

Table 1: The detailed information of the patch dataset. In column 4 and column 8, “Benign” represents that the patch fixes the bug correctly, and “Faulty” represents that the patch fixes the bug incompletely or introduces a new bug.

Patch ID	Commit	Position	Type	Patch ID	Commit	Position	Type
1	3f2db250099f	net/sched/cls_tcindex.c:309	Benign	32	83e197a8414c	sound/core/seq/seq_timer.c:300	Benign
2	c9a2f90f4d6b	drivers/block/nbd.c:2006	Benign	33	ed8157f1ebf1	net/sched/sch_taprio.c:919	Benign
3	b1a811633f73	drivers/block/nbd.c:1809	Benign	34	95fa145479fb	net/tls/tls_main.c:868	Faulty
4	2fd10bcf0310	drivers/misc/vmw_vmci/vmci_queue_pair.c:542	Benign	35	d966ddcc3821	net/tipc/core.c:62	Faulty
5	b648eba4c69e	drivers/net/bonding/bond_main.c:434	Benign	36	411cef6adfb3	sound/core/oss/mixer_oss.c:316	Faulty
6	20aaef52eb08	drivers/scsi/scsi_ioctl.c:350	Benign	37	44d4775ca518	net/sched/sch_taprio.c:1625	Faulty
7	3b0c40612471	drivers/tty/vt/vt.c:1239	Benign	38	cf89af146b7e	fs/btrfs/volumes.c:1073	Faulty
8	ffb324e6f874	drivers/video/fbdev/core/fbcon.c:2068	Benign	39	48bb5697269a	net/ipv6/ip6_tunnel.c:1928	Faulty
9	01faae5193d6	drivers/video/fbdev/core/fbcon.c:1336	Benign	40	11c514a99bb9	fs/ext4/super.c:6384	Faulty
10	b2a616676839	fs/btrfs/volumes.c:1063	Benign	41	fdeba99b1e58	net/tipc/core.c:111	Faulty
11	4013d47a5307	fs/ext4/super.c:6893	Benign	42	304e024216a8	net/sched/cls_tcindex.c:154	Faulty
12	990e78116d38	drivers/block/loop.c:1726	Benign	43	07e6124a1a46	drivers/tty/tty_ioctl.c:136	Faulty
13	6b22489911b7	fs/ext4/xattr.c:2389	Benign	44	301428ea3708	net/smc/af_smc.c:709	Faulty
14	f671a691e299	fs/fcntl.c:154	Benign	45	730c5fd42c1e	net/rxrpc/local_object.c:403	Faulty
15	bda9a71980e0	fs/fuse/dir.c:1157	Benign	46	3c8fc8782044	net/ipv4/inet_fragment.c:164	Faulty
16	d5bf630f355d	fs/gfs2/util.c:123	Benign	47	0fedc63fadf0	net/sched/act_api.c:1008	Faulty
17	9b91b6b019fd	fs/overlayfs/file.c:437	Benign	48	fd1894224407	net/core/dev.c:4168	Faulty
18	eabac19e40c0	fs/squashfs/export.c:50	Benign	49	58acd1009226	net/sctp/auth.c:863	Faulty
19	d6e621de1fce	fs/squashfs/file.c:216	Benign	50	3f2893d3c142	net/bluetooth/mgmt.c:8936	Faulty
20	9913d5745bd7	kernel/tracepoint.c:340	Benign	51	c8713d0b2312	mm/memcontrol.c:1363	Faulty
21	6f68cd634856	net/batman-adv/main.c:193	Benign	52	341adeec9ada	net/smc/af_smc.c:677	Faulty
22	0ee4d55534f8	net/mac80211/ieee80211_i.h:1527	Benign	53	1fc70edb7d7b	net/core/dev_addr_lists.c:638	Faulty
23	757fed1d0898	mm/slub.c:5939	Benign	54	e198987e7dd7	drivers/net/gtp.c:803	Faulty
24	8ca34a13f7f9	net/netlabel/netlabel_cipso_v4.c:188	Benign	55	089bca2caed0	drivers/net/bonding/bond_main.c:4298	Faulty
25	f123cffdd8fe	net/netlink/af_netlink.c:1855	Benign	56	309b66970ee2	net/openvswitch/vport-internal_dev.c:206	Faulty
26	093b036aa94e	net/qrtr/af_qrtr.c:446	Benign	57	16c243e99d33	drivers/dma-buf/udmabuf.c:225	Faulty
27	2a80c1581237	net/qrtr/tun.c:93	Benign	58	764f4eb6846f	net/llc/af_llc.c:314	Faulty
28	a11148e6fcce	net/rds/rdma.c:568	Benign	59	c47cc304990a	net/kcm/kcmsock.c:1069	Faulty
29	a56d447f196f	net/sched/sch_taprio.c:1656	Benign	60	c80a0c52d85c	drivers/infiniband/core/cma.c:2535	Faulty
30	560ee196fe9e	net/sched/sch_fifo.c:236	Benign	61	055895537302	fs/io_uring.c:6478	Faulty
31	1b5ab825d9ac	net/wireless/sme.c:532	Benign	62	6c08fc896b60	net/bluetooth/l2cap_sock.c:1204	Faulty

Table 2: The detailed information of the known bugs dataset.

