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Abstract

This document contains a report on the status of the Planets glossary and of the Planets preservation action registry. The report on the Planets glossary and PA tool registry will offer an overview of the current status of the deliverables, the subsequent steps to be taken, risks that could hinder on time delivery and consequences of delays for other workpackages.

Keyword list: Status report, glossary, preservation action tool registry

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References

Ref.	Document	Date	Details and Version
	Procedures to populate Planets Glossary	25-10-2007	Contains procedures to populate the Planets glossary.
	Requirements Preservation Action Tool Registry	13-9-2007	Contains functional/non-functional requirements for the PA tool registry. Document version 11.
	Procedures to populate Planets Preservation Action registry	18-10-2007	Contains procedures to populate the PA tool registry.

EXECUTIVE SUMMARY

This document contains a report on the Planets glossary and the preservation action tool registry. Both the Planets glossary and preservation action tool registry are deliverables that will be developed iteratively.

The Planets glossary aims to provide a continually growing, centralised resource that provides uniformity and clarity in the definition of terms across the project. A centralised clarification and sharing of terms is vital in a project where partners are geographically dispersed and where work is undertaken within specific work packages.

The Planets preservation action registry will store descriptive information about preservation action tools (and services, which are wrapped tools) and how and for what kind of actions to use them. In the context of the Planets PA registry, a preservation action tool is a software program that performs a specific action on a digital object to ensure the continued accessibility of this digital object. This action could result in a transformation of the object or a (re)creation of the technical environment required for rendering the object, or result in a combination of these two.

The report on the Planets glossary and PA tool registry will offer an overview of the current status of the deliverables, the subsequent steps to be taken, potential risks that could hinder on time delivery and consequences of delays for other workpackages.

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1. Introduction

1.1 Objective

The objective of this document is twofold. It describes the status of the Planets glossary and the Planets preservation action tool registry.

Both the Planets glossary and the preservation action tool registry will be developed using iterations. This report will provide a structured overview of the status of and planned actions for the glossary and registry.

1.2 Scope

Workpackage PA/3 will deliver a preservation action tool registry and an accompanying glossary according to the DoW. However, the Science Board decided at the start of the Planets project that a glossary on project level is necessary. Development of such a glossary on project level has been taken up by the PA/3 work package. This document, therefore, contains a report on the preservation action tool registry and a Planets glossary.

This document does not contain the requirements for the preservation action registry. The glossary and registry procedures are included in this document in the appendix section.

1.3 Document overview

This report on the Planets glossary and registry is divided in three chapters. The first chapter contains the introduction to the document. The second chapter describes the status of the Planets glossary. The third and final chapter contains the report on the Planets preservation action tool registry.

2. Report on Planets Glossary

2.1 Introduction

This chapter contains a brief description of the background of the Planets glossary, the achievements so far, points of interest for other workpackages and planned actions before the next iteration. The last paragraph in this chapter presents an overview of the risks for on time delivery of the subsequent Planets glossary iteration.

2.2 Background

The preservation action sub-project is responsible for the development and availability of preservation action tools and services in the Planets project. Workpackage PA/3 is responsible for development of a preservation action tool registry that facilitates the availability of preservation action tools and services. The DoW describes a PA tool registry glossary as another deliverable by workpackage PA/3. At the start of the project, the Science Board decided that the glossary should be on project level instead of workpackage level. The PA/3 workpackage is now responsible for initiation of a glossary on project level and the creation of procedures and roles to guide the population of the glossary. All sub-projects are responsible for population of the Planets glossary with terms and definitions.

The Planets glossary aims to provide a continually growing, centralised resource that provides uniformity and clarity in the definition of terms across the project. A centralised clarification and sharing of terms is vital in a project where partners are geographically dispersed and where work is undertaken within specific work packages.

The glossary will be populated during the project. Therefore, the glossary deliverable D1 is developed using iterations. The glossary and procedures for populating the glossary will be evaluated regularly.

The next iteration of the Planets glossary is due at November 2008 (M30). This iteration of the glossary will cover:

- New and existing terms & definitions 'adopted' by sub-project;
- Adopt one definition for all existing multiple definitions per term;
- Procedures in place, committee and coordinators in place;
- Population of registry with terms and definitions.

2.3 Current status

The Planets glossary has been made available on the wiki for all Planets partners and facilitates the population of terms and definitions¹. Procedures for populating the registry are also available². The procedures will prevent a proliferation of Planets glossary terms and definitions and will provide a constructive means to deal with disagreement about terms and definitions. The procedures also contain a description of roles and responsibilities for the organisation of the glossary.

Each sub-project has appointed a glossary coordinator that will be the main contact for the glossary maintainers. The coordinator will also 'adopt' terms for their sub-project and monitor discussions on terms and definition. The glossary maintainers and coordinators have been appointed. A glossary working group has been appointed to be the 'referee' in the rare cases that no consensus can be

¹ <http://www.planets-project.eu/private/pages/wiki/index.php/Glossary>

² See Appendix A.1 or http://www.planets-project.eu/private/planets-ftp/WP_PA/PA3/Glossary_Procedures_Deliverable-v1.2.pdf

reached on sub-project level. The Project Director will be part of the working group for the final wording of the definition.

