#	Activity Name	Start Date	Finish Date	Predecessor	Resources
1	**Cytoscape 2.2**	3/15/05	7/29/05		
2					
3	**Development**				
4	**Graph Model and Operations**				
5	Graph Model Extension				
6	analysis & design	3/21/05	7/1/05		Allan, Aditya, Rowan, Nerius, Mike
7	Hypergraph support (deferred to 2.3)				
8	Hyper-edge = meta-node (deferred to 2.3)				
9	edge direction "clean up" (deferred to 2.3				
10	Layout API Development				
11	Beta framework available, verify completeness and support utilization by layout codes	5/16/05	5/20/05		Nerius
12	**Data**				
13	Internal Data				
14	File Format Redesign				
15	New internal file format / CYF format (conditional upon resource availability)				
16	analysis & design	4/18/05	5/3/05	25	Chris
17	CyData external format: CYF	5/4/05	6/21/05	16	Chris
18	import from other formats (e.g., SIF, Node/Edge Attributes, etc.)	5/4/05	7/5/05	16	Chris
19	export to other formats	5/4/05	7/5/05	16	Chris
20	Save/Restore Project State				
21	analysis & design	4/18/05	5/20/05	25	Mark
22	consolidate definitions, state, work and project data into project structure (e.g., XML schema)	5/23/05	8/1/05	21	Mark
23	Data Objects Redesign				
24	GraphObAttributes and ExpressionData merging/refactoring -> CyData				
25	analysis & design	3/18/05	4/15/05		Nerius, Rowan
26	normalize data operations	4/18/05	5/5/05	25	Nerius, Rowan
27	provide intuitive, consistent API	4/18/05	5/12/05	25	Nerius, Rowan
28	provide access to data by attributes or by node	4/29/05	6/16/05	27	Nerius, Rowan
29	maintain backwards compatibility for add/get Attributes, etc.	5/6/05	6/3/05	27	Nerius, Rowan
30	**Performance**				
31	Network Rendering Performance Improvement				
32	analysis & design	5/23/05	6/3/05		Nerius
33	Rendering of graphs/networks in Cytoscape is very slow relative to 1.1. Bring 2.2 rendering performance up to within some % (e.g., 20%) of 1.1	6/13/05	7/22/05	32	Nerius
34	**Usability/Interface**				
35	Graph editor				
36	analysis & design	3/18/05	4/22/05		James, Allan, Aditya, Mike
37	Node/edge creation/deletion	4/25/05	5/27/05	36	James, Allan, Aditya, Mike
38	Node/edge attributes	4/28/05	6/17/05	36, 25	James, Allan, Aditya, Mike
39	Node/edge visual properties	5/16/05	7/15/05	36	James, Allan, Aditya, Mike
40	layout functions: arrange, align, group/ungroup, distribute, etc.	4/25/05	6/3/05	36	James, Allan, Aditya, Mike
41	cut/copy/paste of networks and selected sub-networks	5/20/05	7/15/05	36	James, Allan, Aditya, Mike
42	CytoPanels				
43	analysis & design	3/14/05	3/30/05		Ethan
44	floatable/dockable windows for presentation of data in manageable panels	3/28/05	4/27/05	43	Ethan
45	new AttributesBrowser framework	4/25/05	7/15/05	43	Ethan
46	Undo Manager (conditional upon resource availability)				
47	analysis & design				
48	Undo framework (Swing provides something)				
49	user-defined actions (ie.g, from cytoscape.actions.*)				
50	API-level actions				
51	**Domain-specific Functionality**				
52	Support for Multiple Species				
53	analysis & design	3/22/05	4/29/05		Melissa, ISB ?
54	implementation	5/2/05	7/22/05	53	Melissa, ISB ?
55	**Architectural Improvements**				
56	audit codebase for "dead code" - unused/obviated objects, methods	4/18/05	4/22/05		UCSD ?
57	generate UML models for core code	4/18/05	4/22/05		UCSD ?
58	refactor/extract core functions from actions/* classes for general	4/25/05	4/29/05		UCSD ?
59	evaluate package structure and make code organization changes (e.g., mode/, view/, and controller or other scheme)	4/25/05	4/29/05		UCSD ?
60	look into data/ organization (add writers/ directory, move GMLWriter from readers/ directory, etc)	5/2/05	5/6/05		Chris
61	**Testing and Docs**				
62	Functional testing				
63	J Unit - functional test framework				
64	Technical documentation				
65	Update, creation of new online help documentation	7/4/05	7/15/05	67	
66	Creation of developer checklist for new code: javadoc, junit, code review (look for architecture points, easy optimizations, and general style), error checking - ?? (wouldn't this be nice to have)				
67	User documentation	6/20/05	7/15/05		
68	Web site maintenance	7/11/05	7/22/05		Ethan
69	**Bug Fixes**				
70	Bug Management	3/21/05	7/22/05		Gary
71	Bug fix implementations	3/28/05	7/22/05		
72	**Enhancements**				
73	...				
74	**System Testing / Release Preparation**				
75	License check of libraries	7/14/05	7/14/05		Ethan
76	Release Notes	7/17/05	7/20/05		Mark
77	Features List	7/17/05	7/22/05		Mark
78	Create Official Beta Releases	7/25/05			Nerius
79	Testing (Anyone and Everyone)	7/25/05			
80	Bug Master	7/25/05			Gary
81	Bug Fixing (anyone who is available)	7/25/05			
82	Change Cytoscape2_1.pdf to Cytoscape2_2.pdf	7/25/05			Ethan
83	Copy new manual to cyto_web, so it will be available online	7/25/05			Ethan
84	Update the cyto_web to reflect Cytoscape 2.2	7/25/05			Ethan
85	**Official Release**				
86	Modify Version # in Build.xml	7/26/05			Ethan
87	Officially tag the release	7/26/05			Ethan
88	Create the final release files: .tar.gz and .zip	7/26/05			Ethan
89	Create the Mac OS X Release	7/26/05			Ethan
90	Create the InstallAnywhere release	7/26/05			
91	Deploy the new release files to cbio.mskcc.org	7/26/05			Ethan
92	Deploy latest javadocs to cbio.mskcc.org	7/26/05			Ethan
93	Deploy new cyto_web files to cytoscape.org	7/26/05			Ethan
94	Send out official announcements	7/27/05			Gary, Trey
95	Update WebStart tutorial				
96	**Cytoscape 2.2 Release (FCS)**	7/29/05		1	
97					
98	**External Related Projects**				
99	BioPAX support				
100	Literature Search enhancements				
101	PathBlast (Cytoscape plugin and web services)				
102	Node/neighbor expand/collapse plugin for browsing large				