

## CO650 Advanced Programming - Time

- Time related functions can be accessed by including <time.h>
- The time / data is stored within a variable of type `_time32_t`
- The `_time32` function populates a variable of type `_time32_t` (passed as a parameter) with the current system time as an integer. The number of seconds elapsed since 1st Jan 1970.
- The `_localtime32_s` function is passed the time in seconds and populates a `tm` structure with the appropriate s,h,days,month, and year values. Access individual values using dereference operator ->
- To displace the time as a string, pass the `tm` structure to the `asctime_s` function along with a character array which is populated with the time as a textual description.

### Time Example

```
_time32_t rawtime;  
struct tm timeinfo;  
char buffer[32];  
_time32(&rawtime);  
_localtime32_s(&timeinfo, &rawtime);  
asctime_s(buffer, 32, &timeinfo);  
  
cout << "The current time is " << buffer << endl;
```

- `_time32` function will populate the `rawtime` variable with current system time.
- `_localtime32_s` function will populate `timeinfo` (`tm` structure) with appropriate intervals
- `asctime_s` will populate the `buffer` with time as text description.