Glossary maintainer	Lynne Montague (confirmed)
Back-Up glossary maintainer	Caroline van Wijk (confirmed)
Glossary working group member 1	Helen Hockx-Yu (confirmed)
Glossary working group member 2	Christen Hedegaard (confirmed)
Project director, chair of the TCC	Adam Farquhar (confirmed)
Glossary coordinator Preservation Planning	Hans Hofman (confirmed)
Glossary coordinator Preservation Action	Frank Houtman (confirmed)
Glossary coordinator Preservation Characterisation	Adrian Brown (confirmed)
Glossary coordinator Interoperability Framework	(to be suggested, intermediate: sub-project leader Ross King)
Glossary coordinator Testbed	Eleonora Nicchiarelli (confirmed)
Glossary coordinator Dissemination and Training	(to be suggested, intermediate: sub-project leader Karen Williams)

The Planets Project Manager has distributed an introductory mail to all Planets participants.

To make a start with the glossary, current terms and definitions in the glossary have partly been borrowed from standards such as OAIS and PREMIS or web resources such as Wikipedia. Terms on the wiki do not have one specific Planets definition yet. Each coordinator for a sub-project has been sent an inventory of the existing terms that should be adopted by the sub-project concerned.

Table 1 Overview Milestone and Deliverable Iterations Glossary

Deliverable & Milestone	Delivery date next iteration	Status
PA/3-D1, Planets glossary	November 2008, M30	started
PA/3-D2, Procedures to populate glossary	June 2008, M25	Not yet started

2.4 Next steps

In this paragraph, the subsequent activities to meet the outline of the next iteration of glossary are described.

Each existing or new term in the glossary should be 'adopted' by the subproject. The first task for each sub-project and its coordinator will be to adopt one definition per term. New terms and definitions should be added by all Planets partners. The glossary maintainers will start with monitoring the additions and changes made to the glossary and initiate further population of the glossary.

New terms and definitions from the Planets data model will be added to the glossary.

The first version of the glossary procedures will be amended where necessary.

2.5 Risks and Issues

This paragraph contains an overview of the risks for on time delivery of the glossary and of the issues for other workpackages if the glossary deliverables will be delayed..

Table 2 Risks glossary

Number	Probability³	Impact⁴	Brief description of risk and risk response	Decision⁵
1	P	H	<p>Population of the glossary involves investment of time and effort from all Partners besides their usual work package and sub project activities. The priority of adding terms & definitions and discussion about definitions may not be of a high priority.</p> <p>Involve the Project Manager to emphasize the importance of a glossary for the project. The glossary maintainers will be active in addressing sub-project coordinators to 'own' terms & definitions.</p>	R

Issues

The Planets glossary should facilitate working in a project with participants from different types of institutions in several countries in Europe. However, delay in development of the glossary or its procedures will not affect the planning of other Planets workpackages directly.

³ V=Very probable, P=probable, N=Not probable

⁴ H=High, M=Middle, L=Low

⁵ A=Accept, P=Prevent, R=Reduce, T=Transfer, C=Contingency

3 Report on Preservation Action Tool Registry

3.1 Introduction

This chapter contains a description of the outline for the next iteration of the Planets preservation action tool registry, the achievements so far and planned actions before the next iteration. The last paragraph in this chapter presents an overview of issues and risks concerning the registry.

3.2 Background

The Planets preservation action registry will store descriptive information about preservation action tools (and services, which are wrapped tools) and how and for what kind of actions to use them. In the context of the Planets PA registry, a preservation action tool is a software program that performs a specific action on a digital object to ensure the continued accessibility of this digital object. This action could result in a transformation of the object or a (re)creation of the technical environment required for rendering the object, or result in a combination of these two. Tools for objects modify a digital object in order to keep it accessible. Tools for environments change the technical environment in such a way that the original object can be accessed.

How tools and services can be used is described in a 'pathway'. A pathway is a predefined set of one or more preservation actions (actions on objects or actions on environments) operating on a specific input file format and version and possibly (in the case of an 'actions on objects' tool) resulting in a specified output format. A pathway can include at least one, but possibly more preservation actions (and thus require at least one, but possibly more tools). An example of a pathway is:

ImageMagick used for converting a TIFF 6.0 image to a JPEG image. The ImageMagick program itself can convert between lots of different file formats. For a pathway, it is not the PA tool that is described, but the PA tool being put to a specific use.

The PA tool registry is part of the Planets network of digital preservation services. The Planets preservation planning tool (PLATO) will make use of the preservation action registry for the planning and execution of preservation action plans. Next to the role within the Planets services network, the PA Registry will also serve as a source of information on preservation action tools for general users such as employees from institutions that are concerned with digital preservation. The PA tool registry is complemented by the Interoperability Framework services registry, which contains the actual information to invoke a Planets service.

The next iteration of the preservation action tool registry will include:

- A first iteration of development has been executed and has resulted in a prototype;
- The registry has been populated with descriptive information on tools & services for testing purposes. The compatibility of the pa tool registry and the preservation planning tool is one of the test objectives.

3.3 Current status

The requirements for a PA tool registry have been drawn up by KB and TNA. The definitive requirements including use cases for several types of users and a logical data model was issued in September 2007. The use cases have been discussed with the PP/4 workpackage that develops the preservation planning tool.

The requirements have also been discussed with the sub-project leader and participants of the Interoperability Framework to define the boundaries between an IF services registry and the PA tool registry and the possibility to develop the PA tool registry using the IF registry framework in a face-to-face meeting in August 2007.

The requirements of the preservation action registry have been compared to the functionality that PRONOM – the file format registry developed by TNA – offers to specify possible overlap.

