principles is achieved.
Policy References	JSP 906: Design Principles for the Acquisition of Capability
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	All M&S PMs are to liaise with their SCTA to ensure that their capability complies and is coherent with their environment enterprise architecture.

Development Lifecycle Criteria Evidence

RULE 5: M&S Enterprise Architecture. All M&S-based capability must be developed in accordance with the DMaSC Enterprise Architecture approach (both in terms of engineering approach to implementing the architecture and the agreed physical architecture itself) as advised and approved by the relevant SCTA.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
All M&S capability must be developed in accordance with the DMaSC Enterprise Architecture approach through their SCTA.						

RULE 6: Technical Documentation. In order to support interoperability and reuse, suitable documentation must be made available for all M&S-based capabilities; this is to include Interface Control Documents (ICDs), 3D model metadata etc.

Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness; P3: Minimising diversity; P4: Design for reuse.
Rationale	This rule ensures coherence across Defence and not just in the DMaSC domain.
Policy References	JSP 440: Defence Manual of Security JSP 604: Network Joining Rules JSP 822: Governance and Management of Defence Individual Training and Education
Subject Matter Expertise POCs	DMaSC TA
Rule Requirements	In order to support interoperability and reuse, suitable documentation must be made available for all M&S based Capabilities, this to include Interface Control Documents (ICDs), 3D model metadata etc.

Development Lifecycle Criteria Evidence

RULE 6: Technical Documentation. In order to support interoperability and reuse, suitable documentation must be made available for all M&S-based capabilities; this is to include Interface Control Documents (ICDs), 3D model metadata etc.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
In order to support interoperability and reuse, suitable documentation must be made available for all M&S based Capabilities, this to include Interface Control Documents (ICDs), 3D model metadata etc.						

RULE 7: Synthetic Environment (SE) Data. All are to attempt to source all M&S-based capability needs for SE Content Data via the DSC; this includes terrain data, 3D models, hydrographic data etc.

Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P2: Driving business and operational effectiveness; P3: Minimising diversity; P4: Design for reuse; P6: Ensuring commonality of services across the Defence Enterprise; P8: Adopting open standards; P9: Information as an Asset.
Rationale	Adherence by PMs to the DMaSC Enumerations Policy will ensure that 3D model identification for distributed simulation purposes are coordinated and cohere across Defence and with Allies.
Policy References	JSP 906: Design Principles for the Acquisition of Capability DMaSC Enumerations Policy
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	PMs must ensure that all terrain source data, 3D models and other SE data requirements are attempted to be met in the first instance by that available through the DMaSC M&S Catalogue. If the data available through the DMaSC M&S Catalogue does not meet requirements, all terrain source data and 3D model requirements must be resourced through the DSC.

Development Lifecycle Criteria Evidence

RULE 7: Synthetic Environment (SE) Data. All are to attempt to source all M&S-based capability needs for SE Content Data via the DSC; this includes terrain data, 3D models, hydrographic data etc.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
PMs must ensure that SE data requirements are attempted to be met in the first instance by that available through the DMaSC M&S. If the data available through the DMaSC M&S Catalogue does not meet requirements, all terrain source data and 3D model requirements must be resourced through the DSC.						

RULE 8: Research and Reports Exploitation. All M&S-related research and decision support activity, including any outputs, is to be registered with the DSC.	
Rule Owner	DMaSC TA
Parent Principle(s)	P1: Unifying the Enterprise; P3: Minimising diversity; P4: Design for reuse; P6: Ensuring commonality of services across the Defence Enterprise; P9: Information as an Asset.
Rationale	This rule is designed to help provide visibility and clarity of M&S related research and decision support activity to help exploitation, prevent duplication and avoid gaps in work.
Policy References	JSP 906: Design Principles for the Acquisition of Capability
Subject Matter Expertise POCs	DMaSC TA, SCTA
Rule Requirements	The DMaSC M&S Catalogue will provide details of previous and ongoing M&S related research and decision support activity and where to find more information.

Development Lifecycle Criteria Evidence

RULE 8: Research and Reports Exploitation. All M&S-related research and decision support activity, including any outputs, is to be registered with the DSC.

Rule Requirement	Agreed Review Point #1	Agreed Review Point #2	Agreed Review Point #3	Agreed Review Point #4	Technical Assessment Report (CTAR)	DMaSC TA Review
Definition of Agreed Review Point						
DMaSC M&S Catalogue to be examined to ensure no such previous activity exists that can be exploited before commissioning new work.						
Any new item of M&S related research and decision support activity is to be registered with the DSC.						