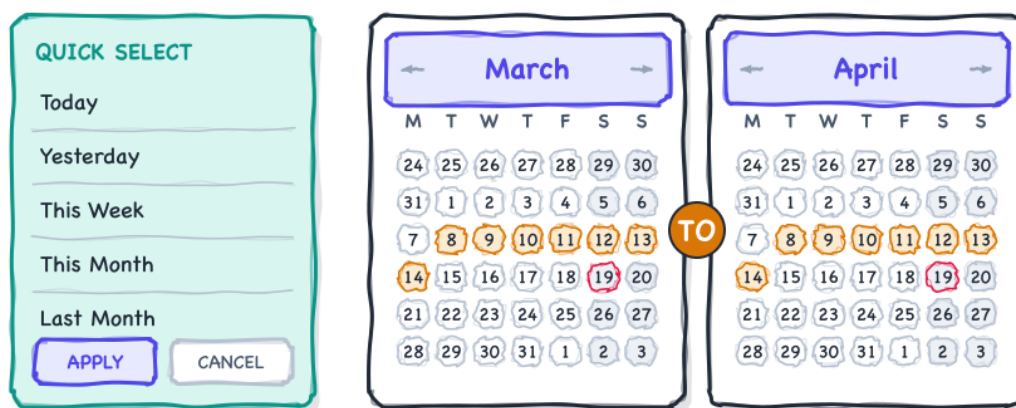


DateRangeView

Developer Manual

GemsFX • `com.dlsc.gemsfx.daterange` • JavaFX Custom Controls



DateRangeView places presets next to two coordinated calendars.

DateRangeView combines two CalendarView instances, a preset list and optional apply/cancel buttons to create DateRange values.

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1. Introduction

DateRangeView is the popup content used by **DateRangePicker** and can also be embedded directly. It creates two **CalendarView** instances sharing a **DATE_RANGE** selection model and keeps their months ordered so the end calendar stays after the start calendar.

1.1 Key features

- Horizontal or vertical calendar layout.
- Preset section on the left or right.
- Default presets: Today, Yesterday, This Week, This Month and Last Month.
- Optional apply/cancel buttons.
- Localized labels and accessible date-range role description.

1.2 Maven dependency

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

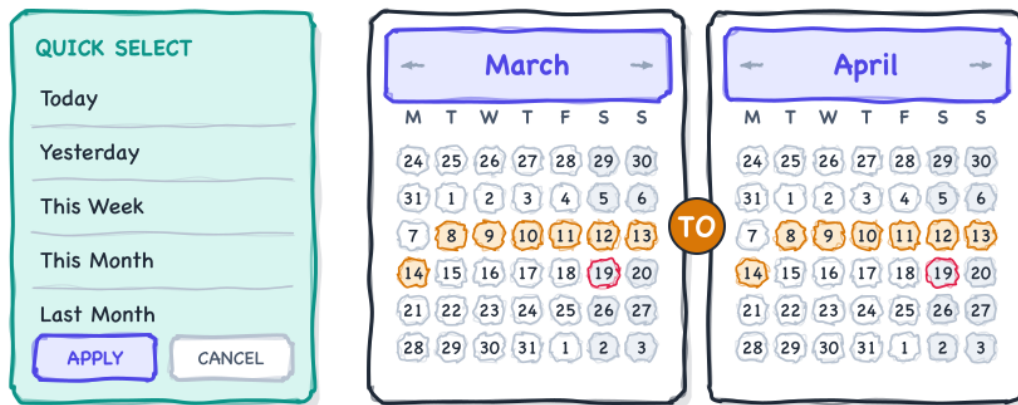
DateRangeView is in package `com.dlsc.gemsfx.daterange`.

2. Getting started

```
DateRangeView view = new DateRangeView();
view.setOrientation(Orientation.HORIZONTAL);
view.setPresetsLocation(Side.LEFT);
view.setOnClose(() -> System.out.println("closed"));

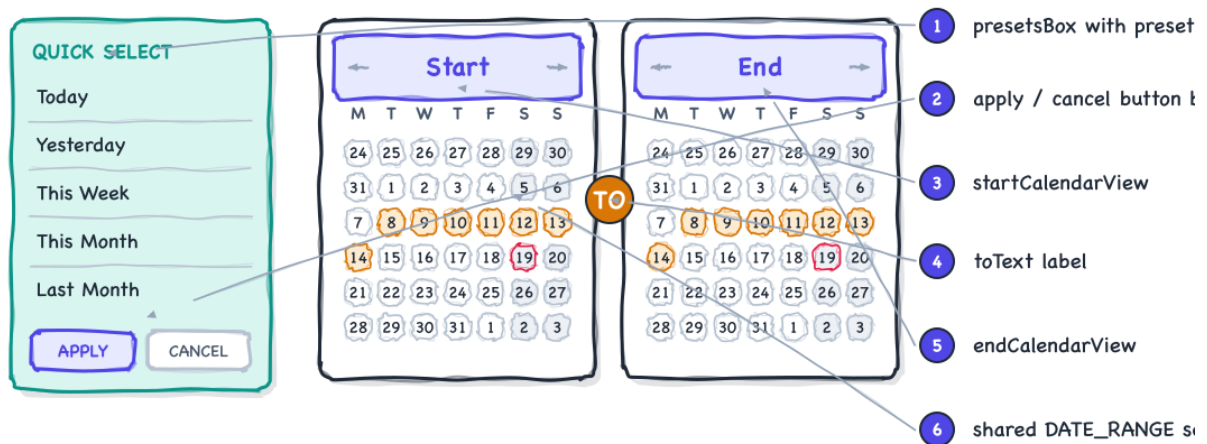
view.valueProperty().addListener((obs, oldRange, range) -> {
    if (range != null) {
        System.out.println(range.getStartDate() + " to " + range.getEndDate());
    }
});
```