As the decision to develop the PA tool registry by either extending PRONOM or using the IF registry has consequences for the overall Planets project deliverables, a request for a management decision on project level was requested.

The PA/3 workpackage supported the decision process by providing an overview of advantages and disadvantages for both development options. During the Science Board meeting of September 2007 in Lisbon, it was decided that PRONOM would be extended to meet the PA tool registry requirements as this would mean further development on an existing system (Excerpt from SB Minutes: "...The SB agreed to continue to work using PRONOM...").

Unfortunately, due to lack of technical resources the development of the PA tool registry started in February 2008. The extension of PRONOM could not easily be taken on by a substitute for the original developers of the PRONOM system (Tessella). In February 2008, the final preservation characterisation registry requirements were defined by TNA. The preservation characterisation registry will also be developed by extending PRONOM. The development of both the PA tool registry and the PC registry has now been taken on by Tessella. Tessella will also coordinate the development activities.

To clarify the roles and relations among several entities and the PA tool registry in the Planets system, a skype meeting was organised in February 2008. Consensus has been reached on boundaries between a 'slim' IF services registry, containing technical information to invoke a service and the descriptive PA tool registry, which contains descriptive information of tools, services and pathways. The Planets Testbed will provide evaluations of services that have been tested on the Testbed to the PA registry. The workpackages working on the Testbed will initiate a schema design for the exchange of information. The PA tool registry will provide descriptive information (including the service evaluations) to the preservation planning tool PLATO. The PA tool registry will also act as an intermediate for requests from PLATO for invocation of a service and will redirect the request to the IF services registry. Figure 1 visualizes all entities involved and their relations to each other.

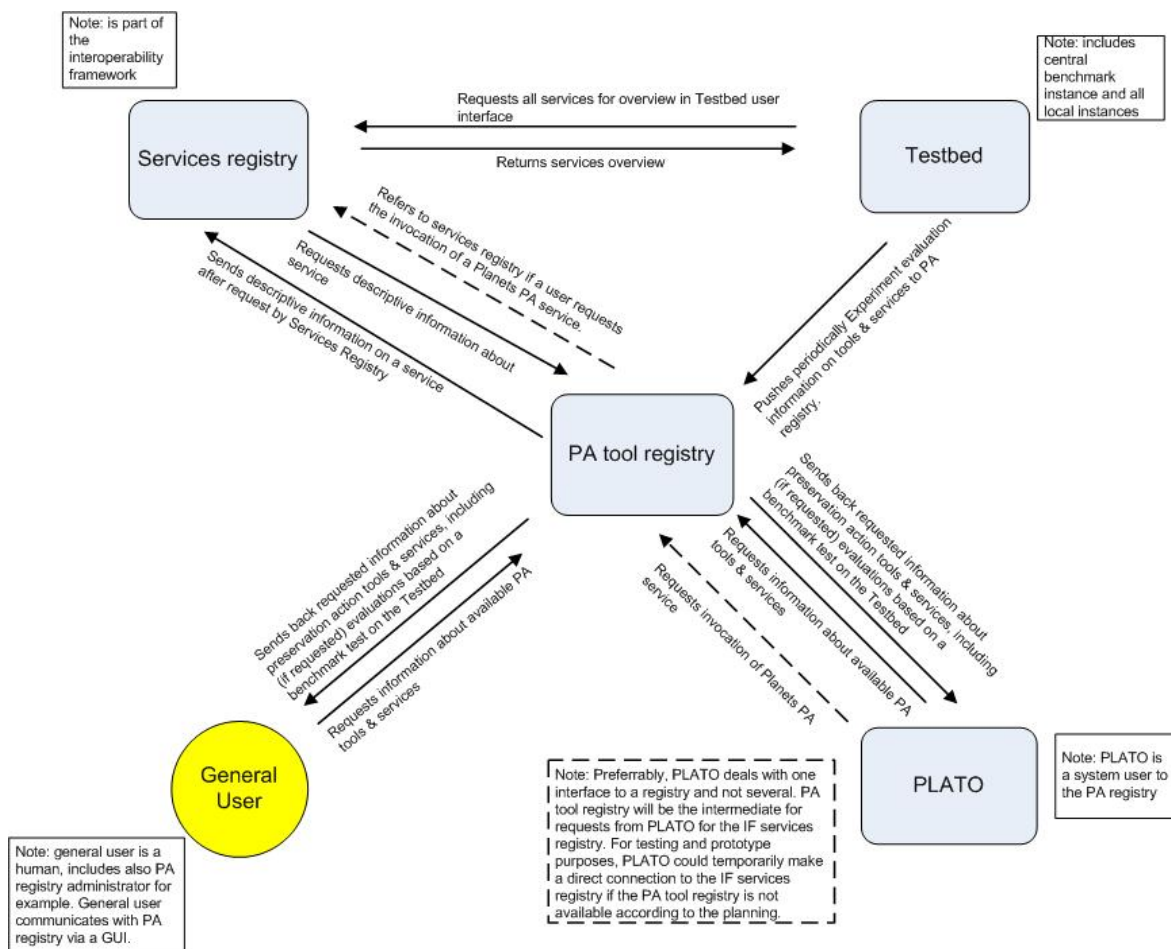


Figure 1 Roles and relations for PA tool registry

Table 3 Overview Milestone and Deliverable Iterations Registry

Deliverable & Milestone	Delivery date next iteration	Status
PA/3-D3, PA tool registry	May 2008, M24	Technical design phase started.
PA/3-D4, Procedures to populate the registry	June 2008, M25	Not yet started.

