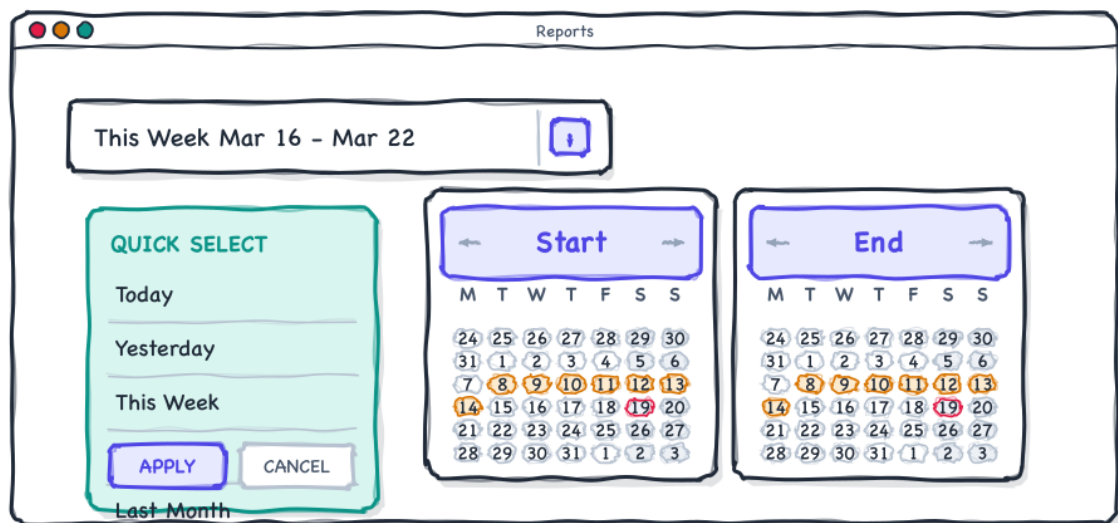


DateRangePicker

Developer Manual

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



DateRangePicker opens a DateRangeView popup for choosing a start and end date.

DateRangePicker is a ComboBoxBase for DateRange objects. It summarizes the selected range in the button area and opens a DateRangeView with presets, two calendars and apply/cancel behaviour.

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1. Introduction

DateRangePicker extends `ComboBoxBase<DateRange>`. Its value is bound to an embedded `DateRangeView`, while the skin renders a title label, range label, optional icon and arrow button.

1.1 Key features

- Starts with the embedded `DateRangeView`'s default value, which is the Today preset.
- Optional calendar icon and optional preset/custom title in the button area.
- Single-line small mode or two-line display mode.
- Formatter property controls rendered dates.
- Accessible text combines the title and formatted range.

1.2 Maven dependency

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

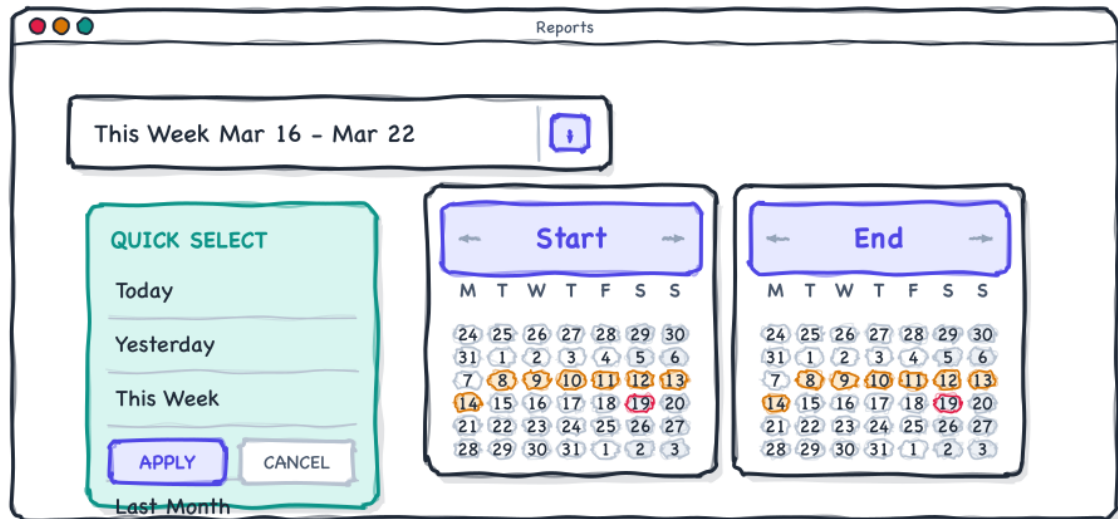
DateRangePicker is in package `com.dlsc.gemsfx.daterange`.

