

# JISC Project Plan Template

*The Project Management Guidelines have detailed instructions for preparing project plans.*

*Expand tables as appropriate.*

*Fill in the information for the header, e.g. project acronym, version, and date.*

*Prepare a cover sheet using the cover sheet template and attach to the project plan.*

## Overview of Project

### 1. Background

*Summarise the background to the project (and how it builds on previous work) and the need for it (and why it's important).*

The JISC has already made a considerable contribution to the development of the concept of the Managed Learning Environment (MLE) and support for interoperability standards. Evidence indicates, however, that current implementations of MLEs suffer from several constraints:

- MLEs are institution specific meaning it is difficult to realise economies of scale by cross-institutional sharing.
- MLEs often rely on vendor-specific components which create on-going maintenance costs.
- MLEs lack pedagogical flexibility and can act to stifle innovation.

Whilst some limitations of the MLEs are becoming apparent, the e-Learning community has been reaching a consensus around the following components of system integration:

- Maturing e-Learning data exchange standards.
- Adoption of service orientated architectures.
- Convergence around web services as the connectors of a service oriented architecture.

ISIS presents an opportunity to address certain limitations of MLEs by exploiting the emerging consensus on data exchange, system architecture and system integration.

### 2. Aims and Objectives

*List the broad aim or purpose of the project, and the specific objectives you intend to achieve.*

The innovative learning outlined will be delivered via the IMS Simple Sequencing specification. This describes how a set of sequencing rules may be associated with a set of learning resources. These rules create a variety of pathways through the learning content. The project proposes to build libraries that enable developers to create applications that provide and consume sequencing services. The libraries will enable tools to control a sequence of learning resources that interact with a sequencing engine which interprets the associated sequencing rules.

The libraries will provide the functionality for both service consumers and service providers.

The library for service consumers will be demonstrated using two tools:

- A **visualization tool** that graphically presents the sequencing rules associated with the resources in an IMS Content Package.
- A **player tool** that steps through the resources in an IMS Content Package according to sequencing rules.

The library for service providers will be demonstrated using:

- A **sequencing engine** that interprets the sequencing rules associated with the resources in an IMS Content Package

Integration with the portal framework will be demonstrated by consuming the player tool.

### 3. Overall Approach

Describe the overall approach you will take to achieve the objectives outlined above, including:

- Strategy and/or methodology and how the work will be structured
- Important issues to be addressed, e.g. interoperability
- Scope and boundaries of the work, including any issues that will not be covered.
- Critical success factors.

The work will be divided between the three partners, drawing on their strengths, and where possible limiting dependencies between workpackages. Interoperability between the libraries, tools and frameworks are ensured by working with international standards from the IMS, W3C, OASIS and JCP.

### 4. Project Outputs

List the tangible deliverables (including reports) your project will create, and the less tangible knowledge and experience you hope to build and share.

Service provider libraries for sequencing engine  
 Sequencing engine API and compiled implementation  
 Sequencing player  
 Service provider and consumer libraries for uPortal integration  
 Service consumer libraries for visualization tool  
 Architecture UML model and documentation  
 WSDL, XML schemas for service providers

### 5. Project Outcomes

List the outcomes you envisage, including their impact on the teaching, learning, or research communities, and what change they will stimulate or enable.

The project will produce a number of libraries and tools to allow teachers/designers to test and debug packages of sequenced content and learners to access these innovative sequences.

### 6. Stakeholder Analysis

List key stakeholder groups and individuals that will be interested in your project outcomes, will be affected by them, or whose support/approval is essential, both within your institution and in the community, and assess their importance (low/medium/high).

Stakeholder	Interest / stake	Importance
Teaching staff (internal & external)	Tools for assisting in the production of sequences of packaged content	medium
Students (internal & external)	Access to sequences of content	medium
Software developers	Libraries and documentation to facilitate own use of sequencing technology	medium
Standards organisations	Libraries and best practice with sequencing	low

### 7. Risk Analysis

List factors that could pose a risk to the project's success, assess their likelihood and severity, and how you will prevent them from happening (or manage them if they if they occur). Cover the types of risks listed and any others that apply.

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Staffing	1	1	1	All staff involved are on existing, continuing contracts
Legal	1	1	1	Agree on issues around IPR at outset of project
WSRP and JSR 168 are new specifications with few documented exemplars and immature implementation.	2	2	4	An expected issue in ground breaking projects of this kind. A large community including JA-SIG and SAKAI are committed to

				solving this.
IMS Simple Sequencing and IMS Learning Design may have implicit memory intensive session state objects that may affect performance.	3	1	3	We plan to use several independent techniques in parallel to ensure optimal performance of the libraries.
IMS Simple Sequencing describes both state and behaviour and may be difficult to adapt implementations to specification changes in the behaviour model.	3	1	3	We plan to use high level API descriptions of behaviour so that version changes in implementation detail will be hidden from the users of libraries.
Critical milestones occur within summer holiday period.	3	2	6	This anticipated difficulty will be dealt with using normal project planning procedures.

## 8. Standards

List any specific standards you will adopt and why they are important.

IMS	Content Packaging v 1.1.3, Simple Sequencing v 1.0
W3C	WSDL, SOAP
OASIS	WSRP
Java Community Process	JSR 168

## 9. Technical Development

Indicate how the project will follow best practice for technical development, and any specific technologies or development approaches the project will adopt and why.

