DSDM®
CONSORTIUM

White Paper

Using DSDM and PRINCE2

Table of Contents

1   Introduction

When DSDM was being developed, those involved had PRINCE2 firmly in mind. This is reflected in the number of the DSDM principles and techniques – for example product-based planning, the involved partnership of users and developers and the strong emphasis on the underlying business case. Care is needed however in using the two together. Those who have used PRINCE2 to control their DSDM projects have found that an unheeding approach, applying the method straight from the manual, can lead to duplication, overlap and conflict. This White Paper has been written to address how PRINCE2 may be used on a DSDM project without duplication of effort and shows where the strengths of each may be used to the advantage of the project.

1.1   Audience

If you are using DSDM, it is not necessary to use PRINCE2 for it to be successful. Therefore, this paper assumes that the use of PRINCE2 is already well embedded within an organisation and a project effectively has no choice but to use it.

2 What do they do?

2.1 DSDM

DSDM is a tool to understand, plan, communicate, control and deliver all projects whether IT or business change.

2.2 PRINCE2

PRINCE2 is a structured method for effective project management. It is not designed for effective product delivery and alone does not deliver a solution. It is there only to ensure that the project has a sound basis for starting, there is sufficient governance, is planned and that there is a means of checking it has met its objectives. That PRINCE2 is about the management of the project rather than delivery of its products is shown in the diagram below which shows where the PRINCE2 processes fit into the DSDM lifecycle.
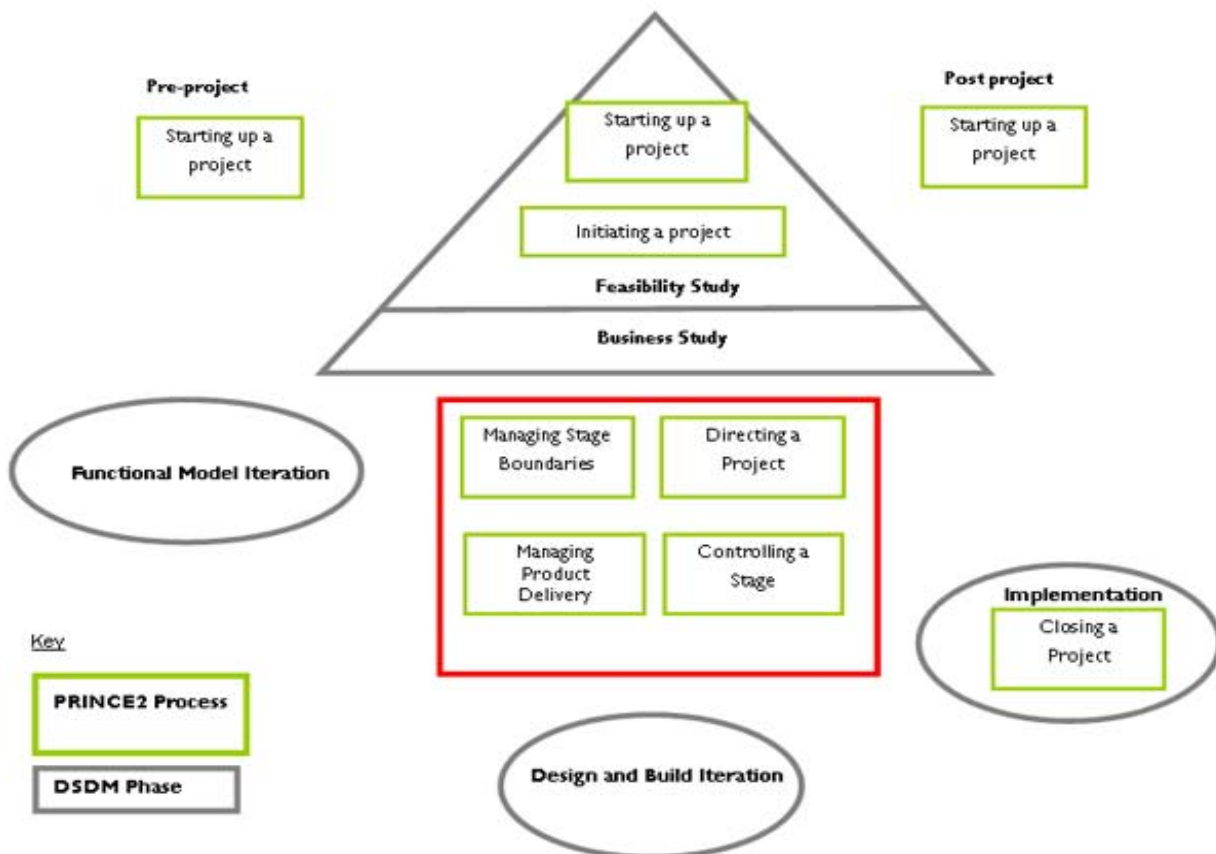
2.3   How they fit

