

Table of Use Cases for Dataset Management

V2.0 2008-05-27. Nick Nicholas

WP: work packages DD = data deposition, OS= object storage, MM=metadata mgt

Priority: H=high , M=medium, L=low, X=not required

BA Status: C: complete; I: incomplete; NS: not started

Development Status:

C: complete, MI: currently underway, will be complete by end June.

X: deferred indefinitely (may be reconsidered for ARCHER 2), * : under discussion

M1: CONFIRM: Ask client for confirmation

M2: OUT: not included in ARCHER 1 or ARCHER 2

M3: RECONSIDER: not included in ARCHER 1, will consider for ARCHER 2

M4: POSTPONED: not included in ARCHER 1, will include in ARCHER 2

M5 = I

M6: BILLABLE: will do in ARCHER 2, only if client contributes funding

Changes in status from last version boldfaced

Summary:

There are 102 use cases.

26 have not been written. 5+1=6 of these are Archer 1 (5 of those are metadata editor use cases).

44 use cases have been implemented already. 5 will be implemented in April. 23 have been deferred to May. 30 have been deferred to Archer 2.

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
1	99.0.1	Ingest Datafile	Show Dataset ; Check Access; Control Access to Datafile ; Create Datafile Metadata	Write	H	ingest one new file into the current Dataset from the local desktop. The ingested object is physically copied into SRB and stored in a resource chosen by the user. The user can also associate metadata	C	C	DD	No validation of data type: allow all uploads. No validation of content No updatability of	2

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						for the file during the ingestion process.				entered filename: literal filename only	
2	99.0.2	Search	Show Project; Show Sample; Show Experiment; Show Dataset; Show Datafile	Read	H	query using metadata.	C	C	OS		1
3	99.0.3	Download Datafile	Check Access	Read	H	Copy a file to local desktop.	C	C	OS		1
4	99.0.4	Reingest Datafile	Check Access	Write	L	Replaces a single Datafile in the repository, all metadata associated with the original Datafile are linked to the new Datafile	C	C	DD	Modify use case to reflect Overwrite rather than reingest: we are in dataset and pick file. So implementation includes Ingest Datafile	3
5	99.0.5	Delete Datafile	Show Datafile; Check Access	Write	H		C	C	OS		3
6	99.0.6	Modify datafile type	Check Access	Write	M	Data type (format) can be changed. Existing metadata will be deleted and new metadata created.	C	M1: CONFI RM	MM		4
7	99.0.7	Browse Datafiles	Browse Datasets; Check Access	Read	H	lists all the Datafiles in a dataset	C	C	OS	Propose: COLLAPSE Sort into Browse	2
8	99.0.7a	Sort Datafiles	Browse Datafiles	Read	M	Sort browsed files	C	MI		COLLAPSE INTO Search, which	3

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
										already includes sort. Is not exposed separately.	
9	99.0.8	Open Datafile	Show Datafile	Read	M	Invoke appropriate application to view/edit the Datafile content.	C	X	OS		
10	99.0.9	Rename Datafile	Show Datafile; Check Access	Write	H	Change the file name only.	C	C	MM		4
11	99.0.10	Ingest New Version	Check Access ; Create Datafile Metadata	Write	L	Ingest a new version of an existing file in the repository. The user can also associate new metadata for the file during the ingestion process.	C	X	DD		
12	99.0.11	Move Datafile	Check Access	Write	H	Files and registered files can be moved (logically) from one Dataset to another. Metadata is unchanged	C	C	OS		3
13	99.0.12	Copy Datafile	Check Access	Write	L	A file or registered file can be copied as another file in another Dataset possibly with a new name. Metadata is also copied.	C	C	OS		3
14	99.0.13	Link Datafiles	?	Write	L	link a file to another in a different Dataset. Chaining of links is not allowed.	NS	X	OS		
15	99.0.14	Register	?	Write	X	register a file into a Dataset. no physical copy of the file is maintained or controlled by the SRB but a pointer to a physical location is	NS	X	OS		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
						maintained. There are normally five types (file, directory, query, URL, method)..					
16	99.0.15	Batch Ingestion	Check Access; Extract Datafile Metadata	Write	H	For multiple data files or large transfers that will not complete in a single web browser session. (Using Hermes desktop tool.)	C	X	DD		
17	99.0.15A	Batch Download		Read	H		C	X	DD		
18	99.0.16	Show Related			L	Lists any related datafiles (either direction). Also allows deletion.	NS	X	OS		
19	99.0.17	Show Datafile		Read		Preview Datafile	NS	X	OS		
20	99.0.18	GridFTP Ingest Datafiles		Write	H	Ingest files via Virtual Beam Line system at synchrotron	C	X	DD		
21	99.1.1	Create Datafile metadata	Extract Datafile Metadata; Insert Datafile User Metadata	Write	H		C	C	DD	This (and others) are sub-use cases. User does not confirm, they need to explicitly trigger metadata edit if they want to change metadata (Insert Datafile User metadata)	1
22	99.1.2	Modify Datafile metadata	Show Datafile; Check Access; Insert Datafile	Write	H	Allows user to modify or delete (core and variable) metadata for one datafile	C	C	MM		1