2. Getting started

```
DateRangePicker picker = new DateRangePicker();
picker.setValue(new DateRange("Sprint", LocalDate.now(), LocalDate.now().plusDays(13)));
picker.setFormatter(DateTimeFormatter.ofLocalizedDate(FormatStyle.SHORT));

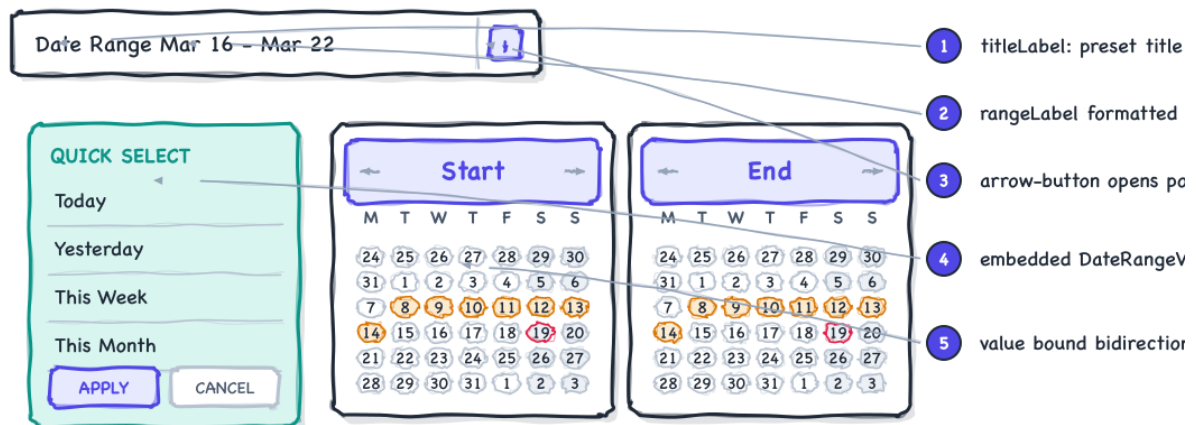
picker.valueProperty().addListener((obs, oldRange, range) -> {
    if (range != null) {
        loadReport(range.getStartDate(), range.getEndDate());
    }
});
```

A complete DateRangePicker setup.



A DateRangePicker with its popup open.

3. Anatomy



The parts of a DateRangePicker.

Part	Style class	Description
Root	date-range-picker	ComboBoxBase root with accessible role DATE_PICKER.
Outer container	outer-range-container	HBox with range content and arrow button.
Inner range container	inner-range-container	VBox or HBox depending on small.
Title label	title-label	Preset title, customRangeText or hidden when showPresetTitle is false.
Range label	range-label	Formatted start/end date text; owns optional icon button.

Part	Style class	Description
Icon	icon-button, icon	Visible when showIcon is true.
Popup	DateRangeView	Returned by getDateRangeView(); value is bound bidirectionally.
Arrow	arrow-button, arrow	Shows and hides popup.

4. Control API

Property	Type	Default	Description
value	ObjectProperty<DateRange>	DateRangeView default Today range	The selected start/end date range inherited from ComboBoxBase.
showIcon	BooleanProperty	true	Shows the calendar icon in front of the range label.
showPresetTitle	BooleanProperty	true	Shows preset title or customRangeText when promptText is empty.
small	BooleanProperty	true	Uses one row with a divider instead of a two-line VBox.
formatter	ObjectProperty<DateTimeFormatter>	localized MEDIUM date	Formats the date or range text in the button.
customRangeText	StringProperty	"Date Range"	Localized fallback title when a selected DateRange has no title.
promptText	StringProperty	null	Inherited; when non-blank it replaces title and range labels with the prompt.

