



# DPDK


DATA PLANE DEVELOPMENT KIT

# DPDK.org services, latest and future planned improvements

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# Overview of dpdk.org services (as of 2018)

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- Main websites:
  - [www.dpdk.org](http://www.dpdk.org) - News and events, Managed by LF.  
Built with WordPress - <https://make.wordpress.org/>
  - [core.dpdk.org](http://core.dpdk.org) - Core components.  
Built with Hugo - <https://gohugo.io/contribute/>
- Documentation:
  - [doc.dpdk.org/guides](http://doc.dpdk.org/guides)  
Built with Sphinx <https://github.com/sphinx-doc/sphinx>  
Themed with [https://github.com/readthedocs/sphinx\\_rtd\\_theme](https://github.com/readthedocs/sphinx_rtd_theme)
  - [doc.dpdk.org/api](http://doc.dpdk.org/api)  
Built with Doxygen <https://github.com/doxygen/doxygen>
- CDN:  
{fast,static}.dpdk.org. Hosted by fastly. 

# Overview of dpdk.org services (as of 2018) - Cont'd

- **cg**it - repository browser - [git.dpdk.org](http://git.dpdk.org)  
Contributing to cg
- **Patchwork** - patch tracking system - [patches.dpdk.org](http://patches.dpdk.org)  
Contributing to Patchwork: <https://github.com/getpatchwork/patchwork>
- **Mailman** - mailing list manager - [mails.dpdk.org](http://mails.dpdk.org)  
Contributing to Mailman: <https://wiki.list.org/DEV/MailmanOnLaunchpad>
- **Bugzilla** - bug tracking system - [bugzilla.dpdk.org](http://bugzilla.dpdk.org)  
Contributing to Bugzilla: <https://github.com/bugzilla/bugzilla>

# The DPDK Mailing Lists

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- DPDK.org uses GNU Mailman 2.
- Mailman 2 uses the internal archiver (Pipermail).
- Archives available at [mails.dpdk.org/archives/](https://mails.dpdk.org/archives/).

# Limitations/Issues of Mailman 2 archives

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- Plaintext passwords.
- No support for text searching through threads.  
Alternatives are:
  - Searching external mirrors:
    - [https://marc.info/?l=dpdk-\\*](https://marc.info/?l=dpdk-*)
    - [https://www.mail-archive.com/\\*@dpdk.org/](https://www.mail-archive.com/*@dpdk.org/)
    - [inbox.dpdk.org](https://inbox.dpdk.org)
  - Using web search engines (e.g., "some error message site:mails.dpdk.org").
  - Searching with your mail client.

# Limitations/Issues of Mailman 2 archives - Cont'd

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- Hard to reply to old threads.

You need to either:

- Import [mails.dpdk.org/archives/dev/<YEAR>-<MONTH>.txt.gz](https://mails.dpdk.org/archives/dev/<YEAR>-<MONTH>.txt.gz) into your mail client.
- Look for the `Message-ID` in the page source and manually use it as the `In-Reply-to`.

In both cases, you will need to manually set `To`, and `Cc`.

# Public-Inbox Archives

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- DPDK mailing lists were recently mirrored via a public-inbox instance.
- Public-Inbox provides multiple features:
  - Archives are searchable through the web interface.
  - mbox per thread.
  - Emails are stored as git objects:
    - Archives are cloneable.
    - Archives are searchable with git commands.
  - Atom feeds.
  - nntp accessible.
  - UI is customizable using `userContent.css`.  
Start with [inbox.dpdk.org/dev/userContent.css](https://inbox.dpdk.org/dev/userContent.css) as a template.
  - Message-ID - based URL format.

For more info, see <https://public-inbox.org>

- DPDK PUBLIC-INBOX ARCHIVES ARE AVAILABLE AT:
  - <http://inbox.dpdk.org/>
  - <https://lore.kernel.org/dpdk-dev/>



inbox.dpdk.org

- \* 2019-09-06 8:07 - <http://inbox.dpdk.org/test-report>  
automatic DPDK test reports
- \* 2019-09-06 8:05 - <http://inbox.dpdk.org/dev>  
DPDK patches and discussions
- \* 2019-09-06 7:34 - <http://inbox.dpdk.org/stable>  
patches for DPDK stable branches
- \* 2019-09-06 6:57 - <http://inbox.dpdk.org/dts>  
test suite reviews and discussions
- \* 2019-09-06 5:25 - <http://inbox.dpdk.org/users>  
DPDK usage discussions
- \* 2019-09-05 3:12 - <http://inbox.dpdk.org/spp>  
Soft Patch Panel
- \* 2019-09-04 9:19 - <http://inbox.dpdk.org/announce>  
DPDK announcements
- \* 2019-09-04 8:44 - <http://inbox.dpdk.org/web>  
DPDK website maintenance
- \* 2019-08-27 16:03 - <http://inbox.dpdk.org/ci>  
DPDK CI discussions
- \* 2017-06-19 13:42 - <http://inbox.dpdk.org/moving>  
DPDK community structure changes

