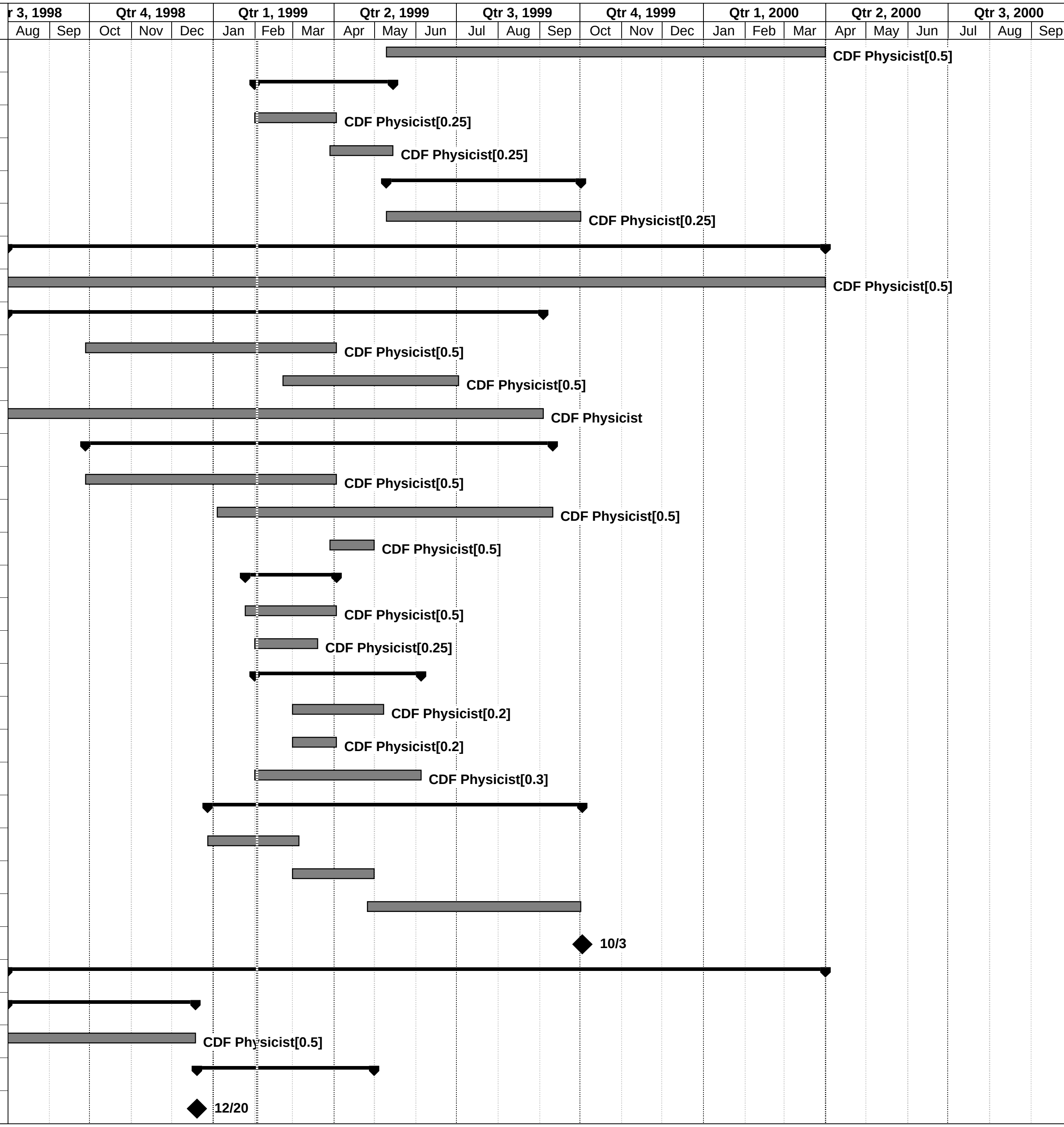
ID	WBS	Task Name	
1	1	Rest of CDF	
2	2	**CDF Computing and Software Upgrade**	
3	2.1	**Code Integration**	
4	2.1.1	**Production Executable**	
5	2.1.1.1	Management	CDF Physicist[1.5]
6	2.1.1.2	First integration	
7	2.1.1.3	October Executable	10/16
8	2.1.1.4	Second Integration	
9	2.1.1.5	Full prototype	5/16
10	2.1.1.6	Integration/Optimization	
11	2.1.1.7	Mock Data Challenge	10/15
12	2.1.1.8	Second Optimization	
13	2.1.2	**Infrastructure**	
14	2.1.2.1	**C++ Support**	
15	2.1.2.1.1	Compliers and Debuggers	Joint Project[0.5]
16	2.1.2.1.2	Class Browser	Joint Project Potential[0.5]
17	2.1.2.1.3	EDG_decode	Joint Project Potential[0.5]
18	2.1.2.2	**Analysis Tools**	
19	2.1.2.2.1	PAT ROOT support	Joint Project[0.8]
20	2.1.2.2.2	Formatted Bank Dump	CDF Physicist[0.5]
21	2.1.2.2.3	Build Job++	CDF Physicist[0.5]
22	2.1.2.2.4	Zoom: heptuple, error log	Joint Project[0.5]
23	2.1.2.3	**Library Maintenance**	CDF Physicist[0.25]
24	2.1.2.4	**Redesign Geometry**	
25	2.1.2.4.1	Design/implementation	CDF Physicist
26	2.1.2.4.2	Database/Persistence	CDF Physicist
27	2.1.2.4.3	Extrapolation Interface	CDF Physicist[0.5]
28	2.1.3	**Production Runtime Configuration**	
29	2.1.3.1	Prototype production table and parser	CDF Physicist[0.3]
30	2.1.3.2	Prototype Input validation control	CDF Physicist[0.3]
31	2.1.3.3	Prototype Production catalog interface	CDF Physicist[0.3]
32	2.1.3.4	Optimization	CDF Physicist
33	2.1.4	**Validation**	

