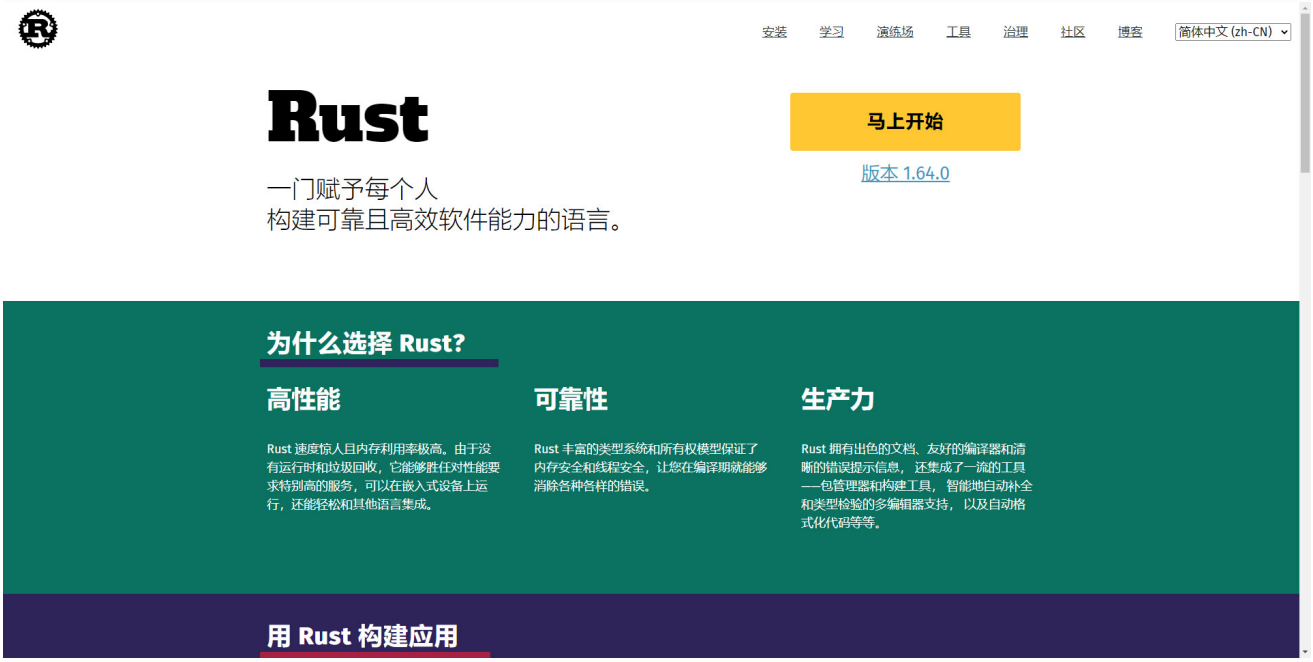
Rust 安装和配置

一、下载

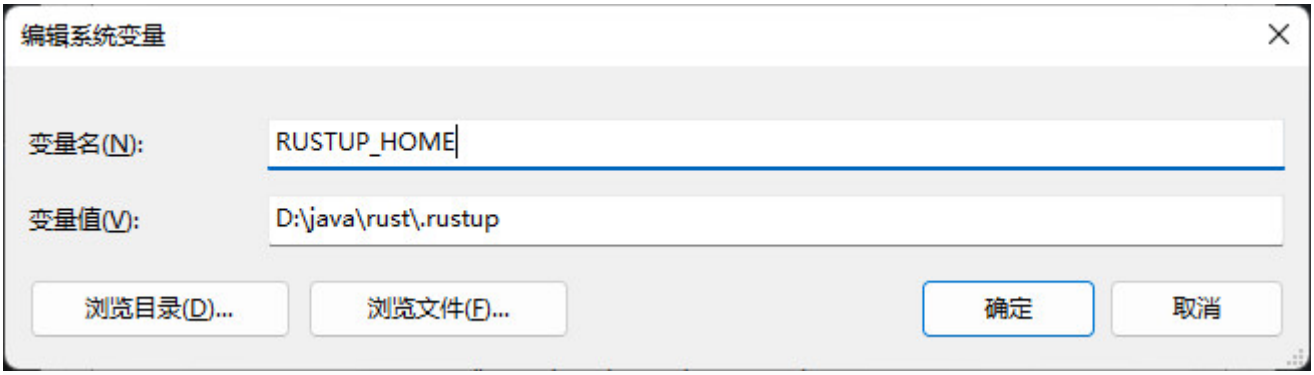
Rust 官网：https://www.rust-lang.org/zh-CN/

