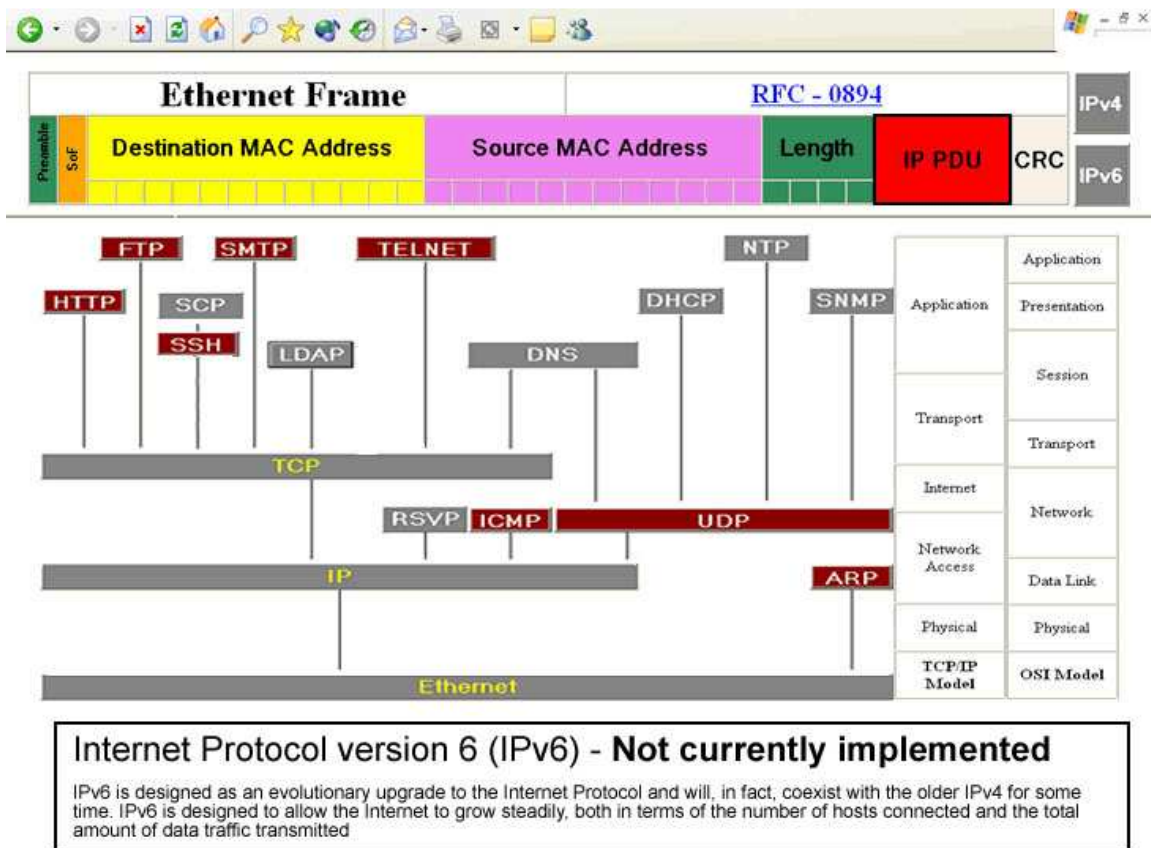


(intro, no screen required)

In order to effectively portray the user displays, the following pages contain a pictorial representation of a user navigating through the HTTP protocol selection. After each picture there is a brief summary of what the user would have selected in order to make each screen appear.