ISIS will use standard object-oriented design and programming techniques building on existing tools and technologies. The Visualization tool requires complex graphical ability and will be developed using appropriate technology, Macromedia Flash

Sequencing Engine	J2EE
Visualization Application/Tool	Macromedia Flash, WSDL
Player Application/Tool	Jakarta Struts, Java Servlets
Portal Framework	uPortal – native API (iChannel), WSRP, JSR 168

## 10. Intellectual Property Rights

List any intellectual property owned by third parties that will be incorporated into project outputs, when/how you will obtain permission to use them, and any implications for project outputs after the project ends.

Icodeon Ltd. retain the IPR for the Sequencing Engine APIs as detailed below:

**Sequencing Engine APIs:** these remain the IP of Icodeon Ltd, but are available under full Open Source licence, are freely available in source code form and the API is public.

**Sequencing Engine API Implementation Classes:** these remain the IP of Icodeon Ltd, but are available free of charge as a compiled library under separate, free, commercial licence to UK HE and FE.

## Project Resources

### 11. Project Partners

List all project partners (including subcontractors), their roles, and the main contact. Indicate the date a consortium agreement was signed (or will be signed), and send a copy to the programme manager.

Icodeon Ltd.

Director - Warwick Bailey

Icodeon Ltd. Are responsible for the development of Sequencing Engine and Sequencing Player.  
 Newark & Sherwood College  
 Steve Jeyes – Service evaluation

## 12. Project Management

*Briefly describe the project management framework, including organisation, reporting relationships, decision process, and the role of any local management committee.*

The project will be managed at Icodeon by Warwick Bailey and at the University of Hull by Robert Sherratt liaising with Ian Dolphin as required. Staff at the separate sites will meet periodically and use online communications to ensure clarity of requirements and purpose.

*List all members of the project team, their roles, and contact details. Indicate the proportion of time the project manager will spend on project management.*

Robert Sherratt (University of Hull) - Project Manager and portal development ([r.sherratt@hull.ac.uk](mailto:r.sherratt@hull.ac.uk)) 5%

Warwick Bailey (Icodeon Ltd.) – Project Manager and Sequencing Engine/Player development ([warwick@icodeon.com](mailto:warwick@icodeon.com)) 5%

Steve Jeyes (Newark & Sherwood College) – Service Evaluation coordinator ([jeyesint@ntlworld.com](mailto:jeyesint@ntlworld.com))

Ian Dolphin (University of Hull) – Project overview ([i.dolphin@hull.ac.uk](mailto:i.dolphin@hull.ac.uk))

Gary Thompson (University of Hull) – Visualisation tool and portal development ([g.d.thompson@hull.ac.uk](mailto:g.d.thompson@hull.ac.uk))

*Indicate if the project has training needs and how they will be met.*

## 13. Programme Support

*Indicate if there are specific areas where you would like support from the programme or programme manager.*

## 14. Budget

*Use the [budget template](#) and attach the project budget as Appendix A. Explain any changes from the budget in the agreed project proposal.*

## Detailed Project Planning

## 15. Workpackages

*Use the [workpackages template](#) to plan the detailed project work and attach as Appendix B. Clearly indicate project deliverables and reports (in **bold**), when they are due, phasing of workpackages, and explain any dependencies. You may also attach a Gantt chart, diagram, or flowchart to illustrate phasing.*

## 16. Evaluation Plan

*Indicate how you will evaluate the quality of the project outputs and the success of the project. List the factors you plan to evaluate, questions the evaluation will answer, methods you will use, and how success will be measured. Expand as appropriate on how you will conduct the evaluation.*

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
September 2004	Success of service consumer and provider libraries outside development environments		Testing with teachers/designers and learners	Ability to use the tools and framework in the ways expected

## 17. Quality Assurance Plan

Explain the quality assurance procedures you will put in place to ensure that project outputs comply with JISC technical standards and best practice, and what will constitute evidence of compliance.

Timing	Compliance With	QA Method(s)	Evidence of Compliance
	Adherence to standards	Work with standards specifications	Outputs conform to standards from the IMS, W3C, OASIS and JCP
	Accessibility legislation	Work with automated compliance tools and real users	Documentation and conformance of outputs

## 18. Dissemination Plan

Explain how the project will share outcomes and learning with stakeholders and the community. List important dissemination activities planned throughout the project, indicating purpose, target audience, timing, and key message.

Timing	Dissemination Activity	Audience	Purpose	Key Message

## 19. Exit/Sustainability Plan

Explain what will happen to project outputs at the end of the project (including knowledge and learning). Focus on the work needed to ensure they are taken up by the community and any work needed for project closedown, e.g. preservation, maintenance, documentation.

Project Outputs	Action for Take-up & Embedding	Action for Exit

List any project outputs that may have potential to live on after the project ends, why, how they might be taken forward, and any issues involved in making them sustainable in the long term.

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
Sequencing web service	Integral service in the ELF	Development of user agents building on this and other ELF web services.	Continuation of funding to meet changing needs including new versions of standards and specifications.

## Appendixes

### Appendix A. Project Budget

### Appendix B. Workpackages

JISC Project Management Framework  
22 December 2003