

# MIPI SyS-T over STP

The MIPI SyS-T protocol driver can be used with STM class devices to generate standardized trace stream. Aside from being a standard, it provides better trace source identification and timestamp correlation.

In order to use the MIPI SyS-T protocol driver with your STM device, first, you'll need CONFIG\_STM\_PROTO\_SYS\_T.

Now, you can select which protocol driver you want to use when you create a policy for your STM device, by specifying it in the policy name:

```
# mkdir /config/stp-policy/dummy_stm0:p_sys-t.my-policy/
```

In other words, the policy name format is extended like this:

```
<device_name>.<protocol_name>.<policy_name>
```

With Intel TH, therefore it can look like "0-sthp\_sys-t.my-policy".

If the protocol name is omitted, the STM class will chose whichever protocol driver was loaded first.

You can also double check that everything is working as expected by

```
# cat /config/stp-policy/dummy_stm0:p_sys-t.my-policy/protocol p_sys-t
```

Now, with the MIPI SyS-T protocol driver, each policy node in the configs gets a few additional attributes, which determine per-source parameters specific to the protocol:

```
# mkdir /config/stp-policy/dummy_stm0:p_sys-t.my-policy/default # ls /config/stp-policy/dummy_stm0:p_sys-t.my-policy/default  
channels clocksync_interval do_len masters ts_interval uuid
```

The most important one here is the "uuid", which determines the UUID that will be used to tag all data coming from this source. It is automatically generated when a new node is created, but it is likely that you would want to change it.

do\_len switches on/off the additional "payload length" field in the MIPI SyS-T message header. It is off by default as the STP already marks message boundaries.

ts\_interval and clocksync\_interval determine how much time in milliseconds can pass before we need to include a protocol (not transport, aka STP) timestamp in a message header or send a CLOCKSNC packet, respectively.

See Documentation/ABI/testing/configfs-stp-policy-p\_sys-t for more details.

- [1] <https://www.mipi.org/specifications/sys-t>