

HR-XML Consortium

3.2.1 Stock Specifications

Copyright statement

©2013 HR-XML. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. Printed in the United States of America.

Table of Contents

Stock Specification Overview	4
Integration Scenarios	4
Actors	5
Stock Options	6
Supported Processes.....	6
Employee Stock Purchase Plans.....	7
Supported Processes.....	7
Stock Plan Participant	8
Overview	8
Trigger / Precondition	8
Stock Plan	10
Overview	10
Trigger / Precondition	10
Stock Option Exercise Order	12
Overview	12
Triggers / Preconditions.....	12
Stock Option Exercise Confirmation	13
Overview	13
Trigger / Precondition	13
Stock Option Grant	14
Overview	14
Triggers / Preconditions.....	14
Stock Sale Confirmation	15
Overview	15
Stock Deposit	16
Overview	16
Appendix A: Examples.....	17
Stock Plan Participant	17
Stock Plan.....	17
Stock Option Exercise Order	17

Stock Option Exercise Confirmation	17
Stock Option Grant	17
Stock Sale Confirmation	17
Appendix B: Noun Layouts	18
Employee Stock Purchase Plans	18
Stock Plan	19
Stock Option Exercise Order	20
Stock Option Exercise Confirmation	21
Stock Option Grant	22
Stock Sale Confirmation	23
Stock Deposit	24
Appendix C: Business Document Object (BOD) Diagrams	25
Stock Option Exercise Order	25
Stock Option Exercise Confirmation	26
Stock Option Grant	27
Stock Plan Participant	28
Stock Sale Confirmation	29
Stock Plan	30

Stock Specification Overview

To attract and retain employees, many employers offer employee stock plans. Two common types of plans are stock options and employee stock purchase plans (ESPP).

These programs can vary by jurisdiction and applicable tax and security laws. The workgroup that developed HR-XML's stock plan specifications considered the types of programs common in the United States, Germany, and the UK. While the exact composition of stock plans vary by country, basic stock plan processes and integration requirements are sufficiently similar across jurisdictions to be supported by HR-XML's generalized and extensible set of stock plan specifications.

The seven key stock schemas include:

StockPlanParticipant: Contains a collection of information about an account holder in a employer-sponsored stock option or stock purchase program.

StockDeposit: Contains instructions for the broker to distribute stock to a given set of participants. The broker receives a stock transfer by the ESPP sponsor company's transfer agent and therefore needs this instruction before distribution can take place.

StockPlan: Contains a collection of information relevant to creating and maintaining employee stock plan records. Supported plans are Stock Option, Stock Purchase Plans, and Stock Awards.

StockOptionExerciseOrder: Contains a collection of information relating to the exercise of a stock option award.

StockOptionExerciseConfirmation: Contains information communicated from a broker to a stock option plan administrator regarding the exercise of stock options by a program participant. The exact composition of the message varies depending on the type of program and the context, but information communicated in the confirmation may include: the number of shares exercised, the exercise price, fair market value (FMV) on the date of exercise, sales price (may differ from the FMV), taxes due/withheld, number of shares used to pay the taxes, and the amount of the taxable gain.

StockOptionGrant: Contains a collection of information relating to the award for an individual's option to purchase company stock shares.

StockSaleConfirmation: Contains details regarding the outcome of a stock sale, including identification of the participant, the sale date, quantity of stock sold, stock price, an identifier to tie the shares sold to the original purchase. This noun typically would be used by a broker to accomplish certain required reporting back to the administrator of an employee stock purchase plan through which the sold shares were originally acquired.

Integration Scenarios

The sections below describe the principal integration scenarios supported by the HR-XML stock plan specifications.

This section discusses integration supporting stock option plan setup, grant, and exercise processes.

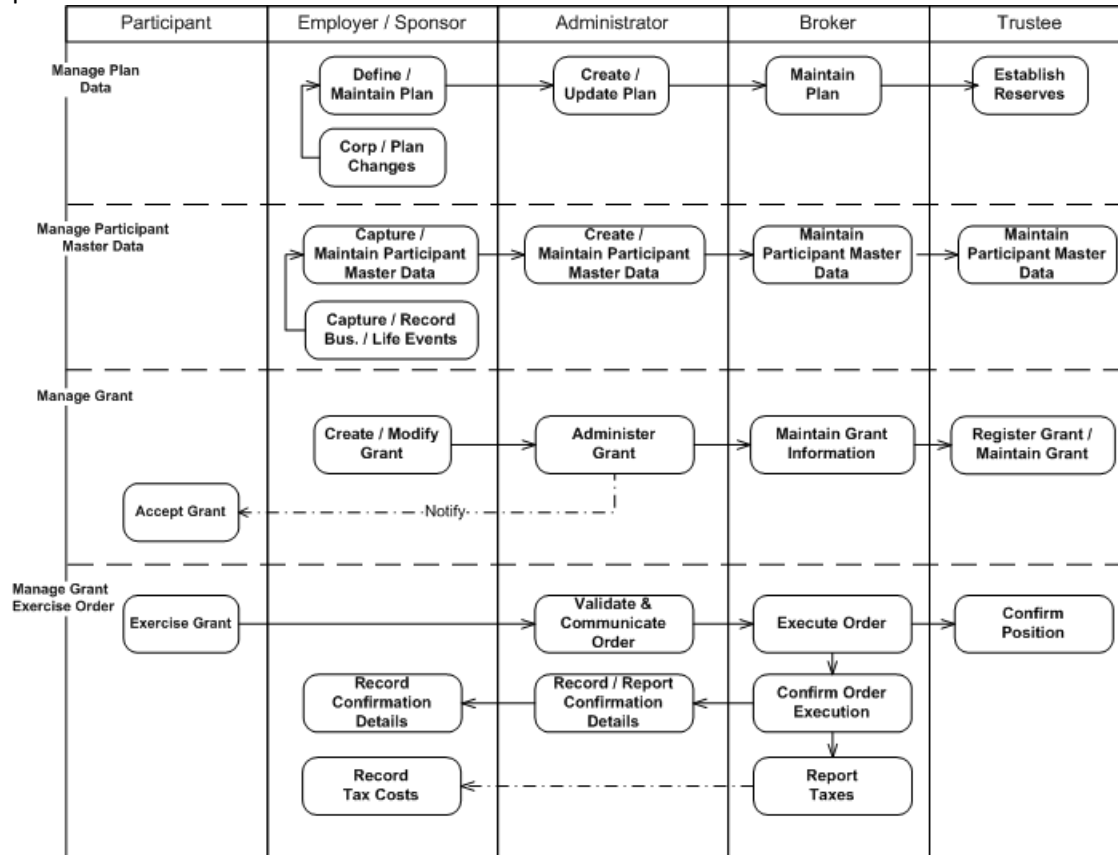
Actors

Find the employee and participant descriptions The principal actors in the scenarios are:

- **Broker:** In the context of employee stock plans, a Broker is a service provider that buys or sells securities on behalf of the Participant or the Stock Plan Sponsor.
- **Stock Plan Administrator:** The organization responsible for maintaining plan data, facilitating transactions, and enforcing plan rules. The role of the Administrator can be held by the Company, the Broker, or a third-party.
- **Plan Participant:** An individual, usually an employee of the Plan Sponsor but sometimes possibly an outside consultant, board member, independent contractor or a beneficiary - who stands to become an equity owner or otherwise benefit financially through plan participation.
- **Stock Plan Sponsor:** The employer sponsoring the employee stock plan and whose shares are offered through the plan.
- **Transfer Agent:** An institution selected by the Stock Plan Sponsor to issue and transfer share certificates that represent ownership in the company.
- **Stock Plan Trustee:** An institution selected by the Stock Plan Sponsor to hold the shares reserved for issuance through the stock plan.
- **Benefits Plan Administrator:** A benefits plan administrator (or sometimes "third-party administrator" or "TPA") serves as record keeper for a benefits program, administers new enrollments and changes in plan elections, updates participant data to reflect business and life events, and administers legal compliance on behalf of an employer. The administrator also may provide on-line facilities for employees/participants to use in making elections, enrollments, and in gaining information with respect to their benefit programs.
- **Investment Company:** In the context of savings plans and similar employee benefits programs, an investment company is an organization that sets up and maintains accounts for plan participants. These companies typically sell and manage a range of investments options, including mutual funds, a term with a specific statutory meaning in some countries, but which is used as a generic term for a variety of collective investment vehicles.
- **Beneficiary:** A person or organization designated as the receiver of some allocation of the savings, retirement, or other employee benefits account proceeds in the event of the account holder's death.
- **Plan Sponsor:** The party that sets up health, welfare, retirement, or other programs for the benefit of employees or members. Typically, a sponsor is the employer, but in some cases it might be an organization such as a union. Plan sponsors frequently work with third-party administrators and plan providers to actually operate and fulfill plan obligations.
- **Benefits Administrator:** A benefits administrator or "benefits outsourcer" provides services on behalf of a plan sponsor, usually an employer. Services vary considerably depending upon the type of benefits plan and upon plan sponsor requirements, but may include tasks such as determining the plan eligibility of individuals; enrolling eligible individuals; collecting participant elections; aggregating enrollment data across sites and business units; creating web sites, portals, and related systems for capturing and transmitting enrollment data; etc.

Supported Processes

The diagram below illustrates the integration associated with stock plan setup, grant, and exercise processes.



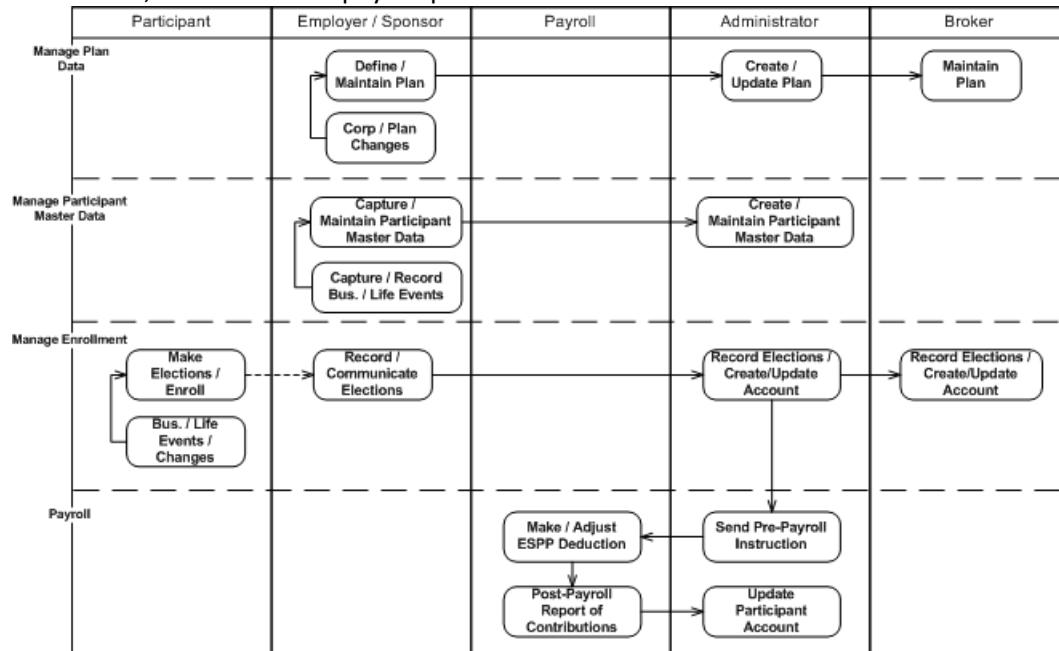
Manage Plan Data: The terms of many stock option plans often are set on an annual basis. Basic identifying information about the sponsor company, stock plan, and relevant stock are communicated among stakeholders. Certain basic plan features and conditions, such as the stock option ratio, the tax treatment of grants, maximum shares, minimum and maximum exercise quantities, and block exercise quantities are communicated among partners. The StockPlan noun is designed to facilitate these types of collaborations.

Manage Participant Master Data: Partner systems (the plan administrator's system, the broker's system, etc.) must be provisioned and maintained with accurate information about plan participants. The StockPlanParticipant noun is designed for these purposes. Note that this noun makes extensive reuse of patterns and data types within the IndicativeData noun, but contains certain meta-data directly applicable to supporting StockPlans.

Employee Stock Purchase Plans

Supported Processes

The diagram below illustrates the integration associated with employee stock purchase plan set up, enrollment, and associated payroll processes.



Overview

HR-XML's Stock Plan Participant noun allows the creation and maintenance of participants within employer stock plans. This would include stock option programs, employee stock purchase plans, and similar employee share plans.

Refer to Appendix B for the layout of Stock Plan Participant.

It is assumed that an initial participant record is created when an administrative system first goes on-line or when a participant enrolls or begins to participate in the plan. In addition to such "first-time setup" of participants, work and life events as well as events relating to the plan and plan sponsor may necessitate updates and other maintenance of participant data.

Note that participants are usually employees of the plan sponsor, but in some cases may be beneficiaries or parties designated by an employee. For example, a designated beneficiary might inherit the stock options of a participant, which would require that a new account be set up and maintained for the beneficiary.

There are a variety of possible actors and scenarios regarding how participant data might be maintained. The plan sponsor's core HR system or payroll system often would be an original source of the participant census data. However, in some cases, plan record keeping might be nearly entirely outsourced to the administrator after initial setup of participants. The administrator typically would be responsible for supplying other actors (Brokers and / or a Trustee) with relevant participant data and updates. On the other hand, some plan sponsors might have capabilities within their core HR systems to interface with brokers or trustees directly.

Participant data shared among actors connected with the stock plan may include: identifiers (Person Name, social insurance or tax IDs), residential address, date of hire or adjusted service date, and employment status. The Participant's taxation location and available tax rates may also be transmitted to assist with the calculation of tax liabilities upon the exercise of options. Whether or not the employee falls into a classification such as officer, director, or major share holder may be significant under applicable compliance and reporting requirements.

Trigger / Precondition

As discussed above, there are a variety of possible integration scenarios and event triggers. Examples of events that could trigger the collaboration, include:

- **Outsourced Service Provider Provisioning:** Many hosted and outsourced service providers need to be provided with information about the universe of employees or human resources that they will manage or for which they will provide related services. This involves providing the service provider with an initial build of organizational, position, and human resource data and often involves the communication of updates as business and life events change data provided in the initial build.

- **Hire:** A "hire event" coincides with the point in time at which a person who has been a candidate becomes associated with an employer as an employee. Sometimes systems are pre-provisioned with information about an individual after he or she has accepted the offer, but before the employee enters-on-duty.
- **Personal Data Changes:** These include events such as changes in personal information, such as government identifier, person name, home address, direct deposit account, etc.

Overview

The Stock Plan noun is used to provide the stock plan administrator and other stakeholders with the plan design information they require to carry out their roles within stock option grant and exercise processes.

Refer to Appendix B for the layout of Stock Plan.

Among the data that can be communicated with the StockPlan noun are:

- A formal, legal name under which they have been defined. For example, "Software Company Long Term Incentive Plan 2010."
- An inception date (the date the Plan was established) and a plan end date (the date on which the plan may be terminated). Plan Years generally span over one year although not necessarily a calendar year.

Plans also may have a variety of other distinguishing features that also can be described by the StockPlan schema:

Plan Type: The type of stock option plan determines, among other things, exercise restrictions and tax rules that apply to Participants and the sponsoring Company. There are various types of stock option plans, such as Incentive Stock Option plans (ISO), Nonqualified Stock Option Plan (NQSL), a Restricted Stock Plan, Stock Appreciation Rights Plan (SAR), etc.

Waiting Periods: Waiting periods apply before Participants can exercise their stock options. These waiting periods may begin on the date of the grant, or the Participant's date of hire. In addition, vesting rules are defined which determine the length of time the Participant must hold the options for a certain percentage to be vested. Vesting also may vary based on the goal of the shares being granted to serve as a long-term or a performance-based incentive. Long-term incentives generally vest on an annual basis and often require the Participant to satisfy a waiting period before vesting begins. Once the waiting period ends, options typically vest ratably. Performance-based incentives vest when the underlying stock price reaches a specified price, although vesting based on other financial triggers are becoming much more common. Vesting always occurs over months or years and as a percentage of shares granted.

Blackout Periods: Blackout periods are also commonly defined in stock plans during which the exercise of options is not allowed. While the blackout period may apply to all Participants, it may also only apply based on a Participant's position in or relationship to the Company. For example, Participants such as the owner, officers or directors of the Company with inside, non-public knowledge of the Company may be restricted from exercising options during certain periods, while other Participants may not.

Trigger / Precondition

Examples of events that could trigger the collaboration, include:

- **New Stock Plan:** An employer's (plan sponsor) establishment of a new stock plan.

- **Annual Stock Plan Setup:** The annual setup or configuration of a stock plan. Typically, plan terms are set for a year.
- **Organizational Events:** A wide variety of organization events can trigger updates of human resource data or otherwise trigger interactions between HR service providers. Among those events are: layoff; location closure; merger; business reorganization; corporate relocation; acquisition; bankruptcy; and divestiture of operating units.

Stock Option Exercise Order

Overview

StockOptionExerciseOrder is used to transmit instructions to a broker regarding when and how to exercise the options. A StockOptionExerciseOrder typically would be initiated by a participant through the stock option plan administrator. The order would typically be responded to with an acknowledgement (AcknowledgeStockOptionExerciseOrder or merely ConfirmBOD). After the broker exercises the order, a message based on the StockOptionExerciseConfirmation noun may be sent back to the stock option plan administrator or sponsor to confirm the sale.

Refer to Appendix B for the layout of Stock Option Exercise Order.

Triggers / Preconditions

Obviously, there are many steps and preconditions before the exercise of a stock option. The stock option must be exercisable. The exercise of stock options are subject to conditions, such as waiting and blackout periods. Assuming the stock option is exercisable, the immediate event triggering the collaboration would be participant's election to exercise the option.

- **Stock Option Exercise:** A broker carries out an order to exercise stock options and then provides confirmation to the participant as well as the stock option program administrator.

Stock Option Exercise Confirmation

Overview

HR-XML's employee stock (share) plan specifications support the exchange of employee stock option plan and employee stock purchase plan data between an employer, administrator, broker, and transfer agent and trustee. This chapter covers the Manage Stock Option Exercise Confirmation noun.

Refer to Appendix B for the layout of Stock Option Exercise Confirmation.

Within an integration to support a stock option program, the `StockOptionExerciseConfirmation` noun may be sent from a broker back to the stock option plan administrator or sponsor to confirm the completion of an order to exercise stock options). The exact composition of the `StockOptionExerciseConfirmation` message varies depending on the type of exercise order - cash, cashless, swap, etc. While composition of the message may vary, the information communicated in an exercise confirmation may include: the number of shares exercised, the exercise price, fair market value (FMV) on the date of exercise, sales price (may differ from the FMV), taxes due/withheld, number of shares used to pay the taxes, and the amount of the taxable gain.

Trigger / Precondition

- **Stock Option Exercise:** A broker carries out an order to exercise stock options and then provides confirmation to the participant as well as the stock option program administrator.



Stock Option Grant

Overview

As stock option program participants are granted options, the plan sponsor communicates grant information to be posted to the participant's stock account. These communications can be between the sponsor and the plan administrator and/or between the plan administrator and the broker.

Refer to Appendix B for the layout of Stock Option Grant.

These grant messages carry information about the number of options granted and about the terms of the grant, such as vesting and expiration. The Stock Option Grant noun is designed to support such messaging requirements.

Triggers / Preconditions

The communication of the grant information usually would occur after the broker/administrator has been provisioned with participant data and after accounts for each participant have been established. So provisioning systems with participant data and the establishment of participant accounts are among preconditions for the communication of stock option grant messages.

Typically, new stock options grants would be issued to participants according to a regular cycle. For example, option grants might be issued annually, semi-annually, quarterly, or monthly.

Overview

The Stock Sale Confirmation noun might be used in a few scenario contexts, but has a particular role within employee stock purchase plan (ESPP) integrations.

Refer to Appendix B for the layout of Stock Sale Confirmation.

An ESPP participant may deal in his or her stock directly with the broker. This type of direct interaction is outside the scope of HR-XML's stock plan specifications. However, in some contexts it may be necessary for the broker to report certain stock dispositions back to the stock plan administrator. Such reporting may be required under applicable securities regulations. For example, if a participant makes a stock disposition within the holding period attributed to the original stock purchase, the broker may be obliged to inform the administrator that a disqualifying disposition has taken place. The StockSaleConfirmation noun can be used for this reporting between the broker and the ESPP administrator. The ESPP administrator might also use the StockSaleConfirmation noun to communicate the sale to the employer's payroll service provider.

Note: This document considers the mechanics of the messaging to support reporting of stock dispositions to ESPP plan administrators. Interpreting whether and when such reporting is required under applicable securities or tax regulations is outside the scope of this document. Implementers are advised to consult a securities compliance specialist or attorney knowledgeable in the requirements that may be applicable to their particular circumstances.

The Stock Sale Confirmation noun contains details regarding the participant, sale date, quantity of stock sold, stock price, an identifier to tie the shares sold to the original purchase.

Overview

Stock Deposit contains the instructions for the broker to distribute stock to a given set of participants. The broker receives a stock transfer by the ESPP sponsor company's transfer agent and therefore needs this instruction before distribution can take place.

Refer to Appendix B for the layout of Stock Deposit.

Appendix A: Examples

Examples for each of these Nouns can be found in the Instances folder.

Stock Plan Participant

ProcessStockPlanParticipant-Example-1.xml

Stock Plan

ProcessStockPlan-Example-1.xml

Stock Option Exercise Order

ProcessStockOptionExerciseOrder-Example-1.xml

Stock Option Exercise Confirmation

ProcessStockOptionExerciseConfirmation-Example-1.xml

Stock Option Grant

ProcessStockOptionGrant-Example-1.xml

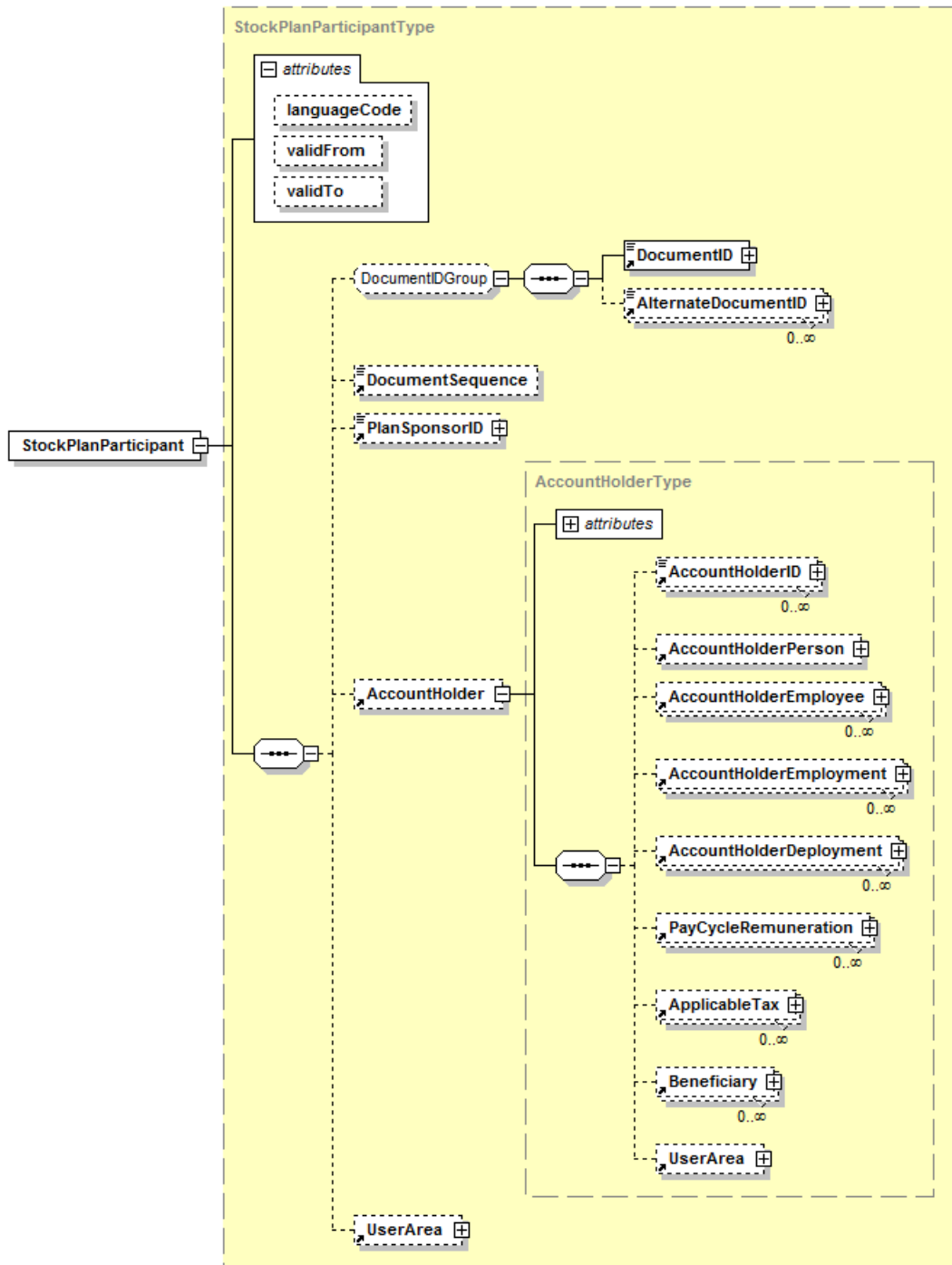
This is an example of how a previously issued StockOptionGrant might be removed using the "Incremental Delete" data management approach. A previous issued grant might be removed upon a business event such as the employee's termination if the employee was not yet vested under such grant.

CancelStockOptionGrant-Example-1.xml

Stock Sale Confirmation

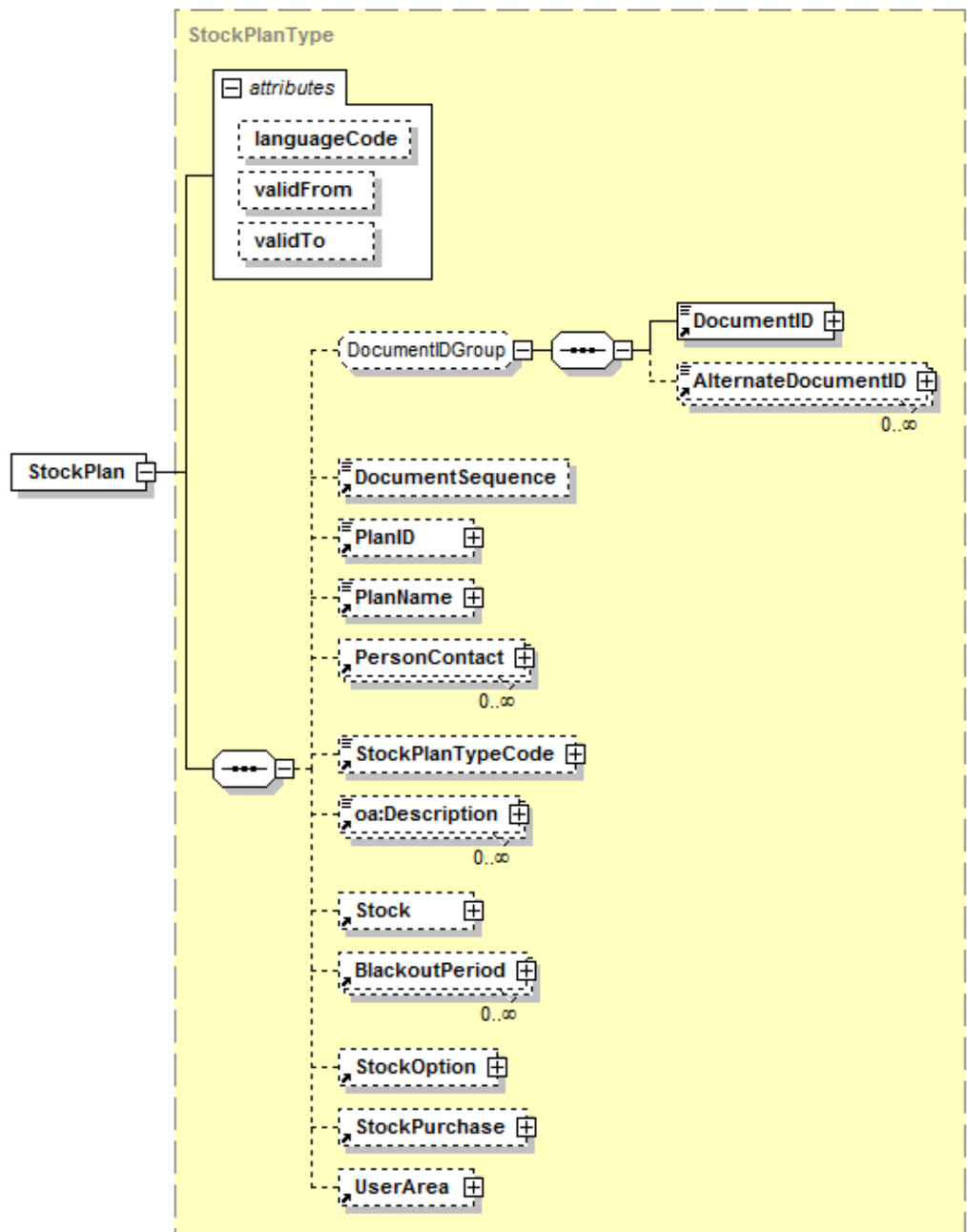
ProcessStockSaleConfirmation-Example-1.xml

Employee Stock Purchase Plans



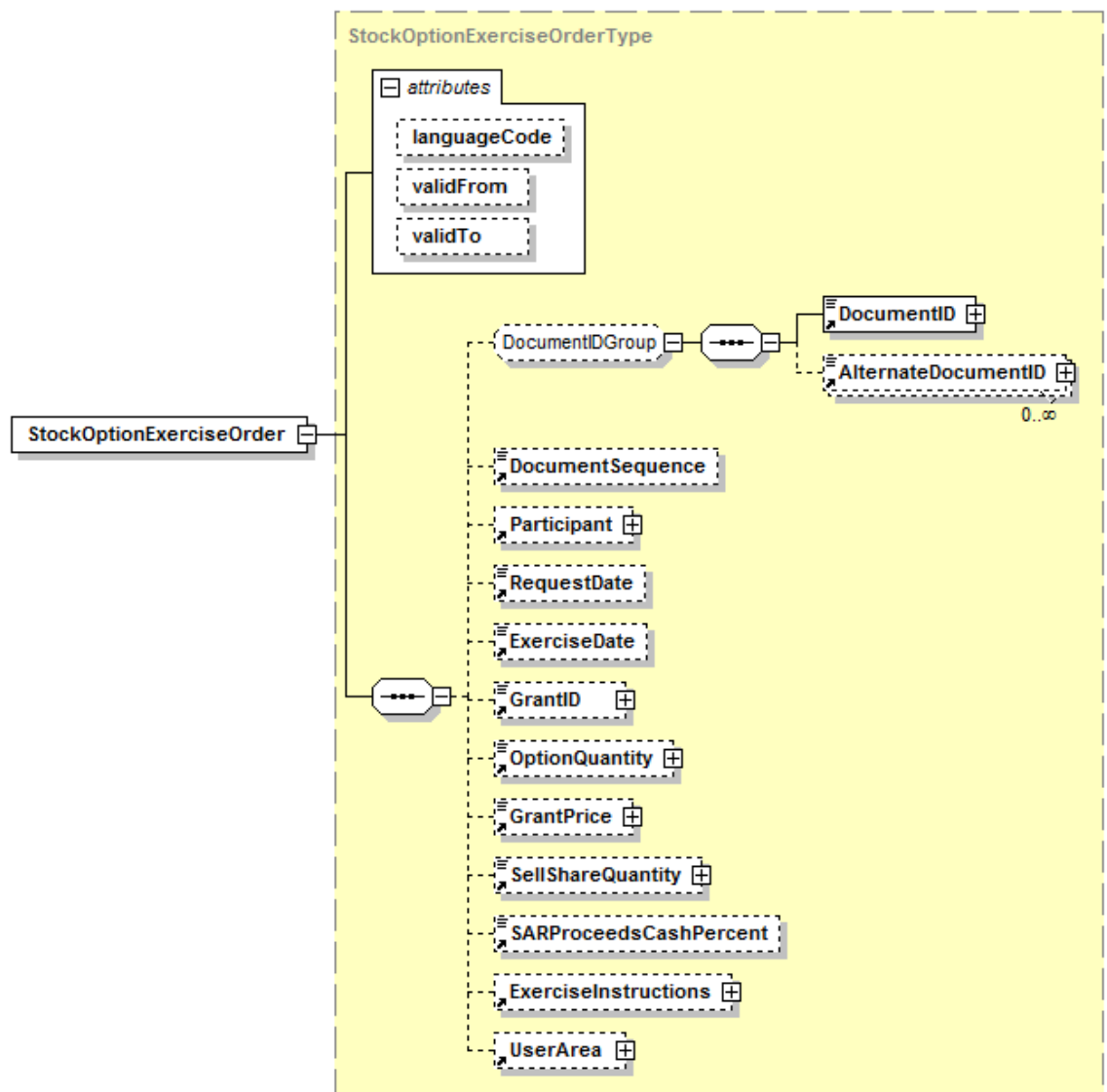
Generated by XMLSpy

www.altova.com



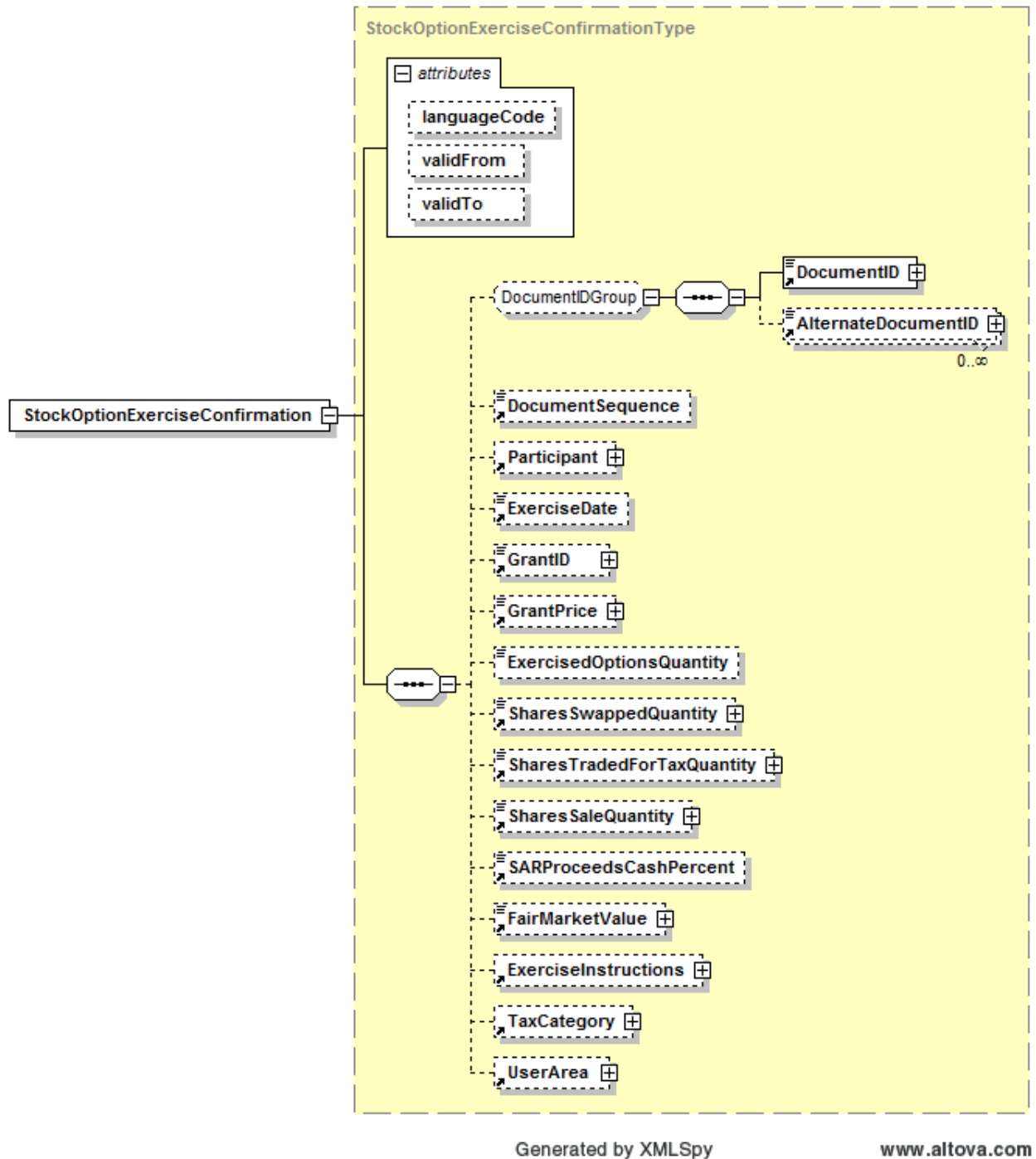
Generated by XMLSpy

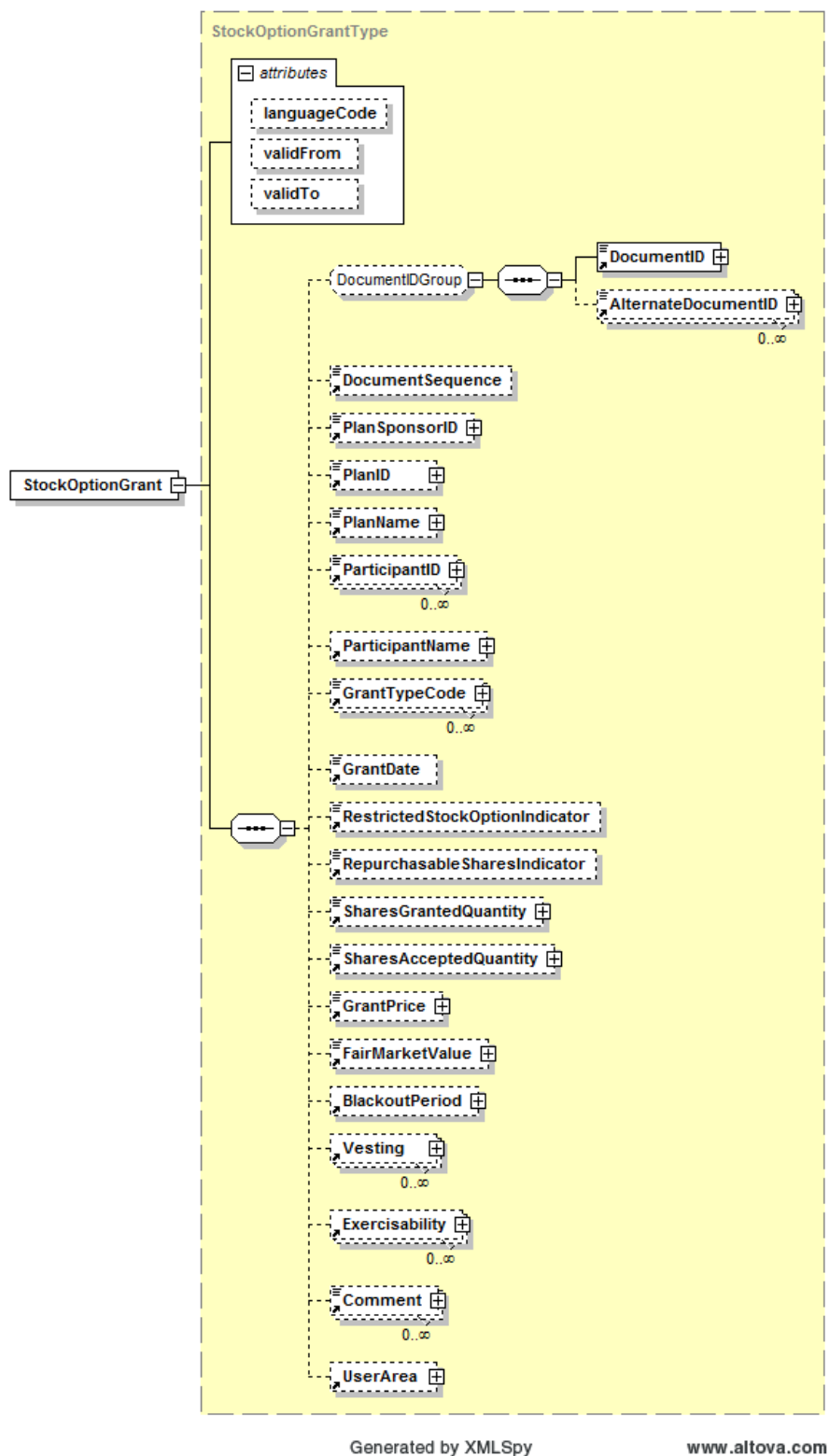
www.altova.com

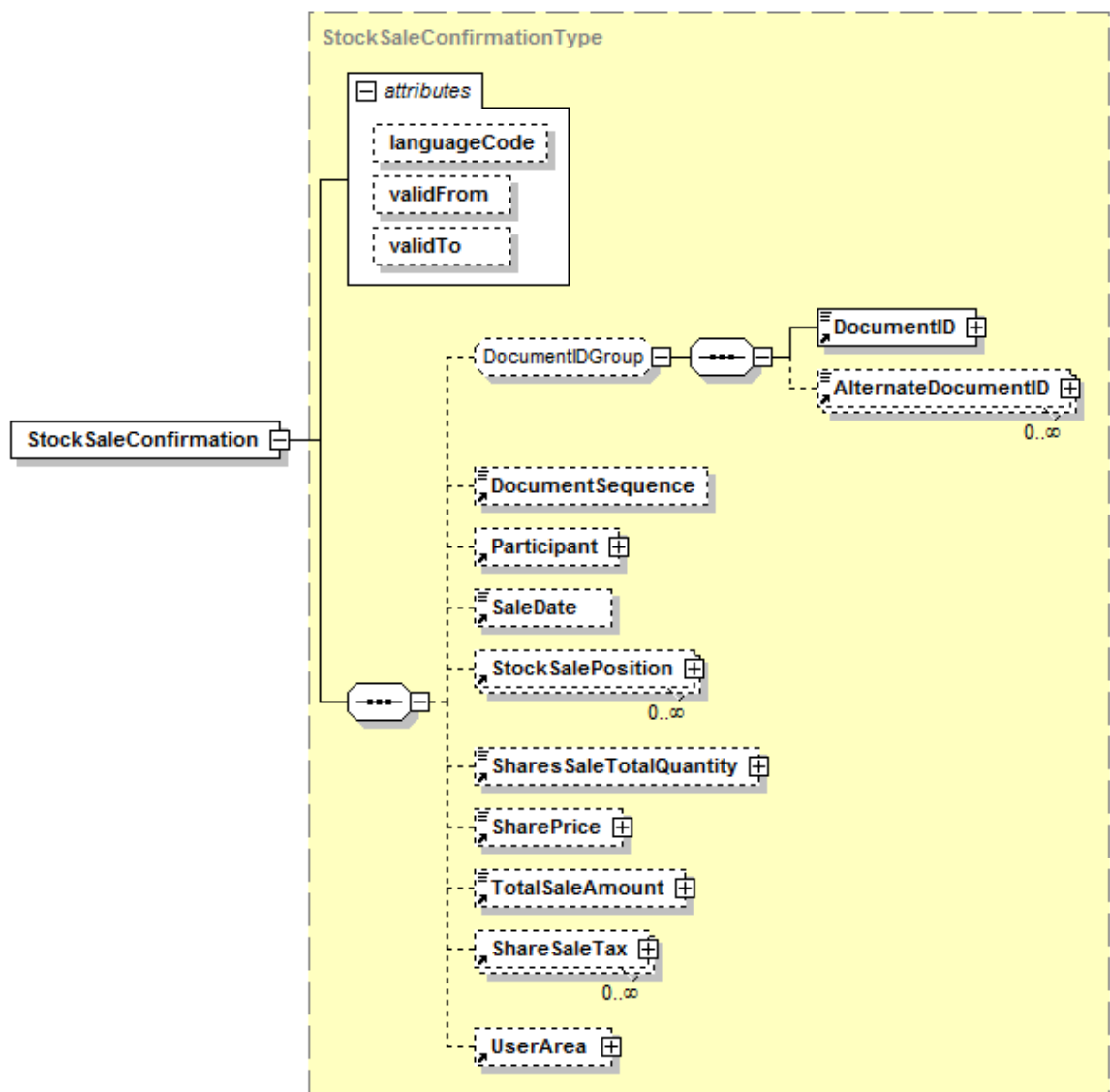


Generated by XMLSpy

www.altova.com

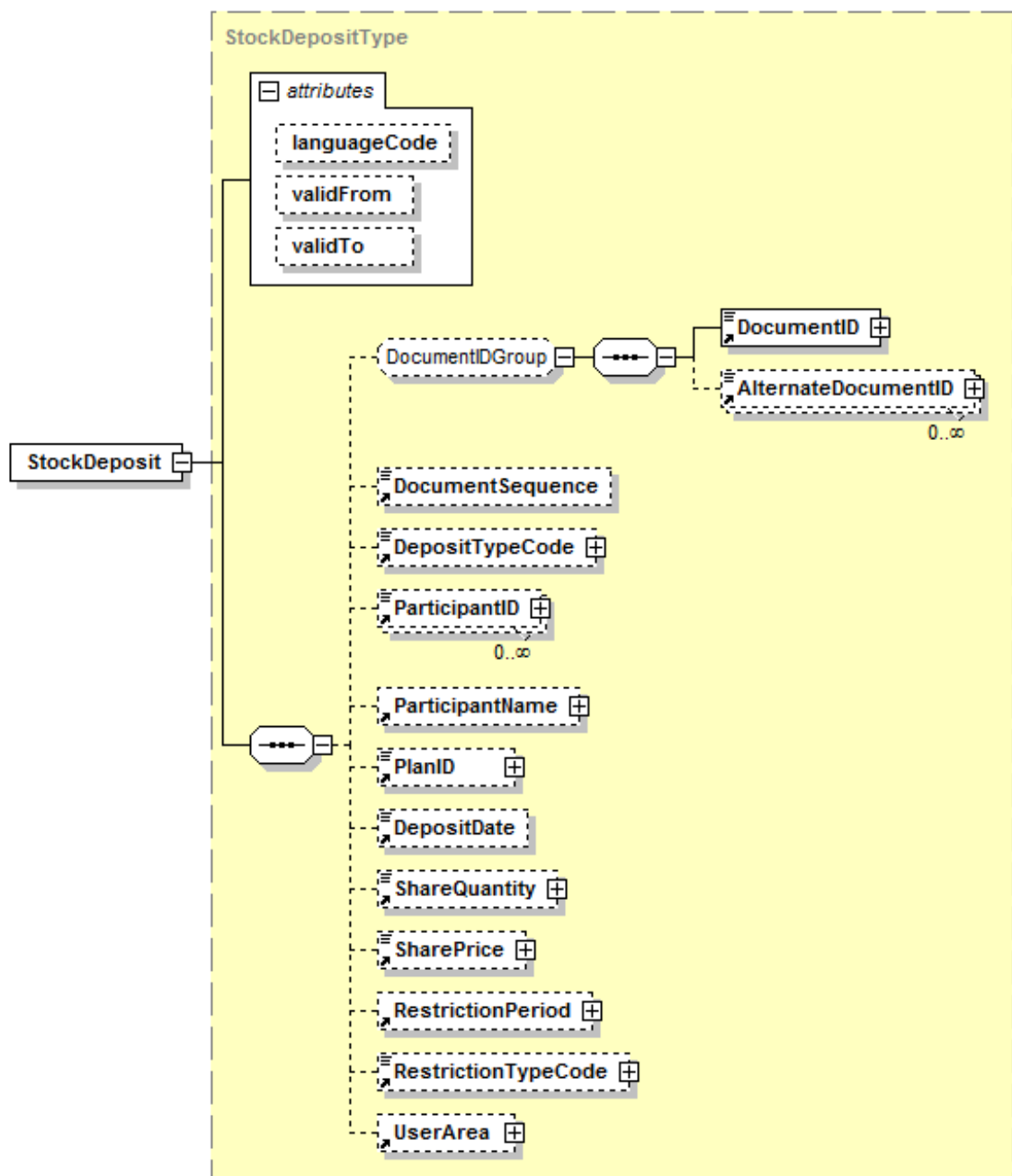






Generated by XMLSpy

www.altova.com



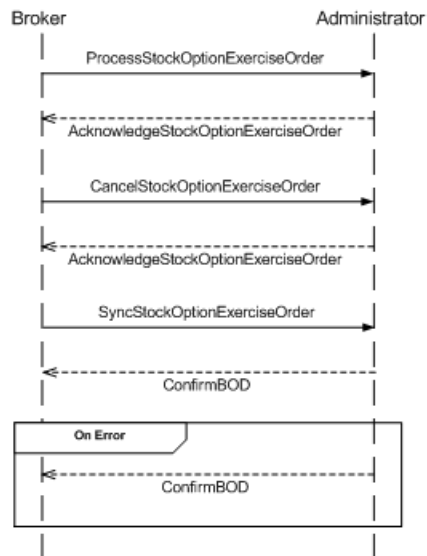
Generated by XMLSpy

www.altova.com

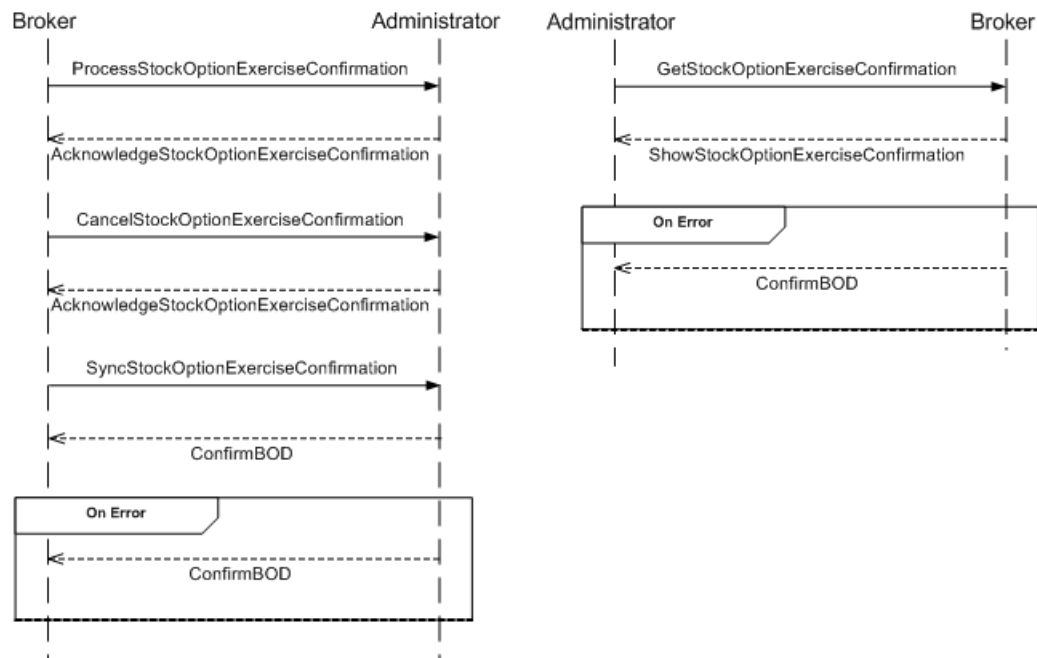
Appendix C: Business Document Object (BOD) Diagrams

Stock Option Exercise Order

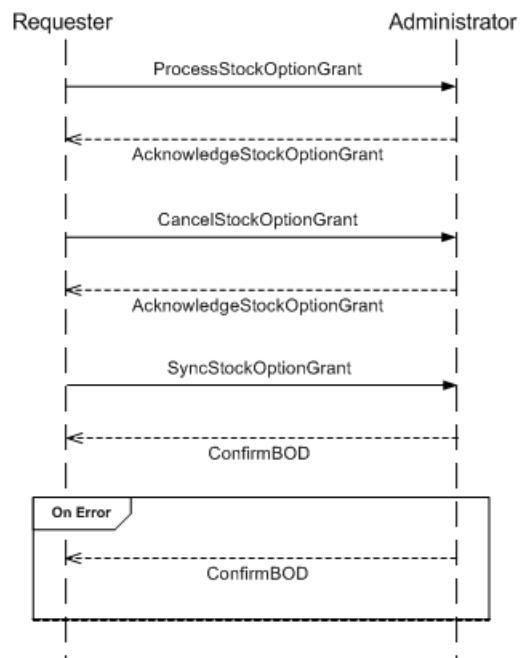
A service that a broker would host to manage stock option exercise orders from an employer or stock plan administrator system.



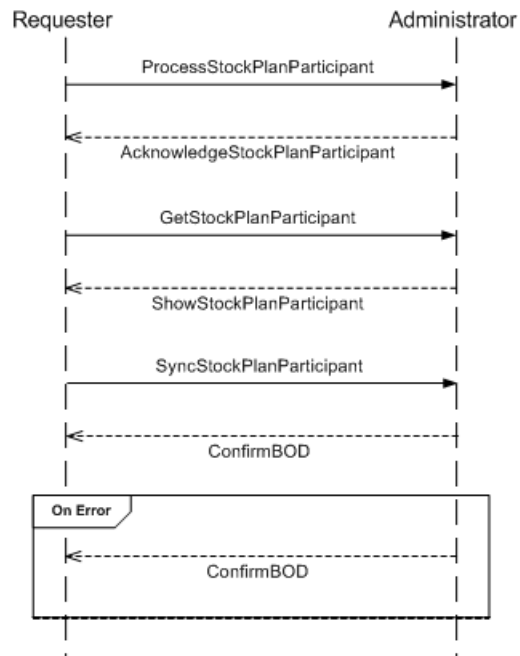
A service that a plan administrator/record keeper would use to process stock option exercise confirmations.



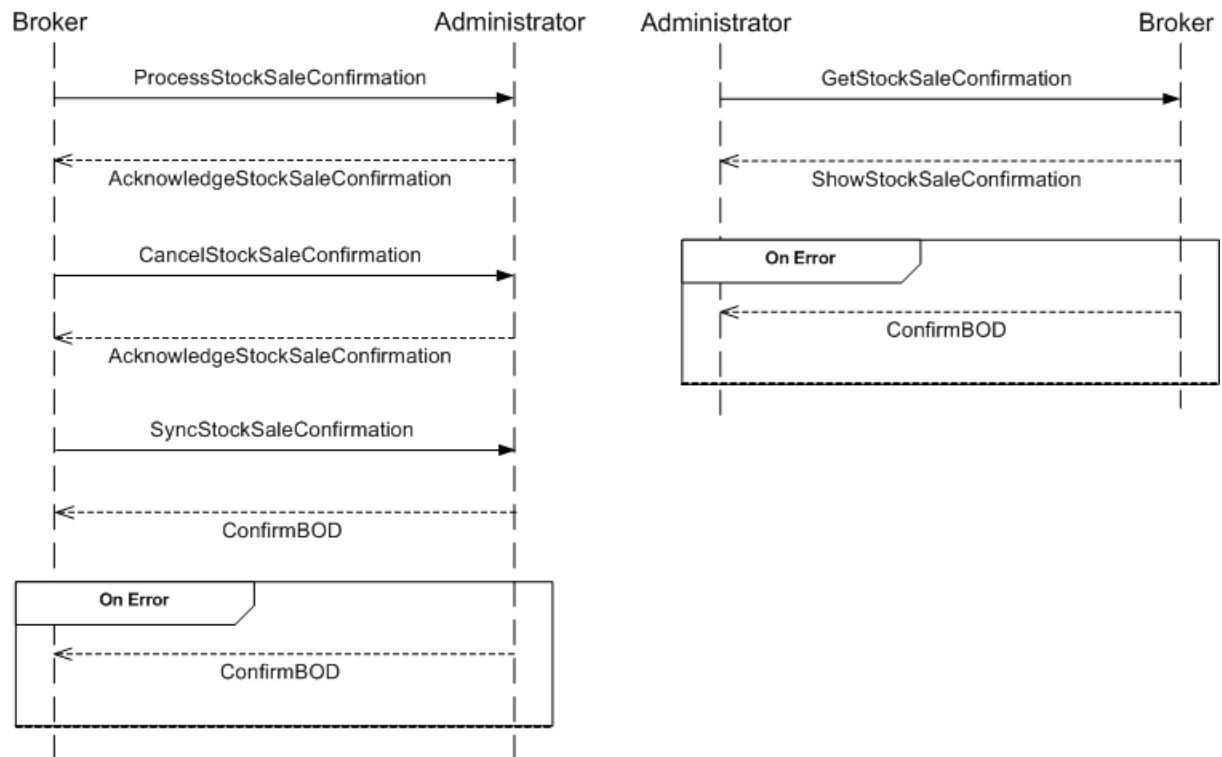
A service that the stock option plan administrator or record keeper would host to manage stock option grants created by the sponsoring company.



A service that a plan administrator/record keeper would use to process new and updated stock plan participant data from an employer system.



A service that a plan administrator/record keeper would use to process stock sale confirmations. An Employee Stock Purchase Plan participant may deal in his or her stock directly with the broker. This type of direct interaction is outside the scope of HR-XML's stock plan specifications. However, in some contexts it may be necessary for the broker to report certain stock dispositions back to the stock plan administrator.



Stock Option Setup, Grant, and Exercise

