COURSE SYLLABUS

SL 4J

USAREUR-AF

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SL 4J — PROGRAM MANAGER (TECHNICAL)

HEADQUARTERS
UNITED STATES ARMY EUROPE AND AFRICA
(USAREUR-AF)
Wiesbaden, Germany

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COURSE SYLLABUS

SL 4J — PROGRAM MANAGER (TECHNICAL)

Maven Smart System (MSS) — USAREUR-AF

Level	SL 4J (Program Manager Specialist Track)
Duration	4 days (32 hours)
Prerequisites	SL 1, SL 2, and SL 3 (all Go evaluations on file, required). Data Literacy Technical Reference (read before Day 1).
Audience	Technical project managers, product owners, team leads for data and AI capability builds
Format	Instructor-led instruction + applied exercises + practical exercise
Location	MSS Training Environment

WHAT THIS COURSE DOES FOR YOU

After this course you can manage the full lifecycle of a data or AI project on MSS — from initial requirement through sprint execution, production release, and sustainment. You will write user stories that SL 4G through SL 4O developers can execute without ambiguity, translate a commander requirement into a prioritized backlog, understand the architecture of MSS project tracking systems well enough to direct their construction, and manage risk and change across a technical build team.

SL 4J graduates are the connective tissue between the operational unit stating the requirement and the technical team building the capability. The PM does not write code. The PM makes the team able to.

Four days provides time to work through all eight TM chapters with applied exercises at each stage before the evaluation: Day 1 establishes the Agile foundation and user story craft; Day 2 builds the ML/AI lifecycle model and requirements elicitation skills; Day 3 covers stakeholder management, project tracking systems, and risk management; Day 4 closes with delivery planning, change management, and a full practical exercise with adequate time for the seven written PM deliverables.

LEARNING OBJECTIVES

By the end of training, you will be able to:

1. Stand up an Agile project structure (backlog, sprint cadence, ceremonies) for a data or AI project in a military operational context
2. Write user stories and acceptance criteria that SL 4G through SL 4O developers can execute without ambiguity, including story sizing and velocity tracking
3. Manage an ML or AI project from research brief through the six lifecycle phases (Problem Definition, Data Audit, Prototype, Evaluation, Production, Sustainment) using the SL 4J lifecycle model
4. Translate a commander or staff officer requirement into a structured requirements document and a prioritized, sprint-ready backlog
5. Understand the architecture of an MSS project tracking system (sprint board, commander-facing status dashboard, automated status alerts) and direct its construction by SL 4L/SL 4H developers
6. Identify top project risks, populate the MSS risk register, and identify and manage dependency blockers for data, model, and integration work
7. Conduct a production readiness review against the Definition of Done (Appendix B) before releasing an MSS capability to operational users
8. Execute a change management plan for a new MSS capability deployment to an operational unit, including user guide development and resistance management

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BEFORE YOU ATTEND: PRE-COURSE CHECKLIST

Complete **5+ duty days before Day 1:** - ☐ Confirm SL 3 Go evaluation is on file with your unit MSS Administrator - ☐ Read TM-40J, Chapter 1 (Introduction — The Technical PM Role) — 30 min - ☐ Read the Data Literacy Technical Reference through Section 3 (Data Architecture fundamentals) before Day 1 - ☐ Read CONCEPTS_GUIDE_TM40J_PROGRAM_MANAGER before beginning the manual

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DAILY SCHEDULE

Day 1 — Agile Fundamentals and User Story Craft

Time	Block	Method	Content
0800–0830	—	Brief	The Technical PM role on MSS; why projects fail without PM discipline; how SL 4J connects operational requirements to technical execution
0830–1000	1	Instruction + Exercise	Agile for data projects: Scrum framework, sprint cadence, backlog management. Applied exercise: size a provided backlog of MSS data product stories using relative estimation
1000–1015	—	Break	
1015–1200	2	Instruction + Exercise	User stories and acceptance criteria: format, quality standards, the Definition of Ready. Applied exercise: rewrite three poorly-written requirements as user stories with testable acceptance criteria
1200–1300	—	Lunch	
1300–1500	3	Instruction + Exercise	Kanban for operational support work; sprint ceremonies (Planning, Standup, Review, Retrospective) — execution standards for a military data team. Applied exercise: run a sprint planning session from a provided backlog
1500–1515	—	Break	
1515–1700	4	Exercise + Review	User story quality workshop: each trainee brings a requirement from their own unit (or uses the provided set); rewrites it as a properly-formed user story; peer review against the Definition of Ready; instructor closes with common failure patterns

Evening reading: TM-40J, Chapter 2 (Agile PM for Data and AI Projects) — full chapter review; TM-40J, Chapter 3 (Managing ML and AI Project Lifecycles) — read all six lifecycle phases and gate criteria before Day 2.