AGPL code for this site: git clone <https://public-inbox.org/> public-inbox

inbox.dpdk.org/dev/

DPDK patches and discussions

search help / color / Atom feed

[dpdk-dev] [PATCH v4] net/ice: support device-specific DDP package loading  
 2019-09-06 14:51 UTC (2+ messages) - [mbox.gz](#) / [Atom](#)  
 [dpdk-dev] [PATCH v5] \*

[dpdk-dev] [dpdk-dev 00/12] net/ice: add ice Flow Director driver  
 2019-09-06 12:00 UTC (13+ messages) - [mbox.gz](#) / [Atom](#)  
 [dpdk-dev] [dpdk-dev 01/12] net/ice: initialize and set up flow director  
 [dpdk-dev] [dpdk-dev 02/12] net/ice: tear down \*  
 [dpdk-dev] [dpdk-dev 03/12] net/ice: enable input set configuration  
 [dpdk-dev] [dpdk-dev 04/12] net/ice: add FDIR create and destroy  
 [dpdk-dev] [dpdk-dev 05/12] net/ice: add FDIR mark action support  
 [dpdk-dev] [dpdk-dev 06/12] net/ice: add hash table for FDIR  
 [dpdk-dev] [dpdk-dev 07/12] net/ice: enable FDIR queue group  
 [dpdk-dev] [dpdk-dev 08/12] net/ice: add FDIR dst mac support  
 [dpdk-dev] [dpdk-dev 09/12] net/ice: add FDIR counter resource init/release  
 [dpdk-dev] [dpdk-dev 10/12] net/ice: add FDIR counter support for flow id  
 [dpdk-dev] [dpdk-dev 11/12] net/ice: add FDIR counter support for flow shared  
 [dpdk-dev] [dpdk-dev 12/12] net/ice: add FDIR non-word aligned field support

[dpdk-dev] [PATCH] net/iavf: fix multi-queue Rx interrupt for VF  
 2019-09-06 11:47 UTC (2+ messages) - [mbox.gz](#) / [Atom](#)  
 [dpdk-dev] [PATCH v2] \*

[dpdk-dev] [PATCH] examples/l3fwd: Eventdev mode support for packet I/O  
 2019-09-06 8:04 UTC (2+ messages) - [mbox.gz](#) / [Atom](#)  
 [dpdk-dev] [PATCH] examples/l3fwd: add support for eventdev mode

[dpdk-dev] [PATCH 0/4] enable FIFO for NTB  
 2019-09-06 7:54 UTC (12+ messages) - [mbox.gz](#) / [Atom](#)  
 [dpdk-dev] [PATCH v2] \*  
 [dpdk-dev] [PATCH v2 1/4] raw/ntb: setup ntb queue  
 [dpdk-dev] [PATCH v2 2/4] raw/ntb: add xstats support  
 [dpdk-dev] [PATCH v2 3/4] raw/ntb: add enqueue and dequeue functions  
 [dpdk-dev] [PATCH v2 4/4] examples/ntb: support more functions for NTB  
 [dpdk-dev] [PATCH v3 0/4] enable FIFO \*  
 [dpdk-dev] [PATCH v3 1/4] raw/ntb: setup ntb queue  
 [dpdk-dev] [PATCH v3 2/4] raw/ntb: add xstats support  
 [dpdk-dev] [PATCH v3 3/4] raw/ntb: add enqueue and dequeue functions  
 [dpdk-dev] [PATCH v3 4/4] examples/ntb: support more functions for NTB

search

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This public-inbox has search functionality provided by Xapian.

It supports typical AND, OR, NOT, '+', '-' queries present in other search engines.

We also support search prefixes to limit the scope of the search to certain fields.

