CLAIMS

[Claim 1]

An information processing apparatus that receives a link source page file including a plurality of links from a Web server, and displays the link source page file, the information processing apparatus comprising:

communication means for communicating with the Web server;

display means for displaying the link source page file received from the Web server;

detection means for detecting an operation from a user of the information processing apparatus with respect to the link source page file displayed by the display means; and

processing means for executing a script described in the link source page file,

wherein

in response that the processing means executes the script when the detection means detects a frame display operation with respect to any of the plurality of links included in the link source page file, the communication means receives from the Web server a page file of the operated link destination, and the display means performs a frame display of the page file of the link destination in a first frame overlapped on the display of the link source page file, and

if the display means is overlappingly displaying

the page file of the link destination in the first frame and if the detection means has detected a frame display operation with respect to another link that has not been operated out of the plurality of links, the communication means receives from the Web server a page file of the other link destination that was operated, and the display means, while maintaining the display of the first frame, performs a frame display of the page file of the other link destination in a second frame that is different from the first frame and is overlapped on the display of the link source page file, and

wherein

the display means, if performing frame display by overlapping on the display of the link source page file, displays some of information of a link destination page file to be displayed, wherein the some of the information is narrowed down based on a parameter included in link information in the page file of the link source,

the parameter includes information for narrowing down sub-trees in a page file, and

the display means displays information of a sub-tree narrowed down by information for narrowing down the sub-trees out of the page file of the link source.

[Claim 2]

An information processing apparatus that receives a link source page file including a plurality of links from a Web server, and displays the link source page file, the information processing apparatus comprising:

communication means for communicating with the Web server;

display means for displaying the link source page file received from the Web server; and

detection means for detecting an operation from a user of the information processing apparatus with respect to the link source page file displayed by the display means,

wherein

if the detection means detects a frame display operation with respect to any of the plurality of links included in the link source page file, the communication means receives from the Web server a page file of the operated link destination, and

the display means performs a frame display in a frame overlapped on the display of the link source page file of information of sub-trees in the page file of the link destination that are narrowed down based on information for narrowing down sub-trees in the page file included in the link information in the link source page file.

[Claim 3]

The information processing apparatus according to claim 1 or 2, wherein the information for narrowing down the sub-trees further includes at least information that designates any of an HTML tag name, a tag ID, a class name and an attribute, and text in a tag.

[Claim 4]

The information processing apparatus according to claim 1, wherein the display means, if displaying a plurality of frames, displays information of an item common to link destination page files corresponding to each frame as the some of the information.

[Claim 5]

The information processing apparatus according to any one of claims 1-4, wherein the display means, if performing a frame display by overlapping on the display of the link source page file, grays out the link source page file.

[Claim 6]

The information processing apparatus according to claim 4, wherein the display means, if graying out the link source page file, excludes from the graying out and selectably displays the plurality of links that the

link source page file includes.

[Claim 7]

The information processing apparatus according to claim 6, wherein the display means, if excluding from the graying out and selectably displaying the plurality of links, distinguishably displays links for which the frame display operation has already been performed, and unoperated links.

[Claim 8]

The information processing apparatus according to claim 6 or 7, wherein if a number of frames displayed by overlapping on the display of the link source page file is limited to a predetermined number and the display means is displaying the predetermined number of frames, the display means grays out the link source page file, including the plurality of links.

[Claim 9]

The information processing apparatus according to claim 8, wherein if at least one of the predetermined number of frames is closed, the display means re-excludes the plurality of links from the graying out.

[Claim 10]

The information processing apparatus according to

any one of claims 5-9, wherein

if the display means is graying out the link source page file and if the detection means detects a page transition operation with respect to a link corresponding to a page file of a link destination displayed in a frame,

the communication means receives the page file of the link destination from the Web server, and the display means switches the link source page file and the frame and displays the page file of the link destination for which the operation was performed.

[Claim 11]

The information processing apparatus according to any one of claims 1-10, wherein

if a number of frames displayed by overlapping on the display of the link source page file is limited to a predetermined number and the display means is displaying the predetermined number of frames, and if the detection means further detects a frame display operation with respect to another unoperated link of the plurality of links,

the display means closes any of frames being displayed and performs a frame display of a page file of the other link corresponding to the further detected frame display operation.

[Claim 12]

The information processing apparatus according to any one of claims 1-11, wherein

if the display means is displaying a frame to overlap the display of the link source page file and if the detection means detects an operation with respect to a link included in a page file within the frame,

the communication means receives the page file of the link destination from the Web server, and the display means switches from the display of the link source page file and the frame to a display of the page file of the link destination for which the operation was performed.

[Claim 13]

A Web server that receives a request for a page file from an information processing apparatus according to any one of claims 1-12, and transmits the requested page file, the Web server comprising:

management means for managing a page file that includes a plurality of links; and

communication means for communicating with the information processing apparatus and transmitting the requested page file,

wherein

the management means adds to link information in a page file a parameter for narrowing down display

information within frames when link destination page files of the plurality of links included in the page file are displayed within the frames in the information processing apparatus, and

associates with the link destination page files a script for causing the information processing apparatus to perform narrowing down of display content within the frame based on the parameter.

[Claim 14]

A computer program for causing a computer to function as an information processing apparatus according to any one of claims 1-12.