3.4 Next steps

In this paragraph, the subsequent activities to meet the outline of the next iteration of glossary are described.

Comparison of PA tool registry requirements and PC registry requirements will lead to a technical design for extension of PRONOM. After the design phase, the actual development of both the PA tool registry and PC registry will start. A rough estimation of the development effort is six months. The development status will be communicated to workpackages that depend on the functionality of the PA tool registry.

The procedures for populating the registry will be amended if necessary.

3.4 Risks and Issues

This paragraph contains an overview of the risks for on time delivery of the registry and of the issues for other workpackages if the registry deliverables will be delayed. The issue overview lists the consequences of delay in the development of the registry for other workpackages.

Table 4 Risks registry

Number	Probability ⁶	Impact ⁷	Brief description of risk and risk response	Decision ⁸
1	VP	H	Lack of development resources has caused a delay in the development of the PA tool registry. The deadline for the first iteration may not be met. Assess the advantages for lack of resources and time of combined development of the PA tool registry and PC registry. Notify the Project Manager and workpackages that depend on the PA tool registry regularly of the status.	A
2	VP	M	The procedures will probably not be tested before the deadline of the next iteration, due to a delay in development of the registry,	A

Issues

The preservation action tool registry will be used by the preservation planning tool to perform preservation plan executions. Delays in development of the PA tool registry will affect testing possibilities of the preservation planning tool (Plato). The people working on the preservation planning tool have been and will be notified of the status of the registry regularly.

⁶ V=Very probable, P=probable, N=Not probable

⁷ H=High, M=Middle, L=Low

⁸ A=Accept, P=Prevent, R=Reduce, T=Transfer, C=Contingency

Appendix A.1 Procedures for Populating the Planets Glossary

A.1.1 Introduction and purpose

This document contains the procedures for populating the Planets glossary. The Glossary is being set up as a point of reference for terms which are specific to the Planets preservation approach, or are in general use but have a meaning specific to the Planets project. By populating the Glossary with such terms, it is hoped that it will be used as a continually growing, centralised resource that provides uniformity and clarity in the definition of terms across the project. A centralised clarification and sharing of terms is vital in a project where partners are geographically dispersed and where work is undertaken within specific work packages. The aim is to reduce the risk that terms may be used differently within different parts of the project, thus causing confusion, and to provide a tool to aid understanding across the project. It is essential that all Planets participants take a role in a) assessing which terms should be included in the Glossary and b) actively adding terms to the Glossary in order that this does develop into as comprehensive a resource as possible.

The purpose of the level of detail within the procedures is to prevent a proliferation of Planets glossary terms and definitions on the Wiki, to ensure that relevant terms have only one Planets-wide definition and to provide a constructive means to deal with disagreement about terms and definitions among the Planets partners

A.1.2 Suggest New Term

Any PLANETS participant can suggest a new Glossary term. They should add the term to the main Glossary page, under the correct letter, as an internal link. On the linked Definition Page, which will be where the finalised definition of the term is put (as is done currently), the person proposing the term should state who they are and which sub-project they feel is most relevant to take ownership of the term i.e. to provide a definition and participate in any discussions about the definition.

In addition, the Glossary Maintainer (see below) may suggest, through monitoring of new deliverables, that a term or terms need to be defined, will add the terms to the Glossary and will contact the relevant sub-projects to take ownership of the term. The Glossary Coordinator for each sub-project should also take a role in the monitoring of new deliverables and the adding of relevant terms to the Glossary.

There would be a Glossary Procedures Page, linked from the main Glossary page with instructions as to the procedures for suggesting terms.

It is suggested that the leader of each sub-project should nominate a Glossary Coordinator to take responsibility for all Glossary tasks related to that sub-project. The Glossary Maintainer will email the relevant Glossary Coordinator when their sub-project has been suggested as an owner for a new term. They will be told that their sub-project has been suggested as owner of the term, asked if they feel it is appropriate for their sub-project to be owner of the term and asked if they think the term should be included in the Glossary at all. If they agree to be owner of the term, they will be asked to propose an initial definition of the term or explain why they think the term should not be in the Glossary at all. They should add this definition or explanation to the Definition Page for that term on the Wiki. They will be told that the proposed definition (or lack of definition in cases where they suggest the term isn't relevant) will be open to a period of discussion which they should participate in as appropriate.

A.1.3 Scope

As to the scope of terms to be defined it should be any terms that are specific to the Planets digital preservation approach, or terms that are in general use but have a specific meaning in the Planets context.

The PREMIS or OAIIS glossary definitions (or any other available digital preservation glossary definitions) could be used as a guide to an initial definition in the absence of a more relevant PLANETS definition, but not all terms will be covered or relevantly defined for the purposes of PLANETS by these glossaries. If any definitions are adopted as the PLANETS definition from other glossaries, the person adding them to the Glossary should suitably reference them.

The aim should be to come up with consensus on one definition that is relevant PLANETS-wide, rather than having two or three differing definitions. The Glossary will be a tool to aid understanding within the project. It cannot be guaranteed that it will be a comprehensive resource of all relevant terms as much of its population will be dependent on the active participation of planets participants.

