

# Managing Selections

## Scenario

The desktop application StyleADVISOR draws various charts that display data series associated with what is called a 'manager'. The user can select managers by clicking on the corresponding data series in the chart. Furthermore, the user can globally set the list of managers displayed in a chart.

## Task

Write a component that manages the selection state of managers currently shown in StyleADVISOR. Internally, the managers are represented by unique string ids. The following operations need to be supported:

- Changing the selection status for a manager
- Querying the selection status for a manager
- Setting the list of displayed managers

The component should provide a means for clients to receive notifications whenever the selection state of a manager changes.

## Environment

Write portable code. The code must compile on a standard conforming C++ compiler/library. The use of the C++ standard library is strongly encouraged. You may use the current version of the Boost library, if desired. The use of other libraries (portable or not) is discouraged.

## Deliverables

Provide the code, supporting documentation, and anything else you deem worthwhile for the component so that it could be readily used in production code. No binaries are needed. A rationale document discussing design choices is welcome, but not required. Please also document the compiler used to prepare the code.