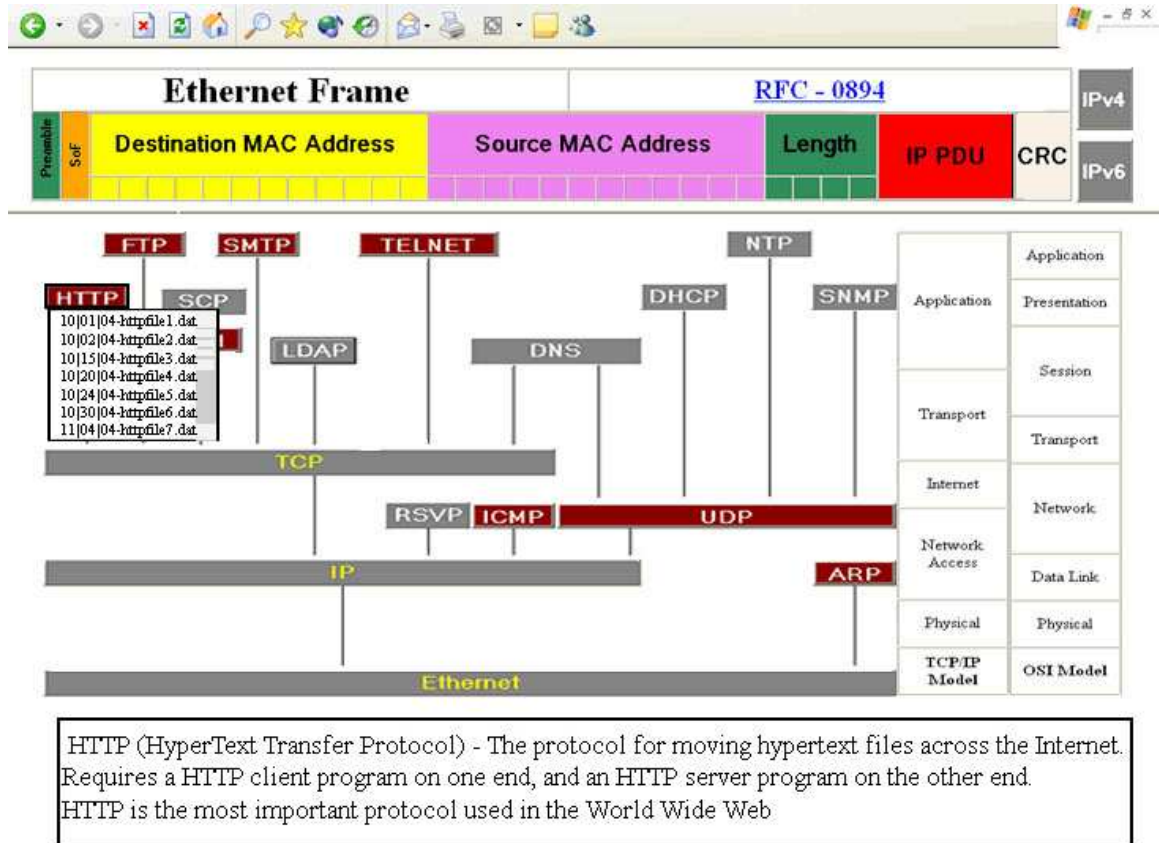
This is the first screen that the user will see when he logs onto the program. This screen consists of a protocol tree in the middle, with an accompanying Ethernet stack to the right of it, measuring where each protocol lies in the tree. Additionally, we have an Ethernet frame at the top of the screen that displays **WHAT IT DISPLAYS**. Any button when selected will cause the box at the bottom to display topic information about what was selected. In this case, the IPv6 was pressed, and the box displays that it has not yet been implemented as well as information about it.