Day 2 — ML/AI Lifecycle and Requirements Elicitation

Time	Block	Method	Content
0800–0900	—	Review	Day 1 questions; gate criteria quiz — six ML lifecycle phases and their go/no-go criteria
0900–1030	5	Instruction	ML/AI project lifecycle: six phases from Problem Definition through Sustainment. Gate criteria between phases. How the PM manages handoffs across SL 4H, SL 4M, SL 4G, and SL 4L tracks. Common gate-skip failure modes

Time	Block	Method	Content
1030–1045	—	Break	
1045–1200	6	Instruction + Exercise	Requirements elicitation from commanders and staff: the translation problem, structured intake, distinguishing a stated requirement from the real requirement. Applied exercise: interview simulation — extract a structured requirements document from a vague commander ask
1200–1300	—	Lunch	
1300–1430	7	Exercise	Requirements document drill: given a second provided commander ask, each trainee independently produces a complete structured requirements document (problem statement, success criteria, constraints, definition of done). Peer review; instructor critique
1430–1445	—	Break	
1445–1700	8	Instruction	Managing stakeholder expectations: delivery timelines, scope tradeoffs, cross-track coordination. Managing the technical team: PM authority vs. technical authority, protecting the team from scope sprawl. Coalition building across SL 4A–F WFF consumers

Evening reading: TM-40J, Chapter 4 (Stakeholder Management and Requirements Translation); TM-40J, Chapter 5 (Building Project Tracking Systems on MSS).

Day 3 — Project Tracking Systems and Risk Management

Time	Block	Method	Content
0800–0830	—	Review	Day 2 questions; requirements document quality debrief
0830–1030	9	Instruction + Exercise	Project tracking system architecture for PMs: the Project Tracker Ontology design (Project, Sprint, Story, Risk Object Types), how a Sprint Board is structured in Workshop, what the PM specifies vs. what SL 4L builds. Applied exercise: draft a PM requirements specification for a Sprint Board; identify every decision SL 4L needs answered before building
1030–1045	—	Break	
1045–1200	10	Instruction + Exercise	Commander-facing Project Status Dashboard: overall health roll-up, milestone status, blocking issues panel. Automated status alerts: alert rules specification

Time	Block	Method	Content
			and validation. Exercise: draft complete build spec for the dashboard — sufficient for a SL 4L developer to implement without follow-up
1200–1300	—	Lunch	
1300–1500	11	Instruction + Exercise	Risk management for data projects: data availability risk, model performance risk, technical debt. Building and maintaining the MSS risk register. Dependency management — identifying blockers across SL 4 specialist tracks. Applied exercise: populate a risk register from a provided project scenario
1500–1515	—	Break	
1515–1700	12	Exercise + Review	Dependency mapping: given the AI readiness tool scenario (same scenario as Day 4 practical exercise), identify and document all cross-track dependencies (data, model, platform); assign owners; flag blockers. Instructor reviews output against practical exercise criteria so trainees understand what "complete" looks like

Evening reading: TM-40J, Chapters 6–8 (Risk Management; Delivery Planning; Change Management) — all three chapters before Day 4.

Day 4 — Delivery, Change Management, and Practical Exercise

Time	Block	Method	Content
0800–0900	13	Instruction	Delivery planning: scope/timeline/quality tradeoffs; release planning; Definition of Done for a data product; production readiness review procedure against Appendix B criteria. Post-release review standards
0900–0945	14	Instruction	Change management: why operational users resist new data products; change management plan structure; user guide standards; managing resistance during rollout; platform governance from a PM perspective
0945–1000	—	Brief	Practical exercise scenario brief; evaluator distributes scenario materials; 15-min review and questions
1000–1015	—	Buffer	Final prep; environment check
1015–1200	15	**Eval**	**Practical exercise — Phase 1** (Tasks 1–4): requirements document, user stories, sprint board spec, dashboard spec

Time	Block	Method	Content
1200–1300	—	Lunch	
1300–1700	16	**Eval**	**Practical exercise — Phase 2** (Tasks 5–7): dependency/risk register, production readiness brief, change management summary

REQUIRED READING SUMMARY

When	Reading
Before Day 1	TM-40J, Ch 1 (Introduction — The Technical PM Role)
Before Day 1	Data Literacy Technical Reference, Sections 1–3
Before Day 1	CONCEPTS_GUIDE_TM40J_PROGRAM_MANAGER
Day 1 evening	TM-40J, Ch 2 (Agile PM for Data and AI Projects)
Day 1 evening	TM-40J, Ch 3 (Managing ML and AI Project Lifecycles) — all six phases and gate criteria
Day 2 evening	TM-40J, Ch 4 (Stakeholder Management and Requirements Translation)
Day 2 evening	TM-40J, Ch 5 (Building Project Tracking Systems on MSS)
Day 3 evening	TM-40J, Chs 6–8 (Risk; Delivery Planning; Change Management) — required before Day 4

PRACTICAL EXERCISE

Scenario: A BDE S3 has tasked your team to deliver an AI-assisted readiness prediction tool in 90 days. You have one SL 4H (AI Engineer), one SL 4M (ML Engineer), one SL 4L (Software Engineer), and one SL 4K (Knowledge Manager) on the team. You have a vague commander's requirement memo and access to the MSS Training Environment.

