

SCHEDULE 2: THE REQUIREMENTS

Iteration 1 – Search

Iteration completion date: October 20, 2016

	Title	Description	Contract Status	Notes	Est
S1	Geo-spatial search	I want to specify an area (rectangular or circular) on a map which defines the boundaries for the places that I want to search for.	Fixed	This may work the same way as time, where an overlay appears with a map allowing the user to zoom to an area of the world and select.	6
S2	Performance improvements for faceted search and exploration	As a user, I want to obtain results for any query / search operation with a response time within seconds. I want to use the power of an engine like Elastic search or Solr to optimise the speed of the system	Desirable	There are a number of options for performance optimization, both on the side of query generation as well as query execution. We will spend dedicated time to investigating these queries and implement improvements.	3
S3	Tree selector as input component	As a user, I want to be able to select a term from a thesaurus (or other hierarchical structure) via a tree selector component that allows the user to navigate the tree along a broader/narrower relationship (parent/child).	Fixed	This input component should be supported both in specifying search clauses as well as for faceted filtering. For faceted filtering, the input component should allow to select multiple terms. (In the search clause definition, multiple disjunctive values can be specified already). If a term is selected, the narrower terms should also be shown as selected in the input component, however, an unselection of narrower terms (negation) is not supported. All FRs to be used with the tree selector should be defined to consider narrower terms.	8
S4	Faceting for hierarchical data using a tree selector	I want to be able to select a term from the tree selector for use in my faceted search, or a number of selected terms from different branches, or a full branch of terms or branches of terms.	Desirable	This might be a check box which selects a term and all narrower terms but the user can deselect terms they want to remove. This requires a tree selector with three-state checkboxes. See here for an example: http://demos.telerik.com/kerdo-ui/treeview/checkboxes	6
S5	Faceting for numerical values	As a user, I want to be able to facet over ranges of numerical values.	Desirable	Currently, we show discrete numerical values in the facets, which is inadequate for selecting a range. The component needs to be	2

				extended to support numerical ranges by specifying min/max, possibly via a slider.	
S6	Faceting for dates, date times values	As a user, I want to be able to facet over dates, date times and ranges thereof.	Fixed	Currently, we show discrete dates and time values. A new component is needed to support visualization and selection of dates and times explicitly, in a meaningful and easy-to-use manner, possibly via a slider.	3
S7	Handling of larger result sets	As a user, I want to have meaningful search results also in the presence of larger result sets. This will include A configurable limit to the results shown to the user - but not the actual result set. for example - showing 1000 of 10000 - please refine. (see also requirement 15) When I refine the search it operates on the whole results set not just the results that have been shown. I want the results to be paginated	Fixed	Larger result sets, which can't reasonably be handled entirely on the client side, require special handling. Options include: <ul style="list-style-type: none"> • configurable LIMITs on the result sets with feedback that only a subset of results is shown • aggregations of results, e.g. displaying a count of the result set • pagination of results (the latter would require proper implementation and extensions in the database/Blazegraph) • The system could provide chunks that you facet and then recompute based on those facets. 	3
S8	Contextualized result visualization	As a user, I want to see specific aspects/modalities of a query result using dedicated visualization components, e.g. a map for the spatial dimension, a timeline for the temporal dimension etc. The system already has timeline and geographical visualisation but this should be extended to allow more granular application of different FRs which hold geographical or time information. I want to be able to select specific contextual spatial and time data on the visualisations. Cross reference S6.	Fixed	While we already have different visualization components, these are restricted in the sense that they only apply to direct properties of a given FC, e.g., the search result for places can be shown on a map, if the places carry coordinates. The idea here is to extend this approach to exploit FRs that are used in a search. For example, for a search "Find Things from India", we would display on a map the matching things and where in india they are from.	3

				<p>The map visualization would be driven by the FR selected by the user, i.e.s/ he can switch e.g. between "Created at" and "From", providing a much more contextualized visualization of the results. As another example, for a search "Things created at 18th century", we would show a timeline of the 18th Century, with the exact creation dates of the matching things on the timeline.</p> <p>It could be a configuration setting to say I want to go to the appropriate visualisation directly, or choose it from the results options as we already do.</p>	
S9	User Messages for large searches	As a user, when I submit a search, I want to see a loading animation or other visualisation to show me that there is ongoing activity. If the query is taking a long time to complete, I want to see a message telling me that the search may take some time to load because of the amount of data, and asking me to wait.	v	On the facet it may tell the user that they should refine the search further. We need user feedback generally for things we know will take longer.	1
S10	Search queries with multiple clauses, each potentially with its own domain	As a user I want to be able to make queries where the range of the first clause becomes the domain of the subsequent clause. This would allow me to extend to the search to another domain and extend both domains with the same functionality currently provided in the one domain model. This would imply one sub clause but with any number of ranges.	Fixed	<p>For example, to find objects which were acquired in 1853, I want to be able to search for:</p> <p>Thing From Any Event where Event From Time 1853 AD</p> <p>At the moment the Search widget does not allow me to specify any Event where..., and does not allow me to specify the range from one clause as the domain in another.</p>	15
S11	Nested FRs	As a user, I want see dependent FRs in a hierarchy within the FR selector of the main search.	Fixed	In the search input component, the nesting of the FRs needs to be visualized.	3
S12	Data Visualisation - Charts	As a user, I want to use charts (bar charts/histograms, line charts and pie charts) to visualize statistical distributions in a result set.	Fixed	The approach here is similar to how map and timeline visualize temporal and spatial information (cf. contextualized result visualization). For a given result set, the user will be able to select a particular FR, the distribution of the values for this FR will be visualized	5