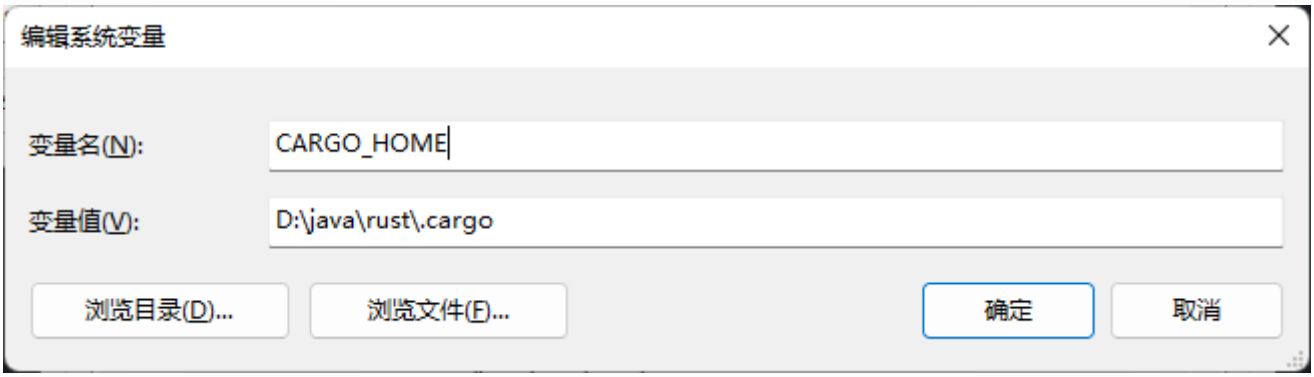


二、改变安装目录

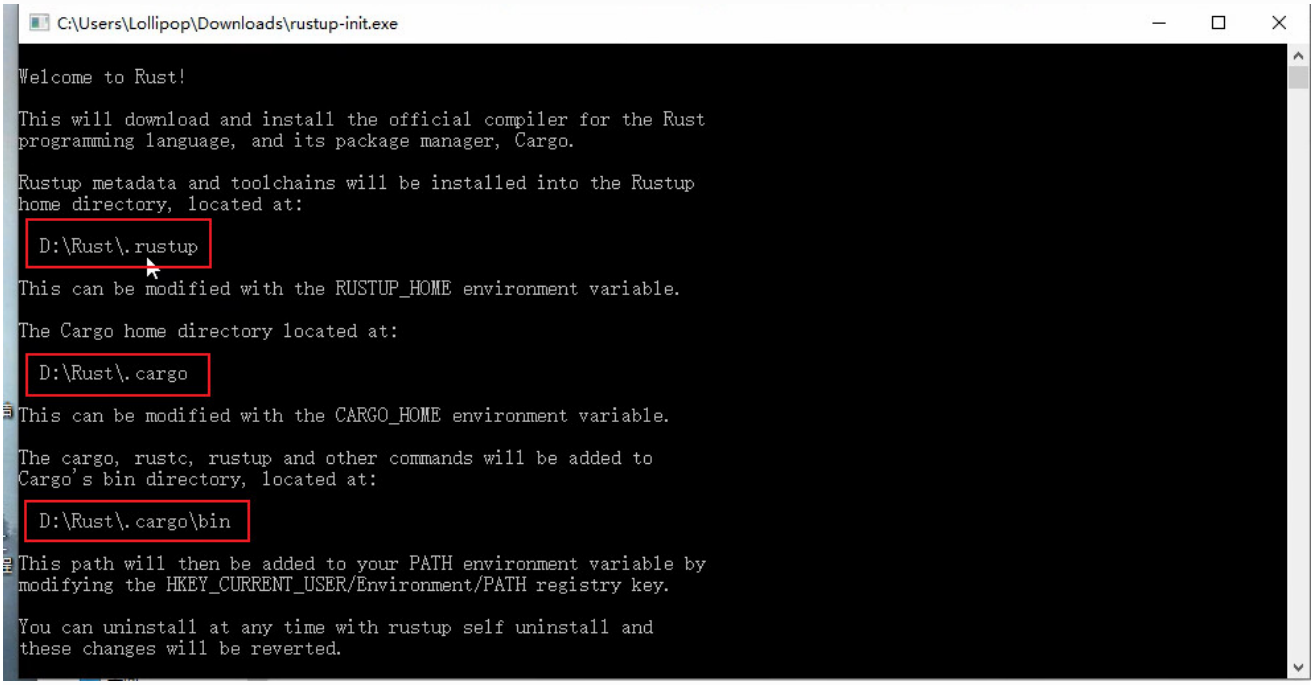
在想安装的位置新建Rust文件夹，并添加 .rustup 和 .cargo 两个文件夹