Timeline: r 3, 1998 (Aug, Sep) | Qtr 4, 1998 (Oct, Nov, Dec) | Qtr 1, 1999 (Jan, Feb, Mar) | Qtr 2, 1999 (Apr, May, Jun) | Qtr 3, 1999 (Jul, Aug, Sep) | Qtr 4, 1999 (Oct, Nov, Dec) | Qtr 1, 2000 (Jan, Feb, Mar) | Qtr 2, 2000 (Apr, May, Jun) | Qtr 3, 2000 (Jul, Aug, Sep)

ID	WBS	Task Name	Resource
34	2.1.4.1	Validation Modules	
35	**2.2**	**Event Reconstruction**	
36	2.2.1	Luminosity	CDF Physicist
37	**2.2.2**	**Tracking**	
38	**2.2.2.1**	**High Level track Class**	
39	2.2.2.1.1	Basic Design	CDF Physicist[0.25]
40	2.2.2.1.2	Remake for EDM design	CDF Physicist[0.25]
41	2.2.2.1.3	CDFTrack in new EDM	4/1
42	2.2.2.2	EventVertex	CDF Physicist[0.5]
43	**2.2.2.3**	**Silicon Reconstruction**	
44	2.2.2.3.1	Z side clustering and charge depo	CDF Physicist[0.2]
45	2.2.2.3.2	Standalone algorithm development	CDF Physicist[1.5]
46	2.2.2.3.3	Reorganize geometry	CDF Physicist[0.5]
47	2.2.2.3.4	Alignment Hooks	CDF Physicist[0.5]
48	2.2.2.3.5	Material Integrator	CDF Physicist[0.5]
49	2.2.2.3.6	Optmization	CDF Physicist[2]
50	**2.2.2.4**	**COT Reconstruction**	
51	2.2.2.4.1	Reorganize geometry	CDF Physicist
52	2.2.2.4.2	R-phi Algorithm development	CDF Physicist
53	2.2.2.4.3	Stereo algorithm development	CDF Physicist
54	2.2.2.4.4	Port Run I fitter	CDF Physicist[0.5]
55	2.2.2.4.5	Optmization	CDF Physicist[2]
56	**2.2.2.5**	**COT-into-SVX Reconstruction**	
57	2.2.2.5.1	Integrate outside-in code	CDF Physicist[0.5]
58	2.2.2.5.2	Integrate silicon z-hit finding	CDF Physicist[0.5]
59	2.2.2.5.3	Full integration & testing	CDF Physicist
60	2.2.2.5.4	Optmization	CDF Physicist
61	**2.2.3**	**Muons**	
62	**2.2.3.1**	**CMU**	
63	2.2.3.1.1	D to E	CDF Physicist[0.5]
64	2.2.3.1.2	E to S	CDF Physicist[0.5]
65	**2.2.3.2**	**CMP**	
66	2.2.3.2.1	D to E	CDF Physicist[0.5]

