CalendarPicker

CalendarPicker is an extremely versatile and easy to implement Sencha Touch custom component that utilizes **TouchTreeGrid** to provide incredible flexibility for date selection and calendar display on Phones and Tablets. Calendars can be implemented with just a few configurations in overlay panels or traditional containers. Calendar is constructed using #months backward to #months forward configurations. Many features exist including: collapsible months for rapid single select, range select in single calendar popup, or multi-select random dates in single popup. Specific dates can be disabled from selection. Customizable styling exists for holidays, weekends, selected days, disabled days and custom days. Custom filters can be easily applied to only display specific months highlighting important upcoming dates. Day planner support is partially implemented and will be forthcoming. Provided examples work for Touch 2.2, 2.3-beta and for IE10/Windows phones.

Refer to "**Features**" and "**Notes on Implementation**" sections for minimum configurations to get started using **CalendarPicker** along with explanation of provided examples. Basic flow is that developer will create a button to launch the calendar. The calendar will fire a 'closedCalendar' event which the developer will listen for via controller method to process the selection and destroy the calendar.

TouchTreeGrid and **CalendarPicker** were developed entirely within Sencha Architect (v2.2) designer product and can also be used without Architect. Architect components are provided for import into your toolbox (TouchTreeGrid.xdc and CalendarPicker.xdc). This software can be downloaded at https://github.com/swluken/TouchTreeGrid and is free to use (refer to associated MIT.LISCENSE) .

Links to live demo contained within READ.ME file on the github site.

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CalendarPicker

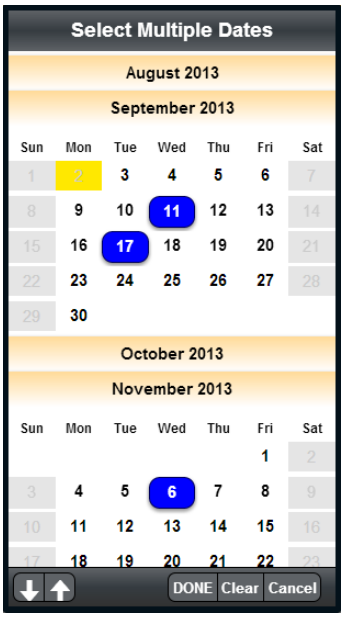
Kayak-style Check-in/Check-out date selection

(Collapsible months for rapid navigation)

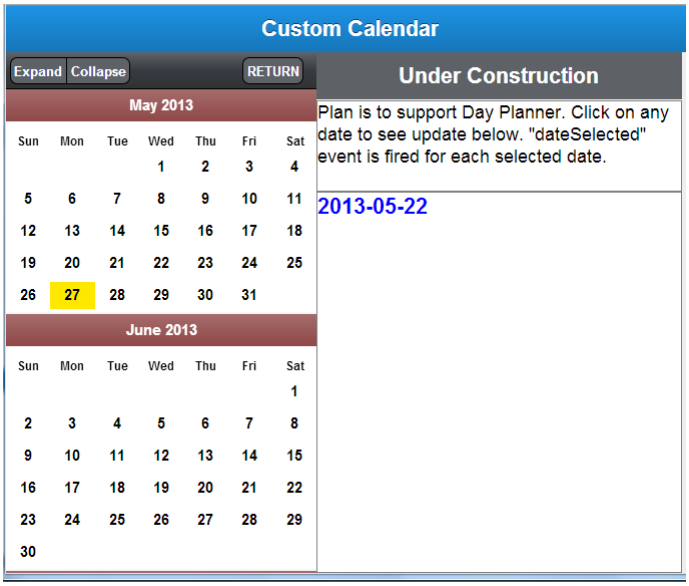
Range Selection in Single Popup

CalendarPicker

Multi-select Example



Day Planner Example



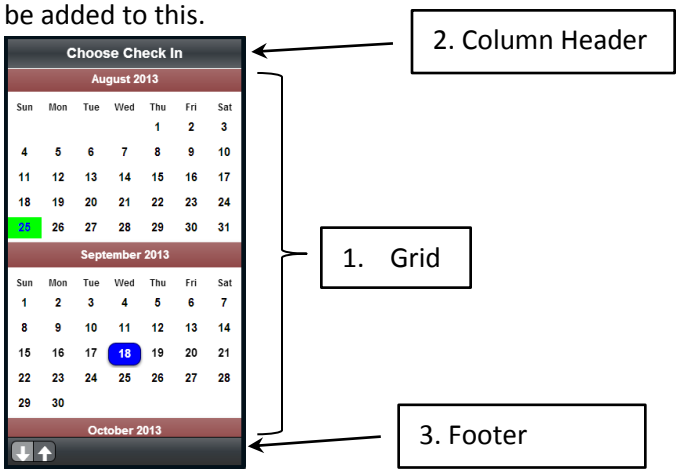
Custom Filter Example with Embedded Icons

Only display December months.

