

Compile-time Build Variants Flags

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Why flag ?

- If the code changes has to be enabled only on certain scenarios or only applicable for specific boards , then we have to define the flag .

Defining a new flag

- The flag has to be defined in **ccsp_common.inc** file
- There are two ways to define the flag
 1. Having the flag enabled always
 2. Enabling only for specific board or on specific condition

Having the flag enabled always

- Go to ccsp_common.inc file
- Add the flag under "CFLAGS_append +="
- **Syntax**

```
CFLAGS_append += " <FLAG> "
```

- **Sample**

```
CFLAGS += "-DFEATURE_SUPPORT_RDKLOG"
```

- By this method, the flag is always set to 1 (true)
- Now add the flag at required pieces of code

Enabling only for specific board or on specific condition

- Add the flag using DISTRO_FEATURE in ccsp_common.inc file as below
- **Syntax**

```
CFLAGS_append += " ${@bb.utils.contains('DISTRO_FEATURES', '<keyword>', '<FLAG>', "", d)}"
```

- Now to enable the flag for the specific platform , invoke from platform specific machine conf file
- **Syntax**

```
DISTRO_FEATURES_append = " ..... <keyword> "
```

- **Sample**
In ccsp_common.inc

```
CFLAGS_append += " ${@bb.utils.contains('DISTRO_FEATURES', 'referencepltfm', '-D_RDK_REF_PLATFORM_', '', d)}"
```

In raspberrypi-rdk-broadband.conf

```
DISTRO_FEATURES_append = " referencepltfm "
```

This enables RDK_REF_PLATFORM_ flag for rpi platform .

- Using DISTRO method
1. the package enable/disable for the specific platform can be controlled

```
RDEPENDS_packagegroup-rdk-ccsp-broadband += " ${@bb.utils.contains('DISTRO_FEATURES', 'snmppa', 'ccsp-snmpp-pa ccsp-snmpp-pa-ccsp', '', d)}"
```

2. installation of file based on feature availability

```
do_install_append () {
if [ "${bb.utils.contains("DISTRO_FEATURES", "referenceplatform", "yes", "no", d)}" = "yes" ]; then
install -d ${D}/usr/www/cmn/syndication/img
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/captiveportal_videotron_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/logo_videotron.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/Sky_Wifi.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/cox_color_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/cox_white_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/captiveportal_rogers_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/logo_rogers.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/captiveportal_shaw_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/logo_shaw.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/captiveportal_arris_logo.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/logo_arris.png
install -m 644 ${WORKDIR}/logo_rdk.png ${D}/usr/www/cmn/syndication/img/logo-generic.png
fi
}
```

3. Functionality of feature can be controlled

```
#if defined ( _XB6_PRODUCT_REQ_ )
    sprintf( PartnerID, "%s", "unknown" );
#elif defined ( _RDK_REF_PLATFORM_ )
    sprintf( PartnerID, "%s", "RDKM");
#else
    sprintf( PartnerID, "%s", "comcast" );
#endif
```