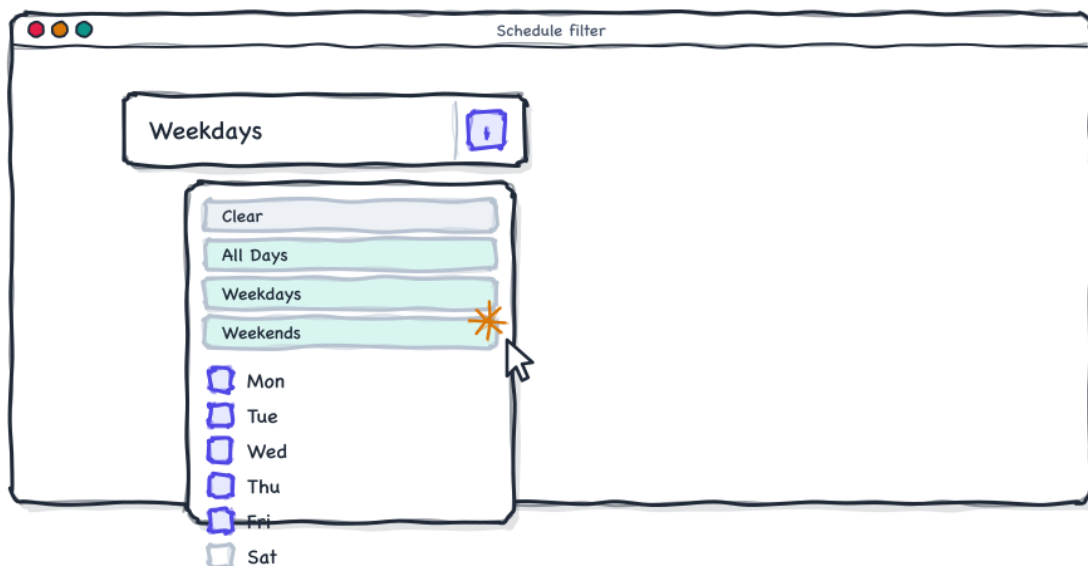


# DayOfWeekPicker

## Developer Manual

GemsFX • com.dlsc.gemsfx • JavaFX Custom Controls



*DayOfWeekPicker summarizes weekday selections and opens a SelectionBox popup.*

DayOfWeekPicker is a SelectionBox of DayOfWeek values. It orders days by locale, supports single and multiple selection, and adds quick buttons for clear, today, all days, weekdays and weekends.

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## 1. Introduction

**DayOfWeekPicker** extends `SelectionBox<DayOfWeek>`. It inherits the `SelectionBox` popup and selection model, then replaces the items and quick buttons with weekday-specific behaviour.

### 1.1 Key features

- Items are the seven `DayOfWeek` values ordered by the locale's first day of week.
- Single mode shows Clear and Today buttons.
- Multiple mode shows Clear, All Days, Weekdays and Weekends buttons.
- Display summaries include All Days, Weekdays, Weekends and consecutive ranges such as Mon ~ Wed.
- Weekend days are computed from `WeekFields` of the current locale.

### 1.2 Maven dependency

```
<dependency>
  <groupId>com.dlsc.gemsfx</groupId>
  <artifactId>gemsfx</artifactId>
  <version>4.4.1</version>
</dependency>
```

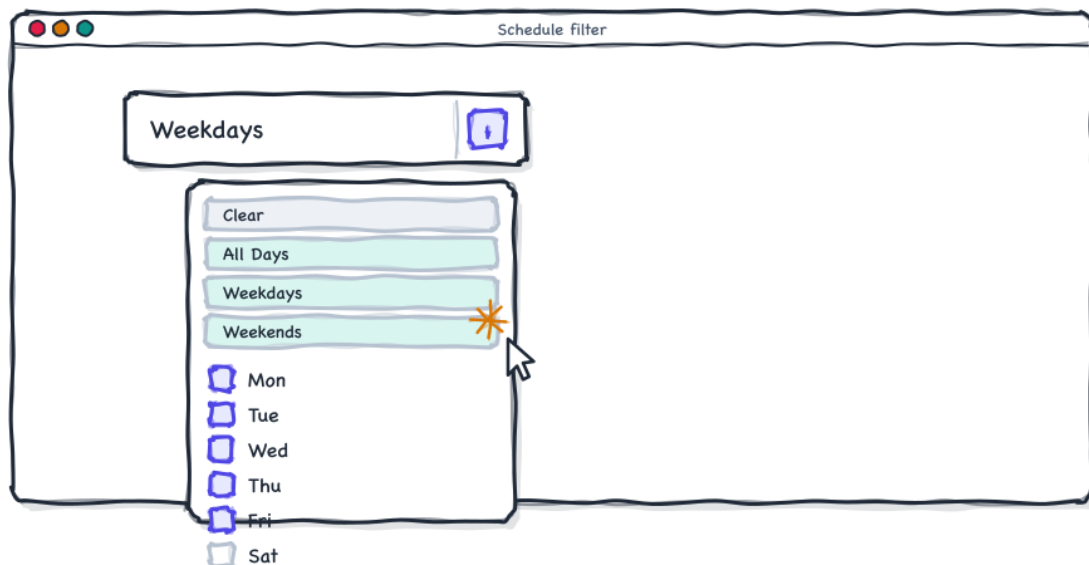
*DayOfWeekPicker is in package `com.dlsc.gemsfx`.*

