prompt comprises inline text for text-to-speech conversion, playing of a prerecorded audio file (e.g. a wave file), the location of the data (text for text-to-speech conversion or a prerecorded audio file) for audible rendering, etc. For recognition, the parameters or attributes can include the location of the grammar to be used during recognition, confidence level thresholds, etc. Since the server side plug-in module **209** generates client side markup, the parameters and attributes for the controls for the server side plug-in module **209** relate to the extensions provided in the client side markup for recognition and/or audible prompting.

[**0059**] The controls indicated at **300**A in **FIG. 7** are controls, which are well-known in website application development or authoring tools such as ASP, ASP+, ASP-.Net, JSP, Javabeans, or the like. Such controls are commonly formed in a library and used by controls **302** to perform a particular visual task. Library **300**A includes methods for generating the desired client markup, event handlers, etc. Examples of visual controls **302** include a "Label" control that provides a selected text label on a visual display such as the label "Credit Card Submission"**304** in **FIG. 5**. Another example of a higher level visual control **302** is a "Textbox", which allows data to be entered in a data field such as is indicated at **250** in **FIG. 5**. The existing visual controls **302** are also well-known. In the first approach for extending server side plug-in module controls to include recognition and/or audible prompting, each of the visual controls **302** would include further parameters or attributes related to recognition or audible prompting. In the case of the "label" control, which otherwise provides selected text on a visual display, further attributes may include whether an audio data file will be rendered or text-to-speech conversion will be employed as well as the location of this data file. A library **300**B, similar to library **300**A, includes further markup information for performing recognition and/or audible prompting. Each of the visual controls **302** is coded so as to provide this information to the controls **300**B as appropriate to perform the particular task related to recognition or audible prompting.

[**0060**] As another example, the "Textbox" control, which generates an input field on a visual display and allows the user of the client device **30** to enter information, would also include appropriate recognition or audible prompting parameters or attributes such as the grammar to be used for recognition. It should be noted that the recognition or audible prompting parameters are optional and need not be used if recognition or audible prompting is not otherwise desired.

[**0061**] In general, if a control at level **302** includes parameters that pertain to visual aspects, the control will access and use the library **300**A. Likewise, if the control includes parameters pertaining to recognition and/or audible prompting the control will access or use the library **300**B. It should be noted that libraries **300**A and **300**B have been illustrated separately in order to emphasize the additional information present in library **300**B and that a single library having the information of libraries **300**A and **300**B can be implemented.

[**0062**] In this approach, each of the current or prior art visual controls **302** are extended to include appropriate recognition/audible prompting attributes. The controls **302** can be formed in a library. The server side plug-in module **209** accesses the library for markup information. Execution of the controls generates a client side markup page, or a portion thereof, with the provided parameters.

[**0063**] In a second approach illustrated in **FIG. 8**, new visual, recognition/audible prompting controls **304** are provided such that the controls **304** are a subclass relative to visual controls **302**, wherein recognition/audible prompting functionality or markup information is provided at controls **304**. In other words, a new set of controls **304** are provided for recognition/audible prompting and include appropriate parameters or attributes to perform the desired recognition or an audible prompting related to a recognition task on the client device **30**. The controls **304** use the existing visual controls **302** to the extent that visual information is rendered or obtained through a display. For instance, a control "SpeechLabel" at level **304** uses the "Label" control at level **302** to provide an audible rendering and/or visual text rendering. Likewise, a "SpeechTextbox" control would associate a grammar and related recognition resources and processing with an input field. Like the first approach, the attributes for controls **304** include where the grammar is located for recognition, the inline text for text-to-speech conversion, or the location of a prerecorded audio data file that will be rendered directly or a text file through text-to-speech conversion. The second approach is advantageous in that interactions of the recognition controls **304** with the visual controls **302** are through parameters or attributes, and thus, changes in the visual controls **302** may not require any changes in the recognition controls **304** provided the parameters or attributes interfacing between the controls **304** and **302** are still appropriate. However, with the creation of further visual controls **302**, a corresponding recognition/audible prompting control at level **304** may also have to be written.

[**0064**] A third approach is illustrated in **FIG. 9**. Generally, controls **306** of the third approach are separate from the visual controls **302**, but are associated selectively therewith as discussed below. In this manner, the controls **306** do not directly build upon the visual controls **302**, but rather provide recognition/audible prompting enablement without having to rewrite the visual controls **302**. The controls **306**, like the controls **302**, use a library **300**. In this embodiment, library **300** includes both visual and recognition/audible prompting markup information and as such is a combination of libraries **300**A and **300**B of **FIG. 7**.

[**0065**] There are significant advantages to this third approach. Firstly, the visual controls **302** do not need to be changed in content. Secondly, the controls **306** can form a single module which is consistent and does not need to change according to the nature of the speech-enabled control **302**. Thirdly, the process of speech enablement, that is, the explicit association of the controls **306** with the visual controls **302** is fully under the developer's control at design time, since it is an explicit and selective process. This also makes it possible for the markup language of the visual controls to receive input values from multiple sources such as through recognition provided by the markup language generated by controls **306**, or through a conventional input device such as a keyboard. In short, the controls **306** can be added to an existing application authoring page of a visual authoring page of the server side plug-in module **209**. The controls **306** provide a new modality of interaction (i.e. recognition and/or audible prompting) for the user of the