<ul><li class="closed"><button aria-label="Get Started expand">Get Started<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/typescript-from-scratch.html">TS for the New Programmer</a></li><li><a href="/docs/handbook/typescript-in-5-minutes.html">TypeScript for JS Programmers</a></li><li><a href="/docs/handbook/typescript-in-5-minutes-oop.html">TS for Java/C# Programmers</a></li><li><a href="/docs/handbook/typescript-in-5-minutes-func.html">TS for Functional Programmers</a></li><li><a href="/docs/handbook/typescript-tooling-in-5-minutes.html">TypeScript Tooling in 5 minutes</a></li></ul></li><li class="closed"><button aria-label="Handbook expand">Handbook<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/intro.html">The TypeScript Handbook</a></li><li><a href="/docs/handbook/2/basic-types.html">The Basics</a></li><li><a href="/docs/handbook/2/everyday-types.html">Everyday Types</a></li><li><a href="/docs/handbook/2/narrowing.html">Narrowing</a></li><li><a href="/docs/handbook/2/functions.html">More on Functions</a></li><li><a href="/docs/handbook/2/objects.html">Object Types</a></li><li class="closed"><button aria-label="Type Manipulation expand">Type Manipulation<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" 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href="/docs/handbook/2/classes.html">Classes</a></li><li><a href="/docs/handbook/2/modules.html">Modules</a></li></ul></li><li class="closed"><button aria-label="Reference expand">Reference<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/utility-types.html">Utility Types</a></li><li><a href="/cheatsheets">Cheat Sheets</a></li><li><a href="/docs/handbook/decorators.html">Decorators</a></li><li><a href="/docs/handbook/declaration-merging.html">Declaration Merging</a></li><li><a href="/docs/handbook/enums.html">Enums</a></li><li><a href="/docs/handbook/iterators-and-generators.html">Iterators and Generators</a></li><li><a href="/docs/handbook/jsx.html">JSX</a></li><li><a href="/docs/handbook/mixins.html">Mixins</a></li><li><a href="/docs/handbook/namespaces.html">Namespaces</a></li><li><a href="/docs/handbook/namespaces-and-modules.html">Namespaces and Modules</a></li><li><a href="/docs/handbook/symbols.html">Symbols</a></li><li><a href="/docs/handbook/triple-slash-directives.html">Triple-Slash Directives</a></li><li><a href="/docs/handbook/type-compatibility.html">Type Compatibility</a></li><li><a href="/docs/handbook/type-inference.html">Type Inference</a></li><li><a href="/docs/handbook/variable-declarations.html">Variable Declaration</a></li></ul></li><li class="open highlighted"><button aria-expanded="true" aria-label="Modules Reference close">Modules Reference<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/modules/introduction.html">Introduction</a></li><li><a href="/docs/handbook/modules/theory.html">Theory</a></li><li class="closed"><button aria-label="Guides expand">Guides<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/modules/guides/choosing-compiler-options.html">Choosing Compiler Options</a></li></ul></li><li aria-current="page" class="highlight"><a aria-current="page" class="" href="/docs/handbook/modules/reference.html">Reference</a></li><li class="closed"><button aria-label="Appendices expand">Appendices<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/modules/appendices/esm-cjs-interop.html">ESM/CJS Interoperability</a></li></ul></li></ul></li><li class="open"><button aria-label="Tutorials expand">Tutorials<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/asp-net-core.html">ASP.NET Core</a></li><li><a href="/docs/handbook/gulp.html">Gulp</a></li><li><a href="/docs/handbook/dom-manipulation.html">DOM Manipulation</a></li><li><a href="/docs/handbook/migrating-from-javascript.html">Migrating from JavaScript</a></li><li><a href="/docs/handbook/babel-with-typescript.html">Using Babel with TypeScript</a></li></ul></li><li class="closed"><button aria-label="What's New expand">What's New<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/release-notes/typescript-5-3.html">TypeScript 5.3</a></li><li><a href="/docs/handbook/release-notes/typescript-5-2.html">TypeScript 5.2</a></li><li><a href="/docs/handbook/release-notes/typescript-5-1.html">TypeScript 5.1</a></li><li><a href="/docs/handbook/release-notes/typescript-5-0.html">TypeScript 5.0</a></li><li><a href="/docs/handbook/release-notes/typescript-4-9.html">TypeScript 4.9</a></li><li><a href="/docs/handbook/release-notes/typescript-4-8.html">TypeScript 4.8</a></li><li><a href="/docs/handbook/release-notes/typescript-4-7.html">TypeScript 4.7</a></li><li><a href="/docs/handbook/release-notes/typescript-4-6.html">TypeScript 4.6</a></li><li><a href="/docs/handbook/release-notes/typescript-4-5.html">TypeScript 4.5</a></li><li><a