A.1.4 Period of Discussion

All new suggested terms, with definitions, should be open to a period of discussion by any interested PLANETS participants. However, the relevant sub-project Glossary Coordinator should email the members of their sub-project to alert them to the fact that a new term has been suggested, that their sub-project is the owner and that they should participate in discussions if interested. Discussions should take place by clicking on the Discussion Tab on the Definition Page for the term in question, NOT on the Definition Page itself. Anyone adding to the Discussion Pages should include their name.

This period of discussion should also be used in cases where a term is suggested but the relevant Glossary Coordinator does not think it is necessary to include the term in the Glossary.

The period of initial discussion should last a finite period of time. An initial suggestion is two weeks from the date the initial definition is provided by the relevant Glossary Coordinator. In this way, terms can be finalised in the glossary in a relatively short period of time.

A.1.5 Finalisation of Terms

At the end of the two-week period of discussion, the Glossary Maintainer should send an email to prompt the relevant Glossary Coordinator to make a decision about whether they wish to keep their initial proposed definition of the term, whether they still maintain that the term is not necessary, or whether, in light of the discussions, they wish to alter the definition (or propose a definition where they previously thought it was unnecessary to include a term). The Glossary Coordinator should update the Definition Page of the Wiki accordingly.

At this stage there are three possible next stages of action:

1. If the Glossary Coordinator does not wish to change the original definition and there has either been no discussion about the definition, or agreement has been reached on this definition, the decision of the Glossary Coordinator will be seen as absolute, the term can be regarded as finalised on the Glossary and the term will be closed to discussion.

Where the Glossary Coordinator still believes that inclusion of the term is unnecessary and there has been no discussion during the 2-week period disagreeing with this, again the decision of the Glossary Coordinator will be seen as absolute and the term can be removed from the Glossary.

2. If the Glossary Coordinator does not wish to change the original definition (or still believes that the inclusion of a term is unnecessary) but there has been discussion about it and consensus cannot be reached, the term should be referred to the Glossary Working Group (see procedures set out below).
3. If, in light of discussions, the Glossary Coordinator wishes to change the original definition, or wishes to now propose a definition when previously they wanted to remove the term from the Glossary, they should adjust the Definition Page for the term on the Wiki as necessary and leave the term for another set final discussion period,

e.g. a week. During this time, further comments can be made on the Discussion Page for that term based on the revision.

If there is no further discussion on the definition during this week then the term can be regarded as finalised on the Glossary. However, if a particular term is still contentious and consensus isn't reached, the term should be referred to the Glossary Working Group (see procedures set out below).

Where consensus is not reached during procedures 2 or 3, it is proposed that the Glossary Maintainer refer the issue, by email, to two or three members of the Scientific Board, who are appointed to make up a standing Glossary Working Group, to make a final decision (see Issues section below). These members of the Glossary Working Group should liaise with each other and the Glossary Maintainer to indicate which definition they think is appropriate. The Glossary Maintainer can then ensure that the finalised definition is entered on the relevant Definition Page of the Wiki.

NB. Terms should only be referred for the Glossary Working Group's approval if the term cannot be agreed on the discussion page within the time limits. The Glossary Working Group's decision should be final.

A.1.6 Existing Terms on the Current Glossary

Many of the terms on the existing Glossary don't have a definition, or finalised definition, attached. Others have two, three or four different definitions. Additional procedures need to be put in place to define what happens to these terms. TNA have put together a list of proposed term owners for current terms by sub-project (see Appendix A below). The terms should be kept in the current Glossary and as with suggesting new terms, the Glossary Coordinator for the sub-project who owns the term should be asked to decide on one finalised definition. If there is later debate about the finalised definition for any current term, the procedures set up for Iterations, Updates and Review (see 8. below) should be followed.

A.1.7 Quality of Terms

Depending on whether a term is in dispute or not, either the Glossary Coordinator for the sub-project who owns the term, or the Glossary Working Group would set the quality of the finalised definitions.

A.1.8 Population

Following the processes above, suggested new terms would be entered onto the main Glossary page, under the relevant letter, by the PLANETS participant or the Glossary Maintainer suggesting them. The Glossary Coordinator for the sub-project that owns the term would enter definitions of terms onto the Glossary. The Glossary Maintainer would take responsibility for all other information needed to populate the Glossary (see below for detailed description of the role of Glossary Maintainer).

A.1.9 Iterations, Updates and Review

It would make sense that as the project progresses, so the Glossary will need to be added to and the process for suggesting and adding new words be ongoing.

There may be times when definitions of terms on the Glossary need updating, changing or adding to. Similar procedures as for suggesting a new term could be followed. The person suggesting the change would do so on the Discussion Page for the term in question, putting a new definition and/or reasoning for the need for change. Glossary Coordinators should set up 'watch' alerts when they first take ownership of a term, to notify them of any changes on the Discussion Page for that

term. However, changes would also have to be monitored by the Glossary Maintainer as a back-up to make sure the relevant Glossary Coordinator is aware of the discussion.

The procedure from here would be the same as when suggesting a new term in that the Glossary Coordinator from the sub-project who owns the term would be notified and there would be a two-week period of discussion. The same procedures as set out in point 4 above would then be followed.

NB. The discussion periods involved in initially suggesting a new term should be the time when changes are made and debate about a definition occurs. Therefore the need to change a finalised definition should be unusual and only initiated with strong reasons for the need for a change.

A.1.10 Maintenance

The Glossary Maintainer would be responsible for any populating activities not covered by the above procedures and would also take responsibility for the ongoing maintenance and procedural aspects involved with establishing the Glossary as set out below.