Doing DSDM automatically means there is a close fit with the principles of PRINCE2. The left hand column is taken directly from the PRINCE2 manual.

PRINCE2 provides projects with:	DSDM approach
• A controlled and organised start, middle and end.	In DSDM, the project is started in the pre-project and Feasibility phases, whilst the Business Study allows further work to be done without committing too much resource and is an extra step in project set up. The Functional Model and Design and Build Iterations, together with Implementation and post-project then provide the middle and end.
• Regular reviews of progress against plan and against the business case.	These are inherent in the iteration and Timebox reviews. Definition of business requirements and acceptance criteria, together with active user involvement provides constant checks against the business case, while the plan evolves throughout DSDM. The Increment Review in DSDM can be treated as PRINCE2's End Stage Review.
• Flexible decision points.	The very dynamic nature of DSDM allows for this.
• Automatic management control of any deviations from the plan.	Control of flexibility is provided by prioritisation and timeboxing together with clear responsibilities.
• The involvement of management and stakeholders at the right time and place during the project.	There are specific decision points in DSDM and active user involvement throughout.
• Good communication channels between the project, project management and the rest of the organisation.	DSDM also has a model of the structure of a project within an organisation. In addition, collaboration and co-operation between all stakeholders is one of the principles of DSDM. In particular, the Ambassador User provides a strong link between the project and the business.

**Project managers using PRINCE2 are able to:**

- Establish terms of reference as a pre-requisite to the start of a project.

  The Pre-Project phase sets up this context of the project, which is further fleshed out in the Feasibility and Business Studies.

- Use a defined structure for delegation, authority and communication.

  DSDM defines project team structure, roles and responsibilities and provides a further level of detail to the one offered by PRINCE2. Also, there is a specific section on Escalation about communication lines and levels of responsibility.

- Divide the project into manageable stages for more accurate planning.

  DSDM breaks the project down into controlled increments, phases, timeboxes and iterations.

- Ensure resource commitment from management is part of any approval to proceed.

  This is specifically highlighted in the Suitability Filter and product quality criteria.

- Provide regular but brief management reports.

  Active user involvement ensures the business is constantly aware of progress. PRINCE2 reporting products provide guides for formal reporting.

- Keep meetings with management and stakeholders to a minimum but at the vital points in the project.

  Active user involvement ensures that stakeholder involvement is fit for purpose. That is, although it is likely to be substantial, it should be efficient as they are probably not full time on the project.

Those who will be directly involved with using the results of a project are able to:

- Participate in all the decision making on a project.

  Fundamental to DSDM.

- If desired, be fully involved in day-to-day progress.

  Fundamental to DSDM.

- Participate in quality checks throughout the project.

  Fundamental to DSDM.

- Ensure their requirements are being adequately satisfied.

  Fundamental to DSDM.