bug ID	Syzbot bug id	Position	bug ID	Syzbot bug id	Position
1	24a275e91595279d28038eb72a64fe00143fd2a4	fs/squashfs/export.c:43	51	7988319f1caa70d683b9cb540b8b656f534caef7	kernel/bpf/verifier.c:14032
2	d524c1aac21f8ea2759b6314c2e48bfa230c38b0	net/rds/rdma.c:567	52	9fa98e04385363b08013093b659020d8dedae2ec	fs/hfs/bfind.c:76
3	1eb47c8b68c0b1e4dc380c47ef588c41a0bc9bab	drivers/block/nbd.c:2002	53	21b3a34a07ab87f239d7ac684966e99c9bc5065e	fs/ntfs3/dir.c:255
4	67d5dc5f84651b05fc3c2cb3d163037f414a10f4	net/qrtr/tun.c:82	54	aaa35b314220404bbc2b1c66067b0f9a623baa89	net/xfrm/xfrm_compat.c:571
5	08a86f0867ba0f092bf6ecbd6d5c2ae5e16a52d7	net/9p/client.c:1064	55	6ac17d26b59694aa04bc6b423d94b444349682a5	fs/btrfs/volumes.c:944
6	071122e4f772c1ec834c7a6facc0b5058d215481	drivers/gpu/drm/drm_fb_helper.c:766	56	c4fd25bc9502e9924e2b0850151cbbf707fb2c31	net/netlabel/netlabel_kapi.c:565
7	48090fb069d2795ca20ac914718d1715b61eab7	net/qrtr/tun.c:92	57	a25ae9cae4c5adffac5364e5f8aea4a098d01f41	fs/aio.c:2001
8	314363322bad3d7904518d203c03288ff2edbd17	drivers/misc/vmw_vmci/vmci_queue_pair.c:539	58	c7c63c2548579c7e4718d2f8bc079a6e152e4ac8	net/netfilter/nf_tables_api.c:7233
9	f7c5a86e747f9b7ce333e7295875cd4ede2c7a0d	xdp/xdp_umem.c:101	59	6d40ea5ee0f0513c07ec0967f0a350627e9cd773	ipc/mqueue.c:486
10	527a000e3a661da4fcb29f48baab94242b3cb2fb	kernel/bpf/btf.c:3897	60	d5ffb9da8352927dd8f17911b5e7ed9d75df89ff	net/rxrpc/local_object.c:225
11	15bf7d92374ccf44446d19de1fc0e11724b632a2	fs/gfs2/util.c:293	61	8d094d6bc5fba75ff8d065959e44152c39e58690	net/rxrpc/output.c:452
12	3045112ecd5a5f408058d95b2d216fc00cd14b74	net/mac80211/sta_info.c:485	62	6dc9ae7ccfcf2d2e5237d4e68f1c9f63e866d0ef	mm/madvise.c:213
13	2d08de6cbeceee7f4e7281025630ec004a924496	net/wireless/util.c:1047	63	a2be40e6b1f00c6ee2a9aeaaf1a7288c7fee50bd	fs/ntfs3/record.c:311
14	c54b440ca738afc4ba82c15ef998e5262a605773	net/wireless/sme.c:531	64	874c5bfa1234dceff000574388df68a8d08274ecd	fs/hfsplus/super.c:474
15	26567b12e74b8791e1db50da6039ee1705e5a7ed	drivers/video/fbdev/core/fbcon.c:1411	65	933dad9c03ac47a3d09dd4b0563a0a8fcb35f282	fs/ntfs/super.c:2894
16	08d09127d5fca845e6d94dea344c5b758bc45615	net/rxrpc/sendmsg.c:747	66	b4b6dad65d796de5a6ccb88adcaf073e297af4e2	fs/reiserfs/super.c:2082