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
			User Metadata								
24	99.1.3	Delete all Datafile metadata	Show Datafile; Check Access	Write	L	Deletes all metadata except mandatory stuff for one datafile	C	M2: OUT	MM	Functionality of 99.1.6a already covers this	
25	99.1.4	Insert Datafile User metadata		Write	L	Allows entry of metadata at the users discretion for one datafile. Includes determining metadata schema from file suffix	C	C	DD	This is a sub-use case	1
26	99.1.5	Update Datafile comment	Show Datafile; Check Access	Write	L	A free form text field for comments or notes for one datafile	C	C	MM		3
27	99.1.6	Extract Datafile metadata		Read	H	Datafile type specific metadata values are extracted by reading the Datafile content. For one Datafile. . Includes determining metadata schema from file suffix	C	C	DD	This is a sub-use case	1
28	99.1.6a	Re-Extract Datafile metadata	Check Access			Eliminate any manually added metadata, re-extract metadata from datafile	C	C		Includes Delete all Datafile metadata	2
29	99.1.7	Copy Datafile metadata	?		X	cant see the need	NS	X	MM		
30	99.1.8	Ingest metadata file	Check Access	Write	L	Ingest a file (as is) into SRB that is associated as a metadata-carrying file for another SRB Datafile. This might be provenance data from an instrument eg. calibration file.	C	X	DD		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
31	99.1.9	Export Datafile metadata	?	Read	X	The metadata for an object can be exported out. May be used in conjunction with download perhaps?	NS	X	DD		
32	99.1.10	Show Datafile Metadata	Browse Datasets	Read	H	View of all metadata attributes for a Dataset	C	X			
33	99.2.1	Validate Datafile Location	Create Datafile Metadata; Preserve Session Information	Read		Validate datafile location in storage against datafile metadata; alert user if misplaced. Applies to files uploaded outside XDMS	C	M3: RECO NSIDE R		This is useful generic functionality, but assumes generic uncontrolled use of HERMES: can be deferred. MAY be upgraded to M4: POSTPONED	
34	99.2.2	Check Staging Area for Datafiles	Check Access; Create Datafile Metadata	Read		Alert user that there is content in user's staging area (from Hermes or DIMSIM) which should be moved to project area proper	C	C		Modify: called only on-demand	1
35	98.0.1	Create Dataset	Check Access ; Control Access to Dataset; Create Dataset Metadata	Write	H	create a new Dataset. Users can associate metadata for the new Dataset (as well as a metadata template to be used for newly ingested files). Datasets cannot be nested.	C	C	OS		1
36	98.0.2	Show Dataset					C	C	OS		1
37	98.0.3	Browse Datasets	Browse Projects; Browse Experiments; Check Access	Read	H	Displays a list of Datasets	C	C	OS		2

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
38	98.0.3a	Sort Datasets	Browse Datasets	Read	M	Sort browsed files	C	MI		As with 99.0.7a	3
39	98.0.4	Modify Dataset	Show Dataset; Check Access	Write	H		C	C	MM	This is core metadata; 98.1.2 is core + variable; 98.1.4 is variable. Propose eliminate 98.1.2.	1
40	98.0.5	Delete Dataset	Show Dataset; Check Access	Write	H		C	C	OS		3
41	98.0.6	Move Dataset	Check Access	Write	H	Datasets can be moved around	C	C	OS		4
42	98.0.7	Copy Dataset	Check Access	Write	L	A Dataset can be copied as another Dataset possibly with a new name. Metadata is also copied.	C	C	OS		4
43	98.0.8	Dataset Diffraction Summary => Dataset Summary for Diffraction Images		Read	H	An html report that summarises the diffraction result for all images stored in one dataset. Includes separate report for each "wedge". Includes molecular weight calculation for sample(s).	C	M6: BILLABLE	DD	Crystallography-specific functionality	
44	98.0.9	Compress Dataset	Check Access	Write	M	Compresses all files in a dataset	C	MI	DD	This is a sub-use case; it will not be exposed separately	1
45	98.1.1	Create Dataset metadata	Insert Dataset User Metadata; Create Project;	Write	H		C	C	DD		1