4.1 Popup access

```
DateRangeView view = picker.getDateRangeView();
view.setShowPresets(false);
view.setPresetsLocation(Side.RIGHT);
```

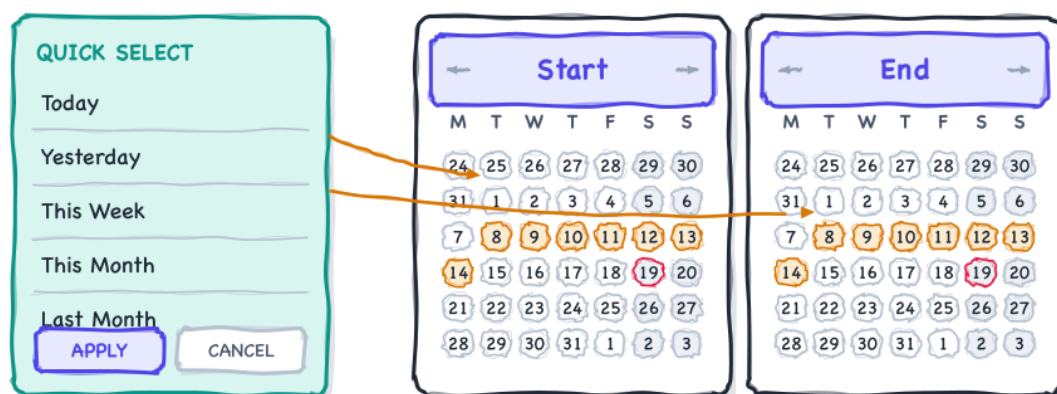
5. Display modes



The `small` property switches between one-line and two-line display.

Property state	Rendered result
<code>small = true</code>	Title, divider and range label are placed in an HBox. This is the default.
<code>small = false</code>	Title label and range label are stacked in a VBox.
<code>showIcon = false</code>	The icon button is unmanaged and invisible.
<code>showPresetTitle = false</code>	The title label and divider are unmanaged unless <code>promptText</code> is shown.

6. Presets and commit flow



preset click stages dates; **APPLY** commits `DateRange` and closes picker

Preset clicks stage a selection; **APPLY** commits it to value.

The skin binds picker value and view value bidirectionally. It also installs `view.setOnClose(this::hide)`, so `DateRangeView`'s apply or cancel path hides the popup.

```
picker.getDateRangeView().getPresets().setAll(
    new DateRangePreset("Next 7 days", () ->
        new DateRange("Next 7 days", LocalDate.now(), LocalDate.now().plusDays(6)))
);
```

7. Styling

7.1 Style classes

Selector	Meaning
.date-range-picker	Root.
.popup	Popup container effect.
.outer-range-container	HBox root of skin.
.inner-range-container	Title/range content pane.
.inner-range-container.small	One-line mode.
.divider	Divider between title and range in small mode.
.title-label	Preset/custom title.
.range-label	Formatted dates.
.icon-button > .icon	Calendar glyph.
.arrow-button > .arrow	Popup arrow.

7.2 Styleable CSS properties

DateRangePicker declares no own styleable CSS properties. It uses only standard JavaFX CSS plus its style classes.

```
.date-range-picker > .outer-range-container > .inner-range-container > .title-label {
    -fx-font-weight: bold;
}

.date-range-picker > .outer-range-container > .inner-range-container > .range-label {
    -fx-text-fill: -fx-accent;
}
```

8. Localization

Key	English default
label.custom-range	Date Range

9. Accessibility

DateRangePicker sets AccessibleRole.DATE_PICKER. Its accessible text is derived from value, formatter and customRangeText: title plus formatted range, or just the formatted range when no title is available.

10. Recipes

10.1 Hide the icon

```
picker.setShowIcon(false);
```

10.2 Use short dates

```
picker.setFormatter(DateTimeFormatter.ofLocalizedDate(FormatStyle.SHORT));
```

10.3 Two-line display

```
picker.setSmall(false);
```

10.4 Custom title for ad hoc ranges

```
picker.setCustomRangeText("Custom period");
```

10.5 Checklist

- 1 Use DateRange titles for meaningful presets.
- 2 Use promptText only for the empty/placeholder state.
- 3 Change presets through getDateRangeView().getPresets().
- 4 Keep formatter non-null when using the built-in skin's toString method.

11. See also

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