A complete DateRangeView setup.



DateRangeView with presets and two calendars.

3. Anatomy



The parts of a DateRangeView.

Part	Style class	Description
Root	date-range-view	Control with accessible role DATE_PICKER and role description 'date range'.
Container	range-view-container	HBox holding presets and the calendar stack.
Presets	presets-box	VBox with title, labels, separators, filler and optional buttons.
Preset title	presets-title	Bound to presetTitle.
Preset item	preset-name-label	Click applies preset range to the calendars but does not commit value.

Part	Style class	Description
Calendars	start-calendar / end-calendar	CalendarView instances sharing the selection model.
To label	to-label	Centered label between calendars, bound to toText.
Button bar	buttons-box, apply-button, cancel-button	Visible when showCancelAndApplyButton is true.

4. Control API

4.1 Value and calendars

Property	Type	Default	Description
value	ObjectProperty<DateRange>	Today DateRange	Committed selected range.
selectionModel	CalendarView.SelectionModel	DATE_RANGE model	Shared by the two calendars; other modes throw UnsupportedOperationException.
startCalendarView	CalendarView	YearMonth.now()	Created with showDaysOfPreviousOrNextMonth true, showToday false and markSelectedDaysOfPreviousOrNextMonth false.
endCalendarView	CalendarView	YearMonth.now().plusMonths(1)	Uses the same selection model as the start calendar.
onClose	ObjectProperty<Runnable>	empty runnable	Invoked by Apply and Cancel buttons.

4.2 Text and presets

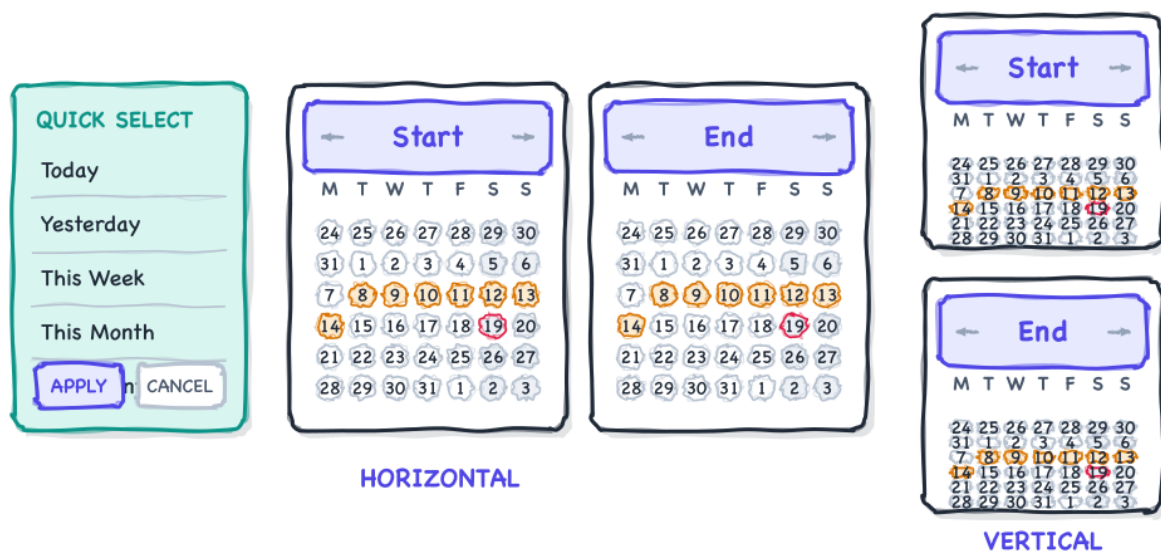
Property	Type	Default	Description
toText	StringProperty	"TO"	Label between the calendars.
cancelText	StringProperty	"CANCEL"	Cancel button text.
applyText	StringProperty	"APPLY"	Apply button text.
presetTitle	StringProperty	"QUICK SELECT"	Title of the preset section.
presets	ObservableList<DateRangePreset>	Today, Yesterday, This Week, This Month, Last Month	Preset definitions evaluated on click.