在系统环境变量中新增两个环境变量，分别指向两个这文件夹



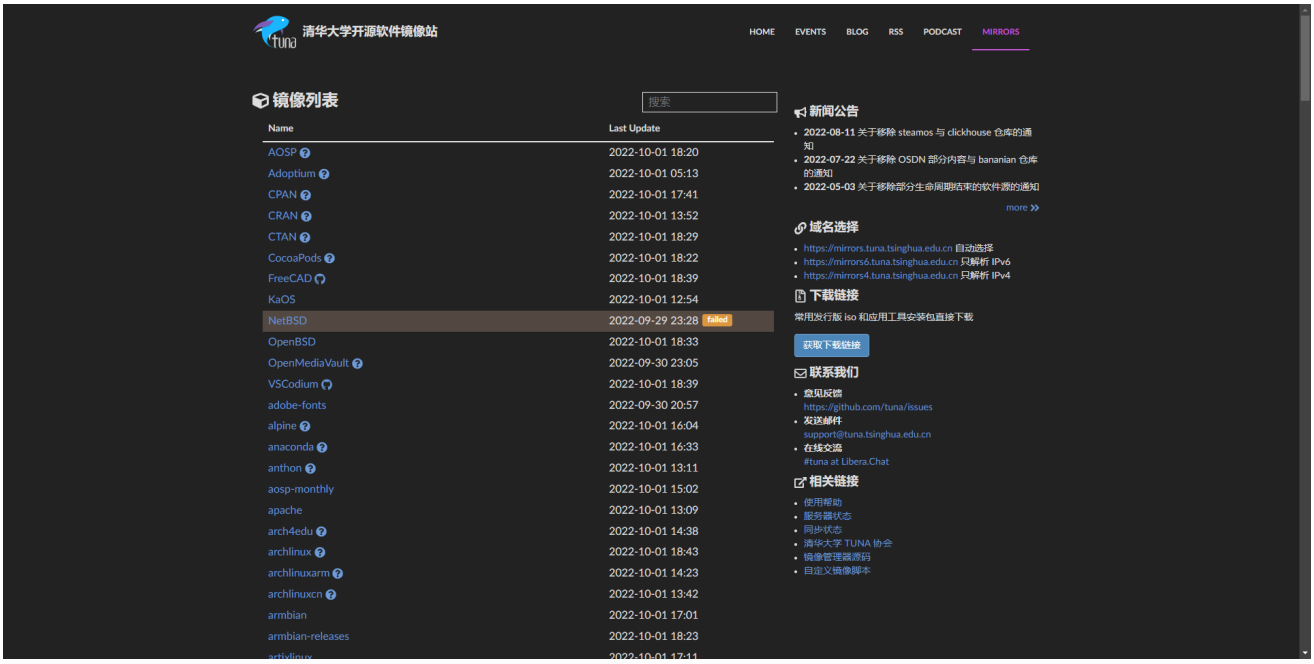


打开从官网下载的安装程序，发现图中三个地方的变成了刚设置的地址

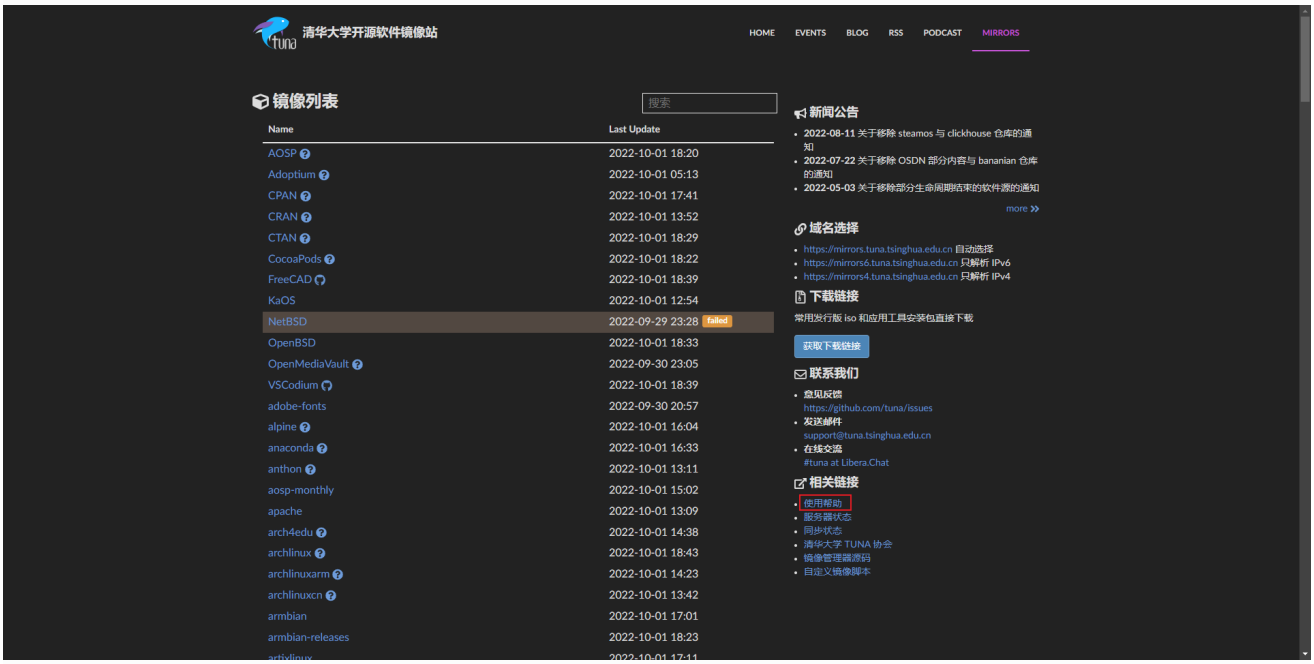