2.4   The team and the work package

The diagram below takes the DSDM project organisation chart and shows what levels PRINCE2 covers. The lowest level of granularity within PRINCE 2 is at the Work Package. DSDM provides guidance on how that work will be done and how it will be delivered on time. The Team Roles shown in the diagram deliver the work within the work package.
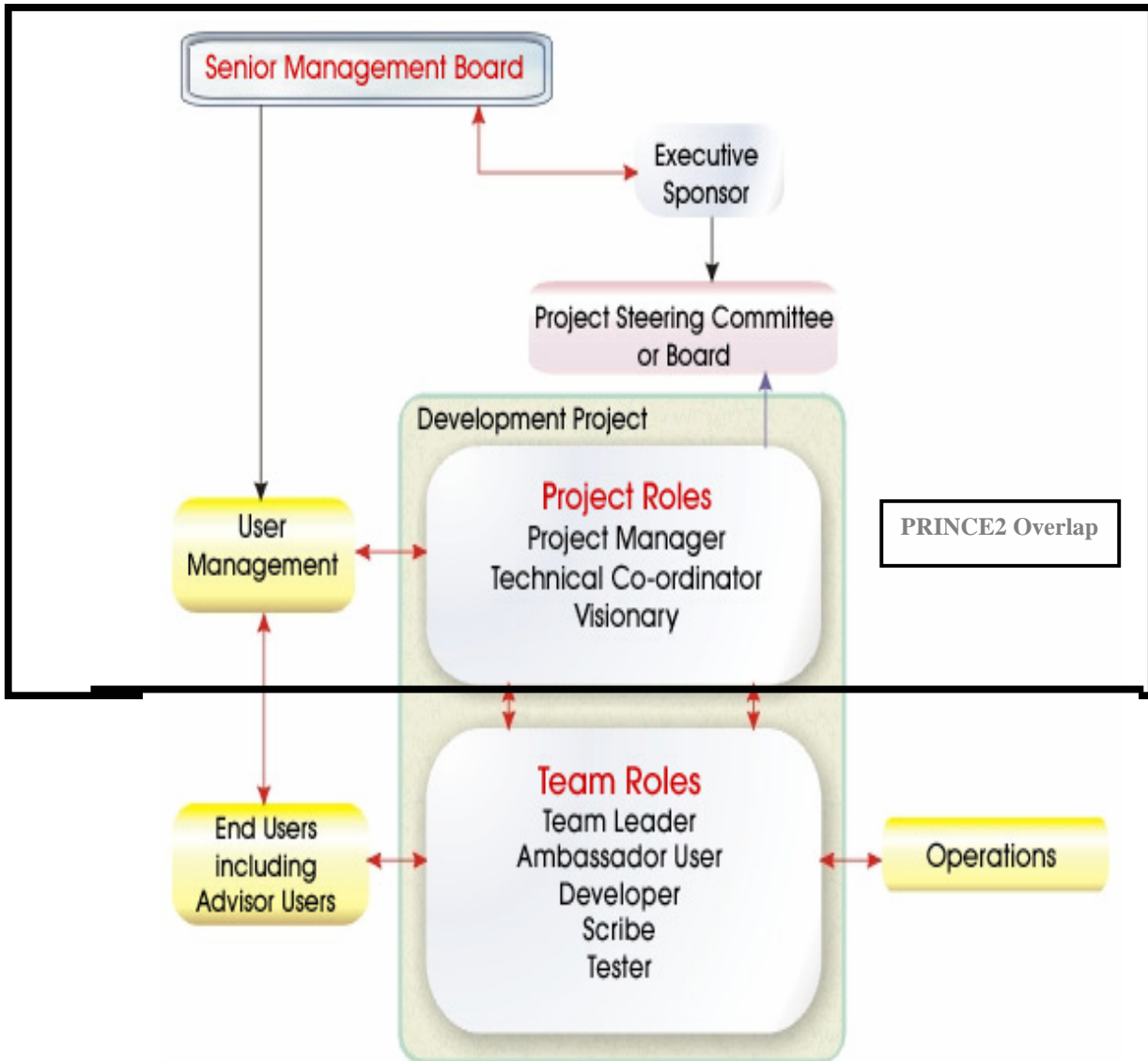
3   PRINCE2 product overlaps with DSDM

Both PRINCE2 and DSDM have a defined set of products, with PRINCE2 focusing on the Project Management and control products and DSDM on those products required to deliver the final product – the delivered solution. Inherent in DSDM is just enough management control to ensure that the project is managed and run effectively. Therefore, for a DSDM project to be managed and controlled to PRINCE2 standards, it may not be necessary to use all the defined PRINCE2 products. The product flow for each project is contained in a Project Initiation Document (PID) and states that if a product is not to be delivered some explanation for this omission must be included. Below, we provide some examples of why a particular PRINCE2 product would not be used on a DSDM project.

