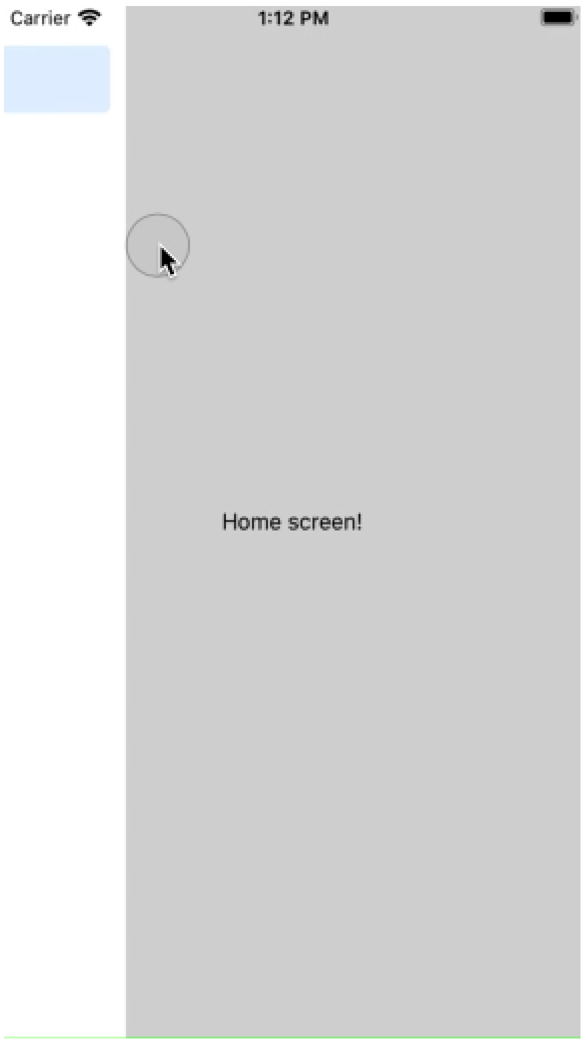
Navigators Drawer

Version: 6.x

Drawer Navigator

Drawer Navigator renders a navigation drawer on the side of the screen which can be opened and closed via gestures.



This wraps `react-native-drawer-layout`. If you want to use the tab view without React Navigation integration, use the library directly instead.

Installation

To use this navigator, ensure that you have `@react-navigation/native` and its dependencies (follow this guide), then install `@react-navigation/drawer`:

npm Yarn

```
npm install @react-navigation/drawer
```

Then, you need to install and configure the libraries that are required by the drawer navigator:

1. First, install `react-native-gesture-handler` and `react-native-reanimated`.

   If you have a Expo managed project, in your project directory, run:

   ```
   npx expo install react-native-gesture-handler react-native-reanimated
   ```

   If you have a bare React Native project, in your project directory, run:

   npm Yarn

   ```
   npm install react-native-gesture-handler react-native-reanimated
   ```

   The Drawer Navigator supports both Reanimated 1 and Reanimated 2. If you want to use Reanimated 2, make sure to configure it following the installation guide.

2. To finalize installation of `react-native-gesture-handler`, add the following at the **top** (make sure it's at the top and there's nothing else before it) of your entry file, such as `index.js` or `App.js`:

   ```
   import 'react-native-gesture-handler';
   ```

   > Note: If you are building for Android or iOS, do not skip this step, or your app may crash in production even if it works fine in development. This is not applicable to other platforms.

3. If you're on a Mac and developing for iOS, you also need to install the pods (via Cocoapods) to complete the linking.

```
npx pod-install ios
```

API Definition

To use this drawer navigator, import it from `@react-navigation/drawer`:

```
import { createDrawerNavigator } from '@react-navigation/drawer';

const Drawer = createDrawerNavigator();

function MyDrawer() {
  return (
    <Drawer.Navigator>
      <Drawer.Screen name="Feed" component={Feed} />
      <Drawer.Screen name="Article" component={Article} />
    </Drawer.Navigator>
  );
}
```

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> For a complete usage guide please visit Drawer Navigation.