三、配置 rustup 镜像

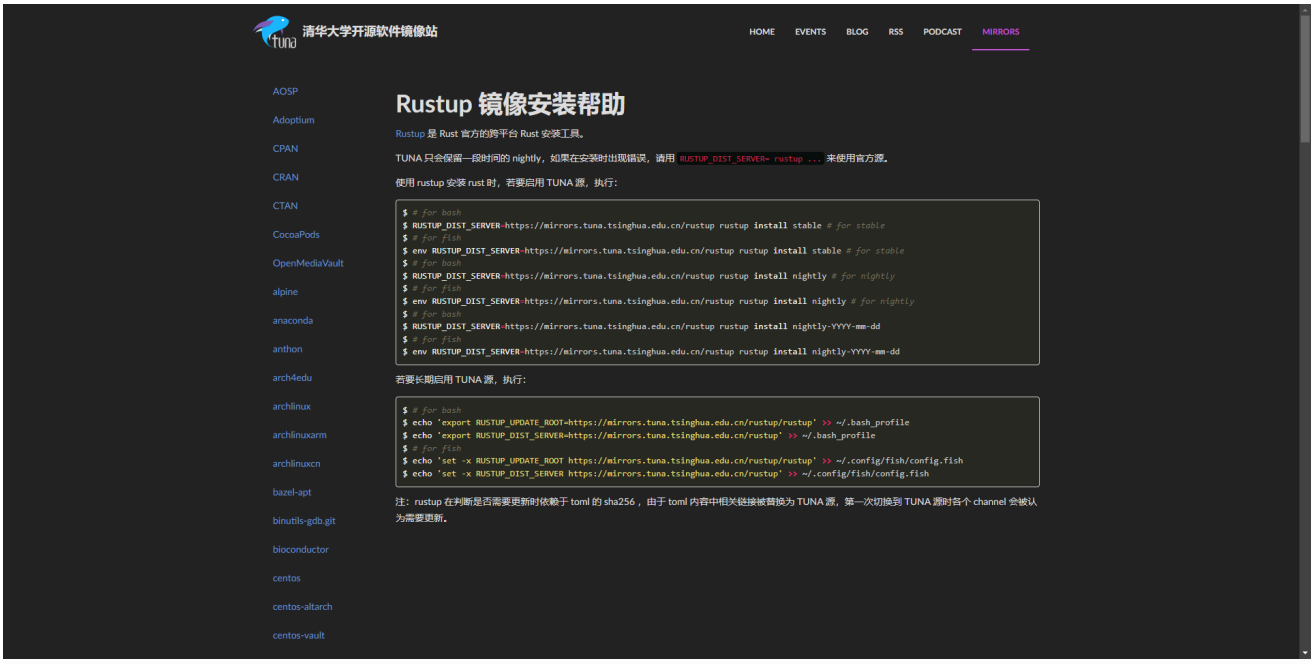
打开清华大学镜像：**https://mirrors.tuna.tsinghua.edu.cn/**



