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Tue May 1 2018 00:03:28



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# Chapter 1

## Namespace Index

### 1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

<b>csce240</b>	.....	11
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## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Display . . . . .	13
csce240::Observable . . . . .	13
csce240::WeatherStation . . . . .	15
csce240::Observer . . . . .	14
csce240::SensorNet . . . . .	14





## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<b>Display</b>	13
<b>csce240::Observable</b>	13
<b>csce240::Observer</b>	14
<b>csce240::SensorNet</b>	14
<b>csce240::WeatherStation</b>	15



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

<b>display.cc</b>	17
<b>display.h</b>	17
<b>observable.cc</b>	17
<b>observable.h</b>	17
<b>observer.h</b>	18
<b>sensor_net.cc</b>	18
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<b>test_weather_station.cc</b>	19
<b>weather_station.cc</b>	19
<b>weather_station.h</b>	19



## Chapter 5

# Namespace Documentation

### 5.1 csce240 Namespace Reference

#### Classes

- class **Observable**
- class **Observer**
- class **WeatherStation**
- class **SensorNet**



## Chapter 6

# Class Documentation

### 6.1 Display Class Reference

```
#include <display.h>
```

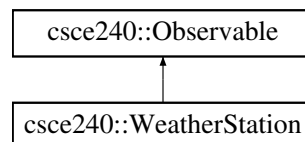
The documentation for this class was generated from the following file:

- **display.h**

### 6.2 csce240::Observable Class Reference

```
#include <observable.h>
```

Inheritance diagram for csce240::Observable:



#### Public Member Functions

- virtual **~Observable** ()
- void **Add** (**Observer** \*observer)
- void **Delete** (**Observer** \*observer)
- void **Notify** ()

#### 6.2.1 Constructor & Destructor Documentation

6.2.1.1 csce240::Observable::~~Observable ( ) [virtual]

#### 6.2.2 Member Function Documentation

6.2.2.1 void csce240::Observable::Add ( **Observer** \* *observer* )

6.2.2.2 void csce240::Observable::Delete ( **Observer** \* *observer* )



#### 6.2.2.3 void csce240::Observable::Notify ( )

The documentation for this class was generated from the following files:

- **observable.h**
- **observable.cc**

### 6.3 csce240::Observer Class Reference

```
#include <observer.h>
```

#### Public Member Functions

- virtual ~**Observer** ()=0
- virtual void **Update** ()=0

#### 6.3.1 Constructor & Destructor Documentation

6.3.1.1 virtual csce240::Observer::~~Observer ( ) [pure virtual]

#### 6.3.2 Member Function Documentation

6.3.2.1 virtual void csce240::Observer::Update ( ) [pure virtual]

The documentation for this class was generated from the following file:

- **observer.h**

### 6.4 csce240::SensorNet Class Reference

```
#include <sensor_net.h>
```

#### Public Types

- enum **SensorType** { **HUM** =0, **PRS** =1, **TMP** =2 }

#### Static Public Member Functions

- static void **PowerOn** ()
- static void **PowerOff** ()
- static bool **on** ()
- static void **ReadSensor** (int sensor, int \*size, char \*bytes)
- static void **UpdateSensor** (int minutes=1)

#### Static Public Attributes

- static const std::string **k\_sensor\_names\_** [] = { "HUM", "PRS", "TMP" }
  - static const int **k\_sensor\_count\_** = 3
-

### 6.4.1 Member Enumeration Documentation

#### 6.4.1.1 enum csce240::SensorNet::SensorType

Enumerator

***HUM***

***PRS***

***TMP***

### 6.4.2 Member Function Documentation

6.4.2.1 static bool csce240::SensorNet::on ( ) [inline],[static]

6.4.2.2 static void csce240::SensorNet::PowerOff ( ) [inline],[static]

6.4.2.3 void csce240::SensorNet::PowerOn ( ) [static]

6.4.2.4 void csce240::SensorNet::ReadSensor ( int *sensor*, int \* *size*, char \* *bytes* ) [static]

