

The screenshot displays the Wind River System Viewer application. The top menu bar includes File, Edit, Navigate, Search, Project, Analyze, Run, System Viewer, Window, and Help. Below the menu is a toolbar with various icons for file operations, navigation, and analysis.

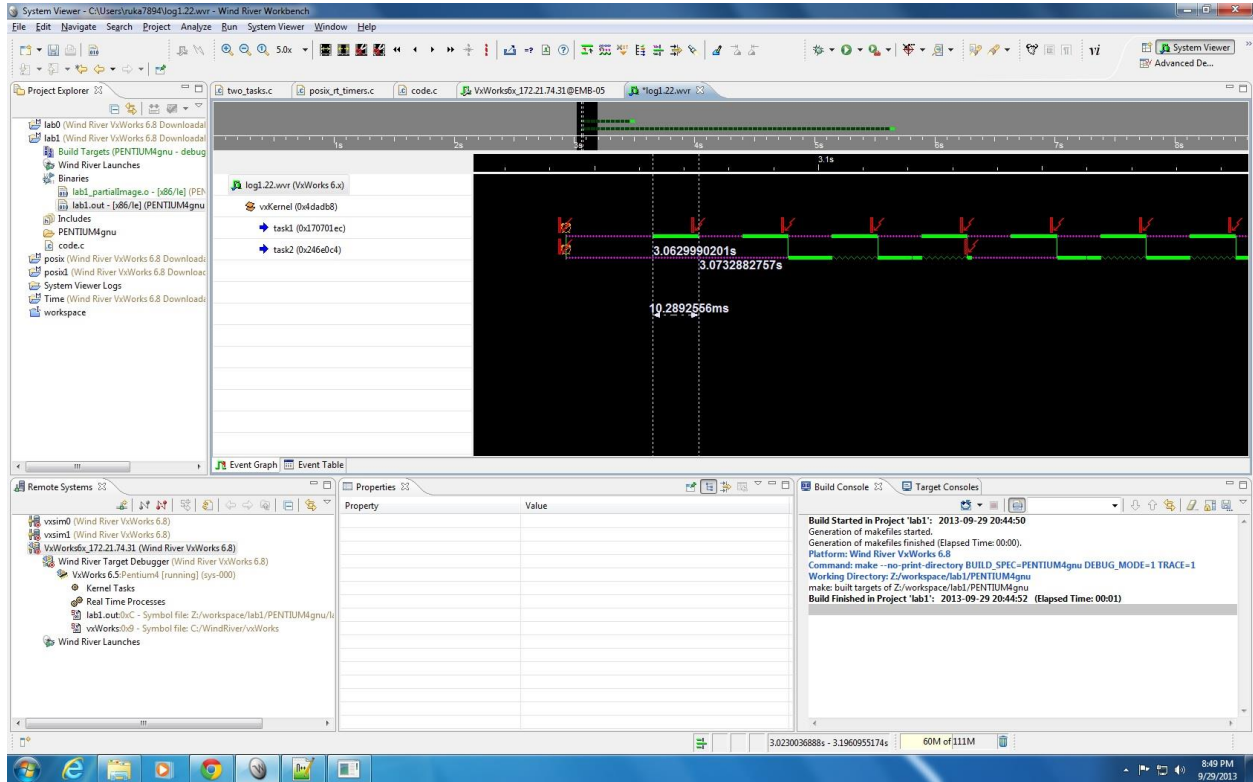
The main interface is divided into several panes:

- Project Explorer (Left):** Shows a hierarchical view of the project structure. The selected project is 'lab1' (Wind River VxWorks 6.8 Download). Under 'lab1', there are sub-items like 'Build Targets (PENTIUM4gnu - debug)', 'Wind River Launches', 'lab1_partialimage.o - [x86/le] (PE)', 'lab1.out - [x86/le] (PENTIUM4gnu)', 'Includes', 'PENTIUM4gnu', 'code.c', 'posix (Wind River VxWorks 6.8 Download)', 'posixd (Wind River VxWorks 6.8 Download)', 'System Viewer Logs', 'Time (Wind River VxWorks 6.8 Download)', and 'workspace'.
- Timeline View (Center):** Displays a graphical representation of system events over time. The timeline shows a sequence of tasks: 'log1.22.wvr (VxWorks 6.x)', 'vxKernel (0x4da9b8)', 'task1 (0x170701ec)', and 'task2 (0x246e0c4)'. The tasks are represented by horizontal bars with red checkmarks indicating completion or specific events. The timeline is marked with time values: 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, 10s, 11s, 12s, 13s, 14s, 15s, 16s, 17s, 18s, 19s, 20s, 21s, 22s, 23s, 24s, 25s, 26s, 27s, 28s, 29s, 30s, 31s, 32s, 33s, 34s, 35s, 36s, 37s, 38s, 39s, 40s, 41s, 42s, 43s, 44s, 45s, 46s, 47s, 48s, 49s, 50s, 51s, 52s, 53s, 54s, 55s, 56s, 57s, 58s, 59s, 60s, 61s, 62s, 63s, 64s, 65s, 66s, 67s, 68s, 69s, 70s, 71s, 72s, 73s, 74s, 75s, 76s, 77s, 78s, 79s, 80s, 81s, 82s, 83s, 84s, 85s, 86s, 87s, 88s, 89s, 90s, 91s, 92s, 93s, 94s, 95s, 96s, 97s, 98s, 99s, 100s, 101s, 102s, 103s, 104s, 105s, 106s, 107s, 108s, 109s, 110s, 111s, 112s, 113s, 114s, 115s, 116s, 117s, 118s, 119s, 120s, 121s, 122s, 123s, 124s, 125s, 126s, 127s, 128s, 129s, 130s, 131s, 132s, 133s, 134s, 135s, 136s, 137s, 138s, 139s, 140s, 141s, 142s, 143s, 144s, 145s, 146s, 147s, 148s, 149s, 150s, 151s, 152s, 153s, 154s, 155s, 156s, 157s, 158s, 159s, 160s, 161s, 162s, 163s, 164s, 165s, 166s, 167s, 168s, 169s, 170s, 171s, 172s, 173s, 174s, 175s, 176s, 177s, 178s, 179s, 180s, 181s, 182s, 183s, 184s, 185s, 186s, 187s, 188s, 189s, 190s, 191s, 192s, 193s, 194s, 195s, 196s, 197s, 198s, 199s, 200s, 201s, 202s, 203s, 204s, 205s, 206s, 207s, 208s, 209s, 210s, 211s, 212s, 213s, 214s, 215s, 216s, 217s, 218s, 219s, 220s, 221s, 222s, 223s, 224s, 225s, 226s, 227s, 228s, 229s, 230s, 231s, 232s, 233s, 234s, 235s, 236s, 237s, 238s, 239s, 240s, 241s, 242s, 243s, 244s, 245s, 246s, 247s, 248s, 249s, 