4.3 Styleable behaviour

Property	Type	Default	Description
orientation	ObjectProperty<Orientation>	HORIZONTAL	HORIZONTAL or VERTICAL; toggles :horizontal / :vertical pseudo classes. Styleable.

Property	Type	Default	Description
presetsLocation	ObjectProperty<Side>	LEFT	LEFT or RIGHT only; other sides throw IllegalArgumentException. Styleable.
showPresets	BooleanProperty	true	Shows the presets box. Styleable.
showCancelAndApplyButton	BooleanProperty	true	Shows the button bar. Styleable.

5. Layout and month coordination

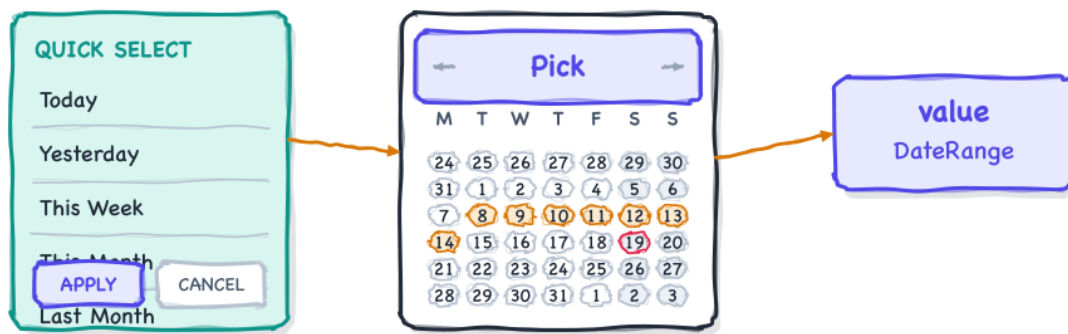


The calendar pair can be horizontal or vertical; presets can be left or right.

The skin binds the latest selectable date of the start calendar to the last day of the month before the end calendar, and the earliest selectable date of the end calendar to the first day of the month after the start calendar. It also disables the adjacent month arrow when the two calendars are already consecutive.

```
view.setOrientation(Orientation.VERTICAL);
view.setPresetsLocation(Side.RIGHT);
view.setShowPresets(true);
```

6. Preset and apply flow



preset or cell selection updates the selection model; APPLY sets value

A preset or cell click updates the selection model; Apply writes the value.

Clicking a preset only applies that preset's supplier to the calendars. Pressing Apply creates a DateRange from the selected start/end dates, reuses a matching preset DateRange when possible, writes value and then invokes onClose. Cancel only invokes onClose.

```
view.getPresets().add(new DateRangePreset("Next Month", () -> {
    LocalDate start = LocalDate.now().plusMonths(1).withDayOfMonth(1);
    return new DateRange("Next Month", start, start.withDayOfMonth(start.lengthOfMonth()));
}));
```

7. Styling

7.1 Style classes and pseudo classes

Selector	Meaning
.date-range-view	Root.
.range-view-container	Top-level HBox.
.stack-pane > .months-box	HBox or VBox containing the two calendars.
.to-label	Circular TO label.
.presets-box	Preset column.
.presets-title	Preset section title.
.preset-name-label	Clickable preset labels.
.buttons-box	Apply/cancel HBox.
:horizontal, :vertical	Root pseudo classes reflecting orientation.

7.2 Styleable CSS properties

CSS property	Type	Default
-fx-orientation	Orientation	HORIZONTAL

CSS property	Type	Default
-fx-presets-location	Side	LEFT
-fx-show-cancel-and-apply-button	boolean	true
-fx-show-presets	boolean	true

```
.date-range-view {  
    -fx-orientation: vertical;  
    -fx-presets-location: right;  
    -fx-show-presets: true;  
}  
  
.date-range-view > .range-view-container > .presets-box > .preset-name-label {  
    -fx-text-fill: -fx-accent;  
}
```

8. Localization

Key	English default
label.to	TO
button.cancel	CANCEL
button.apply	APPLY
section.presets.title	QUICK SELECT
preset.today	Today
preset.yesterday	Yesterday
preset.this-week	This Week
preset.this-month	This Month
preset.last-month	Last Month
accessible.role-description	date range

9. Accessibility

DateRangeView sets `AccessibleRole.DATE_PICKER` with localized role description `date range`. It does not bind automatic accessible text for the current value.

10. Recipes

10.1 Hide presets

```
view.setShowPresets(false);
```

10.2 Use without buttons

```
view.setShowCancelAndApplyButton(false);
```

10.3 Right-side presets

```
view.setPresetsLocation(Side.RIGHT);
```

10.4 Replace defaults

```
view.getPresets().setAll(  
    new DateRangePreset("Current quarter", () -> quarterRange(LocalDate.now()))  
);
```

10.5 Checklist

- 1 Keep the selection model in DATE_RANGE mode.
- 2 Use DateRangePreset suppliers, not fixed dates, for relative presets.
- 3 Use onClose when embedding the view in a popup or drawer.
- 4 Use presetsLocation only with LEFT or RIGHT.

11. See also

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