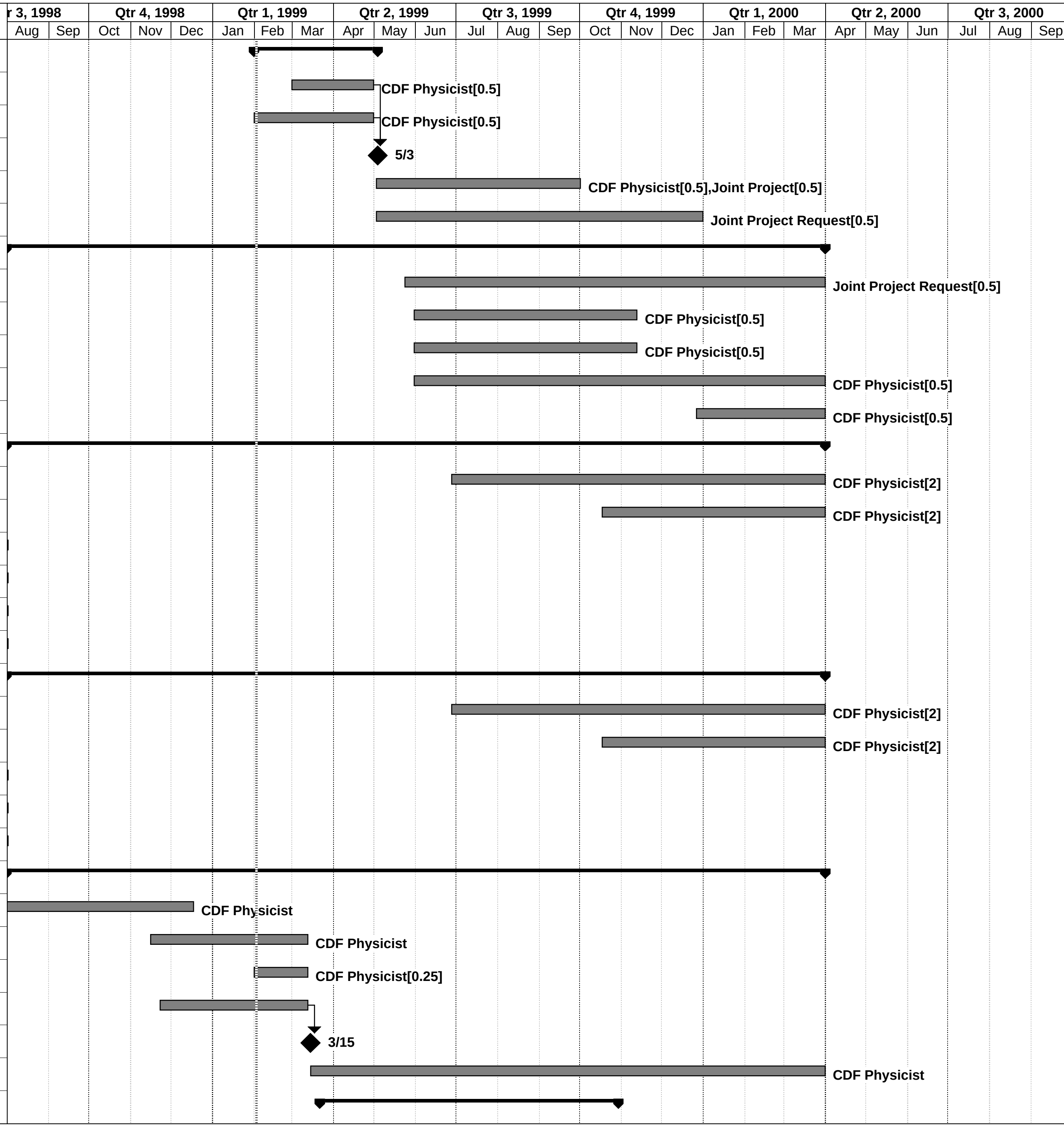
ID	WBS	Task Name	Resource
67	2.2.3.2.2	E to S	CDF Physicist[0.5]
68	**2.2.3.3**	**CMX**	
69	2.2.3.3.1	D to E	CDF Physicist[0.5]
70	2.2.3.3.2	E to S	CDF Physicist[0.5]
71	**2.2.3.4**	**CSX**	CDF Physicist[0.5]
72	**2.2.3.5**	**IMU Muons**	
73	2.2.3.5.1	D to E	CDF Physicist[0.5]
74	2.2.3.5.2	E to S	CDF Physicist[0.5]
75	**2.2.3.6**	**CMLNK**	
76	2.2.3.6.1	Design and Code	CDF Physicist
77	2.2.3.6.2	Development and Optimization	CDF Physicist[2]
78	**2.2.3.7**	**High Level Muon Class**	
79	2.2.3.7.1	Design	CDF Physicist[0.25]
80	2.2.3.7.2	Preliminary Implementation	CDF Physicist[0.25]
81	**2.2.4**	**Calorimetry**	
82	**2.2.4.1**	**Calorimetry**	
83	2.2.4.1.1	Mods for geom, EDM, calibration	CDF Physicist[0.25]
84	2.2.4.1.2	Integration/Optmization	CDF Physicist[0.5]
85	**2.2.4.2**	**Jetclu**	
86	2.2.4.2.1	Mods for geom, EDM, calibration	CDF Physicist[0.25]
87	2.2.4.2.2	Integration/Optimization	CDF Physicist[0.5]
88	**2.2.4.2.3**	**High Level Jet Class**	
89	2.2.4.2.3.1	Design	CDF Physicist[0.25]
90	2.2.4.2.3.2	Preliminary Implementation	CDF Physicist[0.25]
91	**2.2.4.3**	**Emclst**	
92	2.2.4.3.1	Mods for geom, EDM, calibration	CDF Physicist[0.25]
93	2.2.4.3.2	Integration/Optimization	CDF Physicist[0.5]
94	**2.2.4.4**	**Stpana**	
95	2.2.4.4.1	Central strips	CDF Physicist[0.5]
96	2.2.4.4.2	Plug Algorithm Development	CDF Physicist[0.5]
97	**2.2.4.5**	**Electron**	
98	2.2.4.5.1	Central Algorithm Development	CDF Physicist[0.5]
99	2.2.4.5.2	Plug Algorithm Development	CDF Physicist[0.5]

ID	WBS	Task Name
100	2.2.4.5.3	Integration/Optimization
101	**2.2.4.5.4**	**High Level Electron Class**
102	2.2.4.5.4.1	Design
103	2.2.4.5.4.2	Preliminary Implementation
104	**2.2.4.6**	**Metser**
105	2.2.4.6.1	Algorithm Development
106	**2.2.5**	**Level 3 Modules**
107	2.2.5.1	Management
108	**2.2.5.2**	**Reconstruction**
109	2.2.5.2.1	Regional Reco Framework
110	2.2.5.2.2	Regional COT tracking
111	2.2.5.2.3	Regional silicon tracking
112	**2.2.5.3**	**Framework**
113	2.2.5.3.1	Path/Prereq/Output
114	2.2.5.3.2	Monitors
115	2.2.5.3.3	DAQ interface
116	**2.2.5.4**	**Databases**
117	2.2.5.4.1	L3 Trigger Table
118	2.2.5.4.2	L3 Calibration
119	**2.2.5.5**	**Code Building**
120	2.2.5.5.1	Code management Tools
121	2.2.5.5.2	Build Tools
122	2.2.5.5.3	Build Platform
123	**2.2.5.6**	**Executable**
124	2.2.5.6.1	Null Exe
125	2.2.5.6.2	Non-null Exe
126	2.2.5.6.3	DAQ Integrated Exe
127	2.2.5.6.4	Final Benchmarking
128	**2.3**	**Data Model**
129	**2.3.1**	**TRYBOS**
130	2.3.1.1	Integrate ROOT IO
131	**2.3.2**	**Event Data Model**
132	2.3.2.1	Define Stream Oriented Data Model



