

9.3	.....	67	15.2	.....	101
9.4	.....	68	15.3	.....	103
9.5	.....	68	15.4	.....	105
9.6	.....	69	15.5	.....	105
9.7	.....	70	15.6	.....	108
	.....	70		.....	109
	.....	71		.....	110
	.....	71		.....	110
10	.....	73	16	.....	111
10.1	.....	73	16.1	/	111
10.2	.....	75	16.2	.....	113
10.3	.....	76	16.3	.....	114
10.4	.....	76	16.4	.....	114
10.5	.....	77	16.5	.....	115
10.6 Linux	.....	79	16.6	.....	115
10.7	.....	79	16.7	.....	117
	.....	79		.....	117
11 CPU	.....	81		.....	118
12	.....	83		.....	119
13	.....	85	17	.....	120
13.1	.....	85	17.1	.....	120
13.2	.....	85	17.2	.....	121
13.3	.....	86	17.3	.....	126
13.4	.....	87	17.4	.....	128
13.5	.....	89	17.5	.....	130
	.....	89		.....	130
14 API	.....	91		.....	131
14.1	.....	91		.....	131
14.2 malloc()	.....	92	18	.....	132
14.3 free()	.....	93	18.1	.....	132
14.4	.....	93	18.2	.....	134
14.5	.....	96	18.3	.....	135
14.6	.....	97	18.4	.....	136
14.7	.....	97	18.5	.....	137
	.....	97	18.6	.....	139
	.....	97		.....	139
	.....	98		.....	140
	.....	98		.....	140
15	.....	100	19 TLB	.....	142
15.1	.....	101	19.1 TLB	.....	142

.....	218
28	219
28.1	219
28.2 Pthread	220
28.3	220
28.4	220
28.5	221
28.6	222
28.7	223
28.8	225
28.9	225
28.10	226
28.11	228
28.12	229
28.13	229
28.14	230
28.15	232
28.16	233
28.17	233
.....	233
.....	235
.....	235
29	237
29.1	237
29.2	241
29.3	244
29.4	245
29.5	246
.....	247
30	249
30.1	250
30.2 /	252

3

35	302
36 I/O	303
36.1	303
36.2	304

30.3	260
30.4	261
.....	261
31	263
31.1	263
31.2	264
31.3	266
31.4 /	268
31.5	271
31.6	273
31.7	275
31.8	276
.....	276
32	279
32.1	279
32.2	280
32.3	282
32.4	288
.....	289
33	291
33.1	291
33.2 API select() poll()	292
33.3 select()	293
33.4	294
33.5	294
33.6 I/O	294
33.7	296
33.8	297
33.9	298
.....	298
34	300

36.3	304
36.4 CPU	305
36.5 DMA	306

36.6	.....	307	39.8	.....	348
36.7	.....	307	39.9	.....	349
36.8	IDE		39.10	.....	349
	.....	309	39.11	.....	350
36.9	.....	311	39.12	.....	351
36.10	.....	311	39.13	.....	351
	.....	312	39.14	.....	353
37	.....	314	39.15	.....	354
37.1	.....	314	39.16	.....	355
37.2	.....	314		.....	355
37.3	.....	315		.....	356
37.4	I/O	318		.....	356
37.5	.....	320	40	.....	357
37.6	.....	323	40.1	.....	357
	.....	323	40.2	.....	358
	.....	324	40.3	inode	359
	.....	324	40.4	.....	363
38	RAID	326	40.5	.....	364
38.1	RAID	327	40.6	.....	364
38.2	.....	327	40.7	.....	367
38.3	RAID	328	40.8	.....	369
38.4	RAID 0	328		.....	369
38.5	RAID 1	331		.....	370
38.6	RAID 4			.....	371
	.....	333	41	.....	372
38.7	RAID 5	336	41.1	.....	372
38.8	RAID	337	41.2	FFS	373
38.9	RAID	338	41.3	.....	373
38.10	.....	338	41.4	.....	374
	.....	339	41.5	.....	375
	.....	340	41.6	.....	376
	.....	340	41.7	FFS	377
39	.....	342	41.8	.....	378
39.1	.....	342		.....	378
39.2	.....	343	42	FSCK	380
39.3	.....	343	42.1	.....	380
39.4	.....	344	42.2	1	
39.5	.....	346		.....	383
39.6	fsync()	346	42.3	2	
39.7	.....	347		.....	384

42.4	3	.....	392		.....	429
42.5		.....	393	48	Sun	NFS ... 430
		.....	393	48.1		..... 430
43		.....	395	48.2	NFS	..... 431
43.1		.....	396	48.3		..... 431
43.2		.....	396	48.4		.... 432
43.3		.....	397	48.5	NFSv2	..... 433
43.4	inode	.....	398	48.6		..... 434
43.5	inode	..	398	48.7		.... 435
43.6		.....	399	48.8		..... 437
43.7		.....	400	48.9		..... 437
43.8		.....	400	48.10	NFS	..... 439
43.9		.....	401	48.11		..... 439
43.10		.....	402	48.12		..... 440
43.11		.....	403			..... 440
43.12		.....	403	49	Andrew	AFS ... 442
43.13		.....	404	49.1	AFS 1	..... 442
		.....	404	49.2	1	..... 443
44		.....	407	49.3		..... 444
44.1		.....	407	49.4	AFS 2	..... 444
44.2		.....	409	49.5		..... 446
44.3		.....	409	49.6		..... 447
44.4		.....	412	49.7	AFSv2	..... 448
44.5		.....	412	49.8	AFS	..... 450
44.6		.....	413	49.9		..... 450
44.7		.....	413			..... 451
44.8		.....	414			..... 452
44.9		.....	414			..... 452
		.....	414	50		..... 453
45		.....	417	A		..... 454
46		.....	418	B		..... 455
47		.....	419	C		..... 466
47.1		.....	420	D		..... 467
47.2		.....	420	E		..... 468
47.3		.....	422	F		..... 478
47.4		.....	424	G	xv6	..... 480
47.5	RPC	.....	425			
47.6		.....	428			