Figure 1
Overview of Acappella

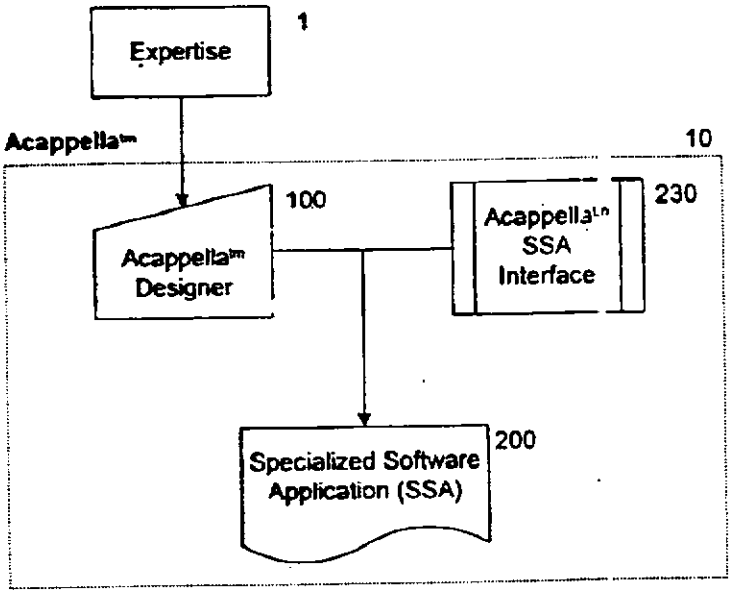
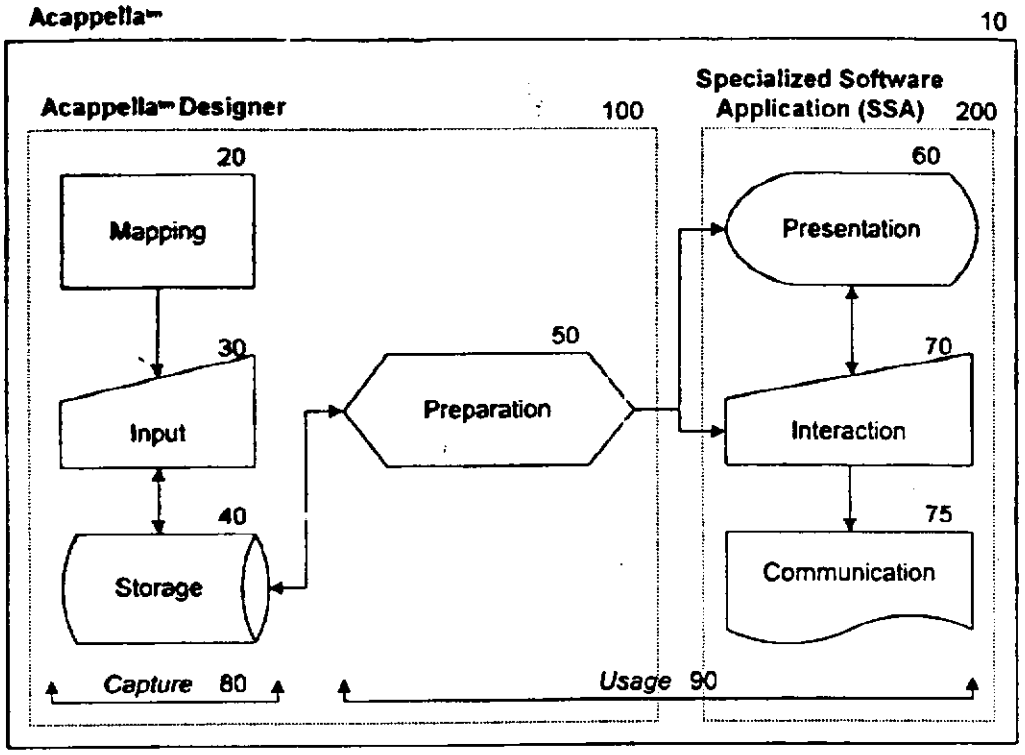


Figure 2
Knowledge Architecture



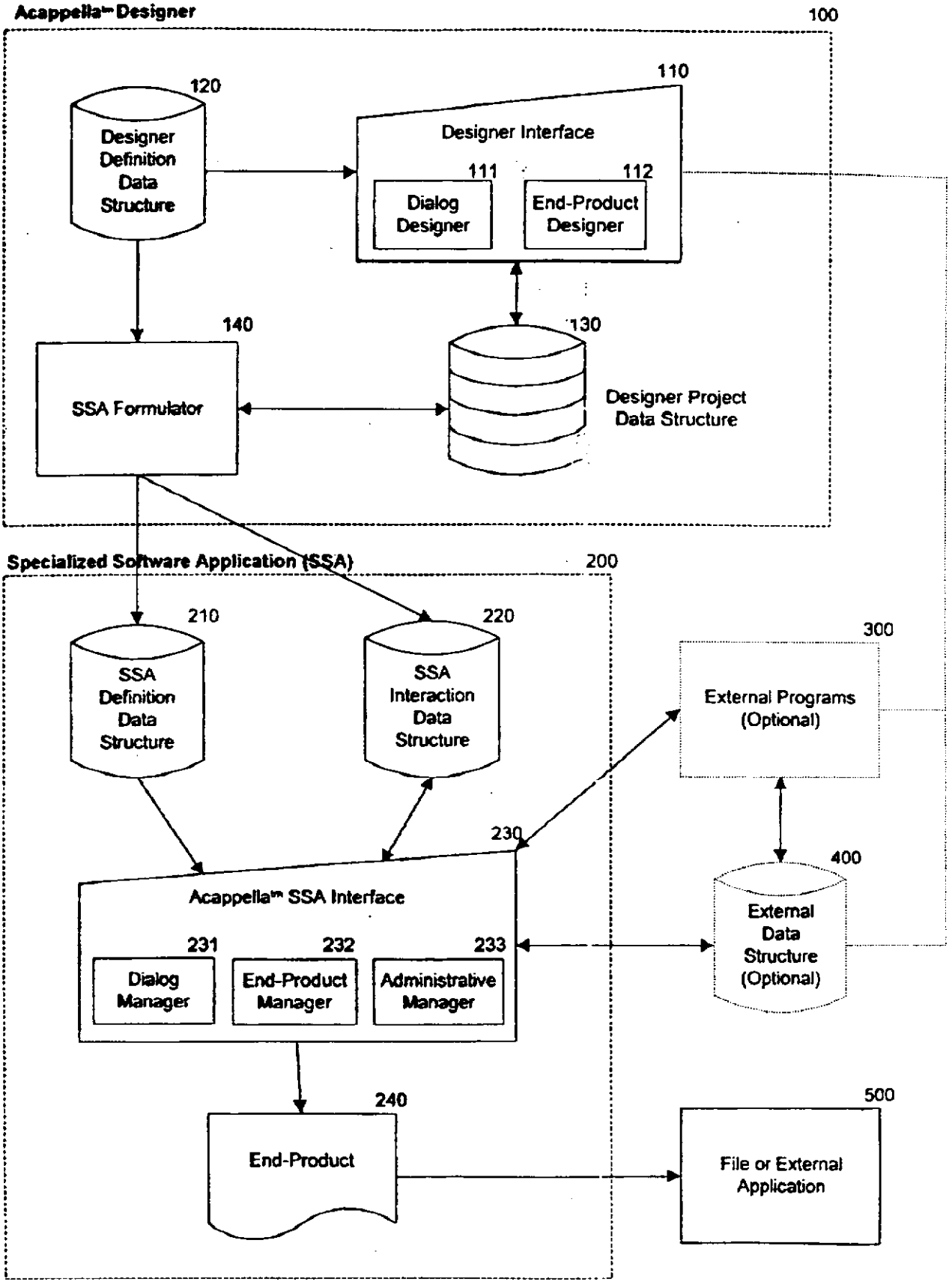

Acappella™ Designer
100
120
Designer Definition Data Structure
110
Designer Interface
111
Dialog Designer
112
End-Product Designer
140
SSA Formulator
130
Designer Project Data Structure
Specialized Software Application (SSA)
200
210
SSA Definition Data Structure
220
SSA Interaction Data Structure
300
External Programs (Optional)
230
Acappella™ SSA Interface
231
Dialog Manager
232
End-Product Manager
233
Administrative Manager
400
External Data Structure (Optional)
240
End-Product
500
File or External Application

Figure 4

Using the Acappella Designer

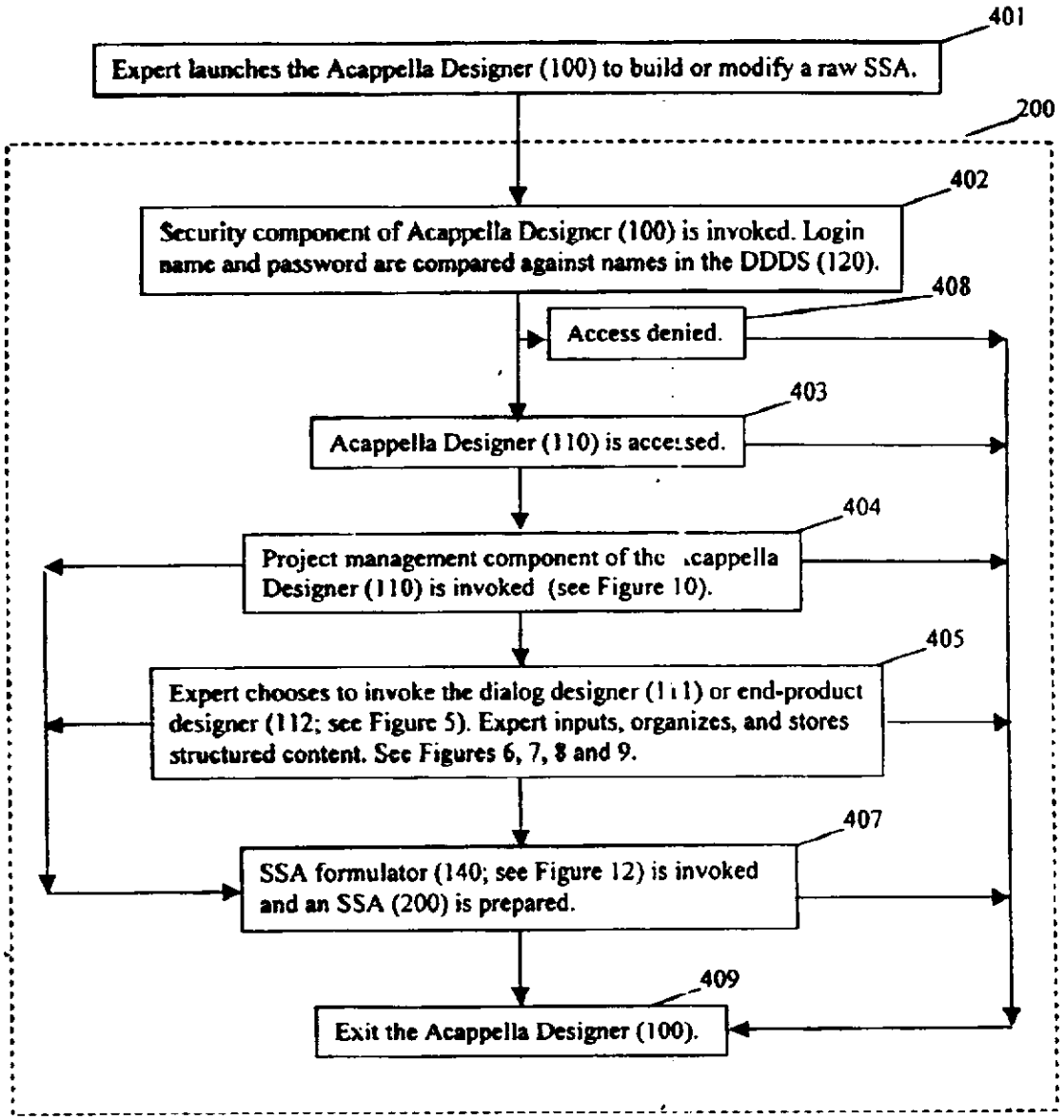


Figure 5

Building an SSA

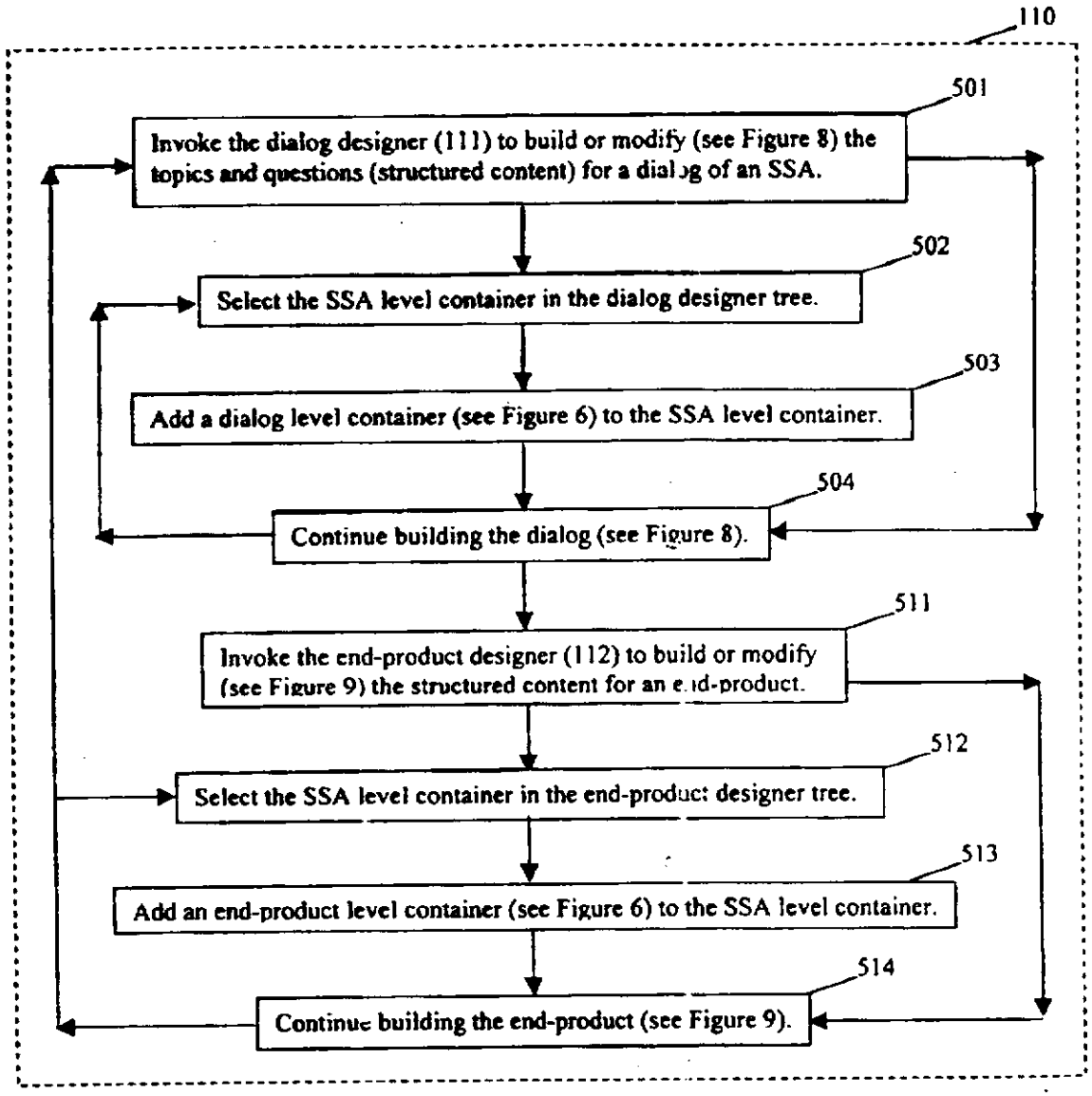
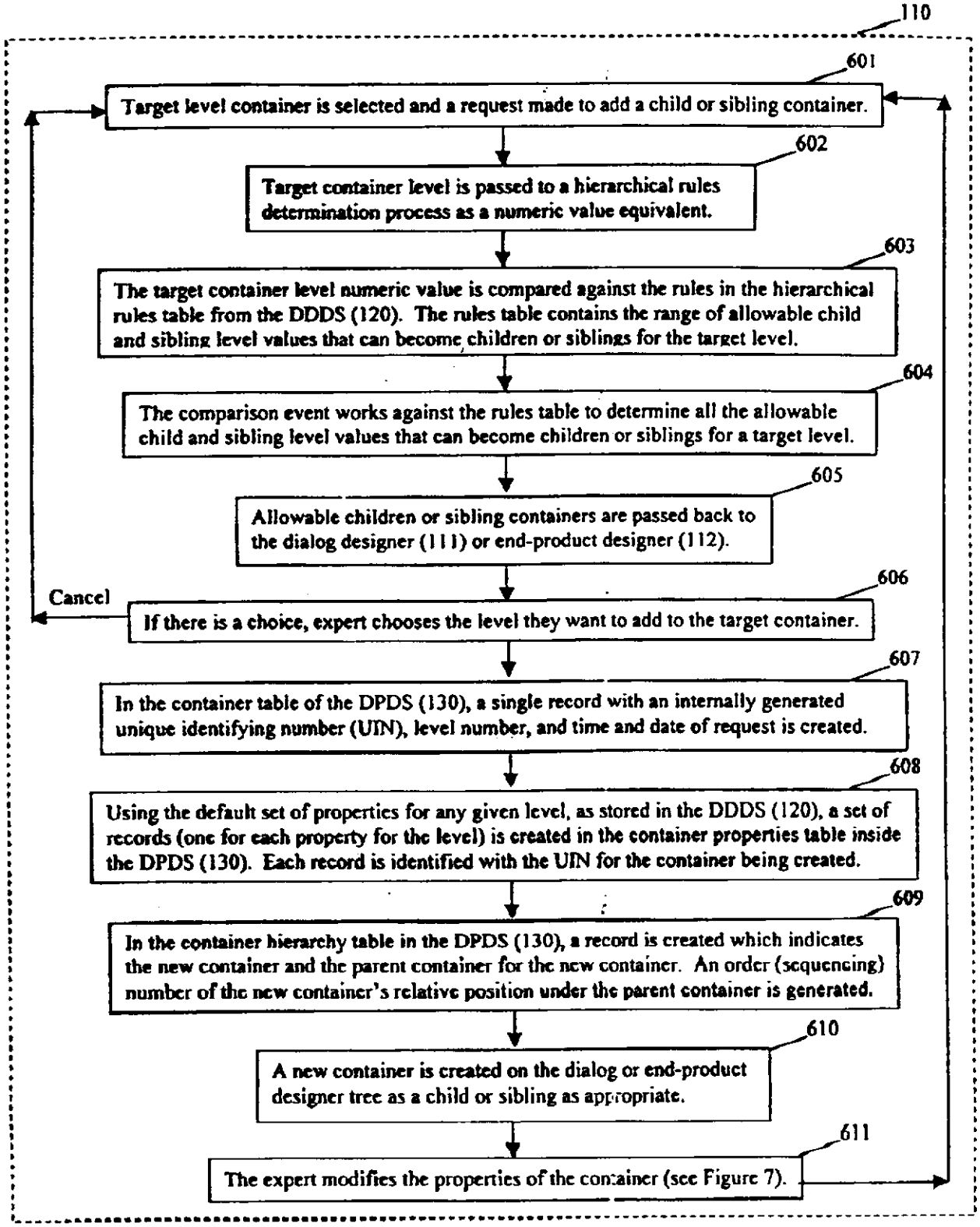
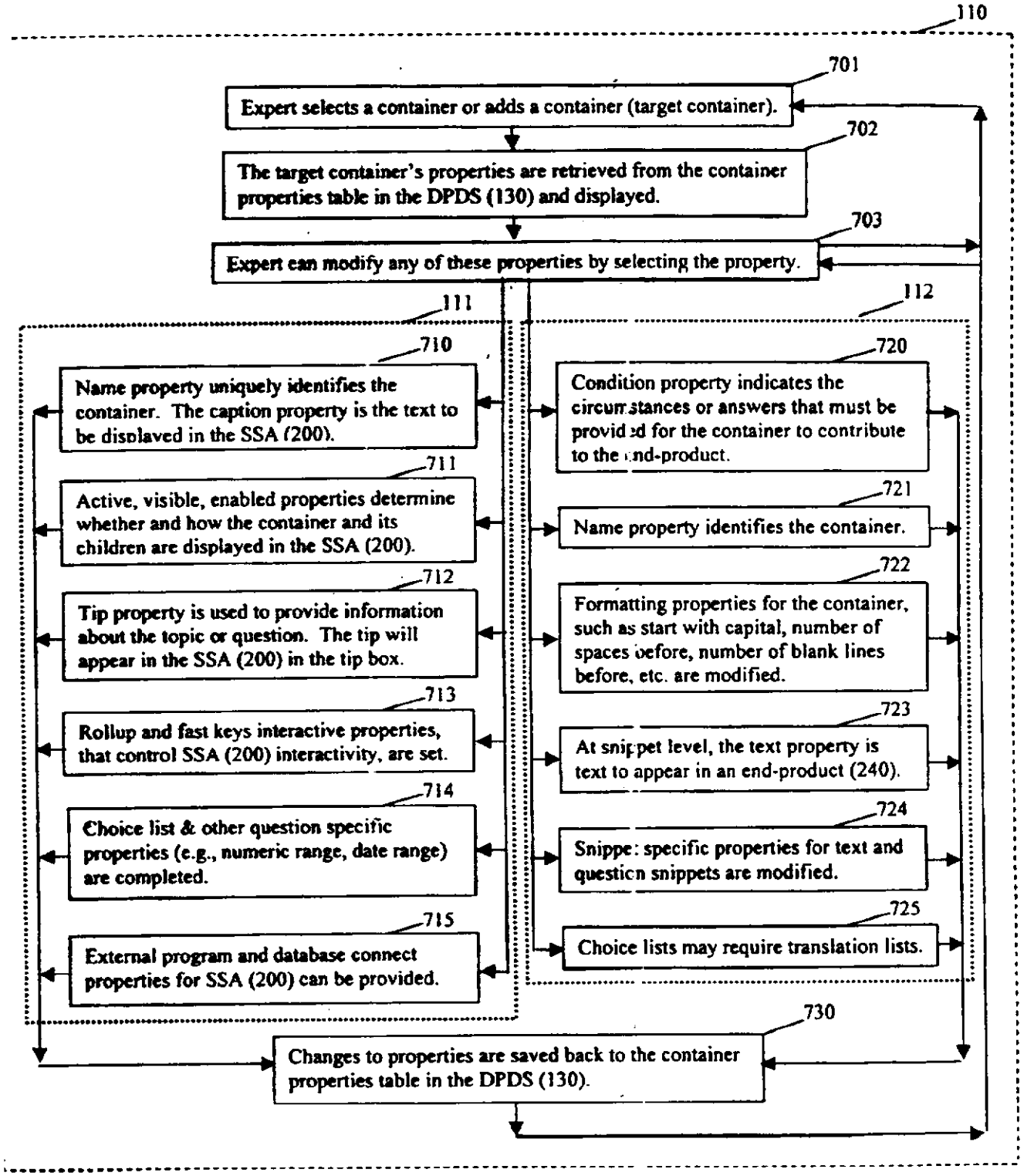


Figure 6

Adding a Container



Modifying a Container



Working in the Dialog Designer

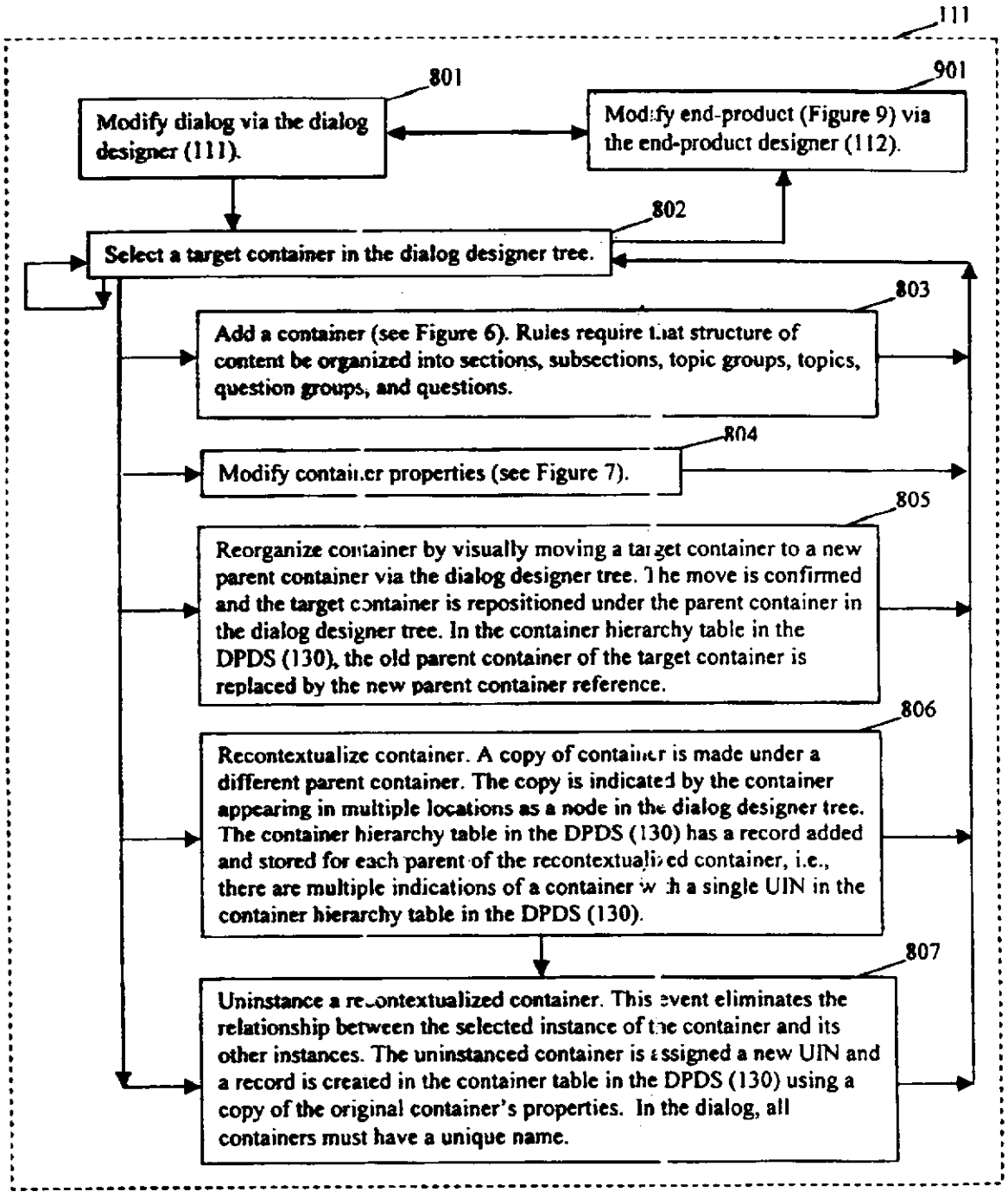


Figure 9

Working in the End-Product Designer

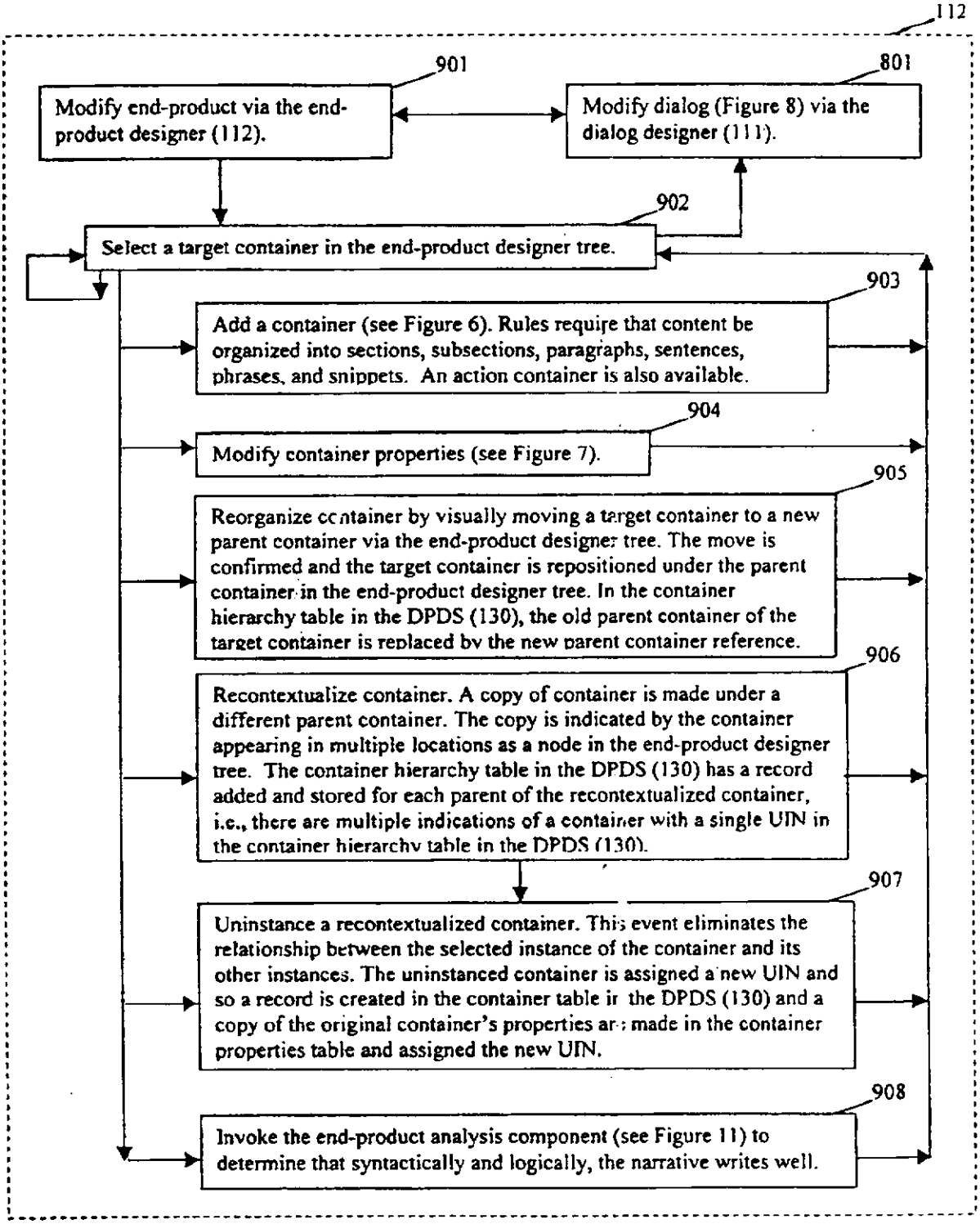


Figure 10

Project Management Component of the Acappella Designer

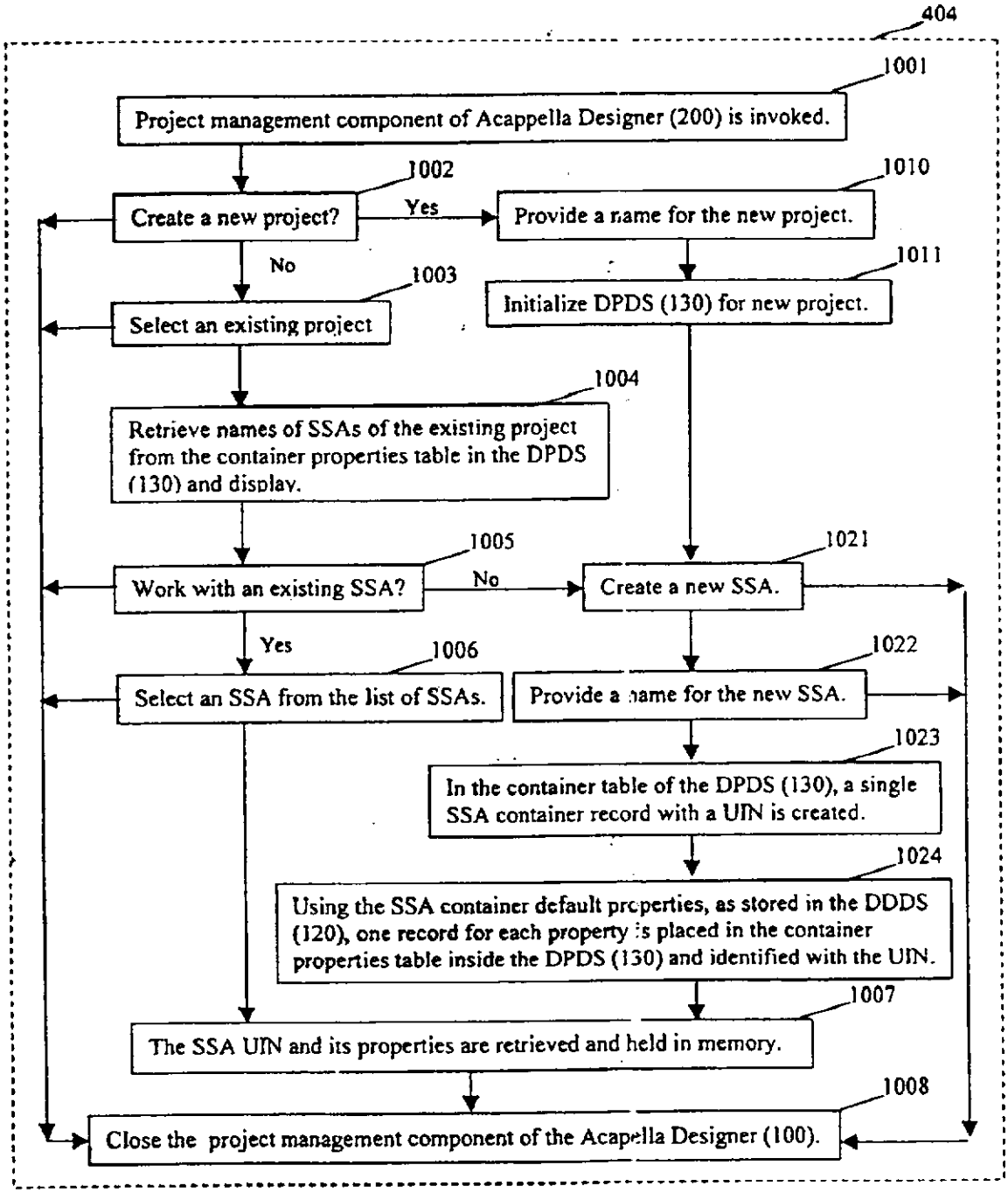


Figure 11

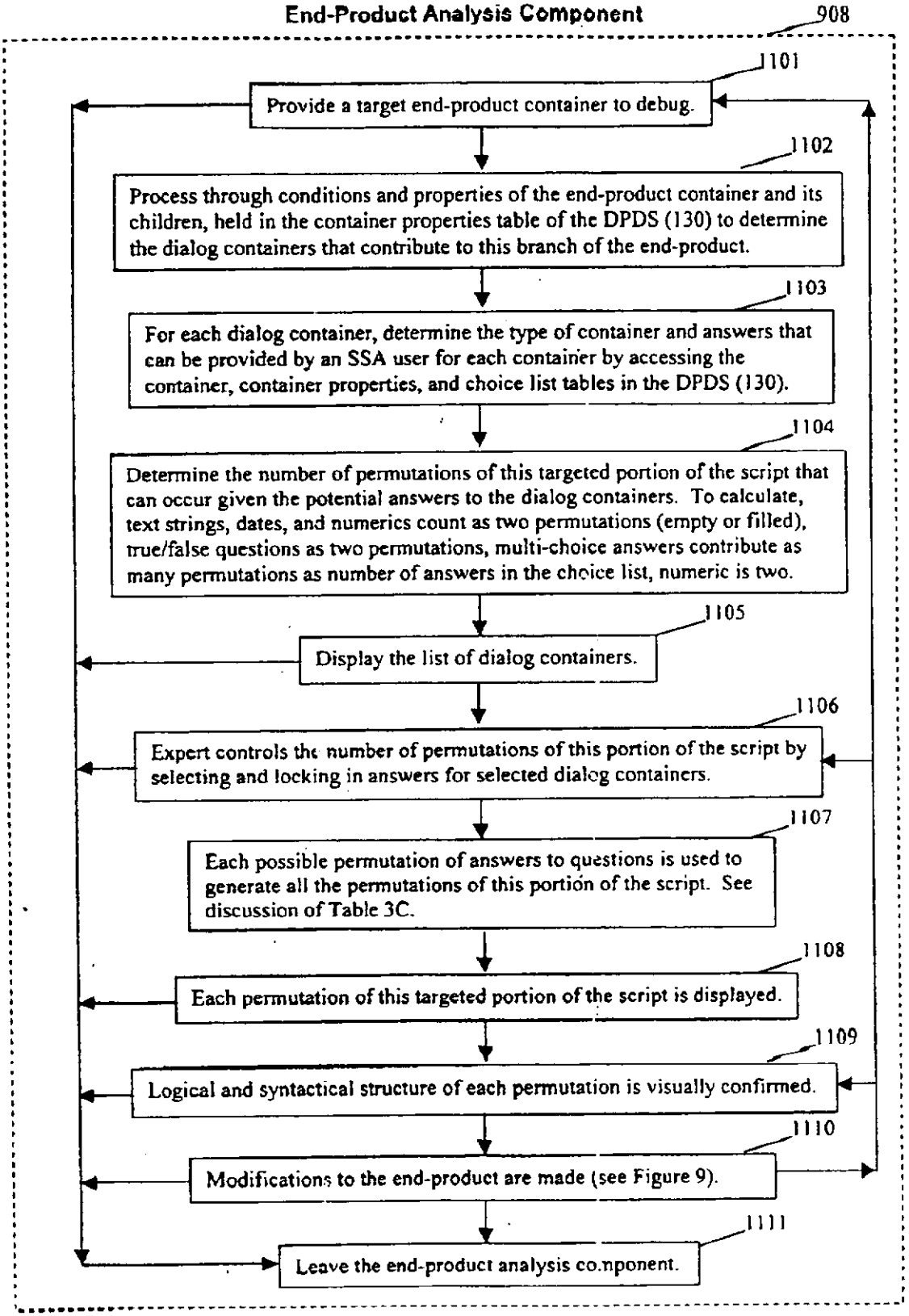

End-Product Analysis Component
908
1101
Provide a target end-product container to debug.
1102
Process through conditions and properties of the end-product container and its children, held in the container properties table of the DPDS (130) to determine the dialog containers that contribute to this branch of the end-product.
1103
For each dialog container, determine the type of container and answers that can be provided by an SSA user for each container by accessing the container, container properties, and choice list tables in the DPDS (130).
1104
Determine the number of permutations of this targeted portion of the script that can occur given the potential answers to the dialog containers. To calculate, text strings, dates, and numerics count as two permutations (empty or filled), true/false questions as two permutations, multi-choice answers contribute as many permutations as number of answers in the choice list, numeric is two.
1105
Display the list of dialog containers.
1106
Expert controls the number of permutations of this portion of the script by selecting and locking in answers for selected dialog containers.
1107
Each possible permutation of answers to questions is used to generate all the permutations of this portion of the script. See discussion of Table 3C.
1108
Each permutation of this targeted portion of the script is displayed.
1109
Logical and syntactical structure of each permutation is visually confirmed.
1110
Modifications to the end-product are made (see Figure 9).
1111
Leave the end-product analysis component.

Figure 12

SSA Formulator

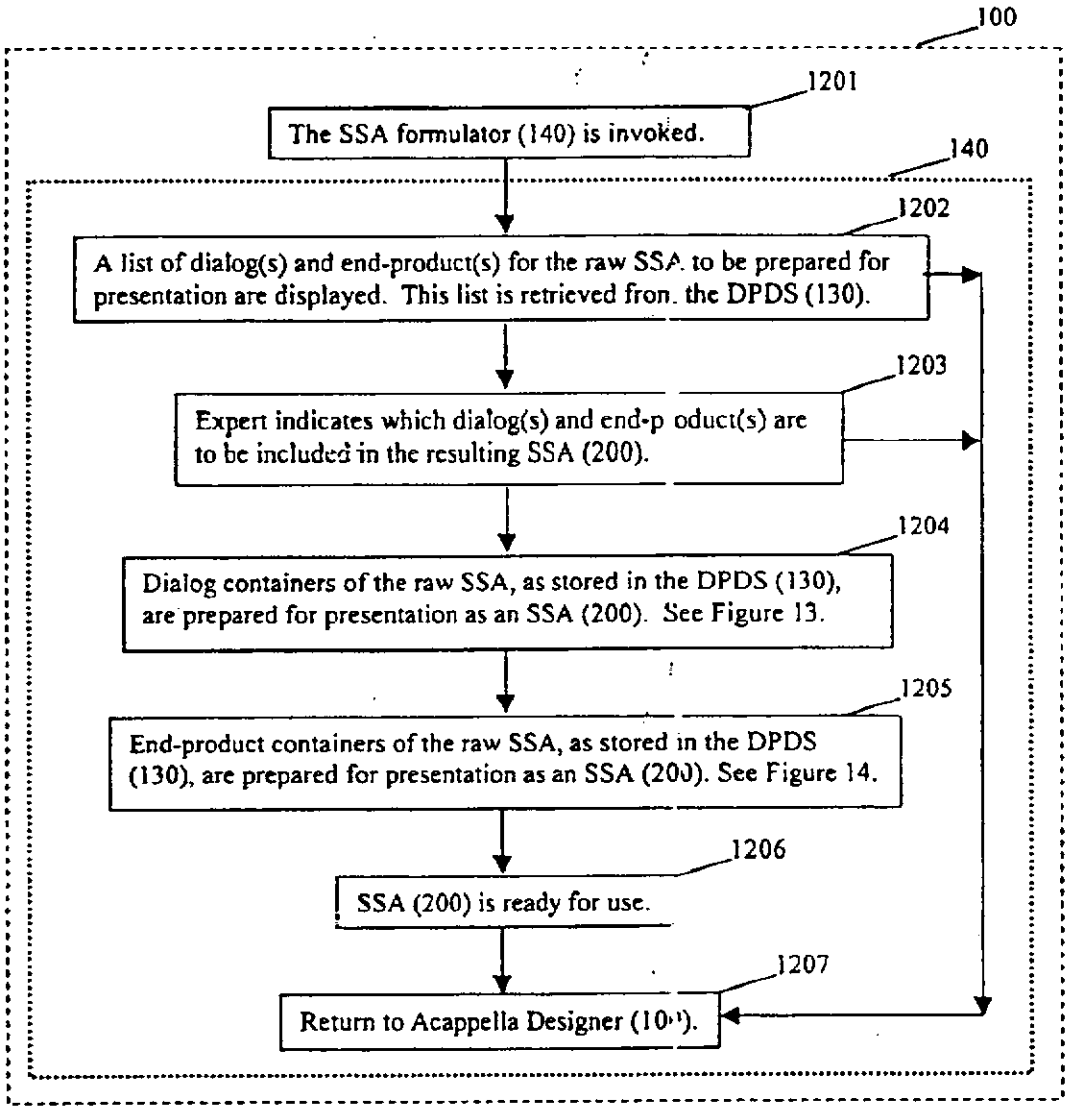


Figure 13

Formulating a Dialog

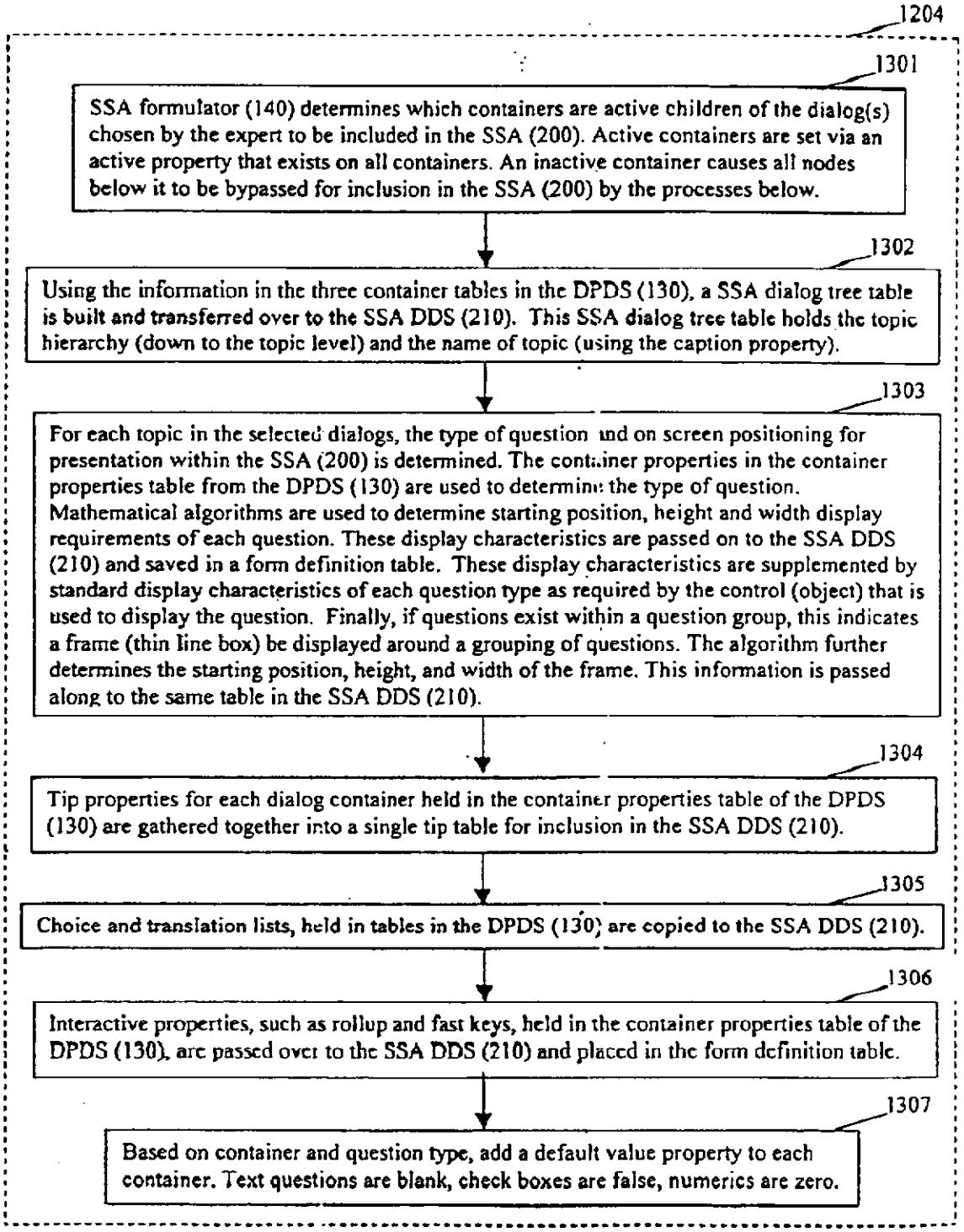


Figure 14

Formulating an End-Product

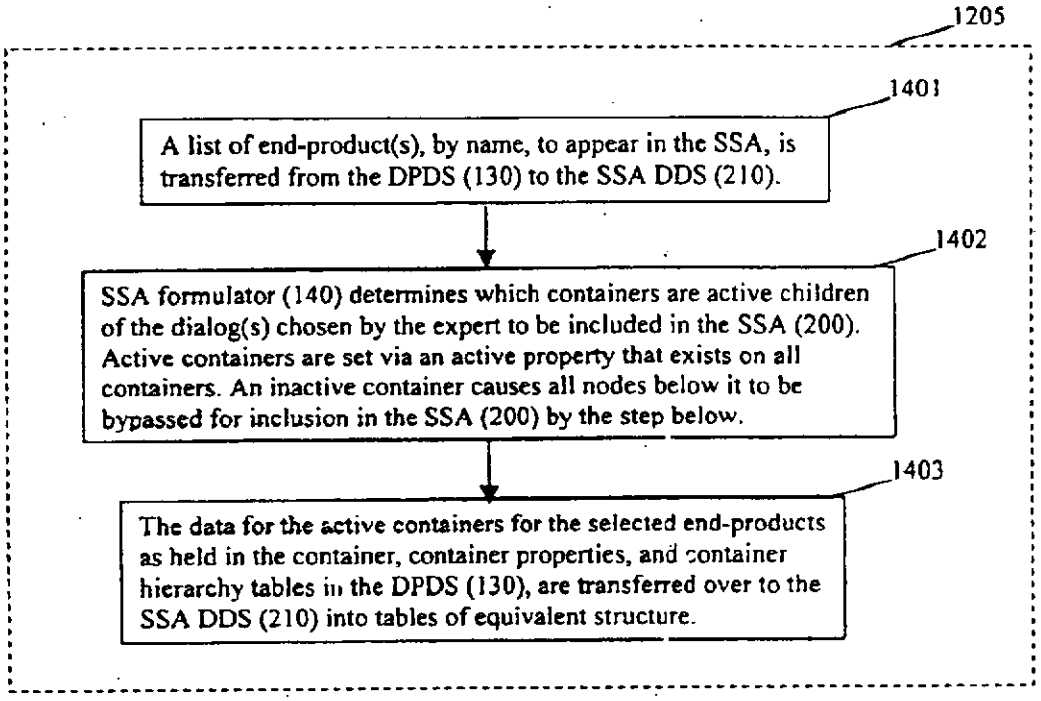


Figure 15

Using an SSA

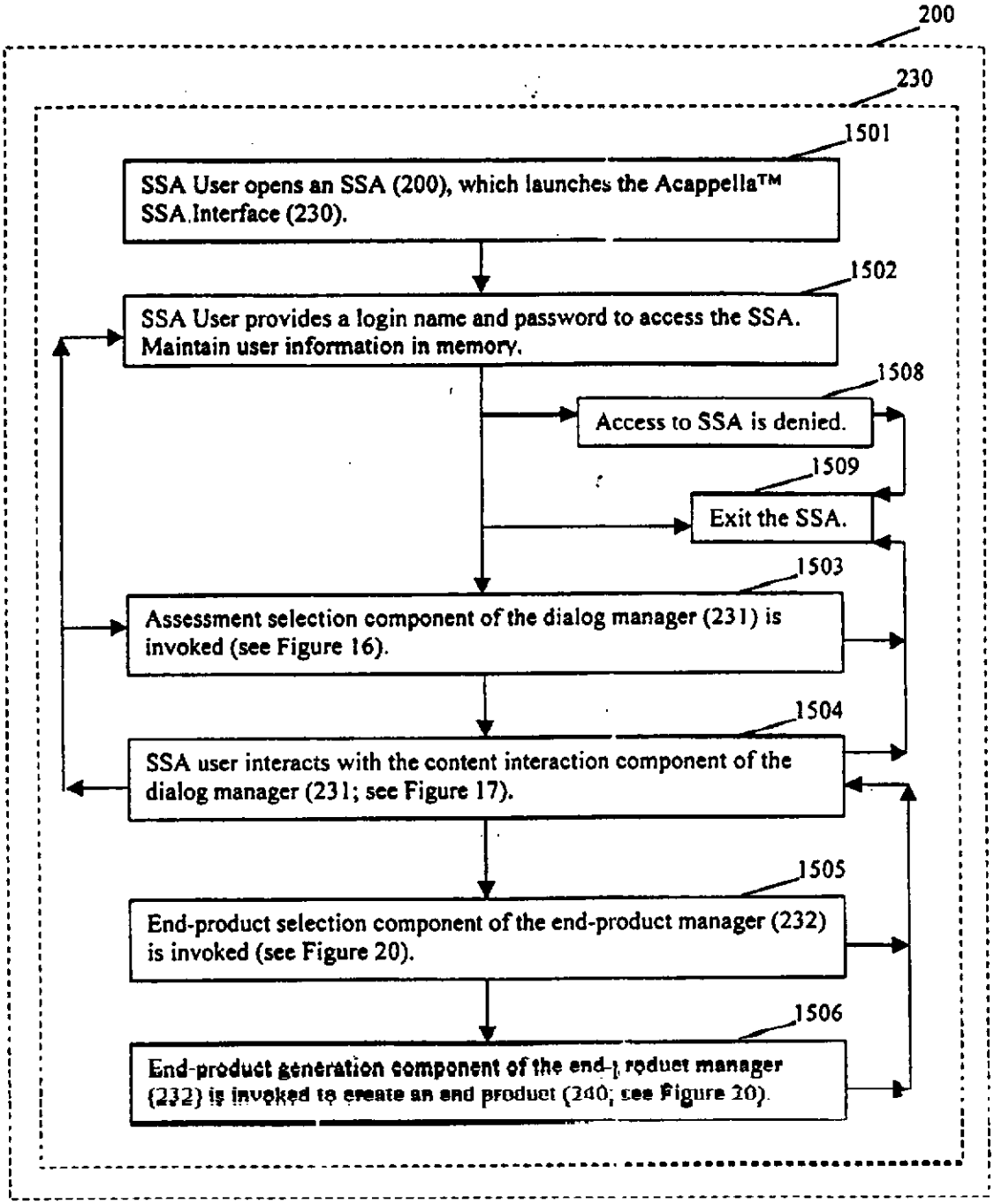
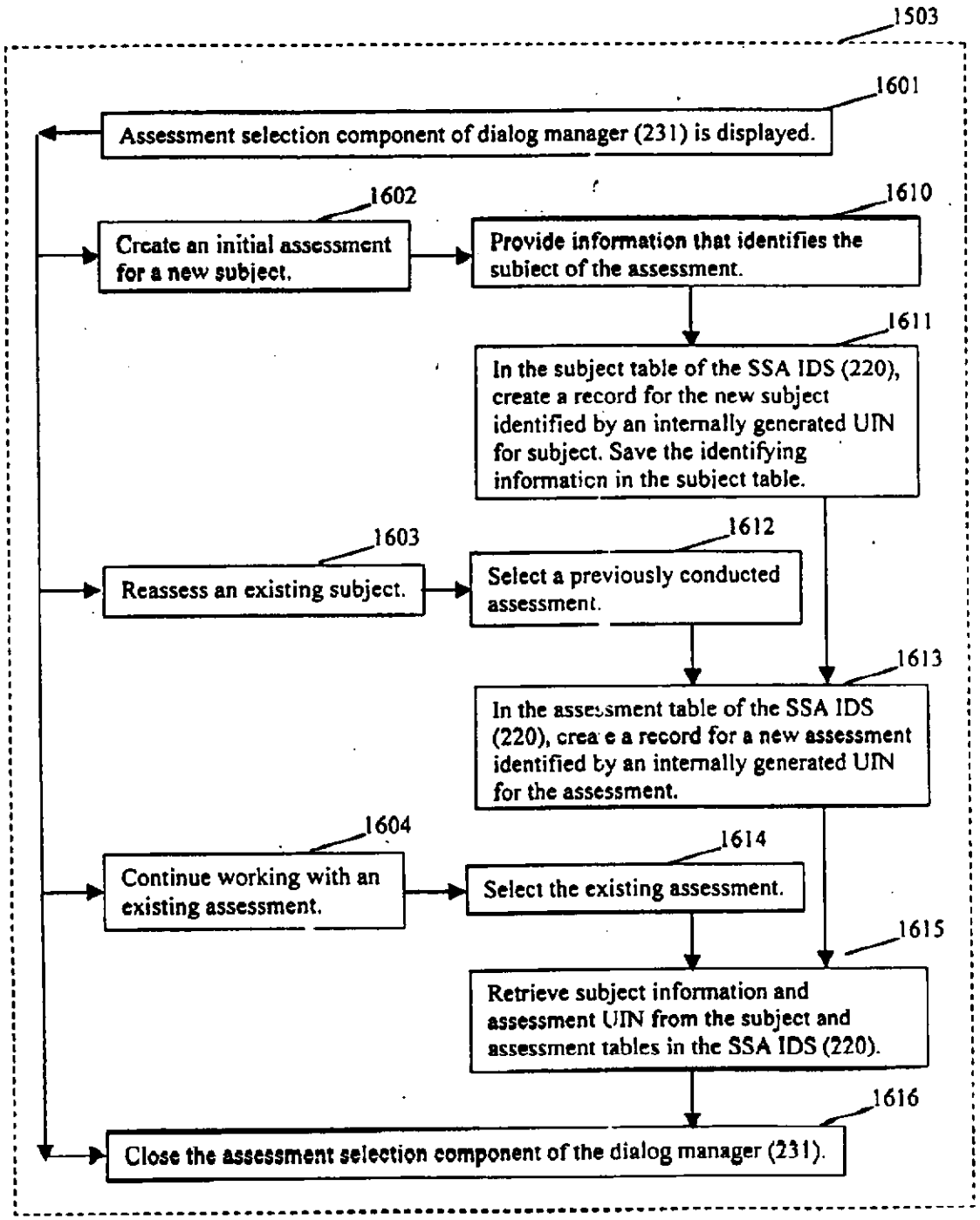


Figure 16

Assessment Selection Component of the Dialog Manager



Content Interaction Component of the Dialog Manager

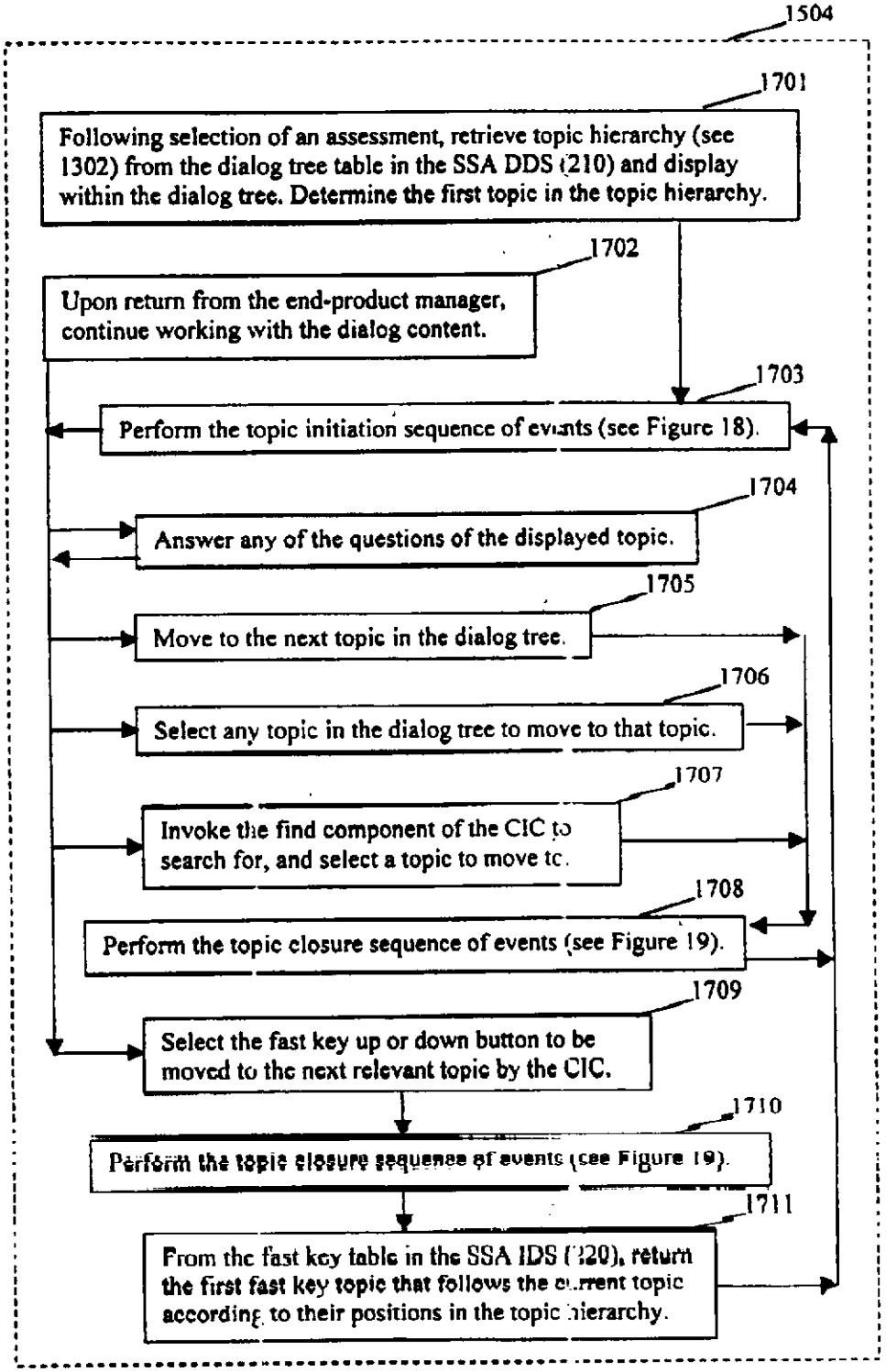


Figure 18

Topic Initiation Sequence in the Content Interaction Component of the Dialog Manager

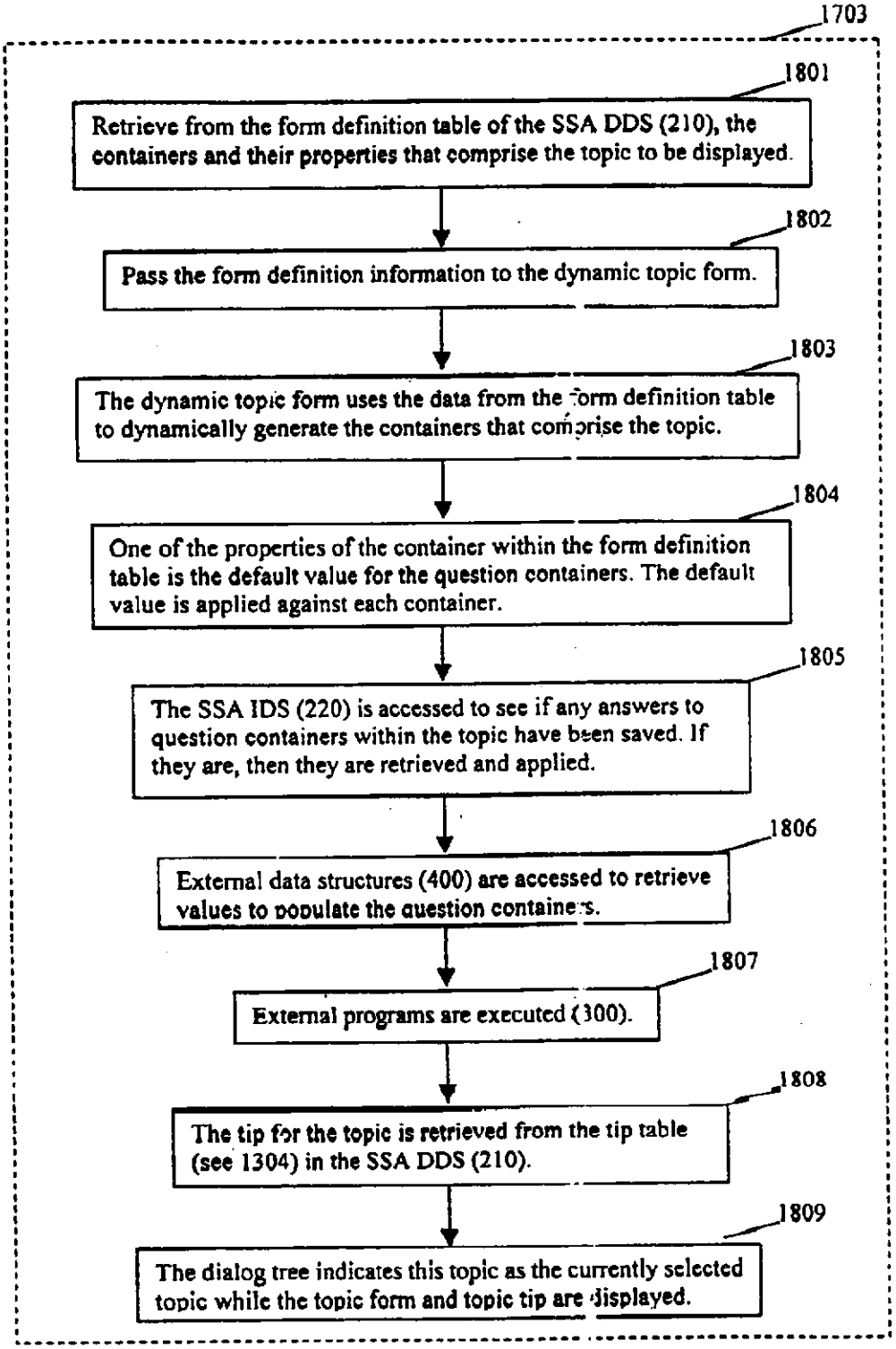


Figure 19

Topic Close Sequence in the Content Interaction Component of the Dialog Manager

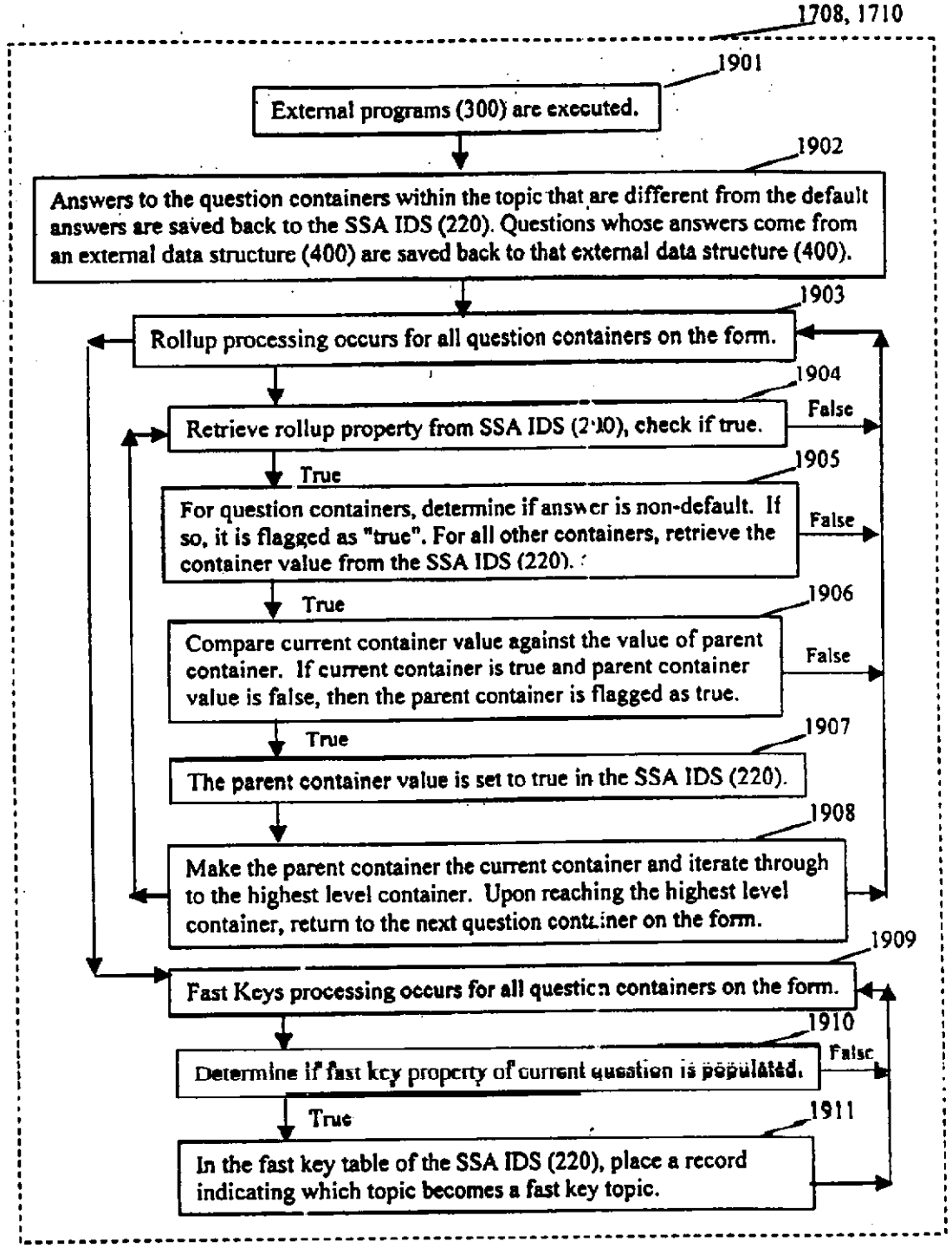


Figure 20

End-Product Manager

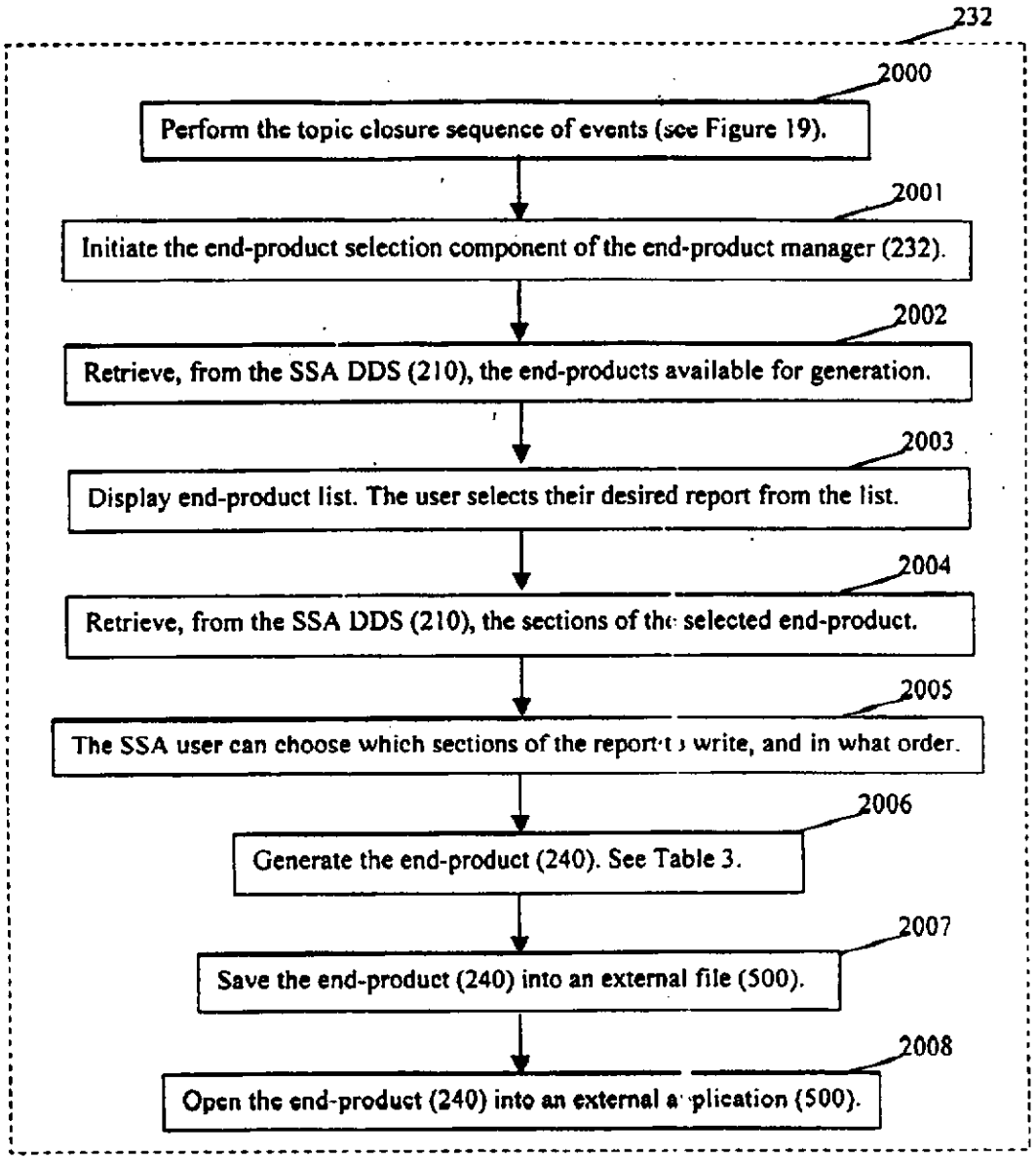


Figure 21

End-Product Generation Component

