

Telos 2101 / TWOx12 / Nx12 Control Protocol – C++ Low-Level API

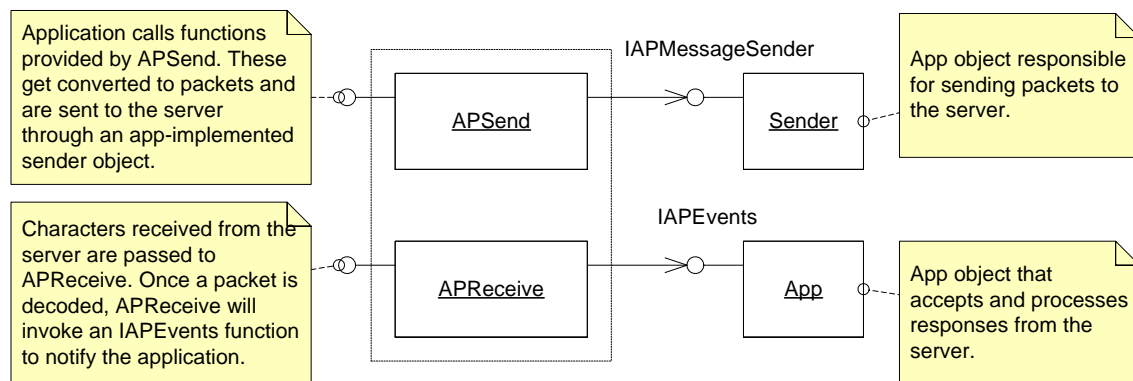
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This document describes the C++ low-level API for the Telos 2101 / TWOx12 / Nx12 control protocol. The C++ API includes classes to create the data packets to be sent to the server and to parse the data packets received from the server. The application is responsible for creating a TCP/IP socket connection to the server and for reading and writing the packet data. The application is also responsible for implementing the desired logic in response to server events.

High Level View

The API consists of two main classes: APSend and APReceive. As the name suggests, APSend is responsible for creating the packets to be sent to the server while APReceive parses the packets received from the server.



During initialization, the application provides APSend with a pointer to a sender object. This object accepts data packets from APSend and sends them to the server. The application also provides a pointer to an object that implements IAPEvents interface to APReceive.

The application establishes a TCP/IP connection to the server, and then it invokes the methods provided by APSend. APSend creates a message packet, passes it to the application's sender object which sends it to the server (over the TCP/IP connection established earlier).

When the application receives data from the server, it passes the data, one byte at a time, to `APReceive`. Once a complete packet is received, `APReceive` will decode it and will invoke one of the `IAPEvents` methods implemented by the application object.

OS Dependencies

The low-level API uses only the `hton` and `ntoh` byte-order conversion function. On Windows these are included in the `winsock.h` (or `winsock2.h`) header file. If you are using the code on a different platform you will need to include the appropriate header file. You can find the code in question by searching for the line below in the source files:

```
#ifdef WIN32
```

Feedback

Please address any questions or comments to Ioan Rus by email at ioan@telos-systems.com.