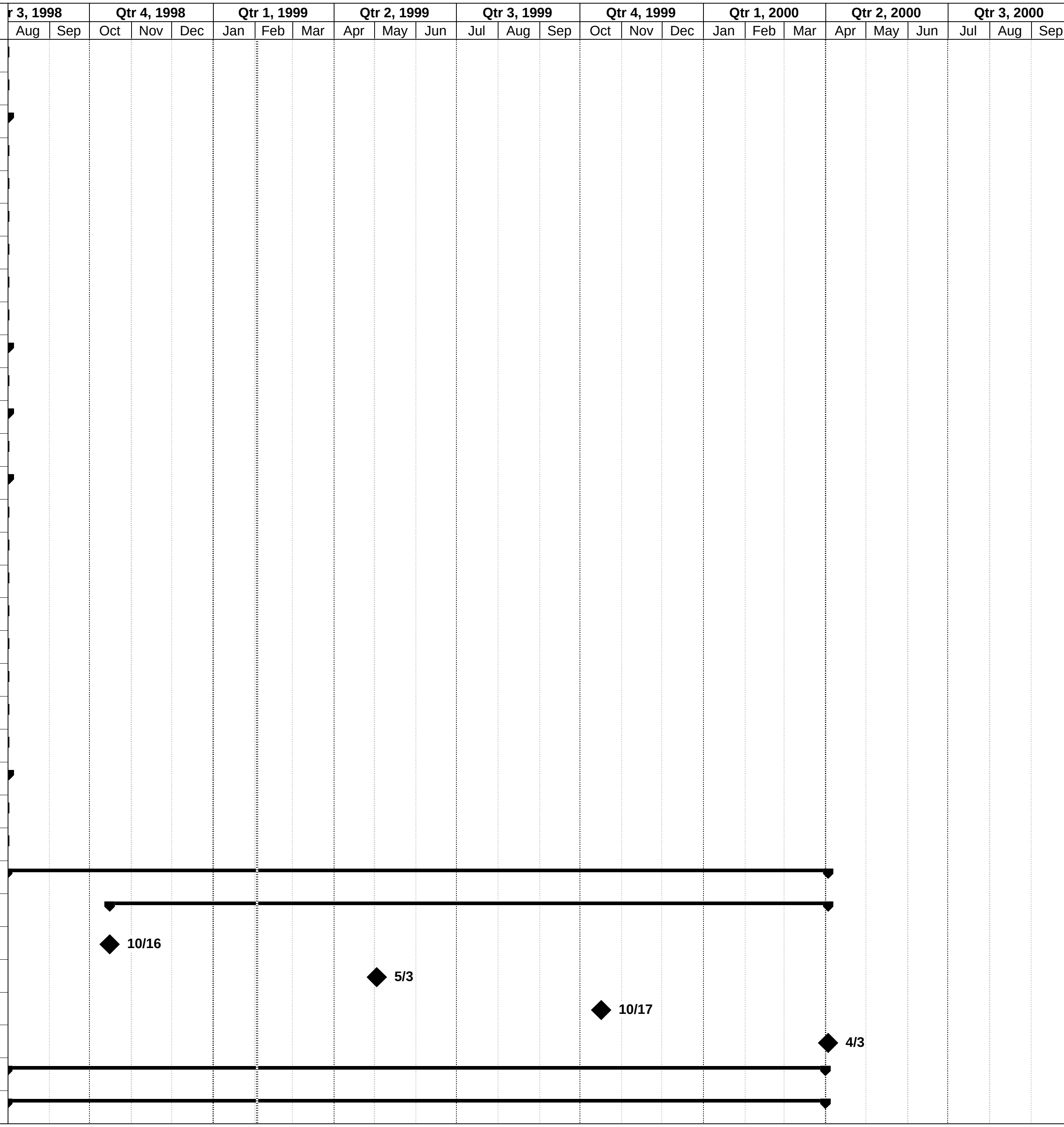
ID	WBS	Task Name	
133	2.3.2.2	Define Intermodule Communication	Computing Physicist
134	2.3.2.3	EDM proposal	Computing Physicist
135	2.3.2.4	EDM decision	3/5
136	2.3.2.5	Implementation	Computing Physicist
137	**2.3.3**	**Event Data Format**	
138	2.3.3.1	Branches Defined	Computing Physicist[0.25]
139	2.3.3.2	Implementation/Integration	Computing Physicist[0.5]
140	**2.3.4**	**Event I/O (Banks)**	
141	2.3.4.1	Management and Infrastructure	Computing Physicist[0.5],CDF Physi
142	2.3.4.2	Raw Data (D banks)	
143	2.3.4.3	Reconstruction (E,S, O, PADS)	
144	2.3.4.4	Calibration (C and H banks)	
145	2.3.4.5	Simulation	
146	2.3.4.6	Header (LRIH bank)	
147	2.3.4.7	Bank Dump/Browser	
148	**2.4**	**Databases and Constants**	
149	2.4.1	Management	CDF Physicist[0.5]
150	**2.4.2**	**Calibration DB**	
151	2.4.2.1	Version 1.0 API (OCI,mSQL)	Joint Project,CDF Physicist[2]
152	**2.4.2.2**	**Code into CVS/SRT**	
153	2.4.2.2.1	API	
154	2.4.2.3	Define directory structure for Users	
155	2.4.2.4	Shakedown + Document: release exaples	
156	2.4.2.5	Ready for Users	2/15
157	**2.4.2.6**	**Table definitions (idl) with det. Grps**	
158	2.4.2.6.1	Calorimeter	CDF Physicist[0.5]
159	2.4.2.6.2	COT	CDF Physicist[0.5]
160	2.4.2.6.3	SVX	CDF Physicist[0.5]
161	2.4.2.6.4	Muons	CDF Physicist[0.5]
162	**2.4.2.7**	**Verification with Run I constants**	
163	2.4.2.7.1	Table definition (CTC)	CDF Physicist[0.25]
164	2.4.2.7.2	Integration	CDF Physicist[0.25]
165	2.4.2.7.3	Verified	4/2

