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MPLAB Harmony Application Header File

Company:
    Microchip Technology Inc.

File Name:
    app.h

Summary:
    This header file provides prototypes and definitions for the application

Description:
    This header file provides function prototypes and data type definitions
    the application.  Some of these are required by the system (such as the
    "APP_Initialize" and "APP_Tasks" prototypes) and some of them are only
    internally by the application (such as the "APP_STATES" definition).  B
    are defined here for convenience.
*****/

//DOM-IGNORE-BEGIN
/*****
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#ifndef _APP_H
#define _APP_H

// *****
// *****
// Section: Included Files
// *****
// *****

#include <stdint.h>
#include <stdbool.h>
#include <stddef.h>
#include <stdlib.h>
#include "system_config.h"
#include "system_definitions.h"
#include "MC32ADCDriver.h"

// DOM-IGNORE-BEGIN
#ifdef __cplusplus // Provide C++ Compatibility

extern "C" {

#endif
// DOM-IGNORE-END

// *****
// *****
// Section: Type Definitions
// *****
// *****

// *****
/* Application states

Summary:
    Application states enumeration

Description:
    This enumeration defines the valid application states. These states
    determine the behavior of the application at various times.
*/

typedef enum

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{
/* Application's state machine's initial state. */
APP_STATE_INIT=0,
APP_STATE_SERVICE_TASKS,
    APP_STATE_WAIT

/* TODO: Define states used by the application state machine. */

} APP_STATES;

// *****
/* Application Data

Summary:
    Holds application data

Description:
    This structure holds the application's data.

Remarks:
    Application strings and buffers are be defined outside this structure.
*/

typedef struct
{
    /* The application's current state */
    APP_STATES state;

    /* TODO: Define any additional data used by the application. */

} APP_DATA;

// *****
// *****
// Section: Application Callback Routines
// *****
// *****
/* These routines are called by drivers when certain events occur.
*/

// *****
// *****

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// Section: Application Initialization and State Machine Functions
// *****
// *****
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Function:
    void APP_Initialize ( void )

Summary:
    MPLAB Harmony application initialization routine.

Description:
    This function initializes the Harmony application. It places the
    application in its initial state and prepares it to run so that its
    APP_Tasks function can be called.

Precondition:
    All other system initialization routines should be called before calling
    this routine (in "SYS_Initialize").

Parameters:
    None.

Returns:
    None.

Example:
    <code>
    APP_Initialize();
    </code>

Remarks:
    This routine must be called from the SYS_Initialize function.
*/

void APP_Initialize ( void );

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Function:
    void APP_Tasks ( void )

Summary:
    MPLAB Harmony Demo application tasks function
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Description:

This routine is the Harmony Demo application's tasks function. It defines the application's state machine and core logic.

Precondition:

The system and application initialization ("SYS_Initialize") should be called before calling this.

Parameters:

None.

Returns:

None.

Example:

```
<code>
APP_Tasks();
</code>
```

Remarks:

This routine must be called from SYS_Tasks() routine.

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void APP_Tasks( void );
```

```
void APP_UpdateState ( APP_STATES NewState ) ;
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```
#endif /* _APP_H */
```

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//DOM-IGNORE-BEGIN
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```
#ifdef __cplusplus
```

```
}
```

```
#endif
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```
//DOM-IGNORE-END
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/*****
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End of File
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*/
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