CLAIM CHART EXHIBIT 10 "MOSAIC AND CHRIS McRAE"
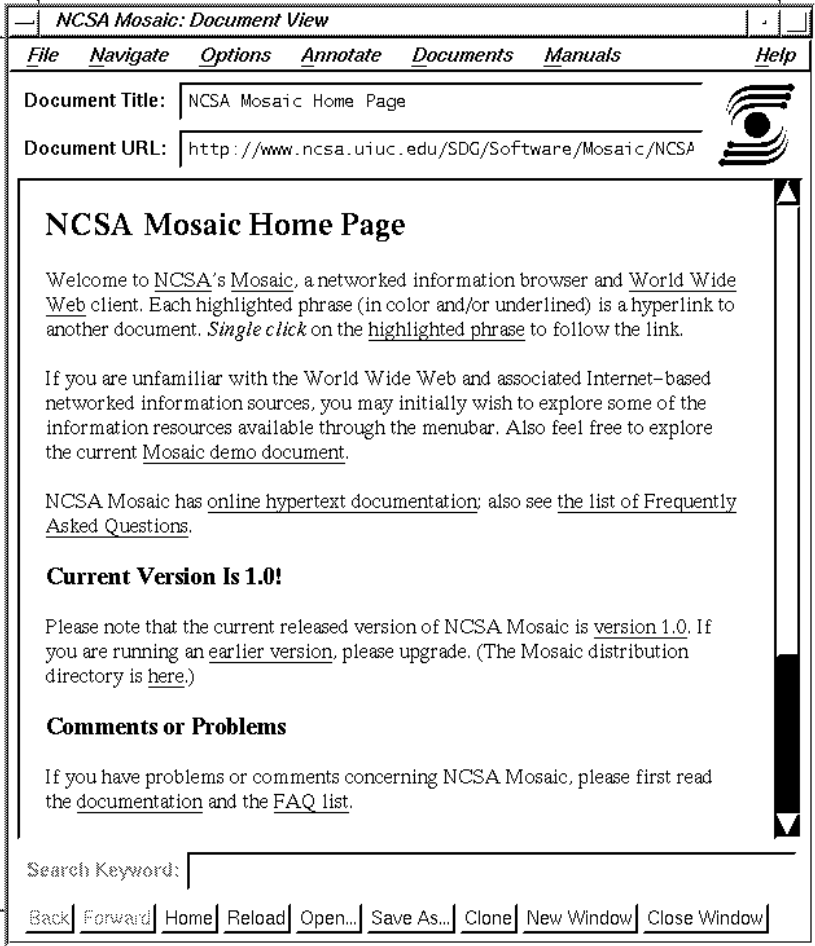
INVALIDITY CLAIM CHART FOR U.S. PATENT NO. 5,838,906

BASED ON NCSA MOSAIC FOR X 2.0 AVAILABLE", WWW-TALK, OCT-DEC, 1993 [PA-00292659] [ANDREESSEN93A], NCSA MOSAIC TECHNICAL SUMMARY [PA-00292824] [ANDREESSEN 93B], NCSA COLLAGE FOR THE MACINTOSH VERSION 1.0, OCTOBER 1992 [PA-00292677] [COLLAGE92], MOSAIC SOFTWARE INCLUDING THE CODEBASES FOUND AT [PA-NAT-00000044] – [PA-NAT-00000046], MY PERSONAL EXPERIENCE WITH THE MOSAIC BROWSER, AND CHRIS MCRAE'S JUNE 26, 1993 POSTING ENTITLED "RE: XMOSAIC AND XV" [WWW-TALK-00293020], ("MOSAIC AND MCRAE'S POSTING"); MCRAE TR. AND EXHIBITS; BINA TR. AND EXHIBITS 4 AND 7. THE BODY OF MY REPORT HAS A NARRATIVE DESCRIPTION THAT AUGMENTS AND SHOULD BE CONSIDERED PART OF THIS CHART, AND VISE-VERSA FOR THIS AND ALL MY CHARTS.

Claim Text from '906 Patent	Mosaic and McRae's posting
906-1.a: A method for running an application program in a computer network environment, comprising:	Mosaic and McRae's posting discloses an application program. *See, e.g.,* : Compilation of code from the archive file: file://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z produced an application program. Other examples of prior art Mosaic distributions that operated as application programs include the Mosaic Source Code identified above. Mosaic and McRae's posting discloses a computer network environment. *See, e.g.,* : From [Andreessen93b]," NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet."
906-1.b: providing at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment;	Mosaic and McRae's posting discloses a client workstation. *See, e.g.,* : From [Andreessen93a],Mosaic was supported on the following client workstations: SGI (IRIX 4.0.2)

Claim Text from '906 Patent	Mosaic and McRae's posting
	IBM (AIX 3.2) Sun 4 (SunOS 4.1.2 with stock X11R4 and Motif 1.1 Mosaic and McRae's posting discloses a network server. *See, e.g.,* : From [Andreessen93b], "NCSA Data Transfer Mechanism communications support_ for integration with NCSA Collage and other network_based DTM clients and information servers." Mosaic and McRae's posting discloses a distributed hypermedia environment. *See, e.g.,* : From [Andreessen93b]," NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet."
906-1.c: executing, at said client workstation, a browser application, that parses a first distributed hypermedia document to identify text formats included in said distributed hypermedia document and for responding to predetermined text formats to initiate processing specified by said text formats;	Mosaic and McRae's posting discloses a browser application. *See, e.g.,* : Compilation of code from the archive file: file://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z produced an executable browser application. Other examples of prior art Mosaic distributions that operated as application programs include the Mosaic Source Code identified above. Mosaic and McRae's posting discloses that the browser application parses a hypermedia document. *See, e.g.,* : From [Andreessen 93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type

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Claim Text from '906 Patent	Mosaic and McRae's posting
	XBM and GIF are embedded inline by the HTML img tag. Mosaic and McRae's posting discloses a hypermedia document with text formats. *See, e.g.*, : From [Andreessen 93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
906-1.d: utilizing said browser to display, on said client workstation, at least a portion of a first hypermedia document received over said network from said server,	Mosaic and McRae's posting discloses that a hypermedia document is received from the server. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet." See above. Mosaic and McRae's posting discloses that the browser displays a hypermedia document. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet."
906-1.e: wherein the portion of said first hypermedia document is displayed within a first browser-controlled window on said client workstation,	Mosaic and McRae's posting discloses that a hypermedia document is displayed in a browser window. *See, e.g.*, : From [Andreessen93b], "A screen snapshot of NCSA Mosaic for X viewing the Mosaic home page _ the document that is retrieved and displayed when Mosaic is launched_ is in Figure 1". The figure is shown here:

Claim Text from '906 Patent	Mosaic and McRae's posting
906-1.f: wherein said first distributed hypermedia document includes an embed text format, located at a first location in said first distributed hypermedia document, that specifies the location of at least a portion of an object external to the first	Mosaic and McRae's posting discloses an embed text format at a first location in a hypermedia document. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia

Claim Text from '906 Patent	Mosaic and McRae's posting
distributed hypermedia document,	data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In Mosaic, HTML tags were at a first location in a hypermedia document. Text and objects were rendered in the browser window based on the order in which corresponding tags were parsed, so objects associated with the img tag were placed at the first location. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents, and as with the img tag it would have been at a first location in a hypermedia document. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.
	Mosaic and McRae's posting discloses that the embed text format specifies the location of an object. *See, e.g.*, :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In HTML, one specified an object using the img tag by specifying its filepath location.