ID	WBS	Task Name
166	**2.4.2.8**	**Calibration Hooks**
167	2.4.2.8.1	Reconstruction
168	2.4.2.8.2	L3
169	2.4.2.8.3	Spring Release
170	2.4.2.9	Integration/Development
171	2.4.2.10	Web based fetch
172	**2.4.3**	**Conditions Databases**
173	2.4.3.1	Development
174	2.4.3.2	Trigger
175	2.4.3.3	Detector Conditions
176	2.4.3.4	Luminosity
177	2.4.3.5	Beams
178	**2.4.3.6**	**Alignment**
179	2.4.3.6.1	Develop Algorithms
180	2.4.3.6.2	Implement
181	2.4.3.6.3	COT
182	2.4.3.6.4	SVX
183	2.4.3.6.5	Muons
184	2.4.3.6.6	CES
185	**2.4.3.7**	**Constants**
186	2.4.3.7.1	Develop Algorithms
187	2.4.3.7.2	Implement
188	2.4.3.7.3	COT
189	2.4.3.7.4	SVX
190	2.4.3.7.5	Muons
191	**2.5**	**Event Display**
192	2.5.1	Develop Proposal
193	2.5.2	ROOT SVX/COT prototype
194	2.5.3	OI SVX prototype in AC++
195	2.5.4	Platform Design
196	2.5.5	First Release
197	2.5.6	Platform maintenance
198	**2.5.7**	**Integrate Plug-Ins**