CalendarPicker

Features

- The CalendarPicker component automatically creates following components simply by linking it as a child to a parent container and specifying a few configurations:

1. Grid displaying collapsible months
2. Optional titlebar with customizable title
3. Optional footer containing buttons to expand all, collapse all, and custom buttons can be added to this.
4. 

- **Can be used as an overlay panel for pop-up style selection or in any container for fixed display**
- **Following are minimum recommended configurations to create a Calendar:**

1. **xtype : 'calendarpicker'**
2. **selectMode: 'SINGLE', 'RANGE', 'MULTI', 'NONE'**
3. **backMonths (defaults to 3 months in past)**
4. **forwardMonths (defaults to 3 months in future .. result is calendar containing 6 months total)**
5. **returnItem: Object reference to container/button that launched the calendar (read more below)**
6. **itemId**

- Refer to Appendix C for documentation on selectMode config for other options.

- Option to disable selection for:
  1. Custom list of dates
  2. Holidays
  3. Weekends
  4. Days prior to today
  5. Days after today

- CSS selectors provided to customize styling of:
  1. Disabled days (defaults to light grey text)
  2. Selected days (defaults to blue background and white text)
  3. Holidays (defaults to yellow background)
  4. Current day (defaults to lime-green background and blue text)

- Supports customizable buttons on footer toolbar. Default for RANGE selection is DONE, Clear, Cancel:

- Most features supported by TouchTreeGrid supported for Calendar. Examples:
  1. Disallow expand/collapse
  2. Initially collapse or expand
  3. singleExpand accordion mode
  4. Supports gradient coloring for category rows.
  5. Renderers to customize display of each day (example display icons in individual cells, different text colors, secondary-text in each cell, etc..)

- Uses methods from Ext.Date for all date math
- Supports reverse month sorting.
- All styling defined within CSS file (refer to Appendix B for detailed documentation)

Notes on Implementation

1. Setup if not using Architect
   a. Copy 'CalendarPicker.js' and 'TouchTreeGrid.js' from ./CalendarPicker/app/view/ into similar view directory for your project
   b. Include 'TouchTreeGrid' and 'CalendarPicker' in list of 'views' in app.js or your controller
   c. Copy resource files as discussed below.
   d. I'm assuming you know what to do from here if not using Architect…

2. Setup if using Sencha Architect
   a. Import TouchTreeGrid.xdc and CalendarPicker.xdc into your toolbox (via right-click). Created using Architect Version: 2.2.2 Build: 991

   b. Drag these components on top of "Views" in your project inspector to create parent class TouchTreeGrid and CalendarPicker. This will add views reference in your "Application" (app.js)

   c. Suggest copying 'resources' subdirectory from download as is into the same directory level of your project. Key files to include in your project:
      1../resources/css/TouchTreeGrid.css
      2../resources/css/calendarpicker.css (this must be after TouchTreeGrid.css !!)

   d. Add CSS Resource to 'Resources" section of your project inspector:
      Update url = './resources/css/TouchTreeGrid.css'
      Update url = './resources/css/calendarpicker.css'

   e. Optionally add custom CSS Resource **after** these:
      1. Update url ='./resources/css/custom.css
      2. Definitions in subsequent stack will override prior definitions. When project is saved you will notice in APP.HTML that treegriddemo.css is loaded after TouchTreeGrid.css

```
<!DOCTYPE html>

<!-- Auto Generated with Sencha Architect -->
<!-- Modifications to this file will be overwritten. -->
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
```

```
    <title>CalendarPicker</title>
    <script>
        var Ext = Ext || {};
        Ext.theme = {
            name: "Default"
        };
    </script>
    <script src="http://cdn.sencha.com/touch/sencha-touch-2.2.1/sencha-
touch-all-debug.js"></script>
    <link rel="stylesheet" href="http://cdn.sencha.com/touch/sencha-touch-
2.2.1/resources/css/sencha-touch.css">
    <link rel="stylesheet" href="./resources/css/TouchTreeGrid.css">
    <link rel="stylesheet" href="./resources/css/calendarpicker.css">
    <link rel="stylesheet" href="./resources/css/custom.css">
    <script type="text/javascript" src="app.js"></script>
</head>
<body></body>
</html>
```

f. No need to create store or model for CalendarPicker as it creates this automatically

g. Convention for implementation (refer to provided examples):