Internet Protocol version 6 (IPv6) - Not currently implemented

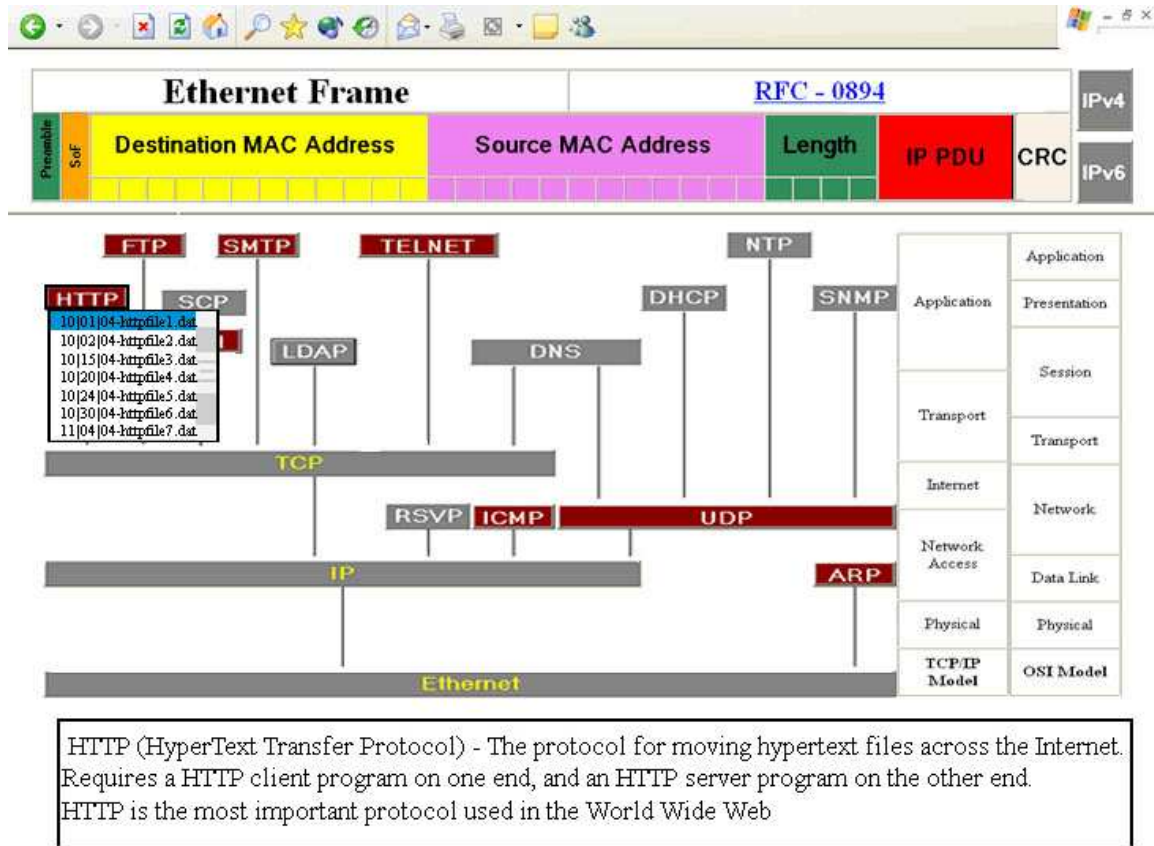
IPv6 is designed as an evolutionary upgrade to the Internet Protocol and will, in fact, coexist with the older IPv4 for some time. IPv6 is designed to allow the Internet to grow steadily, both in terms of the number of hosts connected and the total amount of data traffic transmitted

In the middle of the screen is a protocol tree, which the user may select any of the non-shaded out protocols to display a list of data sessions. In this example, the HTTP protocol was selected, and a drop-down menu of data sessions has appeared. The user then scrolls to the particular data field that he is interested in, and then clicks on it to take him or her to the Packet Selection screen.



The user can scroll down the list using the scroll bar. This screen shows the user had scrolled down to view other data sessions. **THAT IS WHAT THE OTHER SCREEN DOES.... DELETE THIS!?!? OR MOVE IT???**

When the user moves the mouse over a data session, the session becomes highlighted. The data session then becomes un-highlighted when the mouse moves off of the data session. This screen shows the mouse highlighting a particular data session. The user would click the highlighted data session to advance to the Packet Selection screen.