A.2 Key Roles in Populating the Planets Glossary

A.2.1 The Role of Glossary Maintainer

The person in the role of Glossary Maintainer would be responsible for both the population and maintenance aspects of the Glossary, as set out above.

There would need to be a second person nominated to fulfil Glossary tasks if the primary Glossary Maintainer is ill for an extended period, on holiday or otherwise absent from the office (see Issues section below).

To summarise, the person undertaking the Glossary Maintainer role would need to:

- Make the necessary changes to put the new procedures in place, including:
 - Set up a link from the current Glossary main page to a Glossary Procedures Page setting out clear instructions about populating the Glossary;
 - Compose an initial email to all PLANETS participants, informing them that new procedures have been put in place and letting them know that their relevant sub-project Glossary Coordinator will let them know when their sub-project has taken ownership of a new term in order that they can participate in discussions if interested (see Issues below as to who should send out this email);
 - Ask sub-project leaders to nominate Glossary Coordinators (one Glossary Coordinator per sub-project) from within their sub-project and list these on the main Glossary page for reference;
 - Contact proposed owners for existing Glossary terms (as suggested by TNA);
- Set up 'Watch' alerts for, and monitor, the Glossary, Definition Pages and Discussion Pages in order to see when new terms are added or discussed;
- Add a note on each Definition Page as to which sub-project owns the term;
- Put messages on the Definition Pages for proposed glossary terms stating when the initial and final discussion periods are due to end and have ended for each proposed term;
- Put messages on the Definition Pages for proposed glossary terms stating if a term has been referred to the Glossary Working Group for approval;
- Alert Glossary Coordinators by email that they have been proposed as owners of terms;
- Alert Glossary Coordinators by email when they need to state their preferred term definition if discussion on that term has been taking place;

- Alert Glossary Coordinators by email if discussion begins on a previously agreed term that they own (i.e. if at some stage after a term has been agreed, someone wishes to change a definition);
- Email parties who are disputing a term definition to see if consensus can be reached within the time limits;
- Forward details of terms in dispute to Glossary Working Group members;
- Enter any changes made by the Glossary Working Group members to a term in dispute to the relevant Definition Page;
- Make sure that terms are cross-referenced where relevant;
- Monitor the appearance of new deliverables and contact Glossary Coordinators within relevant sub-projects to suggest new Glossary terms where appropriate;
- Send out refresher emails to remind people of the ongoing Glossary project;
- Undertake any additional tasks that become apparent during the setting up, development and ongoing maintenance of the Glossary; and
- Provide a quality control function in terms of grammar, spelling and language used in the definitions as well as maintaining consistency in how the definition pages are set out visually.

A.2 The Role of Glossary Coordinator

There should be one Glossary Coordinator for each sub-project, to be nominated by the sub-project leader. The sub-project leader can designate themselves as Glossary Coordinator if appropriate. A list of Glossary Coordinators for the 6 sub-projects will be put on the main Glossary page. When new terms or term changes are suggested, the Glossary Coordinator will need to undertake the following:

- Agree that their sub-project should be the owner of the term or suggest an alternative sub-project to be owner;
- Propose and add to the Wiki an initial definition on the Definition Page for the term or a reason why they think the term should not be included, as soon as possible after a term is suggested on the Glossary;
- Set up 'watch' alerts on the Definition Pages of the terms they own to notify them of any changes;
- Email the members of their sub-project to alert them to the fact that a new term has been suggested, that their sub-project is the owner and that they should participate in discussions if interested;
- Monitor and contribute to any discussion that takes place on the relevant Discussion Tab regarding the definition in the two weeks after the term is proposed;
- Two weeks after suggesting a term definition on the relevant Definition Page, they will need to decide on whether they feel this is still the appropriate definition, based on the discussions that have taken place. If they wish to change the initial proposed definition, they will need to update the Definition Page with the appropriate revised definition;
- Monitor and contribute to any further debate or discussion that takes place on the Discussion Tab for a further week, after they have changed the definition on the Definition Page;
- Update the Definition Page with the appropriate definition after the final, further week of discussion if consensus is met and the definition is altered; and
- Monitor the new deliverables of their sub-project and add relevant new terms to the Glossary.

A.3 The Role of Glossary Working Group

This should be a standing committee made up of two or three members of the Scientific Board (see Issues below), whose role it is to act as a last line of decision-making in cases where consensus cannot be reached on the definition of a term. On receipt of email details about disputed term definitions they would need to:

- Liaise with other Glossary Working Group members in order to come up with a final PLANETS-wide definition;

- Communicate this finalised decision to the Glossary Maintainer.

Appendix B.1 Procedures for Registration of Preservation Action Tools and Pathways with the PA Registry

B.1.1 Introduction Preservation Action Registry and Purpose Procedures

The preservation action registry will store information about preservation action tools and how and for what kind of actions to use them. What exactly is considered a preservation action tool? In the context of the Planets registry, a preservation action tool is a software program that performs a specific action on a digital object to ensure the continued accessibility of this digital object. This action could result in a transformation of the object or a (re)creation of the technical environment required for rendering the object, or result in a combination of these two. Tools for objects modify a digital object in order to keep it accessible. Tools for environments change the technical environment in such a way that the original object can be accessed.

