Literate Example

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Abstract

This is a simple example of how to use literate programming templates, using hello-world.

Hello-world is a famous *first program* with a visible side effect.

This example produces hello-world in multiple languages.

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1 Hello World

The typical hello world program looks like this:

1a ⟨hello-world[1](message, language), lang=⟩ ≡

```
1  /* The traditional hello-world program in ⟨language⟩
2   * generated using fangle literate programming macros
3   */
4
5  #include stdio.c
6
7  main() {
8    printf("⟨message⟩\n");
9  }
```

1.1 In French

We will derive the french hello-world program like this:

?a ⟨./hello-world.fr.c[1](), lang=⟩ ≡

```
1  ⟨hello-world(Bonjour tout le monde, french) 1a⟩
```

1.2 In German

We will derive the german hello-world program like this:

?b ⟨./hello-world.de.c[1](), lang=⟩ ≡

```
1  ⟨hello-world(Hallo welt, german) 1a⟩
```