This is a Packet Selection Screen as the user first sees it. Its title at the top reflects the protocol that was selected. From before, the HTTP protocol was selected. The box in the middle of the screen displays the different packets of the selected protocol as well as other relevant information about the packet. The screen is initialized to highlight the topmost packet, which is the default packet. *Above this, we have repeated the data session name for the data session that was selected from the Protocol Selector screen.* There are two buttons below this packet box: a View Packet Button, which takes you to the Information Display Screen and display the highlighted packet; and a Choose Protocol Button, which when clicked returns you to the Protocol Selection Screen.



If there are more packets in the data session than the box is capable of displaying, the scroll bar on the right allows the user to scroll through the different packets available in the data session. This is an example of the user scrolling to see more packets. **(THIS CAN BE COMBINED WITH THE PARAGRAPH BELOW)**



The user can highlight a particular packet by clicking on its row. This action will un-highlight the previously highlighted packet. Clicking on a currently highlighted packet does nothing. This screen demonstrates the highlighting of a packet other than the default packet.

HTTP Packet Selector

No.	Time	Source	Destination	Protocol	Info
24	3020.230090	192.168.130.1	192.168.130.1	HTTP	Continuation
25	3149.914117	217.24.128.13	192.168.130.1	HTTP	Continuation
26	3158.896061	192.168.130.1	192.168.130.1	HTTP	Continuation
27	3268.422867	217.24.128.13	192.168.130.1	HTTP	Continuation
28	3273.644493	192.168.255.252	192.168.130.1	HTTP	Continuation
29	3312.256063	192.168.130.1	192.168.130.1	HTTP	Continuation
30	3325.638860	192.168.130.4	192.168.130.1	HTTP	Continuation
31	3374.533087	192.168.255.252	192.168.130.1	HTTP	Continuation
32	3412.878161	192.168.255.252	192.168.130.1	HTTP	Continuation
33	3452.928458	192.168.255.252	192.168.130.1	HTTP	Continuation
34	3473.016229	192.168.255.252	192.168.130.1	HTTP	Continuation
35	3499.314876	192.168.130.1	192.168.130.1	HTTP	Continuation
36	3505.579999	192.168.255.252	192.168.130.1	HTTP	Continuation
37	3508.630714	192.168.130.4	192.168.130.1	HTTP	Continuation
38	3524.638527	192.168.255.252	192.168.130.1	HTTP	Continuation
39	3530.648523	192.168.130.1	192.168.255.252	HTTP	HTTP/1.1 403 Access Forbidden