Acceptance criteria	These are defined in the Feasibility Report.
Business Case	A good idea to have a separate document but is in the Feasibility Report and revisited in the Business Area Definition.
Checkpoint Report	These are provided at daily meetings and iteration and Timebox reviews. They are more likely to be written down at iteration and Timebox reviews, but the daily meetings are effective because the whole team gains a snapshot view of progress.
Communication Plan	Suggested as a separate document for off shore projects and may well be useful for any large, multi-team or multi-site project. Otherwise, an appropriate place for this would be in the Development Plan, with an initial draft in the Outline Plan.
End Project Report	Covered by the Post Implementation Review Report.
End Stage Report	This would be in the Timebox review or Increment Review Report.
Exception Report	This is specifically used for deviations in cost or deadlines but a DSDM project should never exceed cost or time because flexibility in the priority of deliverables is used to prevent this. Where DSDM is interested in an Exception Report would be where there is a change in the agreed scope of the project or perhaps when DSDM de-commit criteria are threatened. The structure proposed by PRINCE2 would then be a useful guide.
Follow-on action recommendations	These are provided in the status of the project contained in the Increment Review.
Highlight report	The project board or equivalent may be satisfied with reviews coming out of the normal Timebox process.
Issue Log	May be a separate document or may be part of the Risk Log.
Lessons learned report	Contained within the Increment Review.
Off-specification	Covered by prototype reviews and test records.
Post-project review	Covered by the Post Implementation Review Report.
Product Checklist	Contained in the Development Plan.

Project Approach	First identified in the Feasibility Study and Outline Plan and further developed in the Development Plan.
Project Brief	This may be a useful part of the deliverables from the DSDM Pre-Project phase.
Project Initiation Document	The contents of this are duplicated in the Feasibility Report and Outline Plan, with further information from the Development Plan and Business Area Definition. Splitting it into more than one product, using the DSDM products, makes it easier to focus work on particular purposes of the PID. See sections 4.2 and 4.3
Project Issue	These will be covered in the Risk Log and all Timebox meetings where they can be recorded in their documentation.
Project Mandate	May provide a useful guideline or checklist for the Pre-Project phase.
Project Plan	Covered by the Development Plan and Implementation Plan.
Project Quality Plan	This should be part of the Development Plan. Also, the whole DSDM approach has quality built in with its constant user involvement and product reviews.
Quality Log	The Development Plan can contain details of the kinds of checks to be made on products; otherwise, the product quality criteria will help to ensure products meet their objectives.
Request for change	Major changes in scope for the project should be documented as a request for change. Changes within the authority of the team will be documented within the Timebox process with version controlled issues of the Prioritised Requirements List and models and prototypes.
Risk Log	DSDM also has a Risk Log.
Stage Plan	Could be Development Plan, Implementation Plan or Timebox Plan.
Work Package	The work package itself could be any part of the project. Example work packages could be: - Feasibility Study - Business Study - Feasibility and Business Study - Functional Model and Design and Build Iterations - Individual timeboxes - Implementation - Functional Model and Design and Build Iterations and Implementation

4 Uses for PRINCE2

4.1 Breaking down products

One of DSDM's strengths is that it takes a project and breaks it down into more manageable chunks whether they are increments, timeboxes or iterations. One of the weaknesses of the PID is that it is a large document and in the worst cases becomes an end in itself rather than something to assist the project. One way around this would be to break down the PID into smaller parts with different objectives.

4.2 Where does the PID fit in DSDM?

In general, the Feasibility Report and Outline Plan cover the contents of the PID. Some projects have been seen where aspects of the Business Area Definition and Development Plan have also been included in the PID, but this goes beyond the PRINCE2 description of a PID.

The following table shows how the contents of the PID are met by the Feasibility Report and Outline Plan.

PID section	Feasibility Report section	Outline Plan section
Background	To indicate what potential solutions have been or could be considered. To identify whether the system may be safety related or if there may be any product liability issues. To identify which business processes and/or systems (whether automated or not) might be impacted by the new system and which might need to change in order to accommodate it. To define the expected life expectancy of the computer system and hence the requirements for maintainability.	
Project definition	To outline the problem to be addressed by the new systems To describe at a high level the business processes and data that are expected to be automated	
Project objectives	To document the objectives of the project, including process performance criteria	
Defined method of approach		To define any tailoring of DSDM.
Project scope	To identify the scope of the project or set of projects. To give a preliminary	

