HW consumer

An IIO device can be directly connected to another device in hardware. In this case the buffers between IIO provider and IIO consumer are handled by hardware. The Industrial I/O HW consumer offers a way to bond these IIO devices without software buffer for data. The implementation can be found under :file:`drivers/iio/buffer/hw-consumer.c`

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 4); *backlink*

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- struct iio_hw_consumer â€" Hardware consumer structure
- :c:func:`iio_hw_consumer_alloc` â€" Allocate IIO hardware consumer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 12); *backlink*

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- :c:func:`iio_hw_consumer_free` â€" Free IIO hardware consumer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 13); *backlink*

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- :c:func:`iio_hw_consumer_enable` â€" Enable IIO hardware consumer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 14); *backlink*

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- :c:func:`iio_hw_consumer_disable` â€" Disable IIO hardware consumer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 15); *backlink*

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HW consumer setup

As standard IIO device the implementation is based on IIO provider/consumer. A typical IIO HW consumer setup looks like this:

```
static struct iio_hw_consumer *hwc;

static const struct iio_info adc_info = {
        .read_raw = adc_read_raw,
};

static int adc_read_raw(struct iio_dev *indio_dev,
                        struct iio_chan_spec const *chan, int *val,
                        int *val2, long mask)
{
        ret = iio_hw_consumer_enable(hwc);

        /* Acquire data */

        ret = iio_hw_consumer_disable(hwc);
}

static int adc_probe(struct platform_device *pdev)
```

```
{
        hwc = devm_iio_hw_consumer_alloc(&iio->dev);
}
```

More details

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\driver-api\iio\(linux-master)(Documentation)(driver-api)(iio)hw-consumer.rst, line 48)

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```
.. kernel-doc:: drivers/iio/buffer/industrialio-hw-consumer.c
   :export:
```