## 2. Getting started

```
DayOfWeekPicker picker = new DayOfWeekPicker();
picker.getSelectionModel().setSelectionMode(SelectionMode.MULTIPLE);
picker.getSelectionModel().select(DayOfWeek.MONDAY);
picker.getSelectionModel().select(DayOfWeek.FRIDAY);

picker.getSelectionModel().getSelectedItems().addListener((ListChangeListener<DayOfWeek>) change -> {
    System.out.println(picker.getSelectionModel().getSelectedItems());
});
```

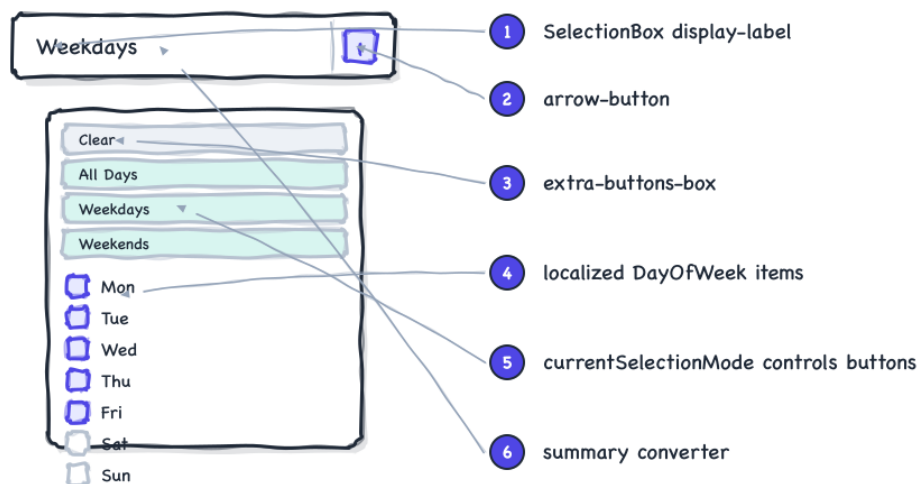
*A complete `DayOfWeekPicker` setup.*



*DayOfWeekPicker in a schedule filter.*

**Tip.** Selection mode is changed on the inherited `MultipleSelectionModel`:  
`picker.getSelectionModel().setSelectionMode(...)`.

### 3. Anatomy



*The parts inherited from SelectionBox plus DayOfWeekPicker additions.*

| Part          | Style class                                                  | Description                                                              |
|---------------|--------------------------------------------------------------|--------------------------------------------------------------------------|
| Root          | combo-box-base, combo-box, selection-box, day-of-week-picker | DayOfWeekPicker adds its own root class after SelectionBox construction. |
| Display label | display-label                                                | Shows selectedItemsConverter text or promptText.                         |
| Arrow         | arrow-button, arrow                                          | Shows the popup unless readOnly.                                         |

| Part          | Style class                                                                     | Description                                                 |
|---------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|
| Popup         | selection-popup                                                                 | PopupControl with autoFix, autoHide and hideOnEscape.       |
| Extra buttons | extra-buttons-box, extra-button                                                 | Day-specific button set installed at the top.               |
| Items         | item, single-item / multiple-item                                               | Radio buttons in SINGLE mode, check boxes in MULTIPLE mode. |
| Quick buttons | clear-button, today-button, select-all-button, weekdays-button, weekends-button | Visibility depends on selection mode.                       |