17	59a8b2b621a7e8fb23ac85cd5f125f504cebfee9	drivers/video/fbdev/vga16fb.c:1175	67	34b3d29c783f19d70086206194da85e59c448167	net/netfilter/nft_ct.c:616
18	113d9a01cbe0af3e291633ba7a7a3e983b86c3c0	fs/btrfs/super.c:1722	68	891fc6743a5dd803220cefaf63f5fd49cce41e17	fs/squashfs/lzo_wrapper.c:81
19	41f4318cf01762389f4d1c1c459da4f542fe5153	kernel/trace/bpf_trace.c:2152	69	e6fe663a4b5df623751e8f8fb09560334ccf36da	fs/btrfs/volumes.c:1361
20	4e64527ff2975b1f21db4650b9bc5775c715bd77	fs/squashfs/file.c:242	70	16a7f16e9182bbfbd2142306a82a41d4debb670	fs/squashfs/inode.c:121
21	1ce224deef468aa150f36b7aef5144db9d83d43a	kernel/watch_queue.c:273	71	d8c00bae1644df59696f2d74d1955fd286691234	fs/reiserfs/xattr.c:1013
22	da3a527201079abb6c7baceb0394c4b1daf6ad1e	net/sched/sch_taprio.c:998	72	6312526aba5beae046fd8ef00399f87aab48b12	fs/namei.c:3523
23	3d5252b25c09861fb965a45c6623a6c923dae9de	drivers/block/nbd.c:1736	73	137d03025175e4ce5baead3c5fd1776e8fd91103	fs/erofs/decompressor.c:227
24	03c2ae9146416edf811958d5fd7facfab75b143d1	drivers/block/nbd.c:1828	74	bcc246d137428d00ed14b476c2068579515fe2bc	net/bluetooth/sco.c:523
25	3d48c91ba894fb986f2ae94797aca34b0149a6fc	block/genhd.c:611	75	5de20befde5f05afead7cfac9fb110c1d760909	fs/ntfs/inode.c:999
26	98e180f1c913a84073ba5a4bfdda55a12f8b3f89	fs/ext4/super.c:6607	76	0510121e3820bdc7757b06a56012c97e681f2220	fs/io_uring.c:3460
27	1b01ae0c2f54ed3f7fbeb9f13378c84f2aaed51f	net/sched/cls_tcindex.c:307	77	62d6a292ad633abc9ce6159dec8e8ac5b0455b19	block/partitions/core.c:427
28	699e4f546c33df9781a67891d42766bbbe3ca30b	fs/fuse/dir.c:1120	78	6bf42326e0930f0a844a1d53256c0fb15423dda1	net/sched/cls_api.c:3238
29	c391f74aac26dd8311c45743ae618f9d5e38b674	include/net/gre.h:140	79	738e37fee508c33dd12a3693bc1790085ac07a50	net/ipv4/tcp_cong.c:218
30	7787ea8a8ec228b5ea0acb1e9ac8373271ef8bddd	net/core/dev.c:3701	80	96e7d345748d8814901c91cd92084ed04b46701e	net/ipv4/cipso_ipv4.c:1867
31	570143a6cf76ecc707a1bf50b90487db44ec850b	fs/splice.c:766	81	507c1be447a4c69f108a0b8cd281fcab44eaf774	fs/io_uring.c:8999
32	e3cd8df8330f976efd72c1a562e96c44a1f2431f	net/sched/sch_api.c:1298	82	205c40dcecd95c9450622ce281aef3ee26b44cff	fs/io_uring.c:6054
33	d4bc7d67efe79c6ead3cb6bd94b84dbd287f1069	net/netlabel/netlabel_cipso_v4.c:187	83	47982c8ccfd31f14e8a173a5982667b36616bc6	mm/madvise.c:794
34	0421a448a695664b5952adad46879b96d82d6a36	block/scsi_ioctl.c:357	84	d894f245105f59f788177ae2f53df8fcec3ec1ac	drivers/net/vxlan/vxlan_vnifilter.c:429