Prefixes supported in this installation include:

- s: match within Subject e.g. s:"a quick brown fox"
- d: date range as YYYYMMDD e.g. d:19931002..20101002  
Open-ended ranges such as d:19931002.. and d:...20101002 are also supported
- dt: date-time range as YYYYMMDDhhmmss (e.g. dt:19931002011000..19931002011200)
- b: match within message body, including text attachments
- nq: match non-quoted text within message body
- q: match quoted text within message body
- n: match filename of attachment(s)
- t: match within the To header
- c: match within the Cc header
- f: match within the From header
- a: match within the To, Cc, and From headers
- tc: match within the To and Cc headers
- bs: match within the Subject and body
- dfn: match filename from diff
- dfa: match diff removed (-) lines
- dfb: match diff added (+) lines
- dfhh: match diff hunk header context (usually a function name)
- dfctx: match diff context lines
- dfpre: match pre-image git blob ID
- dfpost: match post-image git blob ID
- dfblob: match either pre or post-image git blob ID

# Contributing to core.dpdk.org

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- The site core.dpdk.org is built with Hugo.
- Syntax is markdown. Hugo renders it to HTML.
- To setup a development environment:
  - Follow the installation guide <https://gohugo.io/getting-started/installing/>.
  - `$ git clone git://dpdk.org/tools/dpdk-web --recurse-submodules`
  - `$ cd dpdk-web; hugo server`
- Follow the "*Improve this page*" link on the bottom of each page.
- Make your changes and send patches to web@dpdk.org.

# Elixir – Source Code Cross-Referencer

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- Web-based browsing of source code, with links to the definition and usage of any identifier across all releases.<sup>[1]</sup>
- Queries can be performed with CLI as well.
- Available at [code.dpdk.org](http://code.dpdk.org).
  
- Source code: <https://github.com/bootlin/elixir>
- [1] [https://en.wikipedia.org/wiki/LXR\\_Cross\\_Referencer](https://en.wikipedia.org/wiki/LXR_Cross_Referencer)

# Elixir – Queries

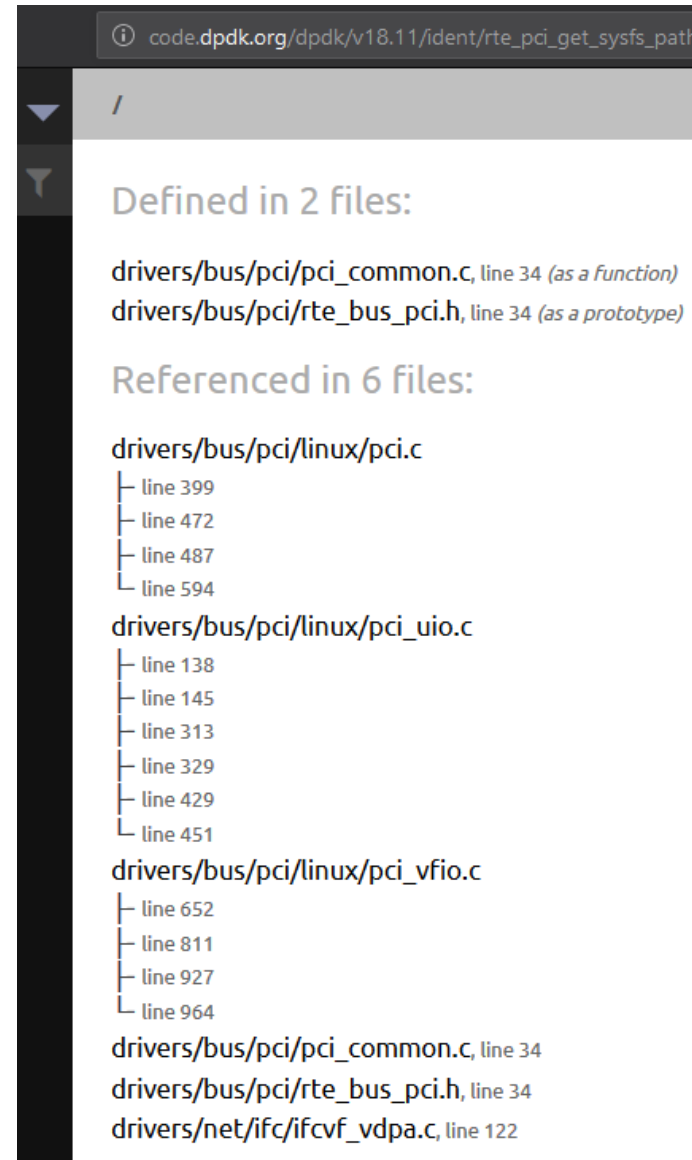
```
$. /query.py ident v18.11 rte_pci_get_sysfs_path
```

Defined in 2 files:

```
drivers/bus/pci/pci_common.c:34 (function)  
drivers/bus/pci/rte_bus_pci.h:34 (prototype)
```