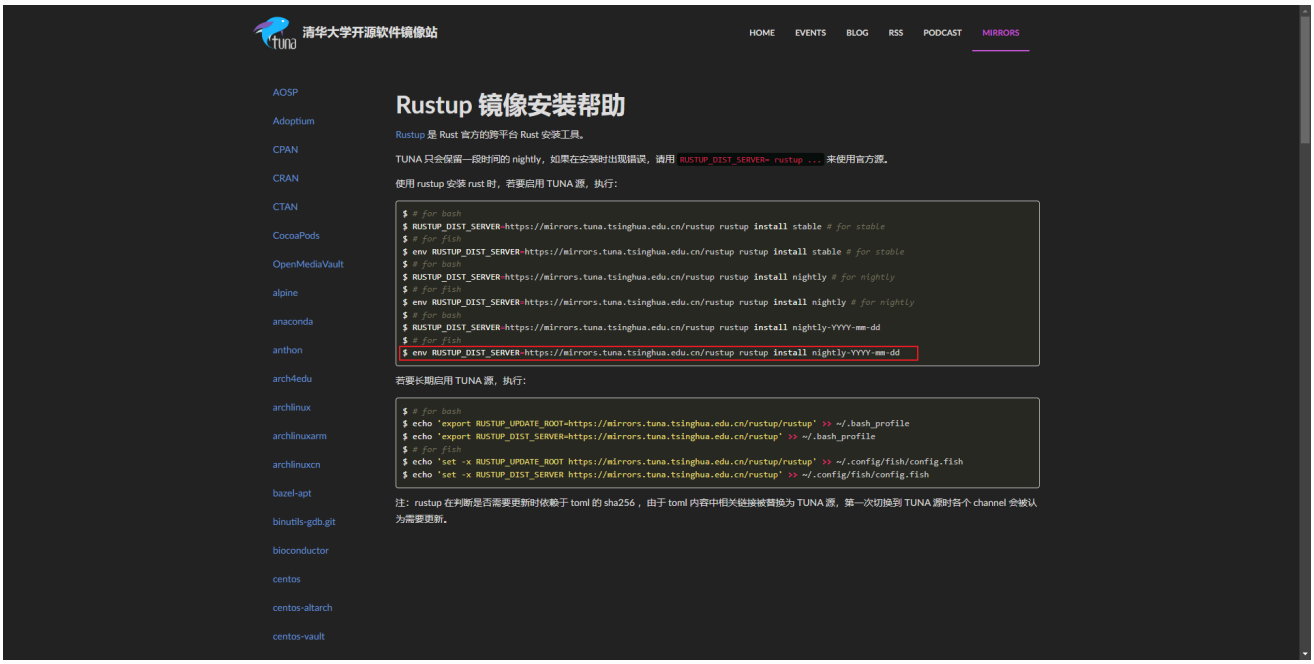
点击右下角的使用帮助

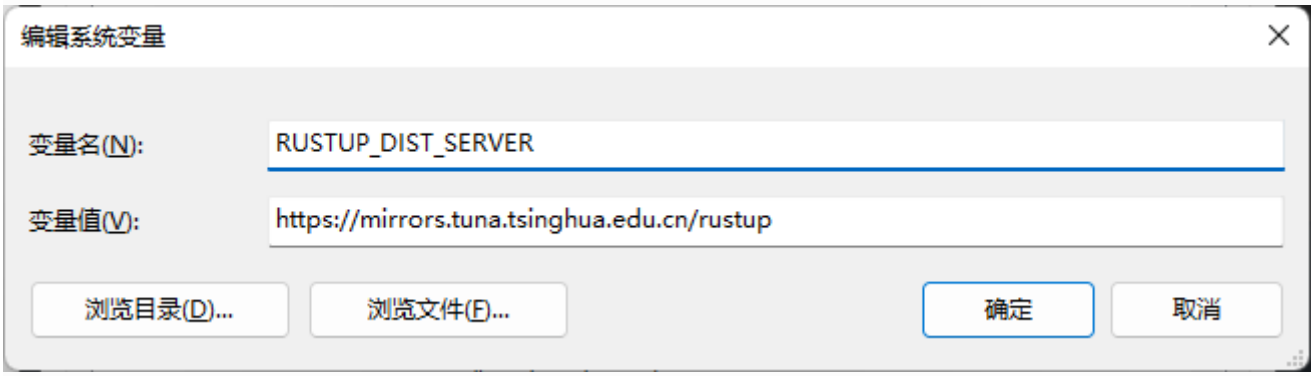


按下 `Ctrl+F` 搜索 rustup，打开如下页面



