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(54) CLIENT SIDE, WEB-BASED SPREADSHEET

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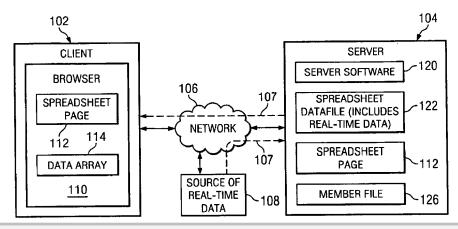
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(57) ABSTRACT

A method and system that that allows a designer to create "spreadsheet" web pages, which can then be viewed and used by the designer and/or by other users. The described embodiments of the present invention allow people to collaborate and to share spreadsheets over the web. The described embodiment allows a user of the spreadsheet to email the spreadsheet to others and to embed the spreadsheet into web pages owned by the designer or by third parties. A described embodiments of the web-based spreadsheet allowed the designer to specify both web data and real-time data in the cells of the "spreadsheet." The web data includes a URL of an image that is to be placed in a cell. The web data includes a link to a web page in a cell. The real-time data includes stock quotes and currency conversion information in the cells of the spreadsheet. Such data reflects a current (or specified) day's stock quote or a current (or specified) currency conversion value.

64 Claims, 27 Drawing Sheets





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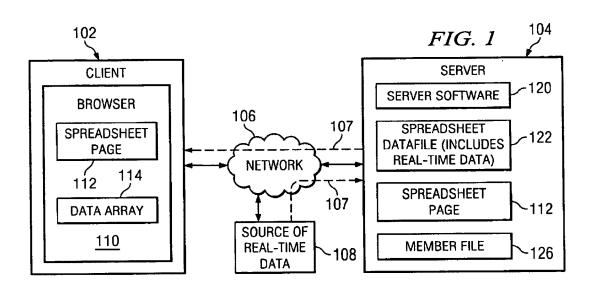
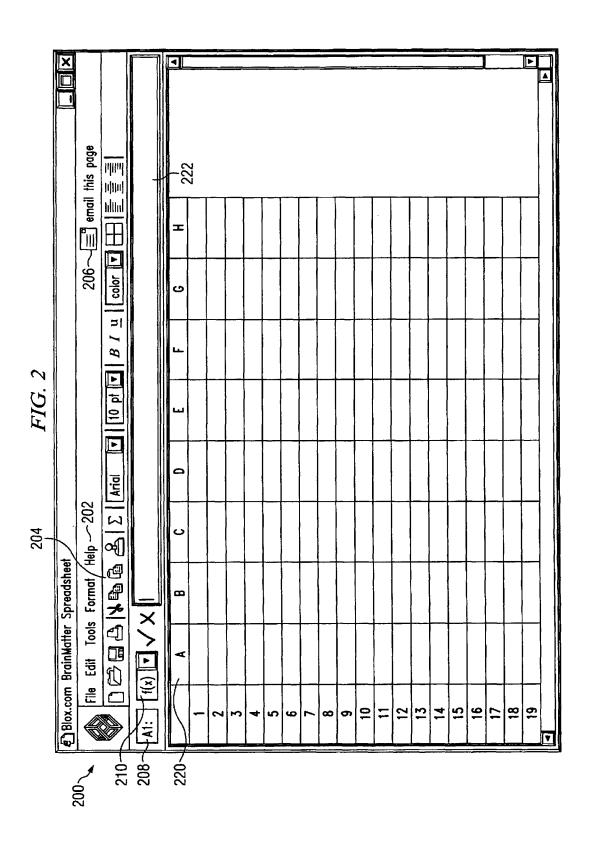


FIG. 3 **SERVER RECEIVE A REQUEST** 302-FOR HTML PAGE LOOK AT THE PARAMETERS 304 OF THE RECEIVED REQUEST (DATA ID, MODE) 306 FIND THE DATA FOR THIS DATA ID 310 308 **EMBED DATA AND** YES **SPREADSHEET** RETURN SPREADSHEET MODE? HTML PAGE NO "EMBED MODE" NO **CALCULATOR RETURNS AN** MODE? **EMBEDDED PAGE** 312 YES 314 EMBED DATA AND RETURN 316 CALCULATOR HTML PAGE **END** 318-







BROWSER

426 LOAD AND PARSE HTML PAGE

428 GENERATE PROGRESS
BARS DURING LOADING

BUILD A SPREADSHEET VIA
THE JAVASCRIPT IN THE
LOADED PAGE (SEE FIG. 5)

432 ALLOW USER TO SAVE FILE

FIG. 5 BROWSER, DISPLAYING SPREADSHEET **GET NUMBER OF ROWS** -502AND COLUMNS FOR THE SPREADSHEET INITIALIZE EACH CELL 504 **BASED ON THE DATA** IN THE DATA ARRAY -505 **BUILD A DEPENDENCY TREE** MAKE THE CELLS VISIBLE ONCE ALL THE CELLS ARE -506 **BUILT IN MEMORY** PERFORM FORMULA **CALCULATION FOR EACH** -508 **CELL WHEN NEEDED END** -518

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