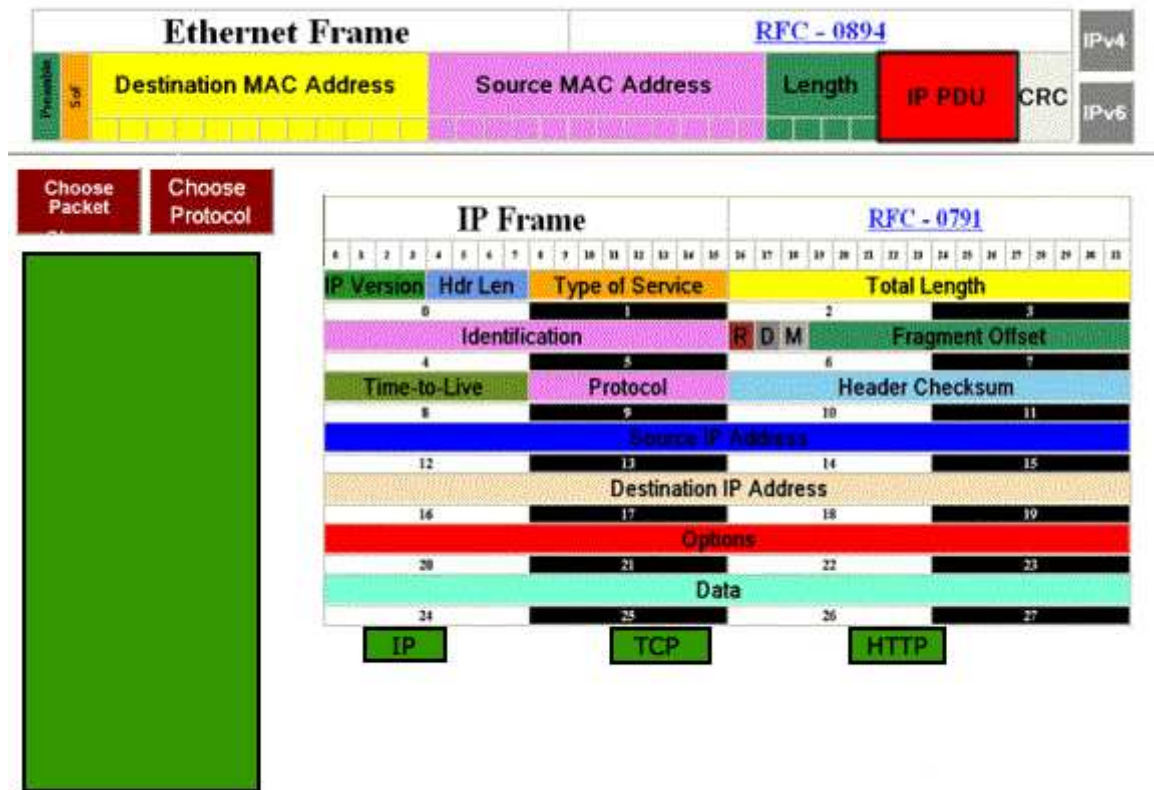




At the bottom of the Packet Selection Screen is a box with the logos of past and present teams that have contributed to this project. Clicking on a logo takes you to that particular group's web page. In this example, Paradigm Solutions' logo was clicked and their website is now displayed.



This is the Information Display Screen. This screen displays the contents of the packet that was selected in the Packet Selector Screen. The two buttons on the upper left, the Choose Packet Button and the Choose Protocol Button, bring the user to the Packet Selector Screen and the Protocol Selection Screen, respectively. There are tabs that would allow the user to traverse the protocol tree, less the Ethernet root. Since, in this example the user had selected an HTTP packet; the tabs at the bottom of the screen are IP, TCP, and HTTP. Everything on this screen except for the packet fields is geographically static, that is they will not change in size or location on this screen. The user first sees the highest level of protocol, in this case HTTP. This is the screen as the user first sees it.



Clicking on any of the fields causes the program to display both information about the field and the data contained in that field in the Information Box, located on the left of the screen. This is an example of the user clicking on the **(choose a protocol and display the information of it)**.

The screenshot displays a network protocol analyzer interface. At the top, an **Ethernet Frame** (RFC-0894) is shown with fields: Destination MAC Address, Source MAC Address, Length, IP PDU, and CRC. Below it, an **IP Frame** (RFC-0791) is detailed with the following fields and their bit patterns:

- IP Version:** 0100
- Header Length:** 0101
- Type of Service:** 00000000
- Total Length:** 00000010
- Identification:** 001111100000000101
- Fragment Offset:** 0100000000000000
- Time to live:** 01000000
- Protocol:** 00000011
- Header Checksum:** 0111101011110111
- Source IP Address:** 1100000010100000000000001100
- Destination IP Address:** 11000000010101000000000000000110001001
- Options:** (empty)
- TCP PDU:** (empty)

At the bottom of the IP frame, tabs for **IP**, **TCP**, and **HTTP** are visible. On the left, the **Information Box** shows details for the selected **HTTP PDU**, including its type, field, and service level.

This is an example of the user selecting the TCP protocol tab at the bottom of the screen. It displays the selected packet's TCP protocol information.

Switching between the protocols in the protocol tree does not clear the information within the Information Box at the left of the screen. Clicking on a different field clears out the information box and displays the information of the newly selected field. This is an example of the user selecting **(choose a different protocol to display and display its information)**.

This is an example of the user selecting the IP protocol tab at the bottom of the screen. It displays the selected packet's IP protocol information.