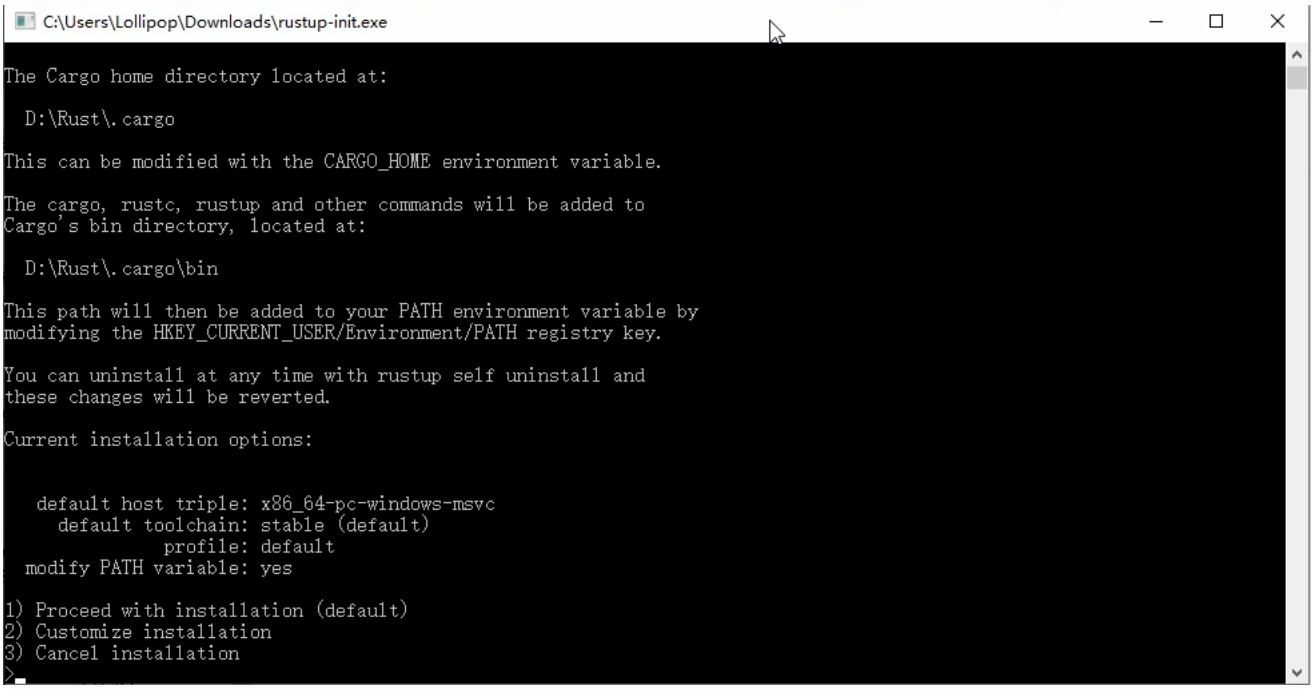
在系统环境变量中新增变量 RUSTUP_DIST_SERVER=**https://mirrors.tuna.tsinghua.edu.cn/rustup**



