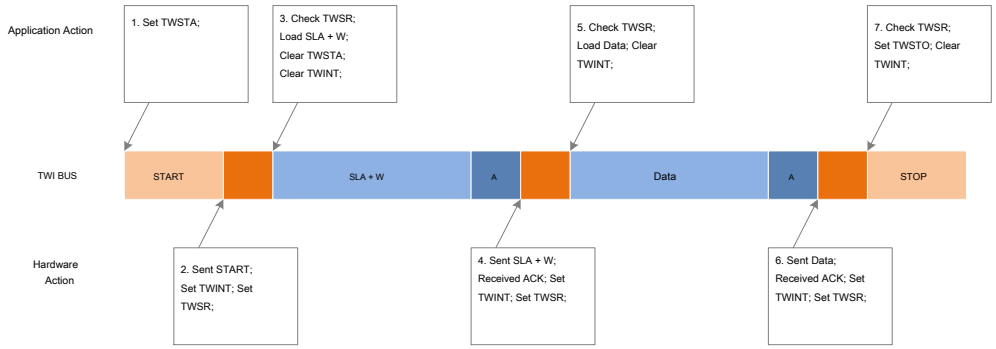


TWI A typical transmission procedure of FIG.

Shown in FIG. TWI Transmission process is:

**1. TWI The first step is to send transmission START . Go through TWCR Register writing a specific value, indicating TWI Send hardware START signal. Value is written will be explained in detail subsequently. Writing the value to be set TWINT It is very important to TWINT Write bit "1" This bit will be cleared. TWCR Register TWINT During the set TWI Not start any operation. Once the software is cleared TWINT Position, TWI Module start immediately START The transmitted signal.**

**2. when START State sent, TWCR of TWINT Flag will be set, TWSR The new update of the status code,**

Show START Signal was successfully sent.

**3. Application View TWSR The value is determined START The state has been successfully sent. in case TWSR Display other values,**

Applications can perform some special operations, such as error handler is called. When the determination is consistent with the expected status code, **the program SLA + W The value loaded into TWDR Register. TWDR It can be used simultaneously in the address register and data. Then the software to TWCR Register writing a specific value, indicating TWI Send hardware TWDR middle SLA + W Value. Value is written will be explained in detail subsequently. Writing the value to be set TWINT To clear TWINT Flag. TWCR Register TWINT During the set TWI Not start any operation. Once the software is cleared TWINT Position, TWI Module start address of the packet** transmitted immediately.

**4. When the address packet has been sent, TWCR of TWINT Flag will be set, TWSR Updated with the new status code table**

Illustrates address packet successfully transmitted. Status code will also reflect whether to respond to the slave address of the packet.

**5. Application View TWSR Value, determine the address of the packet has been successfully sent, received ACK To the desired value. in case TWSR**

Display other values, the application can perform some special operations, such as error handler is called. When the determination is consistent with **the expected status code, the program Data The value loaded into TWDR Register. Then the software to TWCR Register writing a specific value, indicating TWI Send hardware TWDR middle Data Value. Value is written will be explained in detail subsequently. Writing the value to be set TWINT To clear TWINT Flag. TWCR Register TWINT During the set TWI Not start any operation. Once the software is cleared TWINT Position, TWI Module immediately initiates the transfer of data packets.**

**6. When the data packet has been sent, TWCR of TWINT Flag will be set, TWSR Updated with the new status code table**

Illustrates packet successfully transmitted. Status code will also reflect whether the slave responds to the packet.

**7. Application View TWSR Value, determines that the data packet was successfully transmitted, received ACK To the desired value. in case TWSR**

Display other values, the application can perform some special operations, such as error handler is called. When the agreement to determine the **status code is as expected, to software TWCR Register writing a specific value, indicating TWI Send hardware STOP signal. Value is written will be explained in detail subsequently. Writing the value to be set TWINT To clear TWINT Flag. TWCR Register TWINT During the set TWI Not start any operation. Once the software is cleared TWINT Position, TWI Module start immediately STOP The transmitted signal. It should be noted that, in the STOP After the signal has been sent TWINT It will not be set.**

Although this example is simple, but it contains TWI All the rules of data during transmission. Summarized as follows:

- **when TWI Upon completion of an operation and expects feedback application, TWINT Flag. SCL Clock line is up**