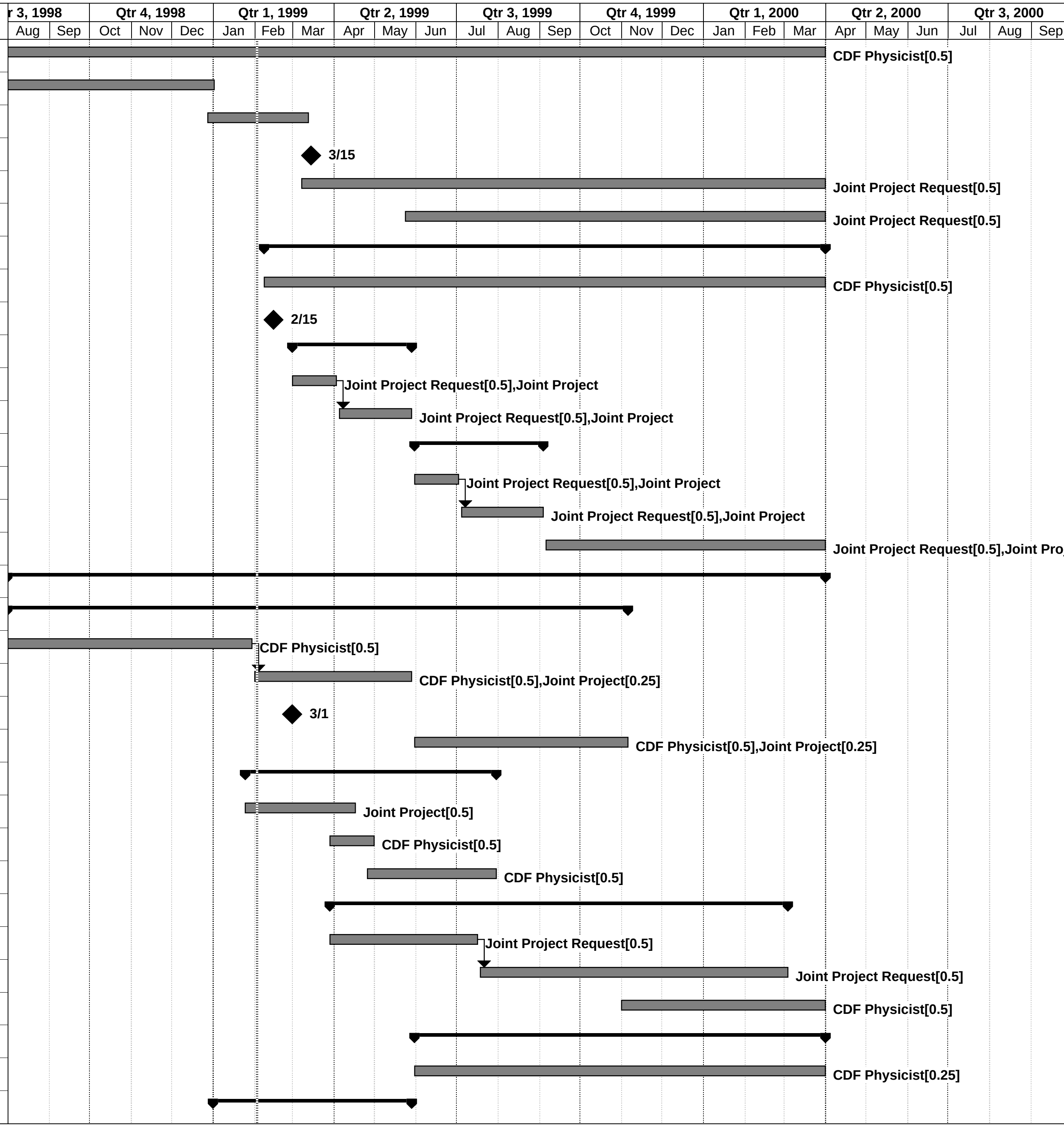


ID	WBS	Task Name	Resources
199	2.5.7.1	COT	CDF Physicist[0.25]
200	2.5.7.2	SVX	CDF Physicist[0.25]
201	2.5.7.3	Muons	CDF Physicist[0.25]
202	2.5.7.4	Central Cal	CDF Physicist[0.25]
203	2.5.7.5	Plug Cal	CDF Physicist[0.25]
204	**2.6**	**Code and Configuration Management**	
205	**2.6.1**	**Release Management**	
206	2.6.1.1	CVS Repository management	CDF Physicist[0.5],Joint Project[0.5]
207	2.6.1.2	SoftRelTools	
208	2.6.1.3	Continuing Offline Reorganization	
209	2.6.1.4	Creation of frozen releases	
210	2.6.1.5	New Flavors	
211	**2.6.2**	**Distribution Management**	
212	2.6.2.1	Field Support	Joint Project
213	2.6.2.2	UPS,UPD, roll into IRIX	
214	2.6.2.3	User Access and Registration	
215	2.6.2.4	New Flavors	
216	**2.6.3**	**Validation Management**	
217	2.6.3.1	Validation of Frozen Releases	CDF Physicist[0.5]
218	2.6.3.2	Daily Error Reporting	
219	2.6.3.3	Improve depth of checking	CDF Physicist
220	2.6.3.4	New Flavors	
221	**2.7**	**Analysis Framework**	
222	2.7.1	Generally	CDF Physicist[0.5],Joint Project Req
223	**2.7.2**	**FrameMods**	
224	2.7.2.1	F77Interface	
225	2.7.2.2	APPFileInputModule	
226	2.7.2.3	APPDataSetInputModeule	
227	2.7.2.4	APPGenInputModule	
228	2.7.2.5	APPLevel3InputModule	
229	**2.7.2.6**	**APPFileOutputModule**	
230	2.7.2.6.1	Bank List Control	
231	2.7.2.6.2	Connection to Filters	

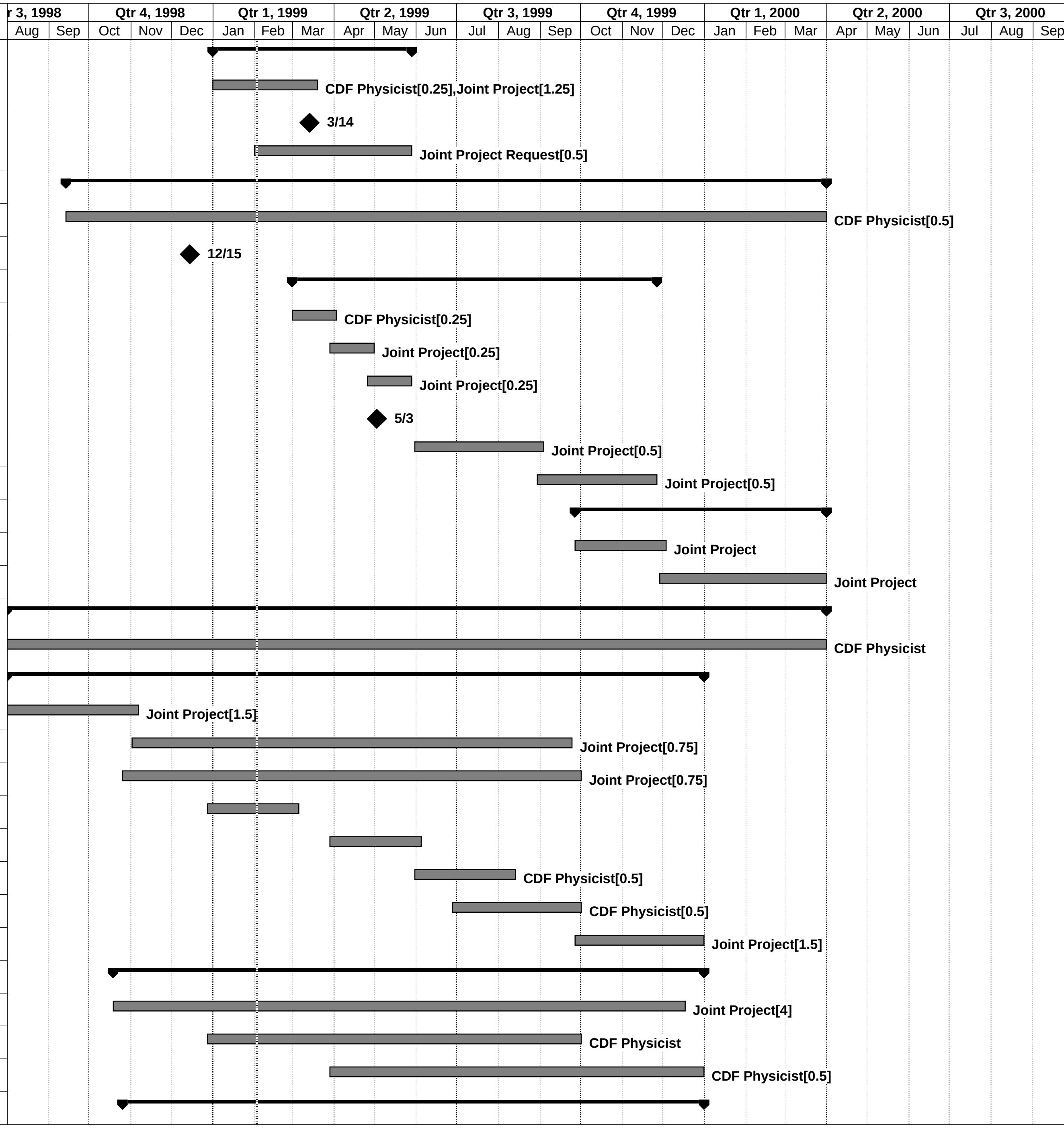
ID	WBS	Task Name
232	2.7.2.7	APPVegasInputModule
233	2.7.2.8	APPMixInputModule
234	**2.7.3**	**Utility Modules**
235	2.7.3.1	InitModule
236	2.7.3.2	Framework Bank Dump
237	2.7.3.3	Error Logger
238	2.7.3.4	Calibration Manager
239	2.7.3.5	GeometryManager
240	2.7.3.6	Histogram Manager
241	**2.7.4**	**MenuHandler**
242	2.7.4.1	Basic classes implemented
243	**2.7.4.2**	**Interpreter Interface**
244	2.7.4.2.1	GUI
245	**2.7.5**	**Filtering**
246	2.7.5.1	enable/disable by path
247	2.7.5.2	connect path<-->stream
248	2.7.5.3	statistics
249	2.7.6	Run-time Module cloning
250	2.7.7	Begin-run Begin-File behaviour
251	2.7.8	Processing statistics
252	2.7.9	Persistant Processing History
253	2.7.10	Automatic optional logging of Absparm
254	**2.7.11**	**Histograms**
255	2.7.11.1	ntuple example
256	2.7.11.2	Fortran API implemented
257	**2.8**	**Data Handling**
258	**2.8.1**	**Milestones**
259	2.8.1.1	October Demonstration
260	2.8.1.2	Analysis Prototype available
261	2.8.1.3	Mock Data Challenge
262	2.8.1.4	First Data
263	**2.8.2**	**Resource Management**
264	**2.8.2.1**	**Batch System**