250s, 251s, 252s, 253s, 254s, 255s, 256s, 257s, 258s, 259s, 260s, 261s, 262s, 263s, 264s, 265s, 266s, 267s, 268s, 269s, 270s, 271s, 272s, 273s, 274s, 275s, 276s, 277s, 278s, 279s, 280s, 281s, 282s, 283s, 284s, 285s, 286s, 287s, 288s, 289s, 290s, 291s, 292s, 293s, 294s, 295s, 296s, 297s, 298s, 299s, 300s, 301s, 302s, 303s, 304s, 305s, 306s, 307s, 308s, 309s, 310s, 311s, 312s, 313s, 314s, 315s, 316s, 317s, 318s, 319s, 320s, 321s, 322s, 323s, 324s, 325s, 326s, 327s, 328s, 329s, 330s, 331s, 332s, 333s, 334s, 335s, 336s, 337s, 338s, 339s, 340s, 341s, 342s, 343s, 344s, 345s, 346s, 347s, 348s, 349s, 350s, 351s, 352s, 353s, 354s, 355s, 356s, 357s, 358s, 359s, 360s, 361s, 362s, 363s, 364s, 365s, 366s, 367s, 368s, 369s, 370s, 371s, 372s, 373s, 374s, 375s, 376s, 377s, 378s, 379s, 380s, 381s, 382s, 383s, 384s, 385s, 386s, 387s, 388s, 389s, 390s, 391s, 392s, 393s, 394s, 395s, 396s, 397s, 398s, 399s, 400s, 401s, 402s, 403s, 404s, 405s, 406s, 407s, 408s, 409s, 410s, 411s, 412s, 413s, 414s, 415s, 416s, 417s, 418s, 419s, 420s, 421s, 422s, 423s, 424s, 425s, 426s, 427s, 428s, 429s, 430s, 431s, 432s, 433s, 434s, 435s, 436s, 437s, 438s, 439s, 440s, 441s, 442s, 443s, 444s, 445s, 446s, 447s, 448s, 449s, 450s, 451s, 452s, 453s, 454s, 455s, 456s, 457s, 458s, 459s, 460s, 461s, 462s, 463s, 464s, 465s, 466s, 467s, 468s, 469s, 470s, 471s, 472s, 473s, 474s, 475s, 476s, 477s, 478s, 479s, 480s, 481s, 482s, 483s, 484s, 485s, 486s, 487s, 488s, 489s, 490s, 491s, 492s, 493s, 494s, 495s, 496s, 497s, 498s, 499s, 500s, 501s, 502s, 503s, 504s, 505s, 506s, 507s, 508s, 509s, 510s, 511s, 512s, 513s, 514s, 515s, 516s, 517s, 518s, 519s, 520s, 521s, 522s, 523s, 524s, 525s, 526s, 527s, 528s, 529s, 530s, 531s, 532s, 533s, 534s, 535s, 536s, 537s, 538s, 539s, 540s, 541s, 542s, 543s, 544s, 545s, 546s, 547s, 548s, 549s, 550s, 551s, 552s, 553s, 554s, 555s, 556s, 557s, 558s, 559s, 560s, 561s, 562s, 563s, 564s, 565s, 566s, 567s, 568s, 569s, 570s, 571s, 572s, 573s, 574s, 575s, 576s, 577s, 578s, 579s, 580s, 581s, 582s, 583s, 584s, 585s, 586s, 587s, 588s, 589s, 590s, 591s, 592s, 593s, 594s, 595s, 596s, 597s, 598s, 599s, 600s, 601s, 602s, 603s, 604s, 605s, 606s, 607s, 608s, 609s, 610s, 611s, 612s, 613s, 614s, 615s, 616s, 617s, 618s, 619s, 620s, 621s, 622s, 623s, 624s, 625s, 626s, 627s, 628s, 629s, 630s, 631s, 632s, 633s, 634s, 635s,