Props

The `Drawer.Navigator` component accepts following props:

`id`

Optional unique ID for the navigator. This can be used with `navigation.getParent` to refer to this navigator in a child navigator.

`initialRouteName`

The name of the route to render on the first load of the navigator.

`screenOptions`

Default options to use for the screens in the navigator.

`backBehavior`

This controls what happens when `goBack` is called in the navigator. This includes pressing the device's back button or back gesture on Android.

It supports the following values:

- `firstRoute` - return to the first screen defined in the navigator (default)
- `initialRoute` - return to initial screen passed in `initialRouteName` prop, if not passed, defaults to the first screen
- `order` - return to screen defined before the focused screen
- `history` - return to last visited screen in the navigator; if the same screen is visited multiple times, the older entries are dropped from the history
- `none` - do not handle back button

`defaultStatus`

The default status of the drawer - whether the drawer should stay `open` or `closed` by default.

When this is set to `open`, the drawer will be open from the initial render. It can be closed normally using gestures or programmatically. However, when going back, the drawer will re-open if it was closed. This is essentially the opposite of the default behavior of the drawer where it starts `closed`, and the back button closes an open drawer.

`detachInactiveScreens`

Boolean used to indicate whether inactive screens should be detached from the view hierarchy to save memory. This enables integration with react-native-screens. Defaults to `true`.

`useLegacyImplementation`

Whether to use the legacy implementation based on Reanimated 1. The new implementation based on Reanimated 2 will perform better, but you need additional configuration and need to use Hermes with Flipper to debug.

This defaults to `true` in the following cases:

- Reanimated 2 is not configured
- App is connected to Chrome debugger (Reanimated 2 cannot be used with Chrome debugger)
- App is running on Web

Otherwise, it defaults to `false`

`drawerContent`

Function that returns React element to render as the content of the drawer, for example, navigation items

The content component receives the following props by default:

- `state` - The navigation state of the navigator.
- `navigation` - The navigation object for the navigator.
- `descriptors` - An descriptor object containing options for the drawer screens. The options can be accessed at `descriptors[route.key].options`.

Providing a custom `drawerContent`

The default component for the drawer is scrollable and only contains links for the routes in the RouteConfig. You can easily override the default component to add a header, footer, or other content to the drawer. The default content component is exported as `DrawerContent`. It renders a `DrawerItemList` component inside a `ScrollView`.

By default, the drawer is scrollable and supports devices with notches. If you customize the content, you can use `DrawerContentScrollView` to handle this automatically:

```
import {
  DrawerContentScrollView,
  DrawerItemList,
} from '@react-navigation/drawer';

function CustomDrawerContent(props) {
  return (
    <DrawerContentScrollView {...props}>
      <DrawerItemList {...props} />
    </DrawerContentScrollView>
  );
}
```

To add additional items in the drawer, you can use the `DrawerItem` component:

```
function CustomDrawerContent(props) {
  return (
    <DrawerContentScrollView {...props}>
      <DrawerItemList {...props} />
      <DrawerItem
        label="Help"
        onPress={() => Linking.openURL('https://mywebsite.com/help')}
      />
    </DrawerContentScrollView>
  );
}
```

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The `DrawerItem` component accepts the following props:

- `label` (required): The label text of the item. Can be string, or a function returning a react element. e.g. `({ focused, color }) => <Text style={{ color }}>{focused ? 'Focused text' : 'Unfocused text'}</Text>`.
- `icon`: Icon to display for the item. Accepts a function returning a react element. e.g. `({ focused, color, size }) => <Icon color={color} size={size} name={focused ? 'heart' : 'heart-outline'} />`.
- `focused`: Boolean indicating whether to highlight the drawer item as active.
- `onPress` (required): Function to execute on press.
- `activeTintColor`: Color for the icon and label when the item is active.
- `inactiveTintColor`: Color for the icon and label when the item is inactive.
- `activeBackgroundColor`: Background color for item when it's active.
- `inactiveBackgroundColor`: Background color for item when it's inactive.
- `labelStyle`: Style object for the label `Text`.
- `style`: Style object for the wrapper `View`.