35	31216a0f4941f9e070a4ba59723ddd50c355fe24	net/sched/sch_fifo.c:241	85	e675fbaf856bd1465eed8b8f51ae182b58b8d656	fs/namespace.c:161

36	f381deedf1e8d44b545a5ab112c1747f75fb57d6	sound/core/seq/seq_queue.c:171	86	7f84dfc3902878befc22e52eb5c7298d0ad70cf3	fs/io_uring.c:9477
37	223c64b1a2c03f0d67d64fdf69606ee2d5e26672	net/batman-adv/main.c:225	87	c28952126847f6e6af55b800915c9dbd5286abf4	net/mac80211/iface.c:2008
38	31a3f2ad09a571fb7a5212efc400ce6bfc82e04c	fs/ext4/extents_status.c:897	88	fdb203aad0287c069dfbf8c6d518285c5b4fb64d	sound/core/oss/mixer_oss.c:601
39	362b5b49fcd29361c0ba3007a2b3e5cd13776b5	drivers/infiniband/core/cma.c:2584	89	4b1e9cf490f8aa8d9b87c2db04490923603aedd	kernel/cgroup/cgroup.c:3629
40	8ffdea60c2a35e0c647186e9589873f6baa7cb32	net/mac80211/cfg.c:1681	90	b32fa08468c9e84e361296e1bc502283ea202ec6	net/packet/af_packet.c:4461
41	0be4824a86385f022a4f6f5104bcb9246032fdd9	sound/core/oss/pcm_plugin.c:70	91	517fa734b92b7db404c409b924cf5c997640e324	crypto/crypto_null.c:88
42	67c06f27e8efe15830eb8ff6ee742380e18c3d9b	kernel/dma/mapping.c:263	92	a59816f87c8e514d1b5ed891ae85341fbef1e553	fs/iomap/direct-io.c:657
43	c1408bfc99ec00b14d16d1fce95336e0a22d454d	fs/ext4/xattr.c:1639	93	367aa2bfd93ca7790fe6312dc55fd86dff54dd11	sound/core/oss/pcm_oss.c:1691
44	4a547542bb29c957c096f0c95ef9154e93d68d3	fs/ext4/indirect.c:1243	94	e67f2fc09051eb9468668787bdd8b5b793ece606	drivers/net/tun.c:3410
45	4d666adb3fbcf329b8cc75958b976aea0a3c48a	mm/mremap.c:498	95	c46757660a2b99103a2f46a15bfcd8d687d5dabc	drivers/video/fbdev/core/fbcon.c:2436
46	3ac451d171eed4f6027b4c46176f6eda99e8547b	net/socket.c:1123	96	cb9bdbd80adefc7da4aa5c2894a9c89f3bafd60c	fs/fscache/volume.c:172
47	4710b830601445fbfcee1d0bc64531b13b9ca57f	net/smc/smc_pnet.c:316	97	4b0830ac666c3cae350904be00dca27f8be86715	net/sctp/auth.c:867
48	4c4af2385654d032d6480051e771ade1732f2ecc	fs/f2fs/node.c:611	98	f5697a2cc8cc739814a87d3755258160e812c9dd	drivers/net/ipvlan/ipvlan_core.c:598
49	1870dd7791ba05f2ea7f47f7cbdde701173973fc	kernel/watch_queue.c:205	99	345d17288acb20f42c7a83874b03d00dd662f8eb	net/9p/client.c:992
50	558888413b9d65634d5dd0a2d860c4bbf6651d51	drivers/net/bonding/bond_main.c:410	100	897c1d13df86f25965e786c51f023df82e991c37	net/netfilter/nf_tables_api.c:2258