				in a chart. For example, in a search for objects, the user can select the FR "has type", the chart would then show the distribution (counts) of the types for the result set. The chart type can also be selected by the user. We will support bar, line and pie chart as described here https://help.metaphacts.com/resource/Help:ChartWidget using ChartJS as chart library. http://www.chartjs.org/	
S13	Inline editing of search terms	As a user, I want to be able to edit the domain, predicate or range parameters in my search query inline, with resulting live updates to the search results. This will speed up my searching process, as I won't need to remove a whole clause to make adjustments to my search.	Fixed		3
S14	Row per clause in search	As a user, I want to see clearly which part of the search query I am editing, and I want to be able to remove clauses of the search easily. Therefore I want to see each clause of the query represented on its own row.	Fixed	This is also required for inline editing of search terms.	1
S15	Foldable search	As a user I, want to be able to fold the search query, so that only the search summary is displayed, as well as the results.	Fixed	This could be useful when the query is long and takes up a lot of vertical screen estate. This requirement will integrate internal contributions from the BM.	1
S16	Export	As a user, I want to export the search result independently of the search result visualisation I am using.	Fixed	Data will be exported as CSV.	1
S17	Extended search using existing search results	As a user, I want to use the results of my search as the basis of a new search, where the result set becomes the range of the new query. This is analogous to the existing extended search for individual result items. I want to see a button at the bottom of the search results which allows me to do this.	Fixed		3

Iteration 2 – Clipboard

Iteration Completion Date: December 15 2016

	Title	Description	Contract Status	Notes	Est
C1	Configurable clipboard sidebar	As administrator, I should be able to configure which categories are visible in the clipboard.	Fixed	The set of operations and the semantics of clipboard operations can only be modified/configured in code.	5
C2	Migrate existing application pages to the new template mechanism	Existing application pages need to be updated to the new template syntax to prepare them for the updated clipboard mechanism. Specifically pages for UDP/annotation/assertions/arguments/permissions.	Fixed		5
C3	Access clipboard in different contexts via sidebar	As a user, I should be able to access the clipboard easily from different areas of the platform, by using a pull-out sidebar which displays a list of my items - including on the clipboard resource page itself.	Fixed		3
C4	Customize size of clipboard sidebar	As a user, I should be able to change the width of the pull-out sidebar by dragging its edge	Desirable		2
C5	Toggle clipboard sidebar open and closed	As a user, I should be able to toggle the pull-out sidebar open and closed by clicking on its edge or on an icon. Ideally it should open to the width I selected when I last used the sidebar.	Desirable	Size of the sidebar will be persisted in the user local storage.	1
C6	Filtering by clipboard categories in clipboard sidebar	As a user I want to be able to filter in clipboard sidebar by different clipboard categories (sets, searches, images, image regions and FCs)	Fixed		5
C7	Metadata filtering within clipboard categories (clipboard sidebar)	As a user I want to be able to filter (search for) items according to their metadata (within their homogeneous categories) in the clipboard sidebar .	Desirable	Filtering over metadata which is visible in the clipboard sidebar. BM - The visualization components might be different in sidebar (i.e limited space) and as such	3
C8	Search in clipboard Side bar	As a user I want to be able to perform a "free-text" search within my clipboard sidebar, searching across all categories of content.	Fixed		2
C9	Access to recently added items	As a user, I should be able to access recently added clipboard items in my clipboard, and the clipboard sidebar.	Fixed		4

C10	Visualize clipboard items	As a user, I should be able to view items as a list, or as thumbnails, in the pull-out clipboard sidebar.	Desirable		5
C11	Context sensitive dragging of items from pages into the clipboard sidebar	<p>As a user, I should be able to drag and drop any item (with a URI) from any page into the clipboard sidebar.</p> <p>The clipboard should give a visual indication if dropping an item is supported (e.g. tooltip saying 'Add item here' and/or changes to mouse cursor.) The clipboard should automatically perform actions based on context.</p> <p>If I navigate to a set in the clipboard sidebar first, so that I can see a list of the items in the set, then drag an item to the sidebar, it should be added to the currently open set. This should be reflected in the drop target text - "Drop items here to add to set 'Currently selected set'"</p>	Fixed	<p>Supported actions are:</p> <ul style="list-style-type: none"> • Add item to clipboard • Add item to set in clipboard <p>The context is determined by the receiving element on the clipboard.</p>	8
C12	Context sensitive dragging of items from clipboard sidebar to components within pages	As a user, I should be able to drag and drop items from the clipboard sidebar into pages where appropriate. The target page should give a visual indication if dropping an item is supported (e.g. tooltip saying 'Add item here' and/or changes to mouse cursor.)	Fixed	<p>Supported actions are:</p> <ul style="list-style-type: none"> • Add item (field, assertion, image) as premise to an assertion • Use item as a target resource in search clause • Add item as a link in an annotation/UDP text field 	5