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
			Create Experiment								
46	98.1.2	Modify Dataset metadata	Show Dataset; Check Access; Insert Dataset User Metadata	Write	H		C	C	MM		1
47	98.1.3	Delete all Dataset metadata	Show Dataset; Check Access	Write	L	Deletes all metadata except system stuff	C	C	MM		3
48	98.1.4	Insert Dataset User metadata		Write	L	Allows entry of metadata at the users discretion. These are the other attributes not part of the template.	C	C	DD		3
49	98.1.5	Update Dataset comment	Show Dataset; Check Access	Write	L		C	C	MM		3
50	98.1.6	Copy Dataset metadata	?	Write	L	Copies metadata from one Dataset to another Dataset. Any existing metadata will be deleted. Useful where multiple iterations of datasets are being created? Or if uploading old archives?	NS	X	MM		
51	98.1.7	Publish Dataset for Fedora in METS	Check Access; Compress Dataset; Export Dataset Metadata	Write	M	The metadata and object are exported using METS and Simple Dublin Core. Ready for ingestion into a Fedora repository as managed content	C	MI	DD		1
52	98.1.8	Publish Dataset for Fedora in FOXML		Admin	M	The metadata and object are exported using FOXML and Simple Dublin Core. Ready for ingestion into a Fedora	C	X	DD		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
						repository as managed content.					
53	98.1.9	Export Dataset metadata	Check Access			Extract all dataset metadata in standard CCLRC xml form	C	MI	DD	This is a sub-use case	1
54	98.1.10	Show Dataset Metadata	Browse Datasets; Check Access	Read	H	View of all metadata attributes for a Dataset	C	C			1
55	98.1.11	Extract Dataset metadata from Files	Show Dataset; Check Access	Write	M	Selected metadata from the Datafiles is populated to the parent Dataset.	C	I	DD	Reinstated in May	2
56	98.1.12	Replace All File Metadata	Show Dataset; Check Access; Extract Datafile Metadata	Write	M	The metadata for all datafiles in the dataset is extracted and replaced. All existing metadata is deleted first.	C	M6: BILLABLE		Generic functionality, but workarounds exist (blank out one at a time, or reingest dataset)	
57	98.2.1	Validate Dataset Location	Create Dataset metadata; Preserve Session Information	Read		Validate dataset location in storage against dataset metadata; alert user if misplaced. Applies to files uploaded outside XDMS	C	M3: RECONSIDER > M4: DEFINITE		As with 99.2.1	
57.5	98.2.2	Check Staging Area for Datasets	Check Access; Create Dataset Metadata; Control Access to Dataset	Read		Alert user that there is content in user's staging area (from Hermes or DIMSIM) which should be moved to project area proper	C	C		On-demand	1
58	97.0.1	Check Access		n/a	M	Ensures user (or user group?) has appropriate access to an Experiment or	C	MI	OS		1

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
						Dataset or resource for the action requested [ref permission tables from my scenario write-up and subsequent interview] [includes single signon and shibbolised external signon]					
59	97.0.2	Control Access to Experiment	?	Write	M	Access constraint settings can be set for an Experiment; Can this be done by virtual organisation (AAF) or individual? Must be simple to manage. And able to detect when user switches organisations. Can we store a recognised user/organisation combination? NOTE: Can be done external to XDMS (e.g. INQ)	NS	X	OS		
60	97.0.3	Control access to Dataset	?	Write	M	Access constraint settings can be set for a Dataset	NS	X	OS		
60.5	97.0.4	Control read access to Project	Add User to Group	Read	M	Have decided that access shall be policed only at the project level. Read access constraint settings.	C	MI	OS	Third party functionality: no need to test separately	1
60.7	97.0.5	Control write access to Project	Add User to Group	Read	M		C	MI	OS	Third party functionality: no need to test separately	1
61	97.1.1	Add User					C	MI	OS	Third party	1

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
										functionality: no need to test separately	
62	97.1.2	Add User to Group					C	MI	OS	Third party functionality: no need to test separately	1
63	97.1.3	Delete User from Group					C	MI	OS	Third party functionality: no need to test separately	1
64	97.1.4	Delete User					C	MI	OS	Third party functionality: no need to test separately	2
65	97.1.5	Edit User Attributes				Keep it simple: name, affiliation	NS	MI	OS	Third party functionality: no need to test separately	4
66.5	97.1.6	Create User Group					C	MI	OS	Third party functionality: no need to test separately	1
66	97.2.1	Preserve Session Information				Within session, populate entry fields for core metadata with last entered matching core metadata fields	C	M2: OUT		Inadequate workaround for 98.1.11 Extract Dataset metadata from Files, which has instead been restored	
67	96.0.1	Create Metadata	?	Admin	M	A template of Dataset or	WIP	X	MM	Not archer	