The `progress` object can be used to do interesting animations in your `drawerContent`, such as parallax motion of the drawer contents:

```
function CustomDrawerContent(props) {
  const progress = useDrawerProgress();

  // If you are on react-native-reanimated 1.x, use `Animated.interpolate`
instead of `Animated.interpolateNode`
  const translateX = Animated.interpolateNode(progress, {
    inputRange: [0, 1],
    outputRange: [-100, 0],
  });

  return (
    <Animated.View style={{ transform: [{ translateX }] }}>
      {/* ... drawer contents */}
    </Animated.View>
  );
}
```

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The `progress` object is a Reanimated `Node` if you're using Reanimated 1 (see `useLegacyImplementation`), otherwise a `SharedValue`. It represents the animated position of the drawer (0 is closed; 1 is open).

Note that you **cannot** use the `useNavigation` hook inside the `drawerContent` since `useNavigation` is only available inside screens. You get a `navigation` prop for your `drawerContent` which you can use instead:

```
function CustomDrawerContent({ navigation }) {
  return (
    <Button
      title="Go somewhere"
      onPress={() => {
        // Navigate using the `navigation` prop that you received
        navigation.navigate('SomeScreen');
      }}
    />
  );
}
```

To use the custom component, we need to pass it in the `drawerContent` prop:

```
<Drawer.Navigator drawerContent={(props) => <CustomDrawerContent {...props} />}>
  {/* screens */}
</Drawer.Navigator>
```

Options

The following options can be used to configure the screens in the navigator. These can be specified under `screenOptions` prop of `Drawer.navigator` or `options` prop of `Drawer.Screen`.

`title`

A generic title that can be used as a fallback for `headerTitle` and `drawerLabel`.

`lazy`

Whether this screen should render the first time it's accessed. Defaults to `true`. Set it to `false` if you want to render the screen on initial render.

`drawerLabel`

String or a function that given `{ focused: boolean, color: string }` returns a React.Node, to display in drawer sidebar. When undefined, scene `title` is used.

`drawerIcon`

Function, that given `{ focused: boolean, color: string, size: number }` returns a React.Node to display in drawer sidebar.

`drawerActiveTintColor`

Color for the icon and label in the active item in the drawer.

`drawerActiveBackgroundColor`

Background color for the active item in the drawer.

`drawerInactiveTintColor`

Color for the icon and label in the inactive items in the drawer.

`drawerInactiveBackgroundColor`

Background color for the inactive items in the drawer.

`drawerItemStyle`

Style object for the single item, which can contain an icon and/or a label.

`drawerLabelStyle`

Style object to apply to the `Text` style inside content section which renders a label.

`drawerContentContainerStyle`

Style object for the content section inside the `ScrollView`.

`drawerContentStyle`

Style object for the wrapper view.

`drawerStyle`

Style object for the drawer component. You can pass a custom background color for a drawer or a custom width here.

```
<Drawer.Navigator
  screenOptions={{
    drawerStyle: {
      backgroundColor: '#c6cbef',
      width: 240,
    },
  }}
>
  {/* screens */}
</Drawer.Navigator>
```

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`drawerPosition`

Options are `left` or `right`. Defaults to `left` for LTR languages and `right` for RTL languages.

`drawerType`

Type of the drawer. It determines how the drawer looks and animates.

- `front`: Traditional drawer which covers the screen with an overlay behind it.
- `back`: The drawer is revealed behind the screen on swipe.
- `slide`: Both the screen and the drawer slide on swipe to reveal the drawer.
- `permanent`: A permanent drawer is shown as a sidebar. Useful for having always visible drawer on larger screens.

Defaults to `slide` on iOS and `front` on other platforms.