6.4.2.5 void csce240::SensorNet::UpdateSensor ( int *minutes* = 1 ) [static]

### 6.4.3 Member Data Documentation

6.4.3.1 const int csce240::SensorNet::k\_sensor\_count\_ = 3 [static]

6.4.3.2 const std::string csce240::SensorNet::k\_sensor\_names\_ = { "HUM", "PRS", "TMP" } [static]

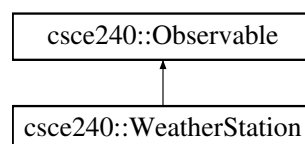
The documentation for this class was generated from the following files:

- **sensor\_net.h**
- **sensor\_net.cc**

## 6.5 csce240::WeatherStation Class Reference

```
#include <weather_station.h>
```

Inheritance diagram for csce240::WeatherStation:



### Public Member Functions

- **WeatherStation** ( )
- virtual **~WeatherStation** ( )
- double **GetHumidity** ( ) const
- double **GetPressure** ( ) const
- double **GetTemperature** ( ) const

### 6.5.1 Constructor & Destructor Documentation

6.5.1.1 `csce240::WeatherStation::WeatherStation ( )`

6.5.1.2 `csce240::WeatherStation::~~WeatherStation ( )` [virtual]

### 6.5.2 Member Function Documentation

6.5.2.1 `double csce240::WeatherStation::GetHumidity ( )` const

6.5.2.2 `double csce240::WeatherStation::GetPressure ( )` const

6.5.2.3 `double csce240::WeatherStation::GetTemperature ( )` const

The documentation for this class was generated from the following files:

- `weather_station.h`
- `weather_station.cc`

## Chapter 7

# File Documentation

### 7.1 display.cc File Reference

```
#include "display.h"
```

### 7.2 display.h File Reference

#### Classes

- class **Display**

### 7.3 observable.cc File Reference

```
#include "observable.h"
```

#### Namespaces

- **csce240**

### 7.4 observable.h File Reference

```
#include "observer.h"
```

#### Classes

- class **csce240::Observable**

#### Namespaces

- **csce240**

## 7.5 observer.h File Reference

### Classes

- class **csce240::Observer**

### Namespaces

- **csce240**

## 7.6 sensor\_net.cc File Reference

```
#include "sensor_net.h"
```

### Namespaces

- **csce240**

## 7.7 sensor\_net.h File Reference

```
#include <cstdlib>  
#include <string>
```

### Classes

- class **csce240::SensorNet**

### Namespaces

- **csce240**

## 7.8 test\_sensor\_net.cc File Reference

```
#include <iostream>  
#include "sensor_net.h"
```

### Functions

- int **main** (int argc, char \*argv[])
-

### 7.8.1 Function Documentation

7.8.1.1 `int main ( int argc, char * argv[] )`

## 7.9 test\_weather\_station.cc File Reference

```
#include <iostream>
#include <string>
#include "weather_station.h"
```

### Functions

- `bool TestGetHumidity (const csce240::WeatherStation &station, std::string *err)`
- `bool TestGetPressure (const csce240::WeatherStation &station, std::string *err)`
- `bool TestGetTemperature (const csce240::WeatherStation &station, std::string *err)`
- `int main (int argc, char *argv[])`

### 7.9.1 Function Documentation

7.9.1.1 `int main ( int argc, char * argv[] )`

7.9.1.2 `bool TestGetHumidity ( const csce240::WeatherStation & station, std::string * err )`

7.9.1.3 `bool TestGetPressure ( const csce240::WeatherStation & station, std::string * err )`

7.9.1.4 `bool TestGetTemperature ( const csce240::WeatherStation & station, std::string * err )`

## 7.10 weather\_station.cc File Reference

```
#include "weather_station.h"
#include <iostream>
```

### Namespaces

- `csce240`

## 7.11 weather\_station.h File Reference

```
#include <cassert>
#include <string>
#include "observable.h"
#include "sensor_net.h"
```

### Classes

- `class csce240::WeatherStation`
-

## Namespaces

- **csce240**

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