Software test protocol – PTGL 3.0 Web frontend

Functional tests / Black box

Test

Tester (Name)	
Test date & time	
Notes on the test	Searching by graphlet similarity is not tested.

Testing environment

Server	SuSE 13.1 64 Bit on kelvin.molbi (Apache 2.2, PHP 5.6, Postgres 9.2)
Software version (SVN rev.)	
Test data set on server (DB content)	All PDB files which are in *trunk/plcc/data/input/* at the revision listed above, and no other PDB files, are contained in the database. (They are added by copying all of them to *trunk/plcc/testrun/*, making sure that no other PDB files are in that directory **before** the copy operation, and then running the *fill_database.sh* shell script. Also clean DB before.)
Notes on settings for the server side	
Client (OS, browser version)	
Notes on settings on the client side	JavaScript is enabled in the browser.

Page 1: Main page (including navigation bar and footer)

Test subject	Input data	Expected output	Test result
Text and image format	-	Text and images are formatted and displayed properly on the web page.	
Text and image format	JavaScript is turned off temporarily in the browser, then the page is reloaded.	A page notifying the user that JS is required is shown.	
Hyperlinks	-	All hyper links are non-dead and lead to proper pages. (This includes navigation bar links, footer links, and the help links in the SearchMotifs area.)	
Menu	-	The menu can be extended and all menu items can be clicked.	
Search area – keyword search – PDB ID	"7t"	- Auto-completion works and proper proteins are suggested, including "7tim". - Clicking on the suggestion "7tim" places it in the input text box above, and closes the suggestion. - Clicking the search button now transfers	

Test subject	Input data	Expected output	Test result
		the user to the Search page.	
Search area – keyword search – short entry	"7t" in the input field, ignoring the auto-completion results, and clicking the search button	- A message telling the user to enter at least 3 characters is shown - The user is NOT transferred to the search page	
Search area – keyword search – keyword	"intramol"	Auto-completion works and proper proteins are suggested, including "7tim – INTRAMOLECULAR OXIDUREDUCTASE"	

Page 2.1: Search Page – From Main Page: Standard search ("PDB ID or keyword")

Test subject	Input data	Expected output	Test result
Search for specific PDB ID	Search for '7tim' from Main page	• Search type is keyword search. • Both chains A and B of 7tim are listed, no other chains are listed. • The CATH, PDB and FASTA links work. • The result header is correct ("Showing results 1 to 2 (of 2 total)". • The buttons above work and are labeled properly ("Load proteins", "Select all 2 protein chains", "Deselect all").	
Search for a general keyword	Search for 'intramol' from Main page	• Search type is keyword search. • A list of chains is shown, including both chains A and B of 7tim. • The CATH, PDB and FASTA links	

Test subject	Input data	Expected output	Test result
		work. • The result header is correct ("Showing results x to y (of z total)". • The buttons above work and are labeled properly ("Load proteins", "Select all n protein chains", "Deselect all").	
Search box in navigation bar	"8icd"	• Auto-completion works in the nav bar search field • Searching leads back to the current page, but with results for 8icd	
Search box in navigation bar, short search term	"ic", ignoring suggestions, and clicking the search button	• A message telling the user to enter at least 3 characters is shown • The user stays on the search page with the current result.	

Page 2.2: Search Page – From Main Page: Advanced search

Test subject	Input data	Expected output	Test result
Search for PDB ID only	"7tim" in advanced search field "PDB Identifier"	• The user is transferred to the results page • Search type is advanced search • Both chains "A" and "B" of 7tim are listed • Result header is correct ("1 to 2 of 2")	
Search for PDB ID, but input length is not 4	In advanced search field "PDB Identifier": • None at all (just click button) • "7t" • "hallotoolong"	• An error message is shown on the main page that PDB ID has length 4 • The user is not transferred to the results page	
Search for PDB ID which is not in the database	In advanced search field "PDB Identifier": • "1xxx"	• The user is transferred to the results page • Search type is advanced search • No chains are listed • A search hint message is shown, to try again with other query • Result header is correct ("0 to	

