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# **MAC FFD Application**

## **User guide**

### **Version 0.1**

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This project is applicable to all the WiSeConnect variant.

### **Application Overview:**

The MAC FFD Application demonstrates how WiseConnect device would act as FFD and allow RFD/FFDs to connect.

- WiSe-Connect Device starts as an FFD
- It allows the RFD to connect and send data.
- Receive data from the child device.
- Allows Orphan device to associate.

### **Setup required:**

1. Linux PC.
2. 2 WiSeConnect devices (1 FFD, 1 RFD).

### **Description:**

Create one device as FFD and the other device as RFD.

This application explains how WiSeConnect device acts as FFD and allows RFD/FFDs to connect.

WiSeConnect device creates a network and enables the Permit Join.

### **Configuring the Application:**

Edit the `rsi_mac_ffd.c` file in the following path.

`sapis/examples/zigbee/mac_ffd`

1. Start Request configuration,

`PANID` is split as `PAN_ID_L` and `PAN_ID_H`.

```
#define PAN_ID_L          <Pan id lower byte>
#define PAN_ID_H          <Pan id higher byte>
```

`CHANNEL` refers to the channel in which FFD would be started

```
#define CHANNEL          <channel_no>
```

## 2. Data Request Configuration

### Payload Length and Payload Configuration

```
#define MSDU_LENGTH          Payload Len  
#define MAC_PAYLOAD          {Payload}
```

## 3. Child Address Configuration

```
#define CHILD_SHORT_ADDR_L    <Addr lower byte>  
#define CHILD_SHORT_ADDR_H    <Addr Higher byte>
```

## 4. Orphan Device Address Configuration

```
#define ORPHAN_DEV_SHORT_ADDR_L    <Addr lower byte>  
#define ORPHAN_DEV_SHORT_ADDR_H    <Addr Higher byte>
```

### **Executing the Application:**

1. Connect WiSeConnect device to the Linux PC.
2. Configure the macros in the files located at  
`sapis/examples/zigbee/mac_ffd/rsi_mac_ffd.c`
3. Build and launch the application.
4. After the program gets executed, WiSeConnect Device would be created as FFD.
5. The Permit Join is enabled.
6. Now connect WiseConnect RFD and send the data continuously.