## 4. Control API

### 4.1 DayOfWeekPicker methods

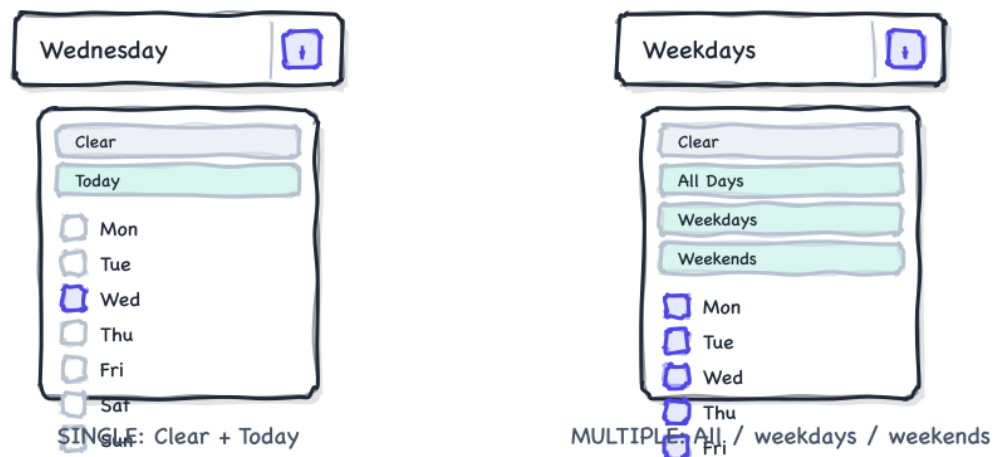
| Property                        | Type            | Default          | Description                                                                              |
|---------------------------------|-----------------|------------------|------------------------------------------------------------------------------------------|
| getLocalizedDayOrder()          | List<DayOfWeek> | locale dependent | Returns seven days starting with WeekFields.of(Locale.getDefault()).getFirstDayOfWeek(). |
| getWeekendDays()                | List<DayOfWeek> | locale dependent | Returns two weekend days computed from the locale first day plus five and six days.      |
| getWeekdays()                   | List<DayOfWeek> | locale dependent | All DayOfWeek values except getWeekendDays().                                            |
| isSelectedAll()                 | boolean         | derived          | True when selected item count equals item count.                                         |
| isOnlyWeekdaysSelected()        | boolean         | derived          | True when the selected set equals getWeekdays().                                         |
| isOnlyWeekendsSelected()<br>( ) | boolean         | derived          | True when the selected set equals getWeekendDays().                                      |

### 4.2 Inherited SelectionBox properties

| Property               | Type                                              | Default                      | Description                                               |
|------------------------|---------------------------------------------------|------------------------------|-----------------------------------------------------------|
| items                  | ListProperty<DayOfWeek>                           | localized weekdays           | Choice list, initialized by the constructor.              |
| selectionModel         | ObjectProperty<MultipleSelectionModel<DayOfWeek>> | CustomMultipleSelectionModel | Supports SelectionMode.SINGLE and SelectionMode.MULTIPLE. |
| promptText             | StringProperty                                    | null                         | Shown when no item is selected.                           |
| autoHideOnSelection    | BooleanProperty                                   | true                         | Controls popup hiding for item/extra-button interactions. |
| selectedItemsConverter | ObjectProperty<StringConverter<List<DayOfWeek>>>  | weekday summary converter    | Formats the display label.                                |
| itemConverter          | ObjectProperty<StringConverter<DayOfWeek>>        | full localized day name      | Formats popup items.                                      |

| Property         | Type            | Default | Description                                      |
|------------------|-----------------|---------|--------------------------------------------------|
| readOnly         | BooleanProperty | false   | Styleable; hides the arrow and prevents opening. |
| animationEnabled | BooleanProperty | false   | Styleable fade transitions for popup show/hide.  |

## 5. Selection modes and quick buttons



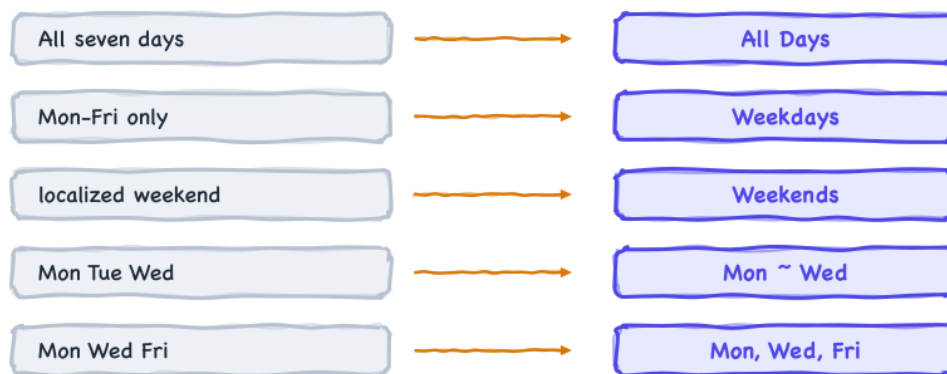
Single and multiple modes expose different quick buttons.