Claim Text from '906 Patent	Mosaic and McRae's posting
	In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. As with the img tag, such a text format would have specified an object's filepath location. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.
	Mosaic and McRae's posting discloses an object that is external to a hypermedia document. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. The object is external to the hypermedia document because it can be located at a file path location separate from the location of the hypermedia document.
	In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed embedding GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such objects would have been external to a hypermedia document. Accordingly, the display of such objects managed by XV (or an HDF- and tooltalk-capable version of XV) would have been obvious.
906-1.g:	Mosaic and McRae's posting discloses that the object has associated type

Claim Text from '906 Patent	Mosaic and McRae's posting
wherein said object has type information associated with it utilized by said browser to identify and locate an executable application external to the first distributed hypermedia document, and	information. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. All objects have a specific MIME type. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for all objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well. Mosaic and McRae's posting discloses that the browser uses type information to identify and locate an executable application. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable

Claim Text from '906 Patent	Mosaic and McRae's posting
	application. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well, and that would have been used to identify the XV (or an HDF- and tooltalk-capable version of XV) executable application. Mosaic and McRae's posting discloses that the executable application is external to the hypermedia document. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program, such as programs for handling MPEG or PostScript. The MIME type of the object is used to locate an appropriate executable application. All such applications are external to the hypermedia document. [Andreessen93b] Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such applications would also have been external to the hypermedia document.
906-1.h: wherein said embed text format is parsed by said	Mosaic and McRae's posting discloses that the browser parses the embed text format. *See, e.g.,* :

Claim Text from '906 Patent	Mosaic and McRae's posting
browser to automatically invoke said executable application to execute on said client workstation in order to display said object and enable an end-user to directly interact with said object within a display area created at said first location within the portion of said first distributed hypermedia document being displayed in said first browser-controlled window.	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.

Mosaic and McRae's posting discloses automatic invocation of the executable application. *See, e.g.,* :

From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application. Helper applications display the hypermedia object and are invoked by the user, not automatically. |

Claim Text from '906 Patent	Mosaic and McRae's posting
	However, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. It was inherent that this would be triggered through an HTML embed text format, because Mosaic rendered HTML documents. The default invocation under such a setup would normally be automatic.

Mosaic and McRae's posting discloses that the executable application displays the object. *See, e.g.*, :

From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application, such as programs for handling MPEG or PostScript. Helper applications display the hypermedia object. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline.   Accordingly, it would have been obvious to use such applications to display objects.

Mosaic and McRae's posting discloses that the executable application enables direct interaction with the object. *See, e.g.*, : |

Claim Text from '906 Patent	Mosaic and McRae's posting
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application, such as programs for handling MPEG or PostScript. [Andreessen93b] Helper applications display the hypermedia object and enable direct interaction with the hypermedia object. Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. XV was an application program that enabled direct interaction with an object. For example, with XV, a user could apply various special effects or scaling factors to a displayed image object. Mosaic and McRae's posting render it obvious that interaction with the object is at a first location in the hypermedia document. *See, e.g.,* : Interaction with the hypermedia object is achieved through the helper application control panel and its window. Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained

Claim Text from '906 Patent	Mosaic and McRae's posting
	that this would be achieved by providing a server (such as xv) with a window id.
	XV was an application program that enabled direct interaction with an object. For example, with XV, a user could apply various special effects or scaling factors to a displayed image object.
	The interactive controls in XV were typically provided through a separate control panel. However, in [www-talk-00293020], Marc Andreessen and Chris McRae discussed that the executable application would be passed an X window id and thus be rendered in a sub-window. This would have enabled the executable application to process X events, including mouse events that occur on the sub-window, of the type that I discuss in the X Windows section of my report.

XV Control Window

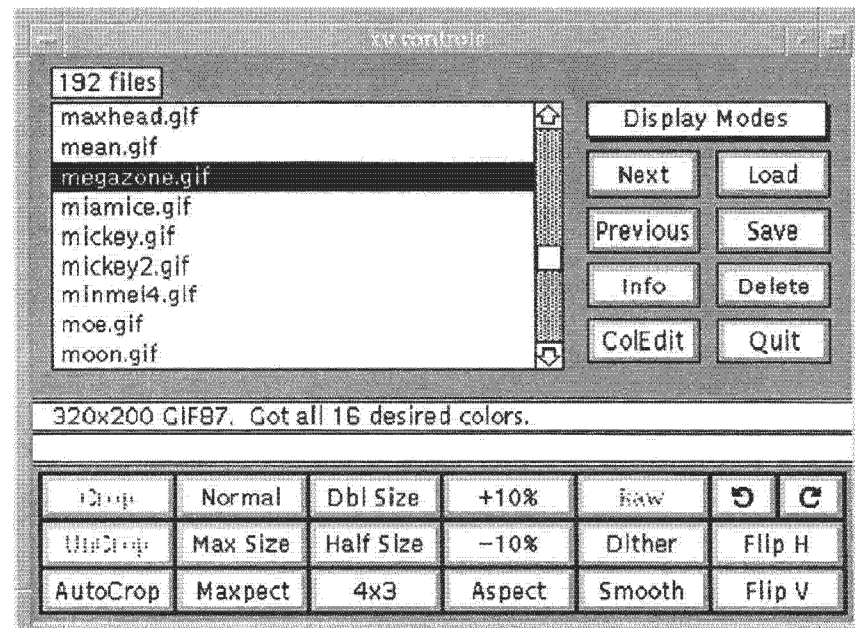| Claim Text from '906 Patent	Mosaic and McRae's posting
906-2.a: The method of claim 1, wherein said executable application is a controllable application and further comprising the step of: interactively controlling said controllable application on said client workstation via inter-process communications between said browser and said controllable application.	Mosaic and McRae's posting discloses interactive control via inter-process communications between a browser and an application. *See, e.g.,* : As one example, interprocess communication is used to launch helper applications after they are invoked by a user interaction. Also, from [Collage92], the Collage application is described by: "in a networked environment, this tool provides the capability to distribute most of these data analysis and visualization functions synchronously among a number of users. This is the foundation for the collaborative aspects of this tool's functionality." Interprocess communication facilitates communication between the browser and the Collage application. From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. McRae further proposed integrating tooltalk capabilities into Mosaic. As discussed in my report, tooltalk was a common mechanism for interprocess communications and would have been used by XV to communicate with Mosaic.
906-3.a: The method of claim 2, wherein the communications to interactively control said controllable application continue to be exchanged between the controllable application and the browser even after the controllable application program has been launched.	Mosaic and McRae's posting discloses ongoing inter-process communications. *See, e.g.,* : From [Collage92], the Collage application is described by: "in a networked environment, this tool provides the capability to distribute most of these data analysis and visualization functions synchronously among a number of users. This is the foundation for the collaborative aspects of this tool's functionality." Interprocess communication facilitates communication between the browser and the Collage application. Once communication is established it is ongoing.

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	From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. McRae further proposed integrating tooltalk capabilities into Mosaic. As discussed in my report, tooltalk was a common mechanism for interprocess communications and would have been used by XV to communicate with Mosaic. Such inter-process communications would have been ongoing because they would have handled ongoing user interactions with XV.
906-6.a: A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:	Mosaic and McRae's posting discloses an application program in a computer network environment. *See* evidence recited for 906-1.a. Mosaic and McRae's posting also discloses a client workstation and a network server in a distributed hypermedia environment. *See* evidence recited for 906-1.b.
906-6.b: a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:	Mosaic and McRae's posting discloses computer code physically embodied on a medium. *See, e.g.,* : Release of machine readable source code of Mosaic 0.5 at access path file ://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z disclosed in [Andreessen93a]. A listing of current capabilities was disclosed in the same document as well as machines it was known to compile on. See also Mosaic Source Code.
906-6.c: computer readable program code for causing said client workstation to execute a browser application to parse a first distributed hypermedia document to identify text formats included in said distributed	Mosaic and McRae's posting discloses a browser application that parses a hypermedia document with text formats. *See* evidence recited for 906-1.c.