You can conditionally specify the `drawerType` to show a permanent drawer on bigger screens and a traditional drawer drawer on small screens:

```
import { useWindowDimensions } from 'react-native';
import { createDrawerNavigator } from '@react-navigation/drawer';

const Drawer = createDrawerNavigator();

function MyDrawer() {
  const dimensions = useWindowDimensions();

  return (
    <Drawer.Navigator
      screenOptions={{
        drawerType: dimensions.width >= 768 ? 'permanent' : 'front',
      }}
    >
      {/* Screens */}
    </Drawer.Navigator>
  );
}
```

You can also specify other props such as `drawerStyle` based on screen size to customize the behavior. For example, you can combine it with `defaultStatus="open"` to achieve a master-detail layout:

```
import { useWindowDimensions } from 'react-native';
import { createDrawerNavigator } from '@react-navigation/drawer';

const Drawer = createDrawerNavigator();

function MyDrawer() {
  const dimensions = useWindowDimensions();

  const isLargeScreen = dimensions.width >= 768;

  return (
    <Drawer.Navigator
      defaultStatus="open"
      screenOptions={{
        drawerType: isLargeScreen ? 'permanent' : 'back',
        drawerStyle: isLargeScreen ? null : { width: '100%' },
        overlayColor: 'transparent',
      }}
    >
      {/* Screens */}
    </Drawer.Navigator>
  );
}
```

`drawerHideStatusBarOnOpen`

When set to `true`, Drawer will hide the OS status bar whenever the drawer is pulled or when it's in an "open" state.

`drawerStatusBarAnimation`

Animation of the statusbar when hiding it. use in combination with `hideStatusBar`.

Supported values:

- `slide`

- `fade`
- `none`

This is only supported on iOS. Defaults to `slide`.

`overlayColor`

Color overlay to be displayed on top of the content view when drawer gets open. The opacity is animated from `0` to `1` when the drawer opens.

`sceneContainerStyle`

Style object for the component wrapping the screen content.

`gestureHandlerProps`

Props to pass to the underlying pan gesture handler.

This is not supported on Web.

`swipeEnabled`

Whether you can use swipe gestures to open or close the drawer. Defaults to `true`.

Swipe gesture is not supported on Web.

`swipeEdgeWidth`

Allows for defining how far from the edge of the content view the swipe gesture should activate.

This is not supported on Web.

`swipeMinDistance`

Minimum swipe distance threshold that should activate opening the drawer.

`keyboardDismissMode`

Whether the keyboard should be dismissed when the swipe gesture begins. Defaults to `'on-drag'`. Set to `'none'` to disable keyboard handling.

`unmountOnBlur`

Whether this screen should be unmounted when navigating away from it. Unmounting a screen resets any local state in the screen as well as state of nested navigators in the screen. Defaults to `false`.

Normally, we don't recommend enabling this prop as users don't expect their navigation history to be lost when switching screens. If you enable this prop, please consider if this will actually provide a better experience for the user.

`freezeOnBlur`

Boolean indicating whether to prevent inactive screens from re-rendering. Defaults to `false`. Defaults to `true` when `enableFreeze()` from `react-native-screens` package is run at the top of the application.

Requires `react-native-screens` version >=3.16.0.

Only supported on iOS and Android.

Header related options

You can find the list of header related options here. These options can be specified under `screenOptions` prop of `Drawer.navigator` or `options` prop of `Drawer.Screen`. You don't have to be using `@react-navigation/elements` directly to use these options, they are just documented in that page.

In addition to those, the following options are also supported in drawer:

`header`

Custom header to use instead of the default header.

This accepts a function that returns a React Element to display as a header. The function receives an object containing the following properties as the argument:

- `navigation` - The navigation object for the current screen.
- `route` - The route object for the current screen.
- `options` - The options for the current screen

- `layout` - Dimensions of the screen, contains `height` and `width` properties.