Iteration 3 – User Defined Pages and User management

Iteration Completion Date: 13 January 2017

#	Title	User Story	Contract Status	Notes	Est.
U1	Creation of user defined page	As a user I want to be able to create my own pages in which I can combine narrative with ResearchSpace and other web resources.	Fixed	A version is already available in the current version using a previous version of quills. This version needs to be migrated over to a new version of quills with some initial preparatory work. This requirements is a place holder for this.	3
U2	Title and body text	As a user I want to be able to set a title and add body text to my page	Fixed	The assumption here is that the quills system provides a full set of rich text options using html.	0
U3	Outlines	I should be able to use outline styles for headings and text	Desirable	Different levels of headings which denote different levels in a contents list.	1
U4	Headers and formatting	I should be use headings for a content page. See Outlines above	Fixed	This requirement doesn't include generation of TOC.	1
U5	Rich text editing and formatting	As a user I want to be able to format plain text using the same type of formatting used in word processing documents	Fixed	We stick to formatting available in http://quills.com/ .	0
U6	Use of Clipboard (cross reference Clipboard functionality)	As a user I want to have the clipboard available for adding and embedding all types of resource into my pages. e.g. images, data, arguments. The links in the UDP will link back to the source resource.	Fixed	<p>a) User will be able to drag-and-drop resources into UDP and then dialog will popup which asks about corresponding RDFa predicate as well as label/thumbnail choice.</p> <p>b) Each link will have css class corresponding to the resource type, so it will be possible to add some visual indicators, e.g show that link is a link to search or set, etc.</p> <p>c) When adding resource from the clipboard it will be possible to switch between label and thumbnail for all links.</p> <p>d) User will have an option to provide link to 3-rd party image.</p>	6
U7	Visualize sets in user defined pages	As a user I want to be able to visualize set content as grid in the UDP using the parameters that are currently in place for the set and for some truncation parameter if the set is large. Again it should link back to the set resource.	Fixed	The idea here is that an html version of the set would be added. End-user will not have any means to change underlying widget configuration.	4
U8	Linking to other researchspace instances and	As a user I want to make links to other external resources in the my researchspace knowledgebase or in other	Fixed		1

	external sites/ resources	researchspace instances, or other semantic datasets.			
U9	Listing of user defined pages	As a user I want other users to see a list of my user pages when viewing my profile page and access them from there if they have permissions.	Fixed		2
U10	Links to other pages	As a user I want to be able to easily insert links to other pages I have created, in one of my user-defined pages.	Fixed		0
U11	Export embedded data	I want the structured data supporting (and embedded in my narrative) separated from the narrative and be able to export it in linked data format.	Fixed	Export of RDFa links in turtle format.	1
U12	Export Narrative	I want to save my narrative in an html format and a printable format.	Fixed	Ability to export UDP as html and as PDF.	2
U13	Duplicate page	As a user I want to be able to duplicate existing user-defined pages. This is because I want to be able to create template pages which I can use as the basis for new page. I should be prompted to give the new page a different title.	Desirable		2
U14	Delete private pages	As a user I want to be able to delete pages which I have created and which have draft status.	Desirable		1
U15	Minified link to the page	Provide the ability to get short url to the page resource.	Desirable	Implement simple URL shortener service inside the platform.	2

User Management

#	Title	Description	Contract Status	Notes	Est.
UM1	User Management with LDAP	As a system administrator, I want to be able to manage users/groups using a LDAP directory service.	Fixed	Support for LDAP setup and configuration. All export/import operations, audit logs, etc. are performed outside platform using the LDAP service.	2
UM2	Widget Security	As a system or project administrator, I want to assign permissions for user roles to use specific RS components or system operations.	Fixed	Access control will be based on SHIRO's permission based security model. Access to specific functionalities and general database operations (query, delete, insert) can be assigned to user roles. Each user can have several roles. A series of user roles with different rights should be	4

	external sites/ resources	researchspace instances, or other semantic datasets.			
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				created, then the appropriate role assigned to the user.	
UM3	Visibility can be set by Administrator	As a system or project administrator, I want to be able to change visibility of resources (UDP, Sets, Searches, Assertions, Arguments, Annotations).	Desirable	This will be needed for both day to day administration but also for publication purposes. i.e. at the end of the project. Resources can be public, private or project. This should be able to be changed by the administrator, independently of what has been set by the author.	2
UM4	Groups security	As a user, I want to be able to share resources with user groups.	Fixed	In addition to project/public/private visibility levels, introduce the ability to share resource with specific groups of users.	5
UM5	View group membership	As a group member, I want to be able to browse and search through a list of group members, and explore their profile page.	Desirable	Because users are going to be managed outside the platform, we need to be able to fetch list of Users and Groups from the LDAP.	3