Test subject	Input data	Expected output	Test result
		0 of 0")	
Search for valid PDB ID and text that does occur in its title	• "7tim" in field "PDB Identifier" • "triosephosphate" in field "Title"	Both chains of 7tim are shown on results page	
Search for valid PDB ID and text that does NOT occur in its title	• "7tim" in field "PDB Identifier" • "oxygen" in field "Title"	The search result in empty	
Search for valid PDB ID with ligand, ligand search	• "7tim" in field "PDB Identifier" • Field "Has Ligand" set to "Yes"	Both chains of 7tim are shown on results page	
Search for valid PDB ID with ligand, ligand search	• "7tim" in field "PDB Identifier" • Field "Has Ligand" set to "No"	The search result in empty	
Search for valid PDB ID without ligand, ligand search	• "1aar" in field "PDB Identifier" • Field "Has Ligand" set to "Yes"	The search result in empty	
Search for valid PDB ID without ligand, ligand search	• "1aar" in field "PDB Identifier" • Field "Has Ligand" set to "No"	Both chains "A" and "B" of 1aar are shown on results page	
Search by ligand name	• "ICT" in field "Ligand Name" • Box "Has Ligand"= "Both"	A list of chains, including 8icd chain A, is shown on the search page	
Search by ligand name	• "ICT" in field "Ligand Name" • Box "Has Ligand" = "Yes"	A list of chains, including 8icd chain A, is shown on the search page	

Test subject	Input data	Expected output	Test result
Search by ligand name	• "ICT" in field "Ligand Name" • Box "Has Ligand" set to to "No"	The result set is empty	
Combination	• "8icd" in field "PDB Identifier" • "Regulation" in field "Title" • Box "Has Ligand" set to "Yes" • "ICT" in field "Ligand Name"	8icd chain A is the only chain in the result list	

Page 2.3: Search Page – From Main Page: Motif search

Test subject	Input data	Expected output	Test result
Four Helix Bundle search	Expand motif search and select Four Helix Bundle	• 3nwm chain A is contained in result set	
Globin Fold search	Expand motif search and select Globin Fold	• 3whm chains B and F are contained in the result set (hemoglobin)	
Up and Down Barrel search	Expand motif search and select Up and Down Barrel	• 1ave (avidin) is contained in the result set	
Immunoglobulin Fold search	Expand motif search and select Immunoglobulin Fold	• 1igt and 1hzh antibodies are contained in the result list	
Beta Propeller search	Expand motif search and select Beta Propeller	• 1nr0, chain A is contained in the result list	
Jelly Roll search	Expand motif search and select Jelly Roll	• 1ayn is contained in the result list	

Page 2.4: Search Page – From Main Page: Custom linnot search

Test subject	Input data	Expected output	Test result
ADJ	• Notation: "ADJ" • graph: "albelig" • query: "h,2ph" • similar: on	• Contains 7tim chain A, due to FG #1: [**h,2ph**] • Contains 4w2c, chain L, due to FG #0: {e,2pe,-5pe,1ae,1ae,1mh,1mh,3pe,1ze,2m**h,2ph**,-1me}	
ADJ	• Notation: "ADJ" • graph: "albelig" • query: "h,2ph" • similar: off	• The result set is empty	
ADJ	• Notation: "ADJ" • graph: "albelig" • query: "[h,2ph]" • similar: off	• Contains 7tim chain A, due to FG #1: **[h,2ph]** • Does NOT contain 4w2c, chain L	

Page 2.4: Search Page – From Main Page: Random search

Test subject	Input data	Expected output	Test result
Random 5	• 5 chains	• 5 random chains are shown	
Random 50, navigation	• 50 chains	• 50 random chains are shown • Results are distributed over several pages • It is possible to navigate between the result pages as expected	