

Essentials

Getting Started

```
createRouter()
const routes = [ {
  path: 'value',
  component: Comp...
} ]
<RouterLink>
<RouterView>
const router = useRouter()
router.push()
const route = useRoute()
```

Dynamic Routes

```
const routes = [
  { path: '/users/:id', ... },
  { path: '/user/:id/posts/:postId', ... }
]

<RouterLink :to=`/user/${id}`>
router.go(`/user/${id}`)
onBeforeRouteUpdate(async (to, from) => {
  fetchUser(route.params.id)
})
watch(
  () => route.params.id,
  fetchData,
  {immediate: true } // eager watcher
)
```

Routes' Matching Syntax

```
... path: '/:orderId(\\d+)'
... path: '/chapter*', ...
... path: '/chapter+', ...
... path: '/chapter?', ...
```

sensitive: true // case sensitive
strict: true. // ending / is strict

Named Routes

```
const routes = [ { name: 'value',
<RouterLink :to={ name: 'value' ...
router.push({ name: 'value', ...
```

Nested Routes

```
const routes = [ {
  path: '/user/:id',
  component: Comp,
  children: [ {
    path: 'profile',
    component: Comp...
```

Programmatic Navigation

```
router.push({ path: '/users'})
router.replace({ name: 'users'}) // no history entry
router.go(1-)
router.back()
router.forward()
```

Named Views

```
<RouterView name="name1">
<RouterView name="name2">
const routes = [{
  path: "value",
  components: {
    name1: Comp1,
    name2: Comp2...
```

Redirect and Alias

redirect- URL changes to redirect, match new URL
const routes = [{
 path: '/home', redirect: '/' }]

alias - URL changes to alias, matches original path
const routes = [{
 path: '/', component: Home, alias: '/home' }]

Passing Props

```
// Using $route.params limits use of component
const routes = [{ path: '/user/:id', ... }]
<span>{{ $route.params.id }} </span>
```

```
// Setting param as a prop makes component more versatile
const routes = [{ path: '/user/:id', ... , props: true }]
defineProps({ id: String })
<span>{{ id }}</span>
```

```
const routes = [{ path: '/user/:id', ... ,
  props: { showUsername: false } }]
<span v-show='showUsername'>Joe</span>
```

Active Links

RouterLink (in list) is active if:
link's to path matches current location
links params match current location params

2 classes:

```
router-link-active //
router-link-exact-active
```

```
<RouterLink
  activeClass='...'
  exactActiveClass='...'
```

Advanced

Navigation Guards

Functions run before or after route changes

May be defined globally, in a component, or per route in router def

global:

3. router.beforeEach((to, from, next) => { ... })
7. router.beforeResolve((to) => { ... })
9. router.afterEach((to, from, **failure**) => { ... }) // hook - not guard

per route:

- // triggered when new route is matched
5. beforeEnter: (to, from) => { ... }
beforeEnter: [foo1, foo2]

in-component:

2. onBeforeRouteLeave(to, from) { ... } // e.g. confirm dialog
4. onBeforeRouteUpdate(to, from) { ... } // e.g. fetch if param changed

The Full Navigation Resolution Flow

1. Navigation triggered.
2. Call **beforeRouteLeave** guards in deactivated components.
3. Call global **beforeEach** guards.
4. Call **beforeRouteUpdate** guards in **reused** components.
5. Call **beforeEnter** in route configs.
6. Resolve async route components.
7. Call global **beforeResolve** guards.
8. Navigation is confirmed.
9. Call global **afterEach** hooks.
10. DOM updates triggered.

Route Meta Fields

```
const routes = [{ path: '/login', meta: { requiresAuth: true }, ...  
route.meta //contains all meta fields from all matched routes
```

Data Fetching

After navigation:

```
watch(() => { route.params.id, fetchData, {immediate: true } }
```

Before navigation

```
onBeforeRouteUpdate((to, from) => { ... } ) // e.g. fetch if param changed
```

RouterView slots

// put a TemplateRef on a component placed in a router-view

```
<router-view v-slot="{ Component }">  
  <component :is="Component" ref="mainContent" />  
</router-view>
```

Transitions

Scroll Behavior

Lazy Loading Routes

Typed Routes

Extending RouterLink

Navigation Failures

Dynamic Routing