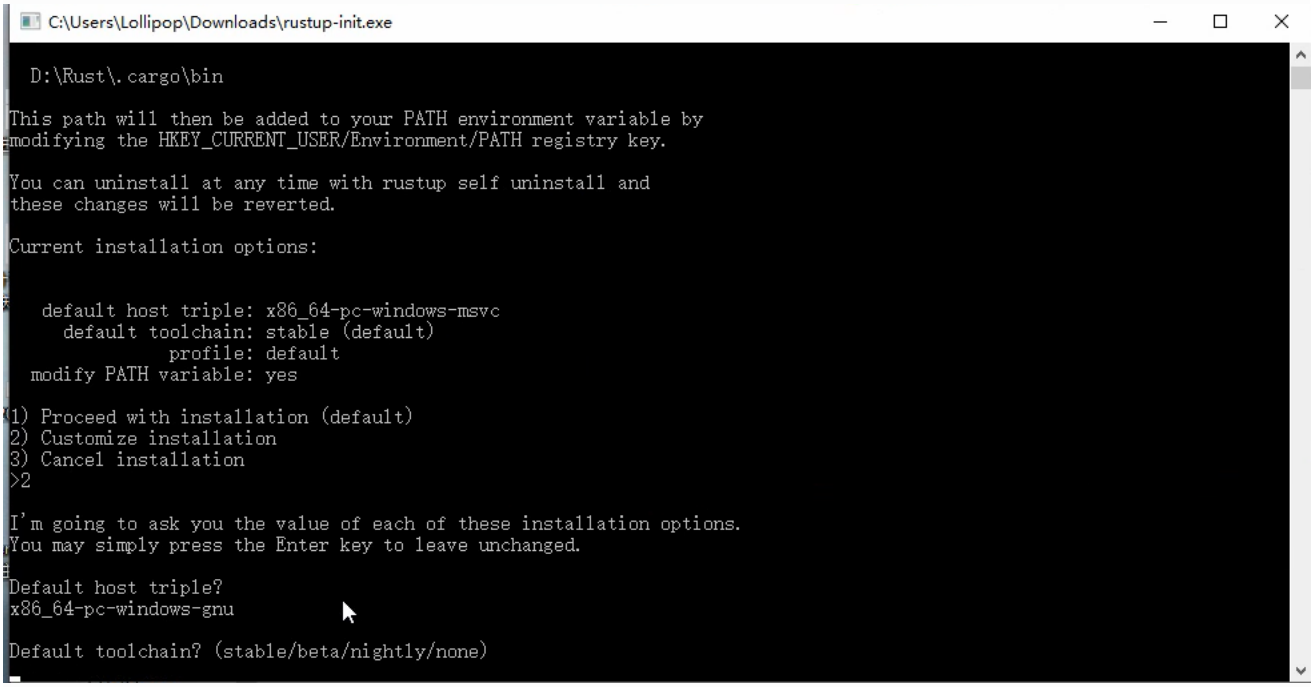


四、安装

打开安装程序，输入2，回车，进行自定义安装