Example	Button ItemId(s)	Event Fired from Button	Controller Method Processing Btn Events	Calendar ItemId(s)	Controller Method Processing calendarClosed Event
1	#checkin_btn #checkout_btn	checkin checkout	onContainerCheckin() onContainerCheckout()	#calendar_checkin #calendar_checkin	onCheckInClosed() onCheckOutClosed()
2	#checkout_btn2	checkin2	onCheckin2()	#calendar_checkin2	onCheckin2Closed()
3	#multisel_btn	multisel_btn	onContainerMultisel_btn()	#calendar_multi	onMultiselClosed()
4	#lookup_btn	lookup_btn	onContainerLookup_btn()	#calendar_lookup	onLookupClosed()
5	#filter_btn	filter_btn	onFilter_btn()	#calendar_filter	onFilterClosed()

1. Custom button listens for tap event and fires custom event to Controller.

```
{
    xtype: 'container',
    listeners: {
        tap: {
            fn: function() {
                this.fireEvent('checkin', this.up('container'));
            },
            element: 'element'
        }
    },
    flex: 1,
    cls: 'kayak-button',
    itemId: 'checkin_btn',
    maxWidth: '8em',
    layout: {
        type: 'hbox'
    },
    items: [
        {
            xtype: 'container',
            cls: 'kayak-button-dayname-month',
            itemId: 'checkin_dayname_month'
        },
        {
            xtype: 'container',
            flex: 1,
            cls: 'kayak-button-select',
            html: 'Select',
            itemId: 'checkin_day'
        }
    ]
}
```

2. Custom Controller method listens for this custom event and launches Calendar. Each calendar is given a unique ItemId during creation. Note: All provided examples utilize common overlayPanel for displaying calendars with exception of onLookup_btn() method which uses datePlanner.js view for display for Day

Planner purposes.

```
 onCheckin: function(container) {
var returnItem = this.getDateexamples().down('#example1');
var lastSelDt = returnItem.down('#checkin_btn').lastSelectedDate;

var selDts=(Ext.isEmpty(lastSelDt) ? [] : [lastSelDt]), disableDts=[];
var checkOutDt = returnItem.down('#checkout_btn').lastSelectedDate;
if (!Ext.isEmpty(checkOutDt)) {
    // disabled checkkou date if defined
    selDts.push(checkOutDt);
    disableDts.push(checkOutDt);

}

var getDts = Ext.create('widget.calendarpicker', {
    title : 'Choose Check In',
    itemId : 'calendar_checkin',
    customCls : ['calendarpicker-kayak'],
    selectMode: 'SINGLE',
    backMonths: 0,
    forwardMonths: 12,
    autoCollapseMonthsPriorToMinSelDt: true,
    useIconsForExpCollapse: false,
    disablePastDates: true,
    holidayDtArr: ['2013-01-01', '2013-01-21', '2013-02-18', '2013-05-27',
    returnItem: returnItem,
    selDtArr: selDts,
    disableDtArr: disableDts,
    singleExpand: true,
    defaultCollapseLevel: 1,

    height: '100%',
    width: '100%'
});

var overPnl = this.getOverlayPanel();
overPnl.add(getDts);
overPnl.showBy(container);
```

3. Calendar fire's 'calendarClosed' event when user is done. Here are all Control Action definitions for the provided examples:

```
control: {
    "container": {
        checkin: 'onCheckin',
        checkout: 'onCheckout',
        checkin2: 'onCheckin2',
        multisel_btn: 'onMultisel_btn',
        lookup_btn: 'onLookup_btn',
        filter_btn: 'onFilter_btn'
    },
    "container#calendar_checkin": {
        calendarClosed: 'onCheckInClosed'
    },
    "container#calendar_checkout": {
        calendarClosed: 'onCheckOutClosed'
    },
    "container#calendar_checkin2": {
        calendarClosed: 'onCheckin2Closed'
    },
    "container#calendar_multi": {
        calendarClosed: 'onMultiselClosed'
    },
    "container#calendar_lookup": {
        dateSelected: 'onContainerDateSelected',
        calendarClosed: 'onLookupClosed'
    },
    "container#calendar_filter": {
        calendarClosed: 'onFilterClosed'
    }
}
```