ID	WBS	Task Name
265	2.8.2.1.1	Management
266	2.8.2.1.2	Prototype
267	2.8.2.1.3	Batch Requirements
268	2.8.2.1.4	Choose Batch implementation
269	2.8.2.1.5	Batch Customization
270	2.8.2.1.6	Batch Integration
271	**2.8.2.2**	**Disk Inventory Manager**
272	2.8.2.2.1	Management
273	2.8.2.2.2	Hire CP
274	**2.8.2.2.3**	**Basic**
275	2.8.2.2.3.1	Design
276	2.8.2.2.3.2	Code and Debug
277	**2.8.2.2.4**	**Full version**
278	2.8.2.2.4.1	Design
279	2.8.2.2.4.2	Code and Debug
280	2.8.2.2.5	Integration
281	**2.8.3**	**CDF Data Catalog**
282	**2.8.3.1**	**Tables**
283	2.8.3.1.1	Finalize Tables
284	2.8.3.1.2	Oracle Implementation
285	2.8.3.1.3	Usable version
286	2.8.3.1.4	Backup/restore
287	**2.8.3.2**	**I/O**
288	2.8.3.2.1	Design
289	2.8.3.2.2	Link to AC++ input module
290	2.8.3.2.3	Link to AC++ output module
291	**2.8.3.3**	**Data Catalog Browser**
292	2.8.3.3.1	Prototype
293	2.8.3.3.2	Web and GUI interface
294	**2.8.3.4**	**Integration**
295	**2.8.3.5**	**Operations and Maintenance**
296	2.8.3.5.1	General Support
297	**2.8.4**	**Mass Storage**



ID	WBS	Task Name
298	**2.8.4.1**	**Tape systems**
299	2.8.4.1.1	Serial Media Working Group
300	2.8.4.1.2	First Serial Media RFP
301	2.8.4.1.3	Tape software(OCS, mt-tools, FTT, daemon)
302	**2.8.5**	**Analysis Systems**
303	2.8.5.1	Management
304	2.8.5.2	Technical Approval
305	**2.8.5.3**	**Protype Node**
306	2.8.5.3.1	Install CDF environment
307	2.8.5.3.2	Fileserver Commission
308	2.8.5.3.3	Other hardware integration
309	2.8.5.3.4	Analysis Ready
310	2.8.5.3.5	Basic Data Use
311	2.8.5.3.6	Full DH Software Use
312	**2.8.5.4**	**First Run II Node**
313	2.8.5.4.1	Commission and Test
314	2.8.5.4.2	Full Run II Analysis
315	**2.9**	**Production Systems (Farms)**
316	2.9.1	Management
317	**2.9.2**	**Hardware prototype**
318	2.9.2.1	Establish
319	2.9.2.2	Maintain
320	2.9.2.3	Connectivity
321	2.9.2.4	Specify I/O hardware
322	2.9.2.5	Specify Worker Node Acquisition
323	2.9.2.6	Integrate tape I/O
324	2.9.2.7	Integrate farms + I/O control
325	2.9.2.8	Integration of worker nodes
326	**2.9.3**	**Farm Control**
327	2.9.3.1	Establish/Run/Maintain FBS
328	2.9.3.2	I/O Control within farm
329	2.9.3.3	Output control code
330	**2.9.4**	**CDF production**



ID	WBS	Task Name	
331	2.9.4.1	Run CDF Production Executable	CDF Physicist
332	2.9.4.2	Multiple Executable with FBS	CDF Physicist
333	2.9.4.3	Farms Executable prototype	
334	2.9.4.4	Calibration acces	CDF Physicist[0.25]
335	2.9.4.5	Trigger DB access	CDF Physicist[0.25]
336	2.9.4.6	CDF catalog access	CDF Physicist[0.25]
337	2.9.4.7	Prototype version	CDF Physicist
338	2.9.4.8	First release	CDF Physicist
339	2.9.4.9	Monte carlo production	
340	2.9.4.10	Mock data challenge	10/15
341	**2.10**	**Event Generators**	
342	2.10.1	generally	CDF Physicist[2]
343	2.10.2	StdHep to HEPG (Fortran)	Joint Project[0.2]
344	2.10.3	Fakev	
345	2.10.4	Isajet	
346	2.10.5	Herwig	
347	2.10.6	Pythia	
348	2.10.7	MBR	
349	2.10.8	Vecbos	
350	2.10.9	DyRad	
351	2.10.10	Bgenerator	
352	2.10.11	QQ	
353	2.10.12	Event Mixing	
354	2.10.13	Herprt	
355	**2.11**	**Detector Simulation**	
356	**2.11.1**	**Infrastructure**	
357	2.11.1.1	Generally	Joint Project Potential
358	2.11.1.2	Random Numbers	
359	2.11.1.3	Geometry database	
360	2.11.1.4	Physics Param Tools	
361	2.11.1.5	Track Embedding	
362	**2.11.2**	**Calorimeter**	
363	**2.11.2.1**	**user interface**	