Claim Text from '906 Patent	Mosaic and McRae's posting
hypermedia document and to respond to predetermined text formats to initiate processes specified by said text formats;	
906-6.d: computer readable program code for causing said client workstation to utilize said browser to display, on said client workstation, at least a portion of a first hypermedia document received over said network from said server,	Mosaic and McRae's posting discloses a hypermedia document received from a server and a browser that displays the hypermedia document. *See* evidence recited for 906-1.d.
906-6.e: wherein the portion of said first hypermedia document is displayed within a first browser-controlled window on said client workstation,	Mosaic and McRae's posting discloses that the hypermedia document is displayed in a browser window. *See* evidence recited for 906-1.e.
906-6.f: wherein said first distributed hypermedia document includes an embed text format, located at a first location in said first distributed hypermedia document, that specifies the location of at least a portion of an object external to the first distributed hypermedia document,	Mosaic and McRae's posting discloses an embed text format at a first location in a hypermedia document; that the embed text format specifies the location of an object; and that the object is external to the hypermedia document. *See* evidence recited for 906-1.f.
906-6.g: wherein said object has type information associated with it utilized by said browser to identify and locate an executable application external to the first distributed hypermedia document, and	Mosaic and McRae's posting discloses that the object has associated type information, that the browser uses the type information to identify and locate an executable application, and that the executable application is external to the hypermedia document. *See* evidence recited for 906-1.g.
906-6.h: wherein said embed text format is parsed by said browser to automatically invoke said executable application to execute on said client workstation in order to display said object and enable an end-user to directly interact with said object within a	Mosaic and McRae's posting discloses that the browser parses the embed text format; that the browser automatically invokes the executable application; that the executable application displays the object and enables an end-user to directly interact with it; and that interaction with the object is at a first location in the hypermedia document. *See* evidence recited for 906-1.h.

Claim Text from '906 Patent	Mosaic and McRae's posting
display area created at said first location within the portion of said first distributed hypermedia document being displayed in said first browser-controlled window.	
906-7.a: The computer program product of claim 6, wherein said executable application is a controllable application and further comprising: computer readable program code for causing said client workstation to interactively control said controllable application on said client workstation via inter-process communications between said browser and said controllable application.	Mosaic and McRae's posting discloses interactive control via inter-process communications between a browser and an application. *See* evidence recited for 906-2.a.
906-8.a: The computer program product of claim 7, wherein the communications to interactively control said controllable application continue to be exchanged between the controllable application and the browser even after the controllable application program has been launched.	Mosaic and McRae's posting discloses ongoing inter-process communications. *See* evidence recited for 906-3.a.
906-11.a: The method of claim 3, wherein additional instructions for controlling said controllable application reside on said network server, wherein said step of interactively controlling said controllable application includes the following substeps:	Mosaic and McRae's posting discloses additional instructions on the server *See, e.g.* : Also from [Collage92], "Among Collage's many features is the ability to establish communication with remote processes, e.g. a simulation running on a supercomputer. These remote processes can be controlled remotely, and images and data can be transported to and from the remote process." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure

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	of distributed applications, in which additional instructions are on the server, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which additional instructions are on the server, such as VIS.
906-11.b: issuing, from the client workstation, one or more commands to the network server;	Mosaic and McRae's posting discloses that the client issues commands to the server. *See, e.g.* : Also from [Collage92], "Among Collage's many features is the ability to establish communication with remote processes, e.g. a simulation running on a supercomputer. These remote processes can be controlled remotely, and images and data can be transported to and from the remote process." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications, in which a client issues commands to a server, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed."

Claim Text from '906 Patent	Mosaic and McRae's posting
	McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which a client issues commands to a server, such as VIS.
906-11.c: executing, on the network server, one or more instructions in response to said commands;	Mosaic and McRae's posting discloses that the server executes instructions in response to client commands. *See, e.g.:* Also from [Collage92], "Among Collage's many features is the ability to establish communication with remote processes, e.g. a simulation running on a supercomputer. These remote processes can be controlled remotely, and images and data can be transported to and from the remote process." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications, in which servers execute in response to commands, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which servers execute in response to commands, such as VIS.
906-11.d: sending information from said network server to said client workstation in response to said executed	Mosaic and McRae's posting discloses that the server responds with information to the client. *See, e.g.:*

Claim Text from '906 Patent	Mosaic and McRae's posting
instructions; and	Also from [Collage92], "Consequently, collaborators using Mosaic clients and are involved a Collage session can, for example, open and view an HDF (Hierarchical Data Format) file that was produced by a supercomputer computation. Members of the session could (non-destructively) annotate the displayed image to point out significant features." Data from the HDF file was displayed on a separate application on the *client workstation*. From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications, in which servers respond with information to a client, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which servers respond with information to a client, such as VIS.
906-11.e: processing said information at the client workstation to interactively control said controllable application.	Mosaic and McRae's posting discloses that the client uses information from the server to interactively control the application. *See, e.g.:* Also from [Collage92], "Among Collage's many features is the ability to establish communication with remote processes, e.g. a simulation running on a supercomputer. These remote processes can be controlled remotely, and images and data can be transported to and from the remote process." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications, in which clients use information from servers to

Claim Text from '906 Patent	Mosaic and McRae's posting
	control the application, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which clients use information from servers to control the application, such as VIS.
906-13.a: The computer program product of claim 8, wherein additional instructions for controlling said controllable application reside on said network server, wherein said computer readable program code for causing said client workstation to interactively control said controllable application on said client workstation includes:	Mosaic and McRae's posting discloses additional instructions on the server *See* evidence recited for 906-11.a.
906-13.b: computer readable program code for causing said client workstation to issue from the client workstation, one or more commands to the network server;	Mosaic and McRae's posting discloses that the client issues commands to the server. *See* evidence recited for 906-11.b.
906-13.c: computer readable program code for causing said network server to execute one or more instructions in response to said commands;	Mosaic and McRae's posting discloses that the server executes instructions in response to client commands. *See* evidence recited for 906-11.c.
906-13.d: computer readable program code for causing said	Mosaic and McRae's posting discloses that the server responds with information to the client. *See* evidence recited for 906-11.d.

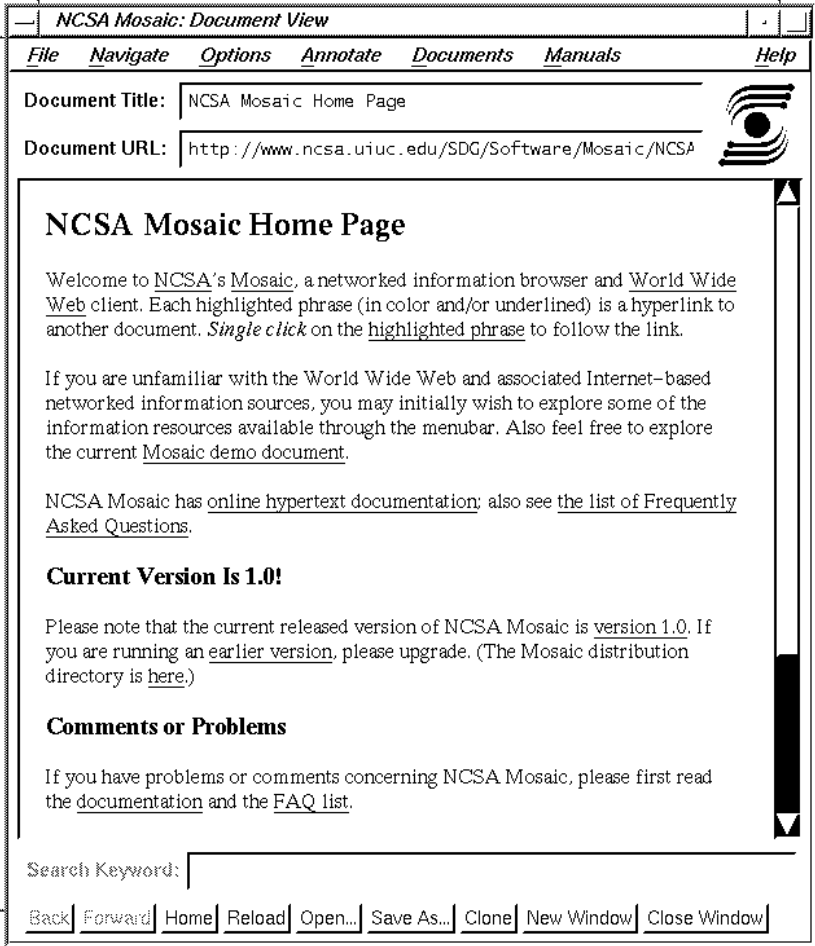| Claim Text from '906 Patent	Mosaic and McRae's posting
network sever to send information to said client workstation in response to said executed instructions; and	
906-13.e: computer readable program code for causing said client workstation to process said information at the client workstation to interactively control said controllable application.	Mosaic and McRae's posting discloses that the client uses information from the server to interactively control the application. *See* evidence recited for 906-11.e.

