Many documents

HtmlToPdf is static and thread-safe: one call per document, on as many threads as you use. There is nothing to start, pool or keep alive: no browser process, no page to recycle.

Many documents at once

```
Parallel.ForEach(invoices, new ParallelOptions { MaxDegreeOfParallelism =
Environment.ProcessorCount }, invoice ⇒
{
    var result = HtmlToPdf.Render(invoice.Html, options);
    File.WriteAllBytes(invoice.Path, result.Pdf!);
});
```

In a web application, RenderAsync runs a render on the thread pool. A cancellation stops a render that has not started; one under way runs to its end or its limits.

Large documents

- Render(html, stream) writes the PDF to a stream (a file, a response) instead of returning its bytes.
- Compression trades size for time: Fastest by default, Smallest for files kept long. See the sizes.
- MaxPages and the other limits keep a runaway page from filling memory.

Warming up

.NET compiles an application's code as it runs, so a process's first renders of a kind of document are slower than its later ones. HtmlToPdf.WarmUp renders a document a few times and writes nothing, so that this cost is paid before the renders that matter. It is optional: Weblitz never warms up by itself, and nothing runs in the background.

```
// Once, at start-up, with a document like those the application prints
var warm = HtmlToPdf.WarmUp(File.ReadAllText("templates/invoice.html"), options);
Console.WriteLine($"first render {warm.First.TotalMilliseconds:0} ms, last
{warm.Last.TotalMilliseconds:0} ms");
```

- Call it once, at start-up or while idle, with the template and the options of the real work: other kinds of document gain less. A process that prints one document and exits gains nothing from it.
- It costs the time and processor of its renders (eight unless you say otherwise), once, on the calling thread. WarmUpAsync runs it on the thread pool; WarmUpFile takes a file.
- Each of its renders loads the document's resources and runs its scripts as a real render does: a page that reports to a server reports at each one.
- The result says how long the first and the last of them took: the last is close to what a real render will take.

Speed

Speed figures will be published here once measured on a quiet machine, with the date and the method.