Tasks: 1. Write a structured requirements document: problem statement, success criteria, constraints, definition of done — derived from the provided requirement memo 2. Break the requirement into five user stories with acceptance criteria that each developer track can execute; size each story and assign to a sprint 3. Write the build specification for an MSS Project Tracker: describe the required Object Types (Project, Sprint, Story, Risk), the Sprint Board layout, and the data inputs a SL 4L developer would need to implement it; populate a risk register with three pre-identified risks from the scenario 4. Write the requirements specification for a Commander-Facing Status Dashboard: define the required views (project

health, current sprint status, top blocking risk), data sources, refresh cadence, and access roles 5. Identify three dependencies (data, model, platform) from the scenario and document them in the risk register with mitigation owners and due dates 6. Brief the production readiness criteria: what does Done look like for this capability, and what are the three highest-probability go/no-go failure points before release 7. Write a one-page change management summary: user adoption plan, resistance risks, and rollout sequence for the three BDE staff sections who will receive the tool

Go standard: Pass 6 of 7 tasks. User stories must be testable by a developer without follow-up questions. Risk register must have mitigation owners on all entries. Build specifications (Tasks 3 and 4) must contain sufficient detail for a SL 4L developer to implement without follow-up questions.

WHAT "GO" LOOKS LIKE

User stories without testable acceptance criteria automatically fail that task — "the dashboard should look good" is not acceptance criteria. Each story must state a specific, verifiable condition a developer can confirm complete.

The risk register is not a list of things that could go wrong. Each entry requires: risk description, likelihood (H/M/L), impact (H/M/L), mitigation action, owner, and due date. Incomplete entries are No-Go.

The production readiness review is a judgment call, not a checklist. The evaluator will probe: what would cause you to stop a release? What would you accept as a workaround? Answers that cannot reference TM-40J Appendix B criteria (Definition of Done) will not pass.

TIPS FROM PREVIOUS GRADUATES

- Requirements translation is the hardest part of the job. The commander says "I want to see readiness." That is not a requirement. "I want to see FMC rate by battalion, refreshed daily, with FFIR threshold alerts at 85% and 75%" is a requirement. Push for specificity in every intake conversation.
- The six ML lifecycle phases have gate criteria. If you skip the Data Audit gate and go straight to Prototype, your team will waste sprints discovering data quality problems that should have been found in Phase 2. Enforce the gates even when leadership is impatient.
- The sprint board will only stay current if you enforce standup hygiene. A standup where people do not update their story status before the call is a status report, not a standup. Set the expectation on Day 1 of the sprint.
- The Day 3 practical exercise requires written specifications, not live MSS products. The PM's job is to produce documentation a developer can execute — focus on completeness and specificity, not tool

proficiency.

CONTINUATION

Graduates managing multi-program portfolios or theater-level data initiatives may pursue **SL 5J (Advanced Program Management)**. SL 5J covers portfolio architecture, enterprise delivery governance, GO/SES communication, and organizational change leadership for MSS capability adoption at scale. Prerequisites: SL 4J Go evaluation on file; 18+ months leading technical data, AI, or software delivery programs.

ASSOCIATED EXERCISES AND ASSESSMENTS

Item	Reference
Pre-course exam	EXAM_TM40J_PRE
Post-course exam	EXAM_TM40J_POST
Practical exercise	EX_40J (EXERCISE.md + ENVIRONMENT_SETUP.md)

RELATIONSHIP TO OTHER TRACKS

SL 4J is the coordination hub of the SL 4 specialist series. The PM does not build what SL 4G through SL 4O builds — the PM delivers it. Understanding each specialist track's scope is not optional.

WFF-track analysts (SL 4A through SL 4F) are the operational consumers of capabilities built by teams the SL 4J PM leads. A program manager who does not understand what Sustainment (SL 4D) or Mission Command (SL 4F) analysts need from an MSS product cannot write requirements that are operationally sound.

Track	Relevance to PM
SL 4G (ORSA)	Quantitative models the PM may deliver as a product; ORSA analysts are stakeholders and technical team members
SL 4H (AI Engineer)	AI workflow and agent builds; PM manages ML/AI lifecycle for these deliverables (Ch 3)

Track	Relevance to PM
SL 4M (ML Engineer)	ML model builds; PM owns the lifecycle gate from Prototype through Production
SL 4K (KM)	Ontology governance and data dictionary — PM coordinates access and change requests through KM
SL 4L (SWE)	Custom code and platform integrations; PM owns Definition of Done and release gate
SL 4A–F (WFF)	Operational consumers; PM requirements come from WFF needs, PM products serve WFF analysts

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