4. Custom controller method listens for 'calendarClosed' event on custom calendar ItemId and processes calendar selection. Developer responsibility to destroy the calendar from DOM (refer to "overPnl.removeAll(true, true); " in the examples).

```
onCheckInClosed: function(calendarpicker) {

var selDts = calendarpicker.getSelDtArr();
var lastSelDt = calendarpicker.getLastSelectedDate();
if (!Ext.isEmpty(lastSelDt)) {
    var returnItem=calendarpicker.getReturnItem();
    var day = Ext.Date.parse(lastSelDt, 'Y-m-d');

    var day_html = returnItem.down('#checkin_day');
    day_html.setHtml(Ext.Date.format(day, 'j'));
    day_html.addCls('kayak-button-day');
    day_html.removeCls('kayak-button-select');

    var other_html = returnItem.down('#checkin_dayname_month');
    other_html.setHtml(Ext.Date.format(day, 'D')+'<br>'+Ext.Date.format(day, 'M'));

    returnItem.down('#checkin_btn').lastSelectedDate = lastSelDt;

    // clear checkout date if new checkin date is changed to after it
    var out = returnItem.down('#checkout_btn');

    if (out) {
        day_html = out.down('#checkout_day');
        if (out.lastSelectedDate < lastSelDt) {
            out.lastSelectedDate = '';
            day_html.setHtml('Select');
            day_html.addCls('kayak-button-select');

            other_html = out.down('#checkout_dayname_month');
            other_html.setHtml('');
        } else {
            if (!Ext.isEmpty(out.lastSelectedDate)) {
                //       day_html.removeCls('kayak-button-select');
            }
        }
    }
}
var overPnl = this.getOverlayPanel();
overPnl.removeAll(true, true);  // remove all items from DOM
overPnl.hide();
```

Summary of Provided Examples

(MORE LATER… refer to code samples as outlined above and within selectMode config documentation in Appendix C)

APPENDIX A – CSS Styling

Every project should include a copy of **TouchTreeGrid.css** and **calendarpicker.css** which define the default styling for CalendarPicker component which uses TouchGreeGrid component. Calendarpicker.css must be loaded after TouchTreeGrid.css. Any custom overrides should be included in a file loaded after TouchTreeGrid.css. custom**.css** contains examples of custom styling overrides.

Refer to Appendix B from "TouchTreeGrid – documentation.pdf" for explanation of TouchTreeGrid.css styling convetions.

Review of the CalendarPicker CSS classes and how they are used:

- .x-touchtreegrid-list-calendar .touchtreegrid-list-categ {…}
  - Styles month header row.
  - Default is maroon gradient color with white bold text

- .x-touchtreegrid-list-calendar .touchtreegrid-list-content {…}
  - Styles rows representing each week of the month.
  - Default is white background with black text

- .x-touchtreegrid-list-calendar .x-list-normal .x-list-item.x-list-item-tpl{ border: none; }
  - Used to hide horizontal lines

- .x-touchtreegrid-list-calendar .calendarpicker-month {…}
  - Used to style text on month headers.
  - Default is centered, white-bold text

- .x-touchtreegrid-list-calendar .calendarpicker-toolbar {…}
  - Used to style TitleBar above the calendars
  - Default is dark gray gradient

- .x-touchtreegrid-list-calendar .touchtreegrid-expand-collapse-buttons, .x-touchtreegrid-list-calendar .pickerfooterbtns{…}
  - Used to style buttons on footer toolbar

- .x-touchtreegrid-list-calendar .x-button.x-button-pressing, .x-touchtreegrid-list-calendar .x-button.x-button-pressing:after, .x-touchtreegrid-list-calendar .x-button.x-button-pressed, .x-touchtreegrid-list-calendar .x-button.x-button-pressed:after, .x-touchtreegrid-list-calendar .x-button.x-button-active, .x-touchtreegrid-list-calendar .x-button.x-button-active:after {…}

- Used to style color of footer toolbar buttons when pressed

- .x-touchtreegrid-list-calendar .calendarpicker-header-rowtype{…}
  - Used to style row containing day of week names

- .x-touchtreegrid-list-calendar .calendarpicker-days {…}
  - Default used to style all day cells
  - Default is center and bold

- .x-touchtreegrid-list-calendar .calendarpicker-today {…}
  - Used to style current day
  - Default is lime green with bold blue text color

- .x-touchtreegrid-list-calendar .calendarpicker-weekend {…}
  - Used to style weekend days
  - No defaults defined, but this can be used in custom css file for specific calendars.