Q3).

Terms needed for 10ms computational time: 2498162

Terms needed for 20ms computational time: 4898459

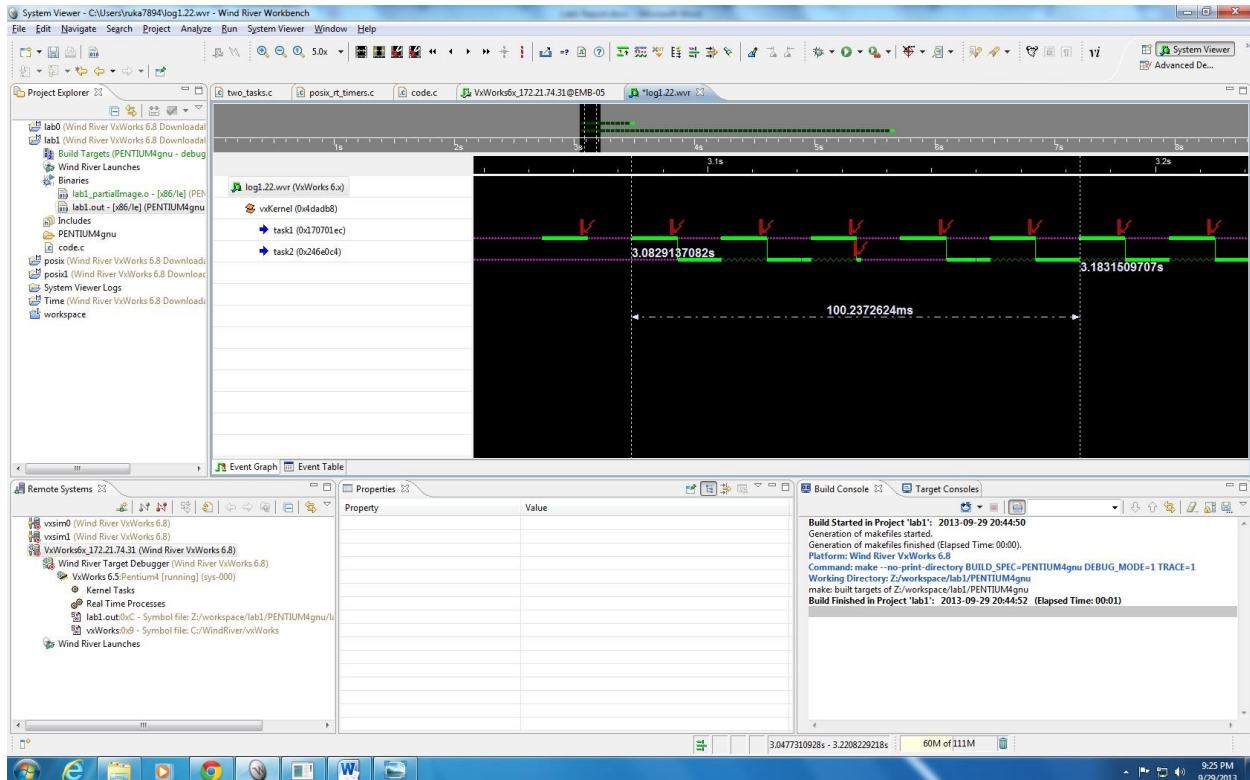


Q4).

Yes, the system is feasible. According to the Lehockzy Shah and Ding theorem, this task set is feasible if it shown to be feasible with RM policy over the LCM of the two periods (20ms and 50ms; LCM = 100ms). According to the system viewer plot, the system was shown to be feasible over a time of 100ms.

Q5).

The following screenshot shows that the system is feasible:



LAB 1 Sign Off Sheet ECEN 4/5623

Name: Rutvij Karkhanis

4623 / 5623 (Circle One)

Question 1:

a) Student's understanding of POSIX Timers

☒ Average ☐ Good ☐ Excellent

b) Student's demonstration of POSIX timer with at least 10ms resolution.

☐ Average ☒ Good ☐ Excellent

c) Student's demo of System View Trace

☐ Average ☒ Good ☐ Excellent

Question 2:

a) Fibonacci Code Functioning

☐ Average ☒ Good ☐ Excellent

Question 3:

a) Fibonacci Sequence for 10 ms _____ at Target _____

b) Fibonacci Sequence for 20 ms _____ at Target _____

} Not shown.

Question 4:

a) Task Implementation for 10ms and 20ms using Lehockzy, Shah, and Ding Theorem

☐ Average ☒ Good ☐ Excellent

(No screenshot?)

Question 5:

a) Demonstration of the above question through system viewer.

☒ Average ☐ Good ☐ Excellent

Comments: Did not understand the flow from when the timer expires to the signal handler call.

Signature: [Signature]

→ System viewer trace not shown.

Date: 09/29/2013

→ Student was partially correct with the explanation of ~~synchroniz~~ schedulability for the two tasks

→ Correct trace shown after 90 minutes on the second attempt.

[Signature]