Referenced in 6 files:

```
drivers/bus/pci/linux/pci.c:399,472,487,594  
drivers/bus/pci/linux/pci_uio.c:138,145,313,329,429,451  
drivers/bus/pci/linux/pci_vfio.c:652,811,927,964  
drivers/bus/pci/pci_common.c:34  
drivers/bus/pci/rte_bus_pci.h:34  
drivers/net/igc/igc_vf_vdpa.c:122
```



```
code.dpkg.org/dpdk/v18.11/ident/rte_pci_get_sysfs_path  
/  
Defined in 2 files:  
drivers/bus/pci/pci_common.c, line 34 (as a function)  
drivers/bus/pci/rte_bus_pci.h, line 34 (as a prototype)  
Referenced in 6 files:  
drivers/bus/pci/linux/pci.c  
| line 399  
| line 472  
| line 487  
| line 594  
drivers/bus/pci/linux/pci_uio.c  
| line 138  
| line 145  
| line 313  
| line 329  
| line 429  
| line 451  
drivers/bus/pci/linux/pci_vfio.c  
| line 652  
| line 811  
| line 927  
| line 964  
drivers/bus/pci/pci_common.c, line 34  
drivers/bus/pci/rte_bus_pci.h, line 34  
drivers/net/igc/igc_vf_vdpa.c, line 122
```

# Patchwork - git-pw

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- Download/apply/query patches and series.
- It's a Python package.
  - `$ pip install --user git-pw.`
  - Or install from source: <https://github.com/getpatchwork/git-pw>.
- Configuration:
  - `$ git config pw.server 'https://patches.dpdk.org/api/1.0/'`
  - `$ git config pw.project 'dpdk'`
  - `$ git config pw.token 'TOKEN' # generated from https://patches.dpdk.org/user.`
- Example usage:
  - `$ git-pw series apply|download <SERIES_ID>`
  - `$ git-pw patch apply|download <PATCH_ID>`
  - `$ git-pw patch list --submitter <SUBMITTER>`
  - More on <https://git-pw.readthedocs.io/en/latest/usage/>

# Patchwork - Special email headers

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- `X-Patchwork-Hint: ignore`  
Tells Patchwork to ignore the patch.
- `X-Patchwork-Delegate: DELEGATE`  
Sets the patch's delegate.
- `X-Patchwork-State: STATE`  
Sets the patch's state (Accepted, RFC, etc..)
- `git send-email -1 --add-header="<HEADER>" --to dev@dppdk.org`

# Bugzilla - REST API

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- Root endpoint: `/rest`
  - Get/Create/Update/Search bugs/comments.
  - Get information about products and components.
  - and more.
- 
- <https://bugzilla.readthedocs.io/en/latest/api/>

# Bugzilla - Creating a bug via the rest API

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- Generate an API key from <https://bugs.dpdk.org/userprefs.cgi?tab=apikey>.
- To create a bug:

POST /rest/bug

```
{  
  "product" : "DPDK",  
  "component" : "core",  
  "version" : "19.08",  
  "summary" : "Something isn't right",  
  "description": "Long description",  
  "assigned_to": "user@example.com",  
  ...  
}
```



# Bugzilla - Creating a bug via the rest API - e.g.

```
requests.post(  
    'https://bugs.dpdk.org/rest/bug',  
    data=json.dumps(data),  
    params={'api_key': 'API_KEY'},  
    headers={  
        'Content-Type': 'application/json',  
        'Accept': 'application/json'})
```

```
curl --data '{  
    "api_key": "API KEY",  
    "product": "DPDK",  
    "component": "core",  
    "summary": "Something is not right",  
    "version": "19.08"}'  
--header "Content-Type: application/json"  
--header "Accept: application/json"  
--request POST https://bugs.dpdk.org/rest/bug
```

# Bugzilla - Creating a bug via email

 Send	From ▼	user@example.com
	To...	<input type="radio"/> <a href="mailto:bugzilla@dpdk.org">bugzilla@dpdk.org</a>
	Cc...	
	Subject	bug summary

```
@product = DPDK | dpdk-burst-replay | lab
@component = core | cryptodev | doc | meson | ..
@version = 19.08 | 19.05 | ..
@severity = critical | major | normal | minor | enhancement
@cc = user1@example.com,user2@example.com
@assigned_to = user3@example.com
@platform = ARM | POWER | x86 | Other
@op_sys = Linux | FreeBSD | Other
@bug_id = <BUG_ID>
```

This is the bug description.

# Future Plans

- IRC bot?
  - Bugzilla notifications.
  - Release notifications.
  - Documentation queries.
- Mailman 3?
  - First released in 2015.
  - More modern looking.
  - Single user account across all lists.
  - REST api.
  - Searchable archives.
  - Example: <https://lists.fedoraproject.org>
- Patchwork:
  - Add the DTS project.
  - Link patches/series to their mailing list threads.
  - Automatic delegation based on the maintainers file.
  - Whine about patches with no activity.

# Thank you

Questions?

Suggestions?