Example:

```
import { getHeaderTitle } from '@react-navigation/elements';

// ..

header: ({ navigation, route, options }) => {
  const title = getHeaderTitle(options, route.name);

  return <MyHeader title={title} style={options.headerStyle} />;
};
```

To set a custom header for all the screens in the navigator, you can specify this option in the `screenOptions` prop of the navigator.

Specify a `height` in `headerStyle`

If your custom header's height differs from the default header height, then you might notice glitches due to measurement being async. Explicitly specifying the height will avoid such glitches.

Example:

```
headerStyle: {
  height: 80, // Specify the height of your custom header
};
```

Note that this style is not applied to the header by default since you control the styling of your custom header. If you also want to apply this style to your header, use `options.headerStyle` from the props.

`headerShown`

Whether to show or hide the header for the screen. The header is shown by default. Setting this to `false` hides the header.

Events

The navigator can emit events on certain actions. Supported events are:

`drawerItemPress`

This event is fired when the user presses the button for the screen in the drawer. By default a drawer item press does several things:

- If the screen is not focused, drawer item press will focus that screen
- If the screen is already focused, then it'll close the drawer

To prevent the default behavior, you can call `event.preventDefault`:

```
React.useEffect(() => {
  const unsubscribe = navigation.addListener('drawerItemPress', (e) => {
    // Prevent default behavior
    e.preventDefault();

    // Do something manually
    // ...
  });

  return unsubscribe;
}, [navigation]);
```

If you have custom drawer content, make sure to emit this event.

Helpers

The drawer navigator adds the following methods to the navigation prop:

`openDrawer`

Opens the drawer pane.

```
navigation.openDrawer();
```

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`closeDrawer`

Closes the drawer pane.

```
navigation.closeDrawer();
```

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`toggleDrawer`

Opens the drawer pane if closed, closes the drawer pane if opened.

```
navigation.toggleDrawer();
```

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`jumpTo`

Navigates to an existing screen in the drawer navigator. The method accepts the following arguments:

- `name` - *string* - Name of the route to jump to.
- `params` - *object* - Screen params to pass to the destination route.

```
navigation.jumpTo('Profile', { owner: 'Satya' });
```

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Example

```
import { createDrawerNavigator } from '@react-navigation/drawer';

const Drawer = createDrawerNavigator();

function MyDrawer() {
  return (
    <Drawer.Navigator initialRouteName="Feed">
      <Drawer.Screen
        name="Feed"
        component={Feed}
        options={{ drawerLabel: 'Home' }}
      />
      <Drawer.Screen
        name="Notifications"
        component={Notifications}
        options={{ drawerLabel: 'Updates' }}
      />
      <Drawer.Screen
        name="Profile"
        component={Profile}
        options={{ drawerLabel: 'Profile' }}
      />
    </Drawer.Navigator>
  );
}
```

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Checking if the drawer is open

You can check if the drawer is open by using the `useDrawerStatus` hook.

```
import { useDrawerStatus } from '@react-navigation/drawer';

// ...

const isDrawerOpen = useDrawerStatus() === 'open';
```

If you can't use the hook, you can also use the `getDrawerStatusFromState` helper:

```
import { getDrawerStatusFromState } from '@react-navigation/drawer';

// ...

const isDrawerOpen = getDrawerStatusFromState(navigation.getState()) === 'open';
```

For class components, you can listen to the `state` event to check if drawer was opened or closed:

```
class Profile extends React.Component {
  componentDidMount() {
    this._unsubscribe = navigation.addListener('state', () => {
      const isDrawerOpen =
        getDrawerStatusFromState(navigation.getState()) === 'open';

      // do something
    });
  }

  componentWillUnmount() {
    this._unsubscribe();
  }

  render() {
    // Content of the component
  }
}
```

Nesting drawer navigators inside others

If a drawer navigator is nested inside of another navigator that provides some UI, for example, a tab navigator or stack navigator, then the drawer will be rendered below the UI from those navigators. The drawer will appear below the tab bar and below the header of the stack. You will need to make the drawer navigator the parent of any navigator where the drawer should be rendered on top of its UI.

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