href="/docs/handbook/release-notes/typescript-4-4.html">TypeScript 4.4</a></li><li><a href="/docs/handbook/release-notes/typescript-4-3.html">TypeScript 4.3</a></li><li><a href="/docs/handbook/release-notes/typescript-4-2.html">TypeScript 4.2</a></li><li><a href="/docs/handbook/release-notes/typescript-4-1.html">TypeScript 4.1</a></li><li><a href="/docs/handbook/release-notes/typescript-4-0.html">TypeScript 4.0</a></li><li><a href="/docs/handbook/release-notes/typescript-3-9.html">TypeScript 3.9</a></li><li><a href="/docs/handbook/release-notes/typescript-3-8.html">TypeScript 3.8</a></li><li><a href="/docs/handbook/release-notes/typescript-3-7.html">TypeScript 3.7</a></li><li><a href="/docs/handbook/release-notes/typescript-3-6.html">TypeScript 3.6</a></li><li><a href="/docs/handbook/release-notes/typescript-3-5.html">TypeScript 3.5</a></li><li><a href="/docs/handbook/release-notes/typescript-3-4.html">TypeScript 3.4</a></li><li><a href="/docs/handbook/release-notes/typescript-3-3.html">TypeScript 3.3</a></li><li><a href="/docs/handbook/release-notes/typescript-3-2.html">TypeScript 3.2</a></li><li><a href="/docs/handbook/release-notes/typescript-3-1.html">TypeScript 3.1</a></li><li><a href="/docs/handbook/release-notes/typescript-3-0.html">TypeScript 3.0</a></li><li><a href="/docs/handbook/release-notes/typescript-2-9.html">TypeScript 2.9</a></li><li><a href="/docs/handbook/release-notes/typescript-2-8.html">TypeScript 2.8</a></li><li><a href="/docs/handbook/release-notes/typescript-2-7.html">TypeScript 2.7</a></li><li><a href="/docs/handbook/release-notes/typescript-2-6.html">TypeScript 2.6</a></li><li><a href="/docs/handbook/release-notes/typescript-2-5.html">TypeScript 2.5</a></li><li><a href="/docs/handbook/release-notes/typescript-2-4.html">TypeScript 2.4</a></li><li><a href="/docs/handbook/release-notes/typescript-2-3.html">TypeScript 2.3</a></li><li><a href="/docs/handbook/release-notes/typescript-2-2.html">TypeScript 2.2</a></li><li><a href="/docs/handbook/release-notes/typescript-2-1.html">TypeScript 2.1</a></li><li><a href="/docs/handbook/release-notes/typescript-2-0.html">TypeScript 2.0</a></li><li><a href="/docs/handbook/release-notes/typescript-1-8.html">TypeScript 1.8</a></li><li><a href="/docs/handbook/release-notes/typescript-1-7.html">TypeScript 1.7</a></li><li><a href="/docs/handbook/release-notes/typescript-1-6.html">TypeScript 1.6</a></li><li><a href="/docs/handbook/release-notes/typescript-1-5.html">TypeScript 1.5</a></li><li><a href="/docs/handbook/release-notes/typescript-1-4.html">TypeScript 1.4</a></li><li><a href="/docs/handbook/release-notes/typescript-1-3.html">TypeScript 1.3</a></li><li><a href="/docs/handbook/release-notes/typescript-1-1.html">TypeScript 1.1</a></li></ul></li><li class="closed"><button aria-label="Declaration Files expand">Declaration Files<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/declaration-files/introduction.html">Introduction</a></li><li><a href="/docs/handbook/declaration-files/by-example.html">Declaration Reference</a></li><li><a href="/docs/handbook/declaration-files/library-structures.html">Library Structures</a></li><li class="closed"><button aria-label=".d.ts Templates expand">.d.ts Templates<span class="open"><svg fill="none" height="9" viewBox="0 0 14 9" width="14" xmlns="http://www.w3.org/2000/svg"><path d="m1 1 6 6 6-6" stroke="#000" stroke-width="2"></path></svg></span><span class="closed"><svg fill="none" height="14" viewBox="0 0 9 14" width="9" xmlns="http://www.w3.org/2000/svg"><path d="m1 13 6-6-6-6" stroke="#000" stroke-width="2"></path></svg></span></button><ul><li><a href="/docs/handbook/declaration-files/templates/module-d-ts.html">Modules .d.ts</a></li><li><a href="/docs/handbook/declaration-files/templates/module-plugin-d-ts.html">Module: Plugin</a></li><li><a href="/docs/handbook/declaration-files/templates/module-class-d-ts.html">Module: Class</a></li><li><a href="/docs/handbook/declaration-files/templates/module-function-d-ts.html">Module: Function</a></li><li><a href="/docs/handbook/declaration-files/templates/global-d-ts.html">Global .d.ts</a></li><li><a href="/docs/handbook/declaration-files/templates/global-modifying-module-d-ts.html">Global: Modifying Module</a></li></ul></li><li><a href="/docs/handbook/declaration-files/do-s-and-don-ts.html">Do's and Don'ts</a></li><li><a href="/docs/handbook/declaration-files/deep-dive.html">Deep Dive</a></li><li><a href="/docs/handbook/declaration-files/publishing.html">Publishing</a></li><li><a href="/docs/handbook/declaration-files/consumption.html">Consumption</a></li></ul></li><li class="closed"><button aria-label="JavaScript expand">JavaScript<span class="open"><svg fill="none" height="9" 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