A pathway is a predefined set of one or more preservation actions (actions on objects or actions on environments) operating on a specific input file format and version and possibly (in the case of an 'actions on objects' tool) resulting in a specified output format. A pathway can include at least one, but possibly more preservation actions (and thus require at least one, but possibly more tools). An example of a pathway is:

ImageMagick used for converting a TIFF 6.0 image to a JPEG image. The ImageMagick program itself can convert between lots of different file formats. For a pathway, it is not the PA Tool that is described, but the PA tool being put to a specific use.

In addition, tools are divided into 'services' and 'non-Planets services or applications' in the PA Registry, in order to make a distinction between tools that can be directly invoked from within the Planets framework – a Planets service – and tools that are described in the tools registry, but are only available as downloadable software.

The PA Registry is part of the Planets network of digital preservation services. The Planets preservation planning tool (PLATO) will make use of the preservation action registry for the planning and execution of preservation action plans.

Next to the role within the Planets services network, the PA Registry will also serve as a source of information on preservation action tools for general users such as employees from institutions that are concerned with digital preservation.

The information about preservation action tools that the registry will provide consists of:

- Information about the tool (information about the creator of the tool, operating specifics, licensing information)
- Information about pathways (e.g. specific input file format and specific output file format or a specific technical (target) environment(s) for rendering a digital object)
- An evaluation of pathways of a tool, based on Experiments that have been run on the Planets Testbed
- Information on whether or not the tool can be invoked as a service within the Planets network or whether the tool is downloadable.

The purpose of the procedures for the Planets PA Registry is to provide a quality standard for the registered PA tools and pathways.

B.1.2 Suggest New Preservation Action Tool

Any Planets participant can suggest a new preservation action tool. They should notify the Preservation Action Registry Administrator about their suggestion to register a new PA tool with the PA Registry. The PA Registry Administrator will send two forms to the requester. One form contains all criteria of a suggested new PA tool that should be filled in. The other form contains all criteria of a pathway containing the suggested new PA tool that should be filled in. See Quality of Tools and Quality of Pathways for an overview of the form criteria.

The requester should complete both forms with specific information about the suggested new PA tool and a minimum of one accompanying pathway. The requester should check whether all mandatory PA tool and pathway criteria are filled in and send the forms back to the PA Registry Administrator. The PA Registry Administrator also checks if all required form criteria have been filled in.

If the forms contain all required information about the suggested new PA tool and accompanying pathway(s), the Registry Administrator adds the information about the PA tool and pathway(s) to the registry. After adding the PA tool information, the Registry Administrator notifies the requester that the suggested PA tool and accompanying pathway(s) have been registered with the PA registry and are available for Experiments. It is the responsibility of the Planets participant that wants to admit the PA tool to the PA registry to test the tool and pathway registration with the PA registry. See item Period of Testing for the period of testing.

B.1.3 Suggest New Pathway

When a new PA tool is suggested for registration, automatically a minimum of one new pathway will be suggested. Also a new pathway can be suggested for a registered PA tool with the PA Registry.

Any Planets participant can suggest a new pathway for a registered PA tool. They should notify the PA Registry Administrator of the request to add a new pathway to the PA Registry. The PA Registry Administrator will send a form to the requester that contains all criteria about a suggested new pathway that are necessary for registration.

If the suggested new pathway meets all required criteria, the Registry Administrator adds the information about the pathway to the registry. After adding the pathway information, the Registry Administrator notifies the requester that the suggested pathway has been registered with the PA Registry and is available for testing. It is the responsibility of the Planets participant that wants to register the pathway with the PA Registry to test the pathway addition to the PA Registry. See item Period of Testing for the period of testing.

B.1.4 Scope

All software that either transforms a digital object or recreates the technical environment to render that object or which is a combination of these two is within the scope of the Planets PA Registry. For each suggested new PA tool a minimum of one accompanying pathway will be stored in the PA Registry as well.

It is not possible to suggest a new pathway that is not related to a suggested new PA tool or to a registered PA tool. It is also not possible to suggest a new PA tool to the PA Registry without at least one accompanying pathway.

B.1.5 Quality of Tools

Each suggested new PA Tool should have been tested for at least one specific usage (pathway) of the PA tool using the Planets Testbed. This Testbed Experiment is focussed on what functionality the tool offers. It is assumed that program tests (does a software program work?) have been run by the developers of the software. For a tool for objects this means the PA tool should have been tested for one specific input file format and version and one specific output file format and version. A tool for environments should have been tested for one specific input file format and version and one specific target technical environment to render the file.

All suggested new tools for objects should have been tested on the Planets Testbed. The Testbed Experiment should include an evaluation of the tested tool. Preferably, also all suggested new tools for environments should have been tested on the Planets Testbed.

The criteria in the PA tool registration form for the registry can be found in Appendix A PA Tool Registration Form Criteria.

B.1.6 Quality of Pathways

Each suggested new pathway – a specific usage of a PA tool - should have been tested. All suggested new pathways for tools for objects should have been tested at least once on the Planets Testbed. The Testbed Experiment results should include an evaluation of the pathway.

The criteria in the pathway registration form for the registry can be found in Appendix B Pathway Registration Form Criteria.

B.1.7 Iterations, Updates and Review

During the project the process for suggesting and adding new PA tools and pathways is ongoing. There may also be times when registered PA tool and / or pathway information needs updating or changing.