INVALIDITY CLAIM CHART FOR U.S. PATENT NO. 7,599,985

BASED ON NCSA MOSAIC FOR X 2.0 AVAILABLE", WWW-TALK, OCT-DEC, 1993 [PA-00292659] [ANDREESSEN93A], NCSA MOSAIC TECHNICAL SUMMARY [PA-00292824] [ANDREESSEN 93B], NCSA COLLAGE FOR THE MACINTOSH VERSION 1.0, OCTOBER 1992 [PA-00292677] [COLLAGE92], MOSAIC SOFTWARE INCLUDING THE CODEBASES FOUND AT [PA-NAT-00000044] – [PA-NAT-00000046], MY PERSONAL EXPERIENCE WITH THE MOSAIC BROWSER, AND CHRIS MCRAE'S JUNE 26, 1993 POSTING ENTITLED "RE: XMOSAIC AND XV" [WWW-TALK-00293020], ("MOSAIC AND MCRAE'S POSTING"); MCRAE TR. AND EXHIBITS; BINA TR. AND EXHIBITS 4 AND 7. THE BODY OF MY REPORT HAS A NARRATIVE DESCRIPTION THAT AUGMENTS AND SHOULD BE CONSIDERED PART OF THIS CHART, AND VISE-VERSA FOR THIS AND ALL MY CHARTS.

Claim Text from '985 Patent	Mosaic and McRae's posting
985-1.a: A method for running an application program in a distributed hypermedia network environment, wherein the network environment comprises at least one client workstation and one network server coupled to the network environment, the method comprising:	Mosaic and McRae's posting discloses an application program. *See, e.g.,* : Compilation of code from the archive file: file://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z produced an application program. Other examples of prior art Mosaic distributions that operated as application programs include the Mosaic Source Code identified above. Mosaic and McRae's posting discloses a computer network environment. *See, e.g.,* : From [Andreessen93b]," NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet." Mosaic and McRae's posting discloses a client workstation. *See, e.g.,* : From [Andreessen93a],Mosaic was supported on the following client workstations: SGI (IRIX 4.0.2)

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Claim Text from '985 Patent	Mosaic and McRae's posting
	IBM (AIX 3.2) Sun 4 (SunOS 4.1.2 with stock X11R4 and Motif 1.1 Mosaic and McRae's posting discloses a network server. *See, e.g.,* : From [Andreessen93b], "NCSA Data Transfer Mechanism communications support_ for integration with NCSA Collage and other network_based DTM clients and information servers." Mosaic and McRae's posting discloses a distributed hypermedia environment. *See, e.g.,* : From [Andreessen93b]," NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet."
985-1.b: receiving, at the client workstation from the network server over the network environment, at least one file containing information to enable a browser application to display at least a portion of a distributed hypermedia document within a browser-controlled window;	Mosaic and McRae's posting discloses a browser application. *See, e.g.,* : Compilation of code from the archive file: file://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z produced an executable browser application. Other examples of prior art Mosaic distributions that operated as application programs include the Mosaic Source Code identified above. Mosaic and McRae's posting discloses a file containing enabling information. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type

Claim Text from '985 Patent	Mosaic and McRae's posting
	XBM and GIF are embedded inline by the HTML img tag.
	Mosaic and McRae's posting discloses that the file is received at the client workstation from the network server. *See, e.g.*, :
	From [Andreessen93b], "NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet." Hypermedia document is a file received from server described above.
	Mosaic and McRae's posting discloses that the browser displays at least a portion of a distributed hypermedia document. *See, e.g.*, :
	From [Andreessen93b], "NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet."
	Mosaic and McRae's posting discloses that at least a portion of a hypermedia document is displayed in a browser-controlled window. *See, e.g.*, :
	From [Andreessen93b], "A screen snapshot of NCSA Mosaic for X viewing the Mosaic home page _ the document that is retrieved and displayed when Mosaic is launched_ is in Figure 1." The figure is shown here:

Claim Text from '985 Patent	Mosaic and McRae's posting
985-1.c: executing the browser application on the client workstation, with the browser application:	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See, e.g.,* : Compilation of code from the archive file: file://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z produced an executable browser application.

Claim Text from '985 Patent	Mosaic and McRae's posting
	Other examples of prior art Mosaic distributions that operated as application programs include the Mosaic Source Code identified above.
985-1.d: responding to text formats to initiate processing specified by the text formats;	Mosaic and McRae's posting discloses responding to text formats to initiate processing specified by the text formats, i.e., parsing text formats. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
985-1.e: displaying at least a portion of the document within the browser-controlled window;	Mosaic and McRae's posting discloses that the browser displays a hypermedia document. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic provides extensive distributed hypermedia capabilities that take advantage of the information base on the global Internet." Mosaic and McRae's posting discloses that a hypermedia document is displayed in a browser window. *See, e.g.,* : From [Andreessen93b], "A screen snapshot of NCSA Mosaic for X viewing the Mosaic home page _ the document that is retrieved and displayed when Mosaic is launched_ is in Figure 1" The figure is shown here:

Claim Text from '985 Patent	Mosaic and McRae's posting
	NCSA Mosaic: Document View File Navigate Options Annotate Documents Manuals Help Document Title: `NCSA Mosaic Home Page` Document URL: `http://www.ncsa.uiuc.edu/SDG/Software/Mosaic/NCSA` **NCSA Mosaic Home Page** Welcome to NCSA's Mosaic, a networked information browser and World Wide Web client. Each highlighted phrase (in color and/or underlined) is a hyperlink to another document. *Single click* on the highlighted phrase to follow the link. If you are unfamiliar with the World Wide Web and associated Internet–based networked information sources, you may initially wish to explore some of the information resources available through the menubar. Also feel free to explore the current Mosaic demo document. NCSA Mosaic has online hypertext documentation; also see the list of Frequently Asked Questions. **Current Version Is 1.0!** Please note that the current released version of NCSA Mosaic is version 1.0. If you are running an earlier version, please upgrade. (The Mosaic distribution directory is here.) **Comments or Problems** If you have problems or comments concerning NCSA Mosaic, please first read the documentation and the FAQ list. Search Keyword: Back Forward Home Reload Open... Save As... Clone New Window Close Window
985-1.f: identifying an embed text format which corresponds to a first location in the document, where the embed text format specifies the location of at least a portion of an object external to the file, where the object has type information associated	Mosaic and McRae's posting discloses identifying an embed text format. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia

Claim Text from '985 Patent	Mosaic and McRae's posting
with it;	data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art. Mosaic and McRae's posting discloses that the embed text format corresponds to a first location in the hypermedia document. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. It corresponds to first location in the hypermedia document. In Mosaic, objects were rendered in the browser window based on the order in which corresponding HTML tags were parsed, so the img tag corresponds to the first location in the hypermedia document at which the object is displayed. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that

Claim Text from '985 Patent	Mosaic and McRae's posting
	an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. As with the img tag, such an embed text format would have been at a first location in a hypermedia document and would have corresponded to a first location at which the image object was displayed. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art. Mosaic and McRae's posting discloses that the embed text format specifies the location of an object. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In HTML, one specified an object using the img tag by specifying its filepath location. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. As with the img tag, such a text format would have specified an object's filepath location. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art. Mosaic and McRae's posting discloses that the object is external to the file

Claim Text from '985 Patent	Mosaic and McRae's posting
	containing enabling information. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. The object is external to the hypermedia document because it can be located at a file path location separate from the location of the file containing enabling information.
	Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such objects would have been external to a file containing enabling information. Accordingly, the display of such objects managed by XV (or an HDF- and tooltalk-capable version of XV) would have been obvious.
	Mosaic and McRae's posting discloses that the object has associated type information. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format.