- .x-touchtreegrid-list-calendar .calendarpicker-holiday {…}
  - Used to style holidays
  - Default is yellow background

- .x-touchtreegrid-list-calendar .calendarpicker-selected {…}
  - Used to style selected days
  - Default is blue with bold white text, border with radius and shadow

- .x-touchtreegrid-list-calendar .calendarpicker-disabled {…}
  - Used to style disabled days
  - Default is gray text, normal font

APPENDIX B – Upgrading CalendarPicker component

Follow steps outlined in Appendix C from "TouchTreeGrid – documentation.pdf"

APPENDIX C – CalendarPicker Config Definitions

Also refer to Appendix D from "TouchTreeGrid – documentation.pdf"

Note: minimum required configurations to define in linked instance of CalendarPicker:

- xtype : 'calendarpicker'
- selectMode: 'SINGLE', 'RANGE', 'MULTI', 'NONE' (refer below for details)
- returnItem: Object reference to container/button that launched the calendar (read more below)
- itemId

Configuration	Default	Purpose
applyDefaultCollapseLevel	true	Set to false if collapse levels defined on server side.
autoCollapseMonthsPriorToMinSelDt	false	When true all months that do not have a prior selected date (defined in selDtArr) will be collapsed so that focus is on the earliest month with a prior selected date (refer to Example1)
autoExpandMonthsWithSelDates	True	If prior selected dates are passed via selDtArr[] then any such months will be auto-expanded regardless of any other settings.
backMonths	3	Used in conjunction with forwardMonths to build the calendar for display from current date. This is the number of months prior to today that will be included in the calendar display.
categColumns[]	[{ dataIndex: 'month', width: '100%', categCss: 'calendarpicker-month', renderer: 'this.renderer_month(values)' }]	Used to define month headers in calendar
categDepthColors	true	Set to true to apply default color schemes defined by categDepthColorsArr to category rows.
categDepthColorsArr[]	[' transparent, ' transparent,' 'transparent']	Array defining colors to apply to category depths 1,2,3, etc… Use transparent to support gradients on month headers (i.e. category row).
columns	[]	Refer to Appendix A from TouchTreeGrid documentation. Also refer to CalendarPicker.js on how this config is used to render each day in calendar.
customCls	[]	Specifies CSS selector to be added to TouchTreeGrid component for overriding default styling. Refer to provided examples.

Configuration	Default	Purpose
customFooterItems (added 8/25/13)	{}	Allows user-defined object of components to be added to footer toolbar (i.e. to same toolbar as expand/collapse buttons). Requires includeCustomFooterItems=true config. Refer to CalendarPicker component for sample usage
customExpCollapseEvent	''	Used internally.
defaultCollapseLevel	99	Tree level to expand to for initial display (99 is fully expanded).
disableDtArr	[]	Array of custom dates to be disabled from selection. CSS selector **calendarpicker- disabled** will be applied to these days. Date format is 'YYYY-MM-DD'
disableExpandCollapse	False	Allows expand/collapse feature for TreeGrids to be disabled and 'frozen' in initial rendered state.
disableFutureDates	False	If true, all dates after today will not be selectable and CSS selector **calendarpicker-disabled** will be applied to those days
disableHolidays	False	If true, all dates included in holidayDtArr[]will not be selectable and CSS selector **calendarpicker-disabled** will be applied to those days
disablePastDates	False	If true, all dates prior to today will not be selectable and CSS selector **calendarpicker-disabled** will be applied to those days
disableWeekends	false	If true, all Saturdays and Sunday's will not be selectable and CSS selector **calendarpicker-disabled** will be applied to those days
enableQuickDaySelection	false	Only applicable for selectMode = 'NONE' and controls whether simulated selection appears when day is pressed. Example4 uses this to quickly display selected day when updating day planner.

filter	{}	Object defining filter function for custom filtering (refer to Christmas example which filters on December months only)
		`{`
		`enabled: true,`
		`displayNodesWithAllMembersFilteredAsLeafs: true,`
		`filterFn: function(rowObj) {return (rowObj.month === 'December');}`
		`}`