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
		Template				Datafile or Sample metadata items and default values and behaviour can be predefined				deliverable, but essential functionality	
68	96.0.2	Modify Metadata Template	?	Admin	M		NS	X	MM	Not archer deliverable, but essential functionality	
69	96.0.3	Delete Metadata Template	?	Admin	M		NS	X	MM	Not archer deliverable, but essential functionality	
70	96.0.4	Create Metadata Item	?	Admin	M	A new metadata item can be defined	NS	X	MM	Not archer deliverable, but essential functionality	
71	96.0.5	Modify Metadata Item	?	Admin	M		NS	X	MM	Not archer deliverable, but essential functionality	
72	96.0.6	Delete Metadata Item	?	Admin	M		NS	X	MM	Not archer deliverable, but essential functionality	
73	94.0.1	Lock dataset	?	Write	L	Two types of locks are supported: a 'shared' lock which locks the object from being written to by any user other than the locking user but reads from the object and associated metadata are	NS	X	OS		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
						allowed, and 'exclusive' lock which allows no interactions with the object. A lock placed by a user has an expiry date at which time it gets automatically unlocked.					
74	94.0.2	Unlock dataset	?	Write	L	An object is unlocked by the original locking user.	NS	X	OS		
75	94.0.3	Lock datafile	?	Write	L		NS	X	OS		
76	94.0.4	Unlock datafile	?	Write	L		NS	X	OS		
77	93.0.1	Create Project			H	Create a directory for a project	C	C	OS		1
78	93.0.2	Show Project	Browse Projects		H		C	C	OS		2
79	93.0.3	Browse Projects	Check Access		H		C	C	MM		1
80	93.0.3a	Sort Projects	Browse Projects	Read	M	Sort browsed files	C	M			3
81	93.0.4	Modify Project	Show Project		H		C	C	MM		1
82	93.0.5	Delete Project	Show Project		M		C	C	OS		3
84	92.0.1	Create Experiment	Browse Projects; Check Access		H	Create a directory for an experiment	C	C	OS		1
85	92.0.2	Show Experiment	Browse Experiments ; Check Access		H		C	C	OS		2
86	92.0.3	Browse Experiments	Browse Projects; Check Access		H		C	C	MM		1
87	92.0.3a	Sort Experiments	Browse Experiments	Read	M	Sort browsed files	C	M			3

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
88	92.0.4	Modify Experiment	Show Experiment ; Check Access		H		C	C	MM		1
89	92.0.5	Delete Experiment	Show Experiment ; Check Access		M		C	C	OS		3
90	92.0.6	Export Experiment metadata	Show Experiment; Check Access t	Read	M	All metadata for a dataset including associated project, experiment, sample is extracted in xml form	C	X	DD		
92	91.0.1	Create Sample	Browse Experiments; Create Sample Metadata		H	Create crystal sample for an experiment	C	C	OS		1
93	91.0.2	Show Sample	Browse Samples		H		C	C	OS		1
94	91.0.3	Browse Samples	Browse Experiments		H		C	C	MM		1
95	91.0.4	Modify Sample	Show Sample		H		C	C	MM		1
96	91.0.5	Delete Sample	Show Sample		M		C	C	OS		3
97	91.1.1	Create Sample metadata				Create crystal sample metadata	C	C	MM		1
98	91.1.2	Modify Sample metadata					NS	C	MM		1
99	91.1.3	Delete Sample metadata					NS	C	MM		3
100	91.1.4	Insert Sample User metadata					NS	X	MM		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
	101	91.1.5	Show Sample Metadata	Show Sample			NS	C	MM		1
Appendix: use cases added as a result of Gap Analysis May 2008											
		97.1.6	Create User Group			Create a user access group; prerequisite for Add User to Group	C	MI	OS		1
97	91.1.1	Create Sample metadata	Write			Create crystal sample metadata [already listed above]	C	C	MM		1
		97.2.2	Log Write Access	Write		Do operation log of all write accesses to SRB or iCat	C	MI	MM		2
		91.1.2	Modify Sample metadata	Write		[already listed above]	C	C			1
		98.0.10	Report Experiment	Read			C	C			1
		94.1.1	Login	Read			C	C			1
		94.1.2	Logout	Read			C	C			1
		94.0.1	Lock dataset	?	Write	L	[already listed above] Two types of locks are supported: a 'shared' lock which locks the object from being written to by any user other than the locking user but reads from the object and associated metadata are allowed, and 'exclusive' lock which allows no interactions with the object. A lock placed by a user has an expiry date at which time it gets automatically	NS	X		

	Use Case Id	Use Case Name	includes	Access	AC W Priority	Description	BA Stat	Dev Stat	WP		Priority
						unlocked.					
	94.0.2	Unlock dataset	?	Write	L	[already listed above] An object is unlocked by the original locking user.	NS	X			
	94.0.3	Lock datafile	?	Write	L	[already listed above]	NS	X			
	94.0.4	Unlock datafile	?	Write	L	[already listed above]	NS	X			