	indication of any areas within the scope which may be desirable but not essential	
Project deliverables and / or desired outcomes	To define the major products to be delivered by the project	To define acceptance criteria for proposed deliverables.
Exclusions	To identify the scope of the project or set of projects To give a preliminary indication of any areas within the scope which may be desirable but not essential.	
Constraints	To document the high level technical and business constraints e.g. timescale, hardware and software platforms	
Interfaces	To identify at a high level the interfaces necessary to existing data and applications	
Assumptions[1]		
Initial business case	To state, at least in outline, the Business Case for the project(s) – including where possible, costs, benefits, assumptions and risks (whether quantifiable or not)	To provide management with view of finance and resource implications (developer & user) of proposed project.
Project Organisation structure[2]		To ensure management are aware of the need for the development team (including users) to be empowered.
Communication plan[3]		To identify required project standards and guidelines and any which already exist.[4]
Project quality plan		To ensure management are aware of the need for the development team (including users) to be empowered. To define acceptance criteria for proposed deliverables.

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[1] It is a good idea to document Assumptions in the Risk Log as well as there is a risk that the assumption is misplaced.

[2] Project Structure is covered in detail in the Development Plan as it is only then that there is sufficient information about the project to be able to define the roles and structure required.

[3] The Communication Plan is a suggested separate product for offshore developments. If it is multi-team or multi-site, it may also be a good idea to contain this in a separate document.

Initial project plan		To provide basis for agreement of timescales.
Project controls		To confirm approaches to Configuration Management, Change Control, Testing and Risk Management.
Exception process		To identify required project standards and guidelines and any which already exist.[4]
Initial risk log		To identify any issues surrounding implementation.
Contingency plans		To report on the suitability of DSDM for use on the project, which may vary for each solution.
Project filing structure	Not specifically addressed in either DSDM product but may be in the Development Plan.	
No PID equivalent.		To identify any particular facilities required. To identify required project standards and guidelines and any which already exist.[4]

With this table in mind, it is clear that there is no need to complete a PID as well as the Feasibility Study products, although it may still be considered necessary to develop a Feasibility Prototype. The DSDM products are helpful in that they break down the problem. They also go deeper in some of their content. If they are not used, it is advisable to break the PID down into sub-products to make the tasks more manageable.

This is one of the areas where organisations will need to define their process and products based on the two approaches, as this is the area of greatest overlap in terms of deliverables.

4.3   The Development Plan

Given that the PID has some overlap with the Development Plan, is there still a need for a Development Plan? It is suggested that one should still be reduced, although with a reduced scope. This could be:

- To refine the PID to provide a more detailed plan for activities within later phases
- To provide the development team with a strategy for development
- To prioritise development activities

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[4] Any of these required project standards and guidelines may be held in separate products. Where they exist as separate PRINCE2 products, these can be used, but for some, such as for Configuration Management, local standards should be used, in line with DSDM recommendations.

- To identify which items are to be subject to configuration management and to outline how configuration control is to be applied
- To define the categories of prototypes which will be developed and when

4.4 Stage gateways

PRINCE2 advocates processes for such things as accepting work packages and managing stage boundaries. These can be used together with DSDM's quality criteria to set up checkpoints or gateways. For example, ensuring there is enough information and organisation structure to be able to enter the Business Study or to be able to start the prototyping phases.

4.5 Product based planning

PRINCE2 contains a useful section describing the technique of Product Based Planning. As DSDM uses this, it is a useful description of how to do it.

4.6 New PM support

For a new Project Manager working without a mentor, PRINCE2 gives useful advice on ensuring the appropriate checks are in place at different stages. However, care must be taken to ensure that they are fit for purpose because what may appear to be a long-winded process because it is described in a process diagram, may actually happen in a single conversation, for example when taking corrective action to a project issue raised during a Timebox such as the following case. An estimate turns out to be smaller than required to complete the work but a telephone discussion with the user confirms a simpler solution to ensure the requirement can be delivered. Depending on the particular standard of the project and the size of the change, this may not be recorded at all, may be covered by a simple email confirming the result of the conversation or may be recorded on a prototype review document or in the Prioritised Requirements List.

5   Summary and Conclusions

DSDM is a framework based on best practice and lessons learned to provide a flexible yet controlled process. The control elements are just as important in a DSDM project as in any other; moreover, time is spent at the start ensuring that the management of the project is fit for purpose. DSDM within a PRINCE2 environment will require little tailoring, as most of the elements important within PRINCE2 are also inherent within DSDM. In some areas, however, PRINCE2 can provide some useful additions to DSDM. In all cases, care should be taken not to overload the project with duplicated or unnecessary processes and products.

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