Configuration	Default	Purpose
footerDock (added 8/25/13)	'bottom'	Valid values are 'top' or 'bottom'. Defines how auto-generated footer toolbar containing expand/collapse plus optional custom buttons will be docked. If docked top it will appear above the column header toolbar.
forwardMonths	3	Used in conjunction with backMonths to build the calendar for display from current date. This is the number of months from today that will be included in the calendar display.
hideExpandCollapseBtns (added 8/25/13)	False	When true causes the auto-generated Expand/Collapse buttons to be hidden on the footer toolbar, where custom buttons defined by customFooterItems config would persist.
hideTitleBar	False	When true default Titlebar for calendar is not shown. This allows for custom title bars to be added to your calendar (external to this component)
holidayDtArr	[]	Array of holidays to be added to your calendar. CSS selector **calendarpicker-holiday** will be applied to these days. Date format is 'YYYY-MM-DD'. Example: holidayDtArr: ['2013-01-01', '2013-01-21', '2013-02-18', etc…]
includeCustomFooterItems (added 8/25/13)	false	Refer to customFooterItems config.
includeFooter	true	Set false to prevent auto-creation of footer. Not applicable for simple grids (simpleList=true).
itemHeight	32	32 pixel height for each row of weeks
lastSelectedDate	[]	Used primarily for selectMode='SINGLE' to pass back the selected date in 'YYYY-MM-DD' format.
layout	{type: 'fit'}	For internal use only. Parent container to linked instance should have Layout = 'card' or 'fit' typically.
renderers	{}	Refer to Features discussion
returnItem	{}	Object reference to container/button that launched the calendar. CalendarPicker instances are typically initiated from Controller method after some button is pressed. The object reference to that button is stored to the calendar object via **returnItem** config. The different selectModes for CalendarPicker will eventually fire '**calendarClosed'** event which would be picked up in a different Controller method. That method would use **returnItem** object stored with the calendar object to update the calendar selection on the original button. Refer to onCheckin() and onCheckInClosed() methods for typical example (Example1).

Configuration	Default	Purpose
reverseSort	False	If true the months are sorted in reverse.
selDtArr	[]	Initial array of selected days to be added to your calendar. CSS selector **calendarpicker-selected** will be applied to these days. Date format is 'YYYY-MM-DD'. Example: selDtArr: ['2013-01-01', '2013-01-21', '2013-02-18', etc…]
selectMode	'SINGLE'	**SINGLE** - '**calendarClosed'** event fired after first non-disabled day selection. Typically used with includeCustomFooterItems=false so that only expand/collapse buttons are displayed. User's responsibility to close and destroy the calendar. Refer to onCheckOutClosed() method as an example of how to close and destroy for overlay panel. Refer to onLookupClosed() for how to close and destroy from non-modal panel. **RANGE** – allows user to select min and max days (all non-disabled days between are auto-selected). Typically used with includeCustomFooterItems=true and useIconsForExpCollapse=true which auto-adds buttons to footer toolbar for user to press 'DONE', 'Clear' or 'Cancel'. 'DONE' and 'Cancel' cause '**calendarClosed'** event to be fired which would be processed in Controller by user. Refer to onCheckin2Closed() method for example. **MULTI** – allows user to select random days. Otherwise implemented same way as RANGE. Typically used with autoCollapseMonthsPriorToMinSelDt=true and defaultCollapseLevel=1 when prior selection is passed via selDtArr[] such that only months with selected days are expanded. Refer to onMultisel_btn() method for example. **NONE** – Prevents user selection. Exception is temporary display of selected day via enableQuickDaySelection=true. Typically used with custom footer buttons only including 'RETURN' button for example. Refer to onLookup_btn() method for example of how to define custom footer button and to onContainerDateSelected() method for how to process intermediate selections (like for a Day Planner) and to onLookupClosed() method for how to finally close the calendar when RETURN button pressed.
selectedCls	'touchtreegrid-item-selected'	For cases where row selection is desired (simpleList=true), TouchTreeGrid.css contains 'touchtreegrid-item-selected' selectors to specify color for selected items.
singleExpand	false	Typically used for Accordions where only one sibling branch expanded at a time.

Configuration	Default	Purpose
title	'Select a Date'	Use to customize titlebar on calendar
useIconsForExpCollapse	true	By default replaces standard TouchTreeGrid 'expand' and 'collapse' buttons with up/down arrows to minimize space used on the toolbar. setIconCls('arrow_up') and setIconCls('arrow_down') on the buttons used for this. Override these classes in you CSS file for this particular calendar instance to use different icons.
variableHeights	false	Refer to Sencha documentation. For best scrolling performance variableHeights should be false when adjusting itemHeight (from default of 47 to 32 for the calendar). Would set this to true if applying custom heights to different rows.