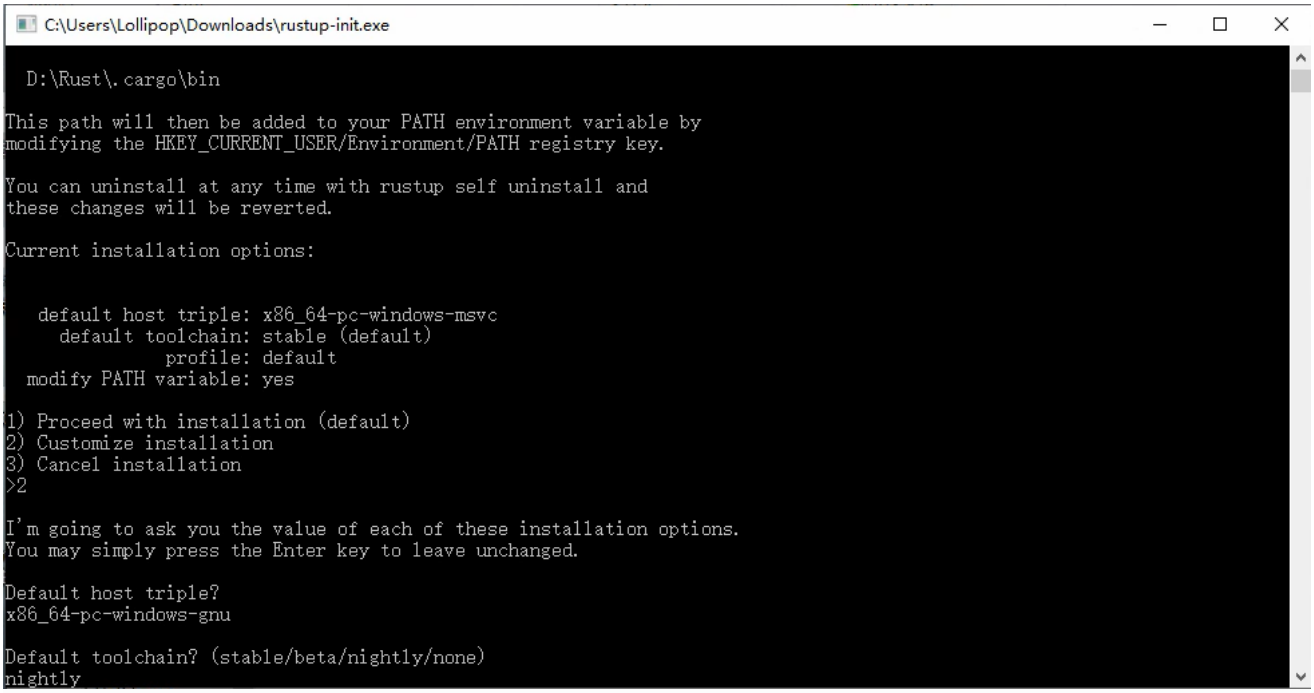


接着输入下列命令，使用 x86_64-pc-windows-gnu