Any participant in Planets can suggest modifications for descriptions of registered PA tools and / or pathways. They should notify the PA Registry Administrator of the request to modify PA tool and / or pathway information. The PA Registry Administrator will send a PA tool registration form and / or a pathway registration form to the requester. The name of the registered PA tool and / or pathway, the registered version, release date and publisher/owner should be filled in. Apart from these items, only the form fields for the criteria that need to be modified should be filled in. The participant sends the completed form to the PA Registry Administrator.

The PA Registry Administrator then checks whether the participant that has suggested the PA tool and / or pathway for registration at the PA Registry in the first place agrees with the suggested modifications. If this participant agrees or if he / she has suggested the changes himself / herself, the PA Registry Administrator executes the requested modifications to the PA tool and / or pathway. If no agreement is reached between the modification requester and the participant that has suggested the PA tool for registration, the PA registry Administrator forwards the suggested modification to the Modification Committee. This Committee will then decide on whether the modification should be executed or not. The Modification Committee will notify the PA Registry Administrator of their decision after the consideration time frame of two weeks has ended. The PA Registry Administrator will notify both the modification requester and the participant that has suggested the PA tool and / or pathway for registration at the PA Registry of the Committee's decision.

If the modifications will be done, similar procedures as for suggesting a new PA tool and / or pathway could be followed from here on. The PA Registry Administrator notifies the requester of the modifications that all requested changes have been implemented. The participant that has requested the modifications should test whether all requested changes have been implemented. See item Period of Testing for the period of testing.

All information about a new suggested PA tool and / or pathway should be checked and tested at the time of suggesting a new PA tool and / or pathway to the PA registry. Therefore modifications in descriptions of PA Tools and / or pathways should be unusual.

New versions of a PA tool (updating) can be registered by following the procedures for Suggest New Preservation Action Tool. The participant that suggests a new version of a registered PA Tool completes both forms and indicates on the PA tool form that the request concerns a new version of a registered PA tool. From here on the procedures for Suggest New Preservation Action Tool can be followed. Similar to a new suggested PA tool, a new version of a registered PA tool will have to be tested on the Planets Testbed for a minimum of one pathway before it can be registered.

B.1.8 Population

Following the processes above, the PA Registry Administrator would register suggested new PA tools and accompanying pathways or suggested new pathways with the PA registry. The Planets participant that suggests the PA tool and / or pathways will provide the information needed to add the PA tool and pathways. The Planets participant fills out the registration forms for all relevant information.

B.1.9 Period of Testing

The period of testing by the Planets participant that suggested the new PA tool or new pathway is two weeks. During the test, the participant tests whether the new registered PA tool and accompanying pathway(s) or new registered pathway can be found in the registry after search queries and whether the invocation (web service) or download (non web service) links are working.

The Planets participant notifies the PA Registry Administrator of the test results after the period of testing. The addition of a new PA tool and its accompanying pathway(s) or new pathway will be finalised, if the results are positive. The Planets participant will liaise with the PA Registry Administrator about possible solutions, if the test results are negative.

B.1.10 Maintenance

The PA Registry Administrator would be responsible for any populating activities not covered by the above procedures and would also take responsibility for the ongoing maintenance and procedural aspects involved with establishing the PA Registry as set out below.

B.2 Key Roles in Populating the Planets PA Registry

B.2.1 The Role of PA Registry Administrator

The person in the role of PA Registry Administrator would be responsible for both the population and maintenance aspects of the PA Registry, as set out above.

There would need to be a second person nominated to fulfil PA Registry tasks when the primary PA Registry Administrator is ill, on holiday or otherwise absent from the office (see Issues section below).

To summarise, the person undertaking the PA Registry Administrator role would need to:

- Make the necessary changes to put the new procedures in place, including:

- Set up a link from the PA Registry homepage to a PA Registry Page setting out clear instructions about populating the PA Registry when the PA Registry has been developed;
 - Compose an initial email to all Planets participants, informing them that PA Registry procedures have been put in place when the PA Registry has been developed, (see issues below as to who should send out this email);
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- Send out registration forms for a new PA tool and / or pathway when notified by any Planets participant wanting to register a PA tool and / or pathway(s);
 - Notify the participant that has originally suggested a registered PA tool and / or pathway(s) of requested modifications to the description of the registered PA tool if the modifications are not requested by that same participant;
 - Notify participants that suggest to register the same new PA tool and / or pathway(s);
 - Register a new suggested PA tool and / or pathway(s) to the PA Registry when the PA tool and / or pathway(s) are conform the registration criteria;
 - Modify information on a registered PA tool and / or pathway if the suggested modifications have been approved by the participant that originally has registered the PA tool and / or pathway concerned or if the Modification Committee agrees with suggested modifications;
 - Forward details of suggested modifications in dispute to Modification Committee;
 - Notify both participants that dispute suggested modifications about the decision of the Modification Committee;
 - Possibly send out refresher emails to remind people of the ongoing PA Registry project (see issues below as to public relation tasks);
 - Undertake any additional tasks that become apparent during the setting up, development and ongoing maintenance of the PA Registry.

B.2.2 The Role of Modification Committee

This should be a standing committee made up of two or three members of the Scientific Board (see Issues below), whose role it is to act as a last line of decision-making in cases where consensus cannot be reached on suggested modifications on the description of a registered PA tool and / or pathway. On receipt of email details about disputed modifications they would need to:

- Liaise with other Modification Committee members in order to decide whether or not the modifications are an improvement of the current PA tool and / or pathway description;
- Communicate this finalised decision to the PA Registry Administrator. The maximum time frame for a decision on a modification is two weeks.