ID	WBS	Task Name	Resource
364	2.11.2.1.1	talk to	
365	**2.11.2.2**	**I/O**	
366	2.11.2.2.1	CESE made	
367	2.11.2.2.2	CPRD made Run 1 format)	
368	2.11.2.2.3	cprd move to Run2 format	
369	2.11.2.2.4	PPRD made	
370	2.11.2.2.5	PESE made	
371	2.11.2.2.6	D banks for Trigger Simulation	
372	**2.11.2.3**	**GFLASH**	
373	2.11.2.3.1	generally	**CDF Physicist[0.5]**
374	2.11.2.3.2	integrate into Run II environment	
375	2.11.2.3.3	validation	
376	2.11.2.3.4	Cental EM scale	
377	2.11.2.3.5	Central Hadron Tuned (high energy)	
378	2.11.2.3.6	Plug EM tuned	
379	2.11.2.3.7	Plug Hadron Tuned (High Energy)	
380	**2.11.2.4**	**QFL**	
381	2.11.2.4.1	Cental EM scale	
382	2.11.2.4.2	Central Hadron Tuned (high energy)	
383	2.11.2.4.3	Plug EM tuned	
384	2.11.2.4.4	Plug Hadron Tuned (High Energy)	
385	2.11.2.5	Detailed central, plug in Geant module	**CDF Physicist[0.5]**
386	**2.11.2.6**	**Geometry**	
387	2.11.2.6.1	Update geom to DetectorModel	
388	**2.11.3**	**Central Muons**	
389	2.11.3.1	generally	**CDF Physicist[0.4]**
390	2.11.3.2	Muon Steel Geometry	
391	2.11.3.3	Magnetic Field tuned	
392	2.11.3.4	Validate Stub quality	
393	2.11.3.5	Test track-stub matching	
394	2.11.3.6	Update geom to DetectorModel	
395	**2.11.4**	**Intermediate Muons**	
396	2.11.4.1	generally	**CDF Physicist[0.5]**

ID	WBS	Task Name	Gantt chart
397	2.11.4.2	Magnetic Field Map	
398	2.11.4.3	Study Stub quality	
399	2.11.4.4	Move geometry to C++	
400	**2.11.5**	**Silicon**	
401	2.11.5.1	generally	CDF Physicist
402	**2.11.5.2**	**User interface**	
403	2.11.5.2.1	Talk-to submenu	
404	**2.11.5.3**	**signal simulation**	
405	2.11.5.3.1	Tune cluster widths(Run1 cluster sim)	
406	2.11.5.3.2	Add noise	
407	2.11.5.3.3	Z-clusters	
408	**2.11.5.4**	**Geometry**	
409	2.11.5.4.1	Update geom to DetectorModel	
410	2.11.5.4.2	Interface to Geometry DB	
411	2.11.5.4.3	misalignment hooks	
412	**2.11.5.5**	**I/O**	
413	2.11.5.5.1	MSVX bank creation	
414	**2.11.6**	**COT**	
415	2.11.6.1	generally	CDF Physicist[0.5]
416	**2.11.6.2**	**user interface**	
417	2.11.6.2.1	talk-to	
418	**2.11.6.3**	**Signal simulation**	
419	2.11.6.3.1	Model hit resolution	
420	2.11.6.3.2	Add afterpulsing	
421	2.11.6.3.3	Add noise	
422	2.11.6.3.4	dedx	
423	2.11.6.3.5	Improve drift model	
424	**2.11.6.4**	**Geometry**	
425	2.11.6.4.1	Put correct material in active COT	
426	2.11.6.4.2	wire sag	
427	2.11.6.4.3	outer cylinder	
428	2.11.6.4.4	interface to Geom DB	
429	2.11.6.4.5	unified geometry	

Timeline: r 3, 1998 (Aug, Sep) | Qtr 4, 1998 (Oct, Nov, Dec) | Qtr 1, 1999 (Jan, Feb, Mar) | Qtr 2, 1999 (Apr, May, Jun) | Qtr 3, 1999 (Jul, Aug, Sep) | Qtr 4, 1999 (Oct, Nov, Dec) | Qtr 1, 2000 (Jan, Feb, Mar) | Qtr 2, 2000 (Apr, May, Jun) | Qtr 3, 2000 (Jul, Aug, Sep)

ID	WBS	Task Name
430	2.11.6.4.6	misalignment hooks
431	2.11.6.5	Add wire sag
432	**2.11.7**	**Run 1 Tracking Simulation**
433	2.11.7.1	Svx' geometry
434	2.11.7.2	CTC geometry
435	2.11.7.3	SVX' hit generation
436	2.11.7.4	CTC hit generation
437	2.11.7.5	B-->Psi studies
438	**2.11.8**	**Validation**
439	2.11.8.1	Validation
440	**2.11.9**	**Documentation**
441	2.11.9.1	Geometry Classes
442	2.11.9.2	Users Guide
443	2.11.9.3	Validation note: Calorimeter
444	2.11.9.4	Validation note: Run 1 Tracking
445	2.11.9.5	Validation note: Central Muons
446	2.11.9.6	Performance note: Run 2 Tracking
447	**2.12**	**Trigger Simulation**
448	2.12.1	Management
449	2.12.2	XFTsim
450	2.12.3	SVTsim
451	2.12.4	Calsim
452	2.12.5	Cmusim
453	2.12.6	Parser
454	2.12.7	Database Access
455	2.12.8	Validation
456	**2.13**	**Documentation and Training**
457	2.13.1	Coding Standards
458	2.13.2	Infrastructure
459	2.13.3	Documentation