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Claim Text from '985 Patent	Mosaic and McRae's posting
	Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. All objects have a specific MIME type. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for all objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well.
985-1.g: utilizing the type information to identify and locate an executable application external to the file; and	Mosaic and McRae's posting discloses that the browser uses type information to identify and locate an executable application. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well, and that would have been used to identify the XV (or an HDF- and tooltalk-capable version of XV) executable application.

Claim Text from '985 Patent	Mosaic and McRae's posting
	Mosaic and McRae's posting discloses that the executable application is external to the file containing enabling information. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application. All such applications are external to the file containing enabling information. [Andreessen93b]
	Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such applications would also have been external to the file containing enabling information.
985-1.h: automatically invoking the executable application, in response to the identifying of the embed text format, to execute on the client workstation in order to display the object and enable an end-user to directly interact with the object while the object is being displayed within a display area created at the first location within the portion of the hypermedia document being displayed in the browser-controlled window.	Mosaic and McRae's posting discloses that the browser parses the embed text format. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of

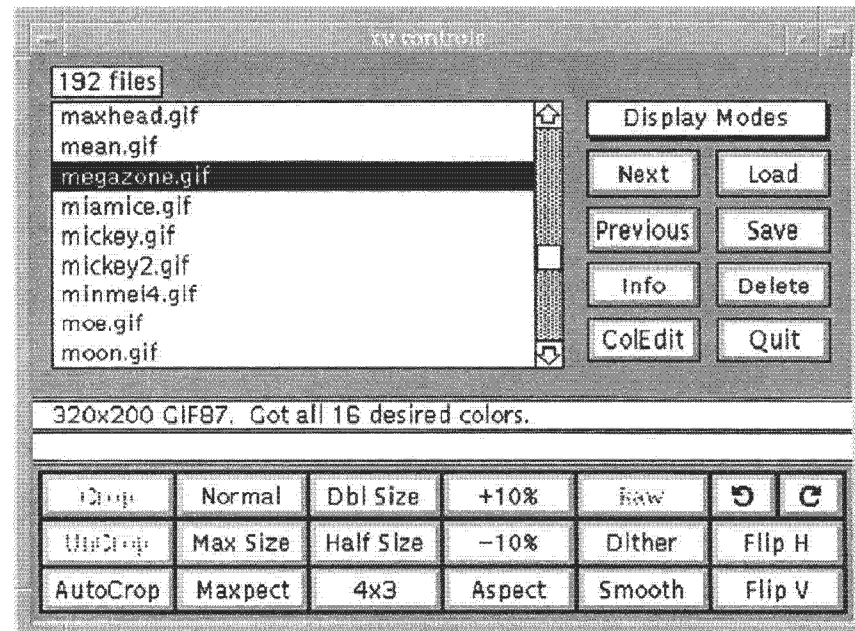| Claim Text from '985 Patent	Mosaic and McRae's posting
	executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.
	Mosaic and McRae's posting discloses automatic invocation of the executable application. *See, e.g.*, :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application. Helper applications display the hypermedia object and are invoked by the user, not automatically. However, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. It was inherent that this would be triggered through an HTML embed text format, because Mosaic rendered HTML documents. The default invocation under such a setup would normally be automatic.
	Mosaic and McRae's posting discloses that the executable application displays

Claim Text from '985 Patent	Mosaic and McRae's posting
	the object. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application, such as programs for handling MPEG or PostScript. Helper applications display the hypermedia object. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Accordingly, it would have been obvious to use such applications to display objects.
	Mosaic and McRae's posting discloses that the executable application enables direct interaction with the object. *See, e.g.,* :
	From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program.

Claim Text from '985 Patent	Mosaic and McRae's posting
	The MIME type of the object is used to locate an appropriate executable application, such as programs for handling MPEG or PostScript. [Andreessen93b] Helper applications display the hypermedia object and enable direct interaction with the hypermedia object.
	However, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. XV was an application program that enabled direct interaction with an object. For example, with XV, a user could apply various special effects or scaling factors to a displayed image object.
	Mosaic and McRae's posting renders obvious that interaction with the object is at a first location in the hypermedia document. *See, e.g.,* :
	Interaction with the hypermedia object is achieved through the helper application control panel and its window.
	Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id.
	XV was an application program that enabled direct interaction with an object. For example, with XV, a user could apply various special effects or scaling factors to a displayed image object.
	The interactive controls in XV were typically provided through a separate control panel. However, in [www-talk-00293020], Marc Andreessen and Chris McRae discussed that the executable application would be passed an X window id and thus be rendered in a sub-window. This would have enabled the executable application to process X events, including mouse

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Claim Text from '985 Patent	Mosaic and McRae's posting
	events that occur on the sub-window, of the type that I discuss in the X Windows section of my report. **XV Control Window**
985-2.a: The method of claim 1 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating

Claim Text from '985 Patent	Mosaic and McRae's posting
	these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
985-3.a: The method of claim 2 where the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
985-4.a: The method of claim 1 where the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See, e.g.*, : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.

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985-5.a: The method of claim 1 where the step of identifying an embed text format comprises: parsing the received file to identify text formats included in the received file.	Mosaic and McRae's posting discloses that the embed text format is identified by parsing the file containing enabling information. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.
985-6.a: The method of claim 5 where the parsing is by a parser in the browser.	Mosaic and McRae's posting discloses that the parser is in the browser *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
985-7.a:	Mosaic and McRae's posting discloses that the text formats directly specify the

Claim Text from '985 Patent	Mosaic and McRae's posting
The method of claim 1 where the processing specified by the text formats is specified directly.	processing. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag.
985-8.a: The method of claim 1 where the correspondence is implied by the order of the text format in a set of all of the text formats.	Mosaic and McRae's posting discloses that the correspondence is implied by the order of text formats. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag. Text and objects were rendered in the browser window based on the order in which corresponding tags were parsed, so the correspondence was implied by the order of text formats.
985-9.a: The method of claim 1 where the embed text format specifies the location of at least a portion of an object directly.	Mosaic and McRae's posting discloses that the embed text format specifies the location of the object directly. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating

Claim Text from '985 Patent	Mosaic and McRae's posting
	these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In HTML, one specified an object using the img tag by directly specifying its filepath location. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embedding of GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was inherent that an HTML embed text format would have been used to achieve inline functionality for XV (or an HDF- and tooltalk-capable version of xv) because Mosaic rendered HTML documents. As with the img tag, such a text format would have specified an object's filepath location directly. Thus, such an embed text format would have been obvious to a person of ordinary skill in the art.
985-10.a: The method of claim 1 where having type information associated is by including type information in the embed text format.	Mosaic and McRae's posting discloses that the type information is in the embed text format. *See, e.g.,* : Type information is the MIME type text. In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for all objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well, and that would have been the MIME type text. Moreover, it was obvious given the state of the art and given contemporaneous discussions involving HTML and Mosaic that the type information would be in the embed text format. (See, e.g., [Ragget93a] or [Cohen]) (showing use of "type=" or "objtype=" parameters).
985-11.a:	Mosaic and McRae's posting discloses that automatic invocation does not require

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The method of claim 1 where automatically invoking does not require interactive action by the user.	interactive action by the user. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application. [Andreessen93b] Helper applications display the hypermedia object and require interactive action by the user. Invocation is not automatic. However, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. It was inherent that this would be triggered through an HTML embed text format, because Mosaic rendered HTML documents. The default invocation under such a setup would normally be automatic and would not require interactive action by the user.
985-16.a: One or more computer readable media encoded with software comprising computer executable instructions, for use in a distributed hypermedia network environment, wherein the network environment comprises at least one client workstation and one network server coupled to the	Mosaic and McRae's posting discloses computer code physically embodied on a medium. *See, e.g.,* : Release of machine readable source code of Mosaic 0.5 at access path file ://tip.ncsa.uiuc.edu/Web/xmosaic/xmosaic-0.5.tar.Z disclosed in [Andreessen93a]. A listing of current capabilities was disclosed in the same document as well as machines it was known to compile on.

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network environment, and when the software is executed operable to:	See also Mosaic Source Code. Mosaic and McRae's posting discloses a client workstation and a network server in a distributed hypermedia environment. *See* evidence recited for 985-1.a.
985-16.b: receive, at the client workstation from the network server over the network environment, at least one file containing information to enable a browser application to display at least a portion of a distributed hypermedia document within a browser-controlled window;	Mosaic and McRae's posting discloses a browser application; a file containing enabling information received from a server; that the browser displays at least a portion of a distributed hypermedia document; and that the display is in a browser-controlled window. *See* evidence recited for 985-1.b.
985-16.c: cause the client workstation to utilize the browser to:	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c.
985-16.d: respond to text formats to initiate processing specified by the text formats;	Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-16.e: display at least a portion of the document within the browser-controlled window;	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e.
985-16.f: identify an embed text format corresponding to a first location in the document, the embed text format specifying the location of at least a portion of an object external to the file, with the object having type information associated with it;	Mosaic and McRae's posting discloses identifying an embed text format; that the embed text format corresponds to a first location in a hypermedia document; that the embed text format specifies the location of at least a portion of an object external to the file containing enabling information; and that the object has associated type information. *See* evidence recited for 985-1.f.
985-16.g: utilize the type information to identify and locate an executable application external to the file; and	Mosaic and McRae's posting discloses using type information to identify and locate an executable application external to the file. *See* evidence recited for 985-1.g.
985-16.h: automatically invoke the executable application, in response to the identifying of the embed text	Mosaic and McRae's posting discloses automatically invoking the executable application; that the executable application displays the object and enables an end-user to directly interact with it; and that the interaction with the object is at a

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format, to execute on the client workstation in order to display the object and enable an end-user to directly interact with the object while the object is being displayed within a display area created at the first location within the portion of the hypermedia document being displayed in the browser-controlled window.	first location in a hypermedia document. *See* evidence recited for 985-1.h.
985-17.a: The computer readable media of claim 16 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See* evidence recited for 985-2.a.
985-18.a: The computer readable media of claim 17 where: the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See* evidence recited for 985-3.a.
985-19.a: The computer readable media of claim 16 where: the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See* evidence recited for 985-4.a.
985-20.a: A method of serving digital information in a computer network environment having a network server coupled the network environment, and where the network environment is a distributed hypermedia environment, the method comprising:	Mosaic and McRae's posting discloses digital information. *See, e.g.,* : From the discussion of Mosaic in my report," Graphical display of plain text, rich (formatted) text, and hypertext, as well as inlined access to graphs, images, audio clips, video sequences, and scientific data in multimedia and hypermedia documents." All that information is digital. Mosaic and McRae's posting discloses a network server in a distributed hypermedia environment. *See* evidence recited for 985-1.a.
985-20.b: communicating via the network server with at least	Mosaic and McRae's posting discloses a client workstation. *See* evidence recited for 985-1.a.

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one client workstation over said network in order to cause said client workstation to:	Mosaic and McRae's posting discloses communicating via network server in order to cause the client workstation to act. *See, e.g.,* : Also from [Collage92], "Consequently, collaborators using Mosaic clients and are involved a Collage session can, for example, open and view an HDF (Hierarchical Data Format) file that was produced by a supercomputer computation. Members of the session could (non-destructively) annotate the displayed image to point out significant features." Data from the HDF file was displayed on a separate application on the client workstation. From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications, in which network servers communicate in order to cause the client workstation to act, that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application in which network servers communicate in order to cause the client workstation to act, such as VIS.
985-20.c: receive, over said network environment from said server, at least one file containing information to	Mosaic and McRae's posting discloses a browser application; a file containing enabling information received from a server; that the browser displays at least a portion of a distributed hypermedia document; and that the display is in a

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enable a browser application to display at least a portion of a distributed hypermedia document within a browser-controlled window;	browser-controlled window. *See* evidence recited for 985-1.b.
985-20.d: execute, at said client workstation, a browser application, with the browser application:	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c.
985-20.e: responding to text formats to initiate processing specified by the text formats;	Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-20.f: displaying, on said client workstation, at least a portion of the document within the browser-controlled window;	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e.
985-20.g: identifying an embed text format which corresponds to a first location in the document, where the embed text format specifies the location of at least a portion of an object external to the file, where the object has type information associated with it;	Mosaic and McRae's posting discloses identifying an embed text format; that the embed text format corresponds to a first location in a hypermedia document; that the embed text format specifies the location of at least a portion of an object external to the file containing enabling information; and that the object has associated type information. *See* evidence recited for 985-1.f.
985-20.h: utilizing the type information to identify and locate an executable application external to the file; and	Mosaic and McRae's posting discloses using type information to identify and locate an executable application external to the file. *See* evidence recited for 985-1.g.
985-20.i: automatically invoking the executable application, in response to the identifying of the embed text format, to execute on the client workstation in order to display the object and enable an end-user to directly interact with the object while the object is being displayed within a display area created at the first location within the portion of the hypermedia document being displayed in the	Mosaic and McRae's posting discloses automatically invoking the executable application; that the executable application displays the object and enables an end-user to directly interact with it; and that the interaction with the object is at a first location in a hypermedia document. *See* evidence recited for 985-1.h.

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browser-controlled window.	
985-21.a: The method of claim 20 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See* evidence recited for 985-2.a.
985-22.a: The method of claim 21 where: the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See* evidence recited for 985-3.a.
985-23.a: The method of claim 20 where: the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See* evidence recited for 985-4.a.
985-24.a: A method for running an executable application in a computer network environment, wherein said network environment has at least one client workstation and one network server coupled to a network environment, the method comprising:	Mosaic and McRae's posting discloses a client workstation and a network server in a network environment. *See* evidence recited for 985-1.a. Mosaic and McRae's posting discloses an executable application. *See* evidence recited for 985-1.g.
985-24.b: enabling an end-user to directly interact with an object by utilizing said executable application to interactively process said object while the object is being displayed within a display area created at a first location within a portion of a hypermedia document being displayed in a browser-controlled window,	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e. Mosaic and McRae's posting discloses an object external to a file containing enabling information. *See* evidence recited for 985-1.f. Mosaic and McRae's posting discloses that there is enabling of an end-user to directly interact with the object. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap

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	(XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the browser file and that cause the invocation of an external helper program. The MIME type of the object is used to locate an appropriate executable application, such as programs for handling MPEG or PostScript. [Andreessen93b] Helper applications display the hypermedia object and enable the end-user to directly interact with the hypermedia object. Also, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. It was explained that this would be achieved by providing a server (such as xv) with a window id. XV was an application program that enabled direct interaction with an object. For example, with XV, a user could apply various special effects or scaling factors to a displayed image object. Mosaic and McRae's posting discloses that the interaction with the object is at a first location in a hypermedia document. *See* evidence recited for 985-1.h. Mosaic and McRae's posting discloses that the object is displayed at a first location within a portion of the hypermedia document being displayed. *See, e.g.,* : Only media of type XBM and GIF are embedded inline, by the HTML img tag, at the first location in the hypermedia document. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen

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	discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such objects would have been external to a file containing enabling information. In addition, because it would have been inherent to use an HTML tag for indicating the placement of such an object, it would be obvious for the object to be displayed at the first location in a hypermedia document.
985-24.c: wherein said network environment is a distributed hypermedia environment,	Mosaic and McRae's posting discloses a client workstation and a network server in a distributed hypermedia environment. *See* evidence recited for 985-1.a.
985-24.d: wherein said client workstation receives, over said network environment from said server, at least one file containing information to enable said browser application to display, on said client workstation, at least said portion of said distributed hypermedia document within said browser-controlled window,	Mosaic and McRae's posting discloses a browser application; a file containing enabling information received from a server; that the browser displays at least a portion of a distributed hypermedia document; and that the display is in a browser-controlled window. *See* evidence recited for 985-1.b.
985-24.e: wherein said executable application is external to said file,	Mosaic and McRae's posting discloses an executable application external to the file. *See* evidence recited for 985-1.g.
985-24.f: wherein said client workstation executes the browser application, with the browser application responding to text formats to initiate processing specified by the text formats,	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c. Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-24.g: wherein at least said portion of the document is displayed within the browser-controlled window,	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e.
985-24.h: wherein an embed text format which corresponds to said first location in the document is identified by the browser,	Mosaic and McRae's posting discloses identifying an embed text format and that the embed text format corresponds to a first location in a hypermedia document. *See* evidence recited for 985-1.f.

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985-24.i: wherein the embed text format specifies the location of at least a portion of said object external to the file,	Mosaic and McRae's posting discloses that the embed text format specifies the location of at least a portion of an object external to the file containing enabling information. *See* evidence recited for 985-1.f.
985-24.j: wherein the object has type information associated with it,	Mosaic and McRae's posting discloses that the object has associated type information. *See* evidence recited for 985-1.f.
985-24.k: wherein the type information is utilized by the browser to identify and locate said executable application, and	Mosaic and McRae's posting discloses using type information to identify and locate an executable application external to the file. *See* evidence recited for 985-1.g.
985-24.l: wherein the executable application is automatically invoked by the browser, in response to the identifying of the embed text format.	Mosaic and McRae's posting discloses automatically invoking the executable application. *See* evidence recited for 985-1.h.
985-25.a: The method of claim 24 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See* evidence recited for 985-2.a.
985-26.a: The method of claim 25 where: the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See* evidence recited for 985-3.a.
985-27.a: The method of claim 24 where: the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See* evidence recited for 985-4.a.
985-28.a: One or more computer readable media encoded with software comprising an executable	Mosaic and McRae's posting discloses computer code physically embodied on a medium. *See* evidence recited for 985-16.a.

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application for use in a system having at least one client workstation and one network server coupled to a network environment, operable to:	Mosaic and McRae's posting discloses a client workstation and a network server in a network environment. *See* evidence recited for 985-1.a. Mosaic and McRae's posting discloses an executable application. *See* evidence recited for 985-1.g.
985-28.b: cause the client workstation to display an object and enable an end-user to directly interact with said object while the object is being displayed within a display area created at a first location within a portion of a hypermedia document being displayed in a browser-controlled window,	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e. Mosaic and McRae's posting discloses an object external to a file containing enabling information. *See* evidence recited for 985-1.f. Mosaic and McRae's posting discloses that there is enabling of an end-user to directly interact with the object. *See* evidence recited for 985-24.b. Mosaic and McRae's posting discloses that the interaction with the object is at a first location in a hypermedia document. *See* evidence recited for 985-1.h. Mosaic and McRae's posting discloses that the object is displayed within a display area created at the first location. *See, e.g.,* : Only media of type XBM and GIF are embedded inline, by the HTML img tag, at the first location in the hypermedia document. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Such objects would have been external to a file containing enabling information. In addition, because it would have been inherent to use an HTML tag for indicating the placement of such an object, it would be obvious for the object to be displayed at the first location in a hypermedia document.
985-28.c:	Mosaic and McRae's posting discloses a client workstation and a network server

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wherein said network environment is a distributed hypermedia environment,	in a distributed hypermedia environment. *See* evidence recited for 985-1.a.
985-28.d: wherein said client workstation receives, over said network environment from said server, at least one file containing information to enable said browser application to display, on said client workstation, at least said portion of said distributed hypermedia document within said browser-controlled window,	Mosaic and McRae's posting discloses a browser application; a file containing enabling information received from a server; that the browser displays at least a portion of a distributed hypermedia document; and that the display is in a browser-controlled window. *See* evidence recited for 985-1.b.
985-28.e: wherein said executable application is external to said file,	Mosaic and McRae's posting discloses an executable application external to the file. *See* evidence recited for 985-1.g.
985-28.f: wherein said client workstation executes said browser application, with the browser application responding to text formats to initiate processing specified by the text formats,	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c. Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-28.g: wherein at least said portion of the document is displayed within the browser-controlled window,	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e.
985-28.h: wherein an embed text format which corresponds to said first location in the document is identified by the browser,	Mosaic and McRae's posting discloses identifying an embed text format and that the embed text format corresponds to a first location in a hypermedia document. *See* evidence recited for 985-1.f.
985-28.i: wherein the embed text format specifies the location of at least a portion of said object external to the file,	Mosaic and McRae's posting discloses that the embed text format specifies the location of at least a portion of an object external to the file containing enabling information. *See* evidence recited for 985-1.f.
985-28.j: wherein the object has type information associated with it,	Mosaic and McRae's posting discloses that the object has associated type information. *See* evidence recited for 985-1.f.
985-28.k:	Mosaic and McRae's posting discloses using type information to identify and

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wherein the type information is utilized by the browser to identify and locate said executable application, and	locate an executable application external to the file. *See* evidence recited for 985-1.g.
985-28.l: wherein the executable application is automatically invoked by the browser, in response to the identifying of the embed text format.	Mosaic and McRae's posting discloses automatically invoking the executable application. *See* evidence recited for 985-1.h.
985-36.a: A method for running an application program in a distributed hypermedia network environment, wherein the distributed hypermedia network environment comprises at least one client workstation and one remote network server coupled to the distributed hypermedia network environment, the method comprising:	Mosaic and McRae's posting discloses an application program in a distributed hypermedia environment comprising at least client workstation and network server. *See* evidence recited for 985-1.a.
985-36.b: receiving, at the client workstation from the network server over the distributed hypermedia network environment, at least one file containing information to enable a browser application to display at least a portion of a distributed hypermedia document within a browser-controlled window;	Mosaic and McRae's posting discloses a browser application; a file containing enabling information; that the file is received at the client workstation from the network server; that the browser displays at least a portion of a distributed hypermedia document; and that at least a portion of a hypermedia document is displayed in a browser-controlled window. *See* evidence recited for 985-1.b.
985-36.c: executing the browser application on the client workstation, with the browser application:	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c.
985-36.d: responding to text formats to initiate processing specified by the text formats;	Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-36.e: displaying at least a portion of the document	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-

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within the browser-controlled window;	1.e.
985-36.f: identifying an embed text format which corresponds to a first location in the document, where the embed text format specifies the location of at least a portion of an object;	Mosaic and McRae's posting discloses an object. *See, e.g.,* : From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. In addition, in [www-talk-00293020], Chris McRae and Marc Andreessen discussed embedding GIF objects and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Accordingly, the display of such objects managed by XV (or an HDF- and tooltalk-capable version of XV) would have been obvious. Mosaic and McRae's posting discloses identifying an embed text format; that the embed text format corresponds to a first location in the hypermedia document; and that the embed text format specifies the location of an object. *See* evidence recited for 985-1.f.
985-36.g: identifying and locating an executable application associated with the object; and	Mosaic and McRae's posting discloses that the browser identifies and locates an executable application associated with the object. *See, e.g.,* From [Andreessen93b], "NCSA Mosaic initially supports the X bitmap (XBM) and GIF image formats directly (an example can be seen in Figure 5) and provides interfaces to external viewers to handle other multimedia data formats (e.g. JPEG, XWD, TIFF, RGB, MPEG, DVI, PostScript, and several types of audio)." Mosaic parses a file to discover tags indicating these media types and invokes appropriate external viewers. Media of type XBM and GIF are embedded inline by the HTML img tag, a text format. Other text formats point to hypermedia objects that are external to the

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	browser file and that cause the invocation of an external helper program, such as programs for handling MPEG or PostScript. The MIME type of the object is used to locate an appropriate executable application. [Andreessen93b] In [www-talk-00293020], Chris McRae and Marc Andreessen discussed the embed text format for GIF and also discuss the use of executable applications such as XV (or an HDF- and tooltalk-capable version of XV) to display different image types inline. Because Mosaic provided for objects having a specific MIME type, it would have been obvious for the inline images to have a MIME type as well, and that would have been used by the browser to identify the XV (or an HDF- and tooltalk-capable version of XV) executable application.
985-36.h: automatically invoking the executable application, in response to the identifying of the embed text format, in order to enable an end-user to directly interact with the object, while the object is being displayed within a display area created at the first location within the portion of the hypermedia document being displayed in the browser-controlled window,	Mosaic and McRae's posting discloses identifying an embed text format. *See* evidence recited in 985-1.f. Mosaic and McRae's posting discloses automatic invocation of the executable application; that the executable application displays the object; that the executable application enables direct interaction with the object; and that interaction with the object is at a first location in the hypermedia document. *See* evidence recited in 985-1.h. Mosaic and McRae's posting discloses that the object is displayed at a first location within a portion of the hypermedia document being displayed. *See* evidence recited at 985-24.b. Mosaic and McRae's posting discloses that a hypermedia document is displayed in a browser window. *See, e.g.*, evidence recited for 985-1.e.
985-36.i: wherein the executable application is part of a distributed application, and	Mosaic and McRae's posting discloses a distributed application. *See, e.g.*, : From [Collage92], the Collage application is described by: "in a

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	networked environment, this tool provides the capability to distribute most of these data analysis and visualization functions synchronously among a number of users. This is the foundation for the collaborative aspects of this tool's functionality." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application, such as VIS. Mosaic and McRae's posting discloses that the executable application is part of a distributed application. *See, e.g.,* : From [Collage92], the Collage application is described by: "in a networked environment, this tool provides the capability to distribute most of these data analysis and visualization functions synchronously among a number of users. This is the foundation for the collaborative aspects of this tool's functionality." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of executable applications that interoperate with Mosaic and that are part of distributed applications:

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	"Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed." McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to an executable application that was part of a distributed application, such as VIS.
985-36.j: wherein at least a portion of the distributed application is for execution on a remote network server coupled to the distributed hypermedia network environment.	Mosaic and McRae's posting discloses that the distributed application executes at least partially on a network server. *See, e.g.*, : Also from [Collage92], "Among Collage's many features is the ability to establish communication with remote processes, e.g. a simulation running on a supercomputer. These remote processes can be controlled remotely, and images and data can be transported to and from the remote process." From [Andreessen93b], Mosaic interoperated with Collage. Also, in [www-talk-00293020], Chris McRae included the following disclosure of distributed applications that executes at least partially on a network server and that interoperate with Mosaic: "Further, we envision offloading as much of the processing from the client as possible. Rather than including local format conversion capability within the client, we expect to provide a "community of servers" with which the client can contract to obtain the information it wants, and in a form which it can use. By providing a particular server (such as xv) with a window id, the client retains control of the presentation of the information while avoiding having to know anything about the format of the data being displayed."

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	McRae further suggested use of "an HDF- and tooltalk-capable version of xv (or some such image manipulation package)," which a person of ordinary skill in the art would understand to be a reference to a distributed application that executes at least partially on a network server, such as VIS.
985-37.a: The method of claim 36 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See* evidence recited for 985-2.a.
985-38.a: The method of claim 37 where: the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See* evidence recited for 985-3.a.
985-39.a: The method of claim 36 where: the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See* evidence recited for 985-4.a.
985-40.a: A method of serving digital information in a computer network environment having a network server coupled to said computer network environment, and where the network environment is a distributed hypermedia network environment, the method comprising:	Mosaic and McRae's posting discloses digital information. *See* evidence recited for 985-20.a. Mosaic and McRae's posting discloses a network server in a distributed hypermedia environment. *See* evidence recited for 985-1.a.
985-40.b: communicating via the network server with at least one remote client workstation over said computer network environment in order to cause said client workstation to:	Mosaic and McRae's posting discloses a client workstation. *See* evidence recited for 985-1.a. Mosaic and McRae's posting discloses communicating via network server in order to cause the client workstation to act. *See* evidence recited for 985-20.b.
985-40.c:	Mosaic and McRae's posting discloses a browser application; a file containing

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receive, over said computer network environment from the network server, at least one file containing information to enable a browser application to display at least a portion of a distributed hypermedia document within a browser-controlled window;	enabling information received from a server; that the browser displays at least a portion of a distributed hypermedia document; and that the display is in a browser-controlled window. *See* evidence recited for 985-1.b.
985-40.d: execute, at said client workstation, a browser application, with the browser application:	Mosaic and McRae's posting discloses a browser application executing on the client workstation. *See* evidence recited for 985-1.c.
985-40.e: responding to text formats to initiate processing specified by the text formats;	Mosaic and McRae's posting discloses parsing text formats. *See* evidence recited for 985-1.d.
985-40.f: displaying, on said client workstation, at least a portion of the document within the browser-controlled window;	Mosaic and McRae's posting discloses displaying at least a portion of the document within the browser-controlled window. *See* evidence recited for 985-1.e.
985-40.g: identifying an embed text format which corresponds to a first location in the document, where the embed text format specifies the location of at least a portion of an object;	Mosaic and McRae's posting discloses an object. *See* evidence recited for 985-36.f. Mosaic and McRae's posting discloses identifying an embed text format; that the embed text format corresponds to a first location in the hypermedia document; and that the embed text format specifies the location of an object. *See* evidence recited for 985-1.f.
985-40.h: identifying and locating an executable application associated with the object; and	Mosaic and McRae's posting discloses that the browser identifies and locates an executable application associated with the object. *See* evidence recited for 985-36.g.
985-40.i: automatically invoking the executable application, in response to the identifying of the embed text format, in order to enable an end-user to directly interact with the object while the object is being displayed within a display area created at the first	Mosaic and McRae's posting discloses identifying an embed text format. *See* evidence recited in 985-1.f. Mosaic and McRae's posting discloses automatic invocation of the executable application; that the executable application displays the object; that the executable application enables direct interaction with the object; and that

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location within the portion of the hypermedia document being displayed in the browser-controlled window,	interaction with the object is at a first location in the hypermedia document. *See* evidence recited in 985-1.h. Mosaic and McRae's posting discloses that the object is displayed at a first location within a portion of the hypermedia document being displayed. *See* evidence recited for 985-24.b. Mosaic and McRae's posting discloses that a hypermedia document is displayed in a browser window. *See, e.g.*, evidence recited for 985-1.e.
985-40.j: wherein the executable application is part of a distributed application, and	Mosaic and McRae's posting discloses that the executable application is part of a distributed application. *See* evidence recited in 985-36.i.
985-40.k: wherein at least a portion of the distributed application is for execution on the network server.	Mosaic and McRae's posting discloses that the distributed application executes at least partially on a network server. *See* evidence recited for 985-36.j.
985-41.a: The method of claim 40 where: the information to enable comprises text formats.	Mosaic and McRae's posting discloses that the enabling information in the file is text formats. *See* evidence recited for 985-2.a.
985-42.a: The method of claim 41 where: the text formats are HTML tags.	Mosaic and McRae's posting discloses that the text formats are HTML tags. *See* evidence recited for 985-3.a.
985-43.a: The method of claim 40 where: the information contained in the file received comprises at least one embed text format.	Mosaic and McRae's posting discloses that the enabling information in the file includes an embed text format. *See* evidence recited for 985-4.a.