| Mode     | Popup controls                                   | Selection summary                        |
|----------|--------------------------------------------------|------------------------------------------|
| SINGLE   | Radio buttons, Clear and Today                   | Full localized day name.                 |
| MULTIPLE | Check boxes, Clear, All Days, Weekdays, Weekends | Special summaries or consecutive ranges. |

```
picker.getSelectionModel().setSelectionMode(SelectionMode.MULTIPLE);

// Built-in quick button logic can also be called directly:
picker.getSelectionModel().clearSelection();
for (DayOfWeek day : picker.getWeekdays()) {
    picker.getSelectionModel().select(day);
}
```

## 6. Summaries and locale ordering



*The selected-items converter chooses compact weekday summaries.*

When several individual days are selected, the converter sorts them by localized day order, merges consecutive runs and renders each run with short localized day names joined by ~ . Non-consecutive runs are separated by commas.

```

List<DayOfWeek> order = picker.getLocalizedDayOrder();
List<DayOfWeek> weekends = picker.getWeekendDays();
  
```

## 7. Styling

### 7.1 Style classes and pseudo classes

| Selector                                                                                | Meaning                                 |
|-----------------------------------------------------------------------------------------|-----------------------------------------|
| .day-of-week-picker                                                                     | Root class added by DayOfWeekPicker.    |
| .selection-box                                                                          | Inherited root class and stylesheet.    |
| .display-label                                                                          | Text shown on the closed picker.        |
| .arrow-button > .arrow                                                                  | Popup arrow.                            |
| .selection-popup > .content                                                             | Popup content pane.                     |
| .extra-buttons-box .extra-button                                                        | Quick selection buttons.                |
| .clear-button, .today-button, .select-all-button,<br>.weekdays-button, .weekends-button | Specific quick buttons.                 |
| .item, .single-item, .multiple-item                                                     | Popup radio buttons / check boxes.      |
| :readonly, :empty, :showing, :single, :multiple                                         | Pseudo classes set by SelectionBoxSkin. |

### 7.2 Styleable CSS properties

| CSS property          | Type    | Default |
|-----------------------|---------|---------|
| -fx-read-only         | boolean | false   |
| -fx-animation-enabled | boolean | false   |

```
.day-of-week-picker {  
    -fx-read-only: false;  
    -fx-animation-enabled: true;  
}  
  
.selection-popup > .content .extra-buttons-box .weekdays-button {  
    -fx-font-weight: bold;  
}
```

## 8. Localization

| Key              | English default |
|------------------|-----------------|
| summary.all-days | All Days        |
| summary.weekdays | Weekdays        |
| summary.weekends | Weekends        |
| action.clear     | Clear           |
| action.today     | Today           |
| action.all-days  | All Days        |
| action.weekdays  | Weekdays        |
| action.weekends  | Weekends        |

## 9. Accessibility

SelectionBox already sets `AccessibleRole.COMBO_BOX` and binds accessible text to the same selection summary shown in the display label. `DayOfWeekPicker` also calls `setRole` with `COMBO_BOX`, keeping the same role.

## 10. Recipes

### 10.1 Single-day picker

```
picker.getSelectionModel().setSelectionMode(SelectionMode.SINGLE);
```

### 10.2 Weekday filter

```
picker.getSelectionModel().setSelectionMode(SelectionMode.MULTIPLE);  
for (DayOfWeek day : picker.getWeekdays()) {  
    picker.getSelectionModel().select(day);  
}
```

### 10.3 Keep popup open

```
picker.setAutoHideOnSelection(false);
```



## 10.4 Custom empty text

```
picker.setPromptText("Any day");
```

## 10.5 Checklist

- 1 Use `getLocalizedDayOrder()` when showing external labels beside the picker.
- 2 Use selection mode `MULTIPLE` before calling `selectAll()`.
- 3 Do not replace items unless you intentionally leave the weekday-specific domain.
- 4 Use `readOnly` instead of `disabled` when the value should remain readable but not editable.

## 11. See also

- Demo application: `com.dlsc.gemsfx.demo.DayOfWeekPickerApp` (run with `mvn javafx:run -f gemsfx-demo/pom.xml -Dmain.class=com.dlsc.gemsfx.demo.DayOfWeekPickerApp`)
- Related controls: `SelectionBox`, `CalendarView`, `DateRangePicker`.
- API documentation: <https://dlsc-software-consulting-gmbh.github.io/GemsFX/api/>