

mitted field in the selected rows in the Orders table (Table 12) to “True”. Process 150 includes the business software getting (184) the address of the customer from the Addresses Table 8 for order delivery by querying Customers Table 7 for an AddressId and then querying Addresses Table 8 for a matching AddressId.

[0111] Tables 13-19 show tables in one implementation of repository 18 representing meta data for the example database illustrated by Tables 7-12. Tables 13-19 follow the definitions of Tables 1-6 described above such that definitions in rows of Tables 1-6 correspond to columns or fields in Tables 13-19. As with Tables 7-12, key fields in Tables 13-19 are labeled by an asterisk.

aspect service providers handling services for aspects. In Table 13, all of the aspects are assigned to S_provider aspect service provider (e.g., 34 referring to FIG. 3). The rows in TRANSAC_PROVIDER field correspond to particular transaction service providers 40 handling transactions for aspects. In Table 13, all of the aspects are assigned to T_provider transaction service provider (e.g., 40 referring to FIG. 3). The rows in LOCKING_PROVIDER field correspond to particular locking service providers handling locking for aspects. In Table 13, all of the aspects are assigned to L_provider locking service provider (e.g., 42 referring to FIG. 3).

TABLE 13

Example SCOL_ASPECT table						
ASPECT_NAME*	ASPECT_CATEGORY	STRUCTURE	KEY_ASPECT	SERVICE_PROVIDER	TRANSAC_PROVIDER	LOCKING_PROVIDER
A_Customer	aspect	Customer_Structure	Customer_Key	S_provider	T_provider	L_provider
Customer_Key	key aspect	Customer_Key_Table	Customer_Key	S_provider	T_provider	L_provider
A_Address	aspect	Address_Structure	Address_Key	S_provider	T_provider	L_provider
Address_Key	key aspect	Address_Key_Table	Address_Key	S_provider	T_provider	L_provider
A_Product	aspect	Product_Structure	Product_Key	S_provider	T_provider	L_provider
Product_Key	key aspect	Product_Key_Table	Product_Key	S_provider	T_provider	L_provider
A_Basket	aspect	Basket_Structure	Basket_Key	S_provider	T_provider	L_provider
Basket_Key	key aspect	Basket_Key_Table	Basket_Key	S_provider	T_provider	L_provider
A_Position	aspect	Position_Structure	Position_Key	S_provider	T_provider	L_provider
Position_Key	key aspect	Position_Key_Table	Position_Key	S_provider	T_provider	L_provider
A_OrderHeader	aspect	OrderHeader_Structure	OrderHeader_Key	S_provider	T_provider	L_provider
OrderHeader_Key	key aspect	OrderHeader_Key_Table	OrderHeader_Key	S_provider	T_provider	L_provider

[0112] Table 13 follows the definition of a SCOL_ASPECT table (defined in Table 1) to define aspects A_Customer, A_Address, A_Product, A_Basket, A_Position, and A_OrderHeader. Each aspect has a corresponding key aspect that defines a unique key for each instance. For example, aspect A_Customer has a key aspect Customer_Key. This key aspect in the meta data repository 18 can correspond to a key for a relational database table in backend database 24. For example, the key for Customers table (Table 7) is CustomerId field. The rows in STRUCTURE field correspond to a data dictionary in Table 19 below. For example, Table 19 can define Customer_Structure to have a NAME field of type CHAR indicating a character_string. The rows in SERVICE_PROVIDER field correspond to particular

[0113] Table 14 follows the definition of a SCOL_ASPECT table (defined in Table 2) to define an action Submit for aspect A_OrderHeader. Field INPUT_KEY_ASPECT specifies the key aspect that is sent by application 14 with the action to specify which instances of aspect A_OrderHeader should be acted upon by the action. Action Submit changes the Submitted field of those instances in backend database 24 to True. No extra parameters are required for this action Submit so PARAM_STRUCTURE field is blank in Table 14. Field PROVIDER_CLASS specifies the aspect service provider 34 (referring to FIG. 3) assigned to each action. In Table 14, action Submit is assigned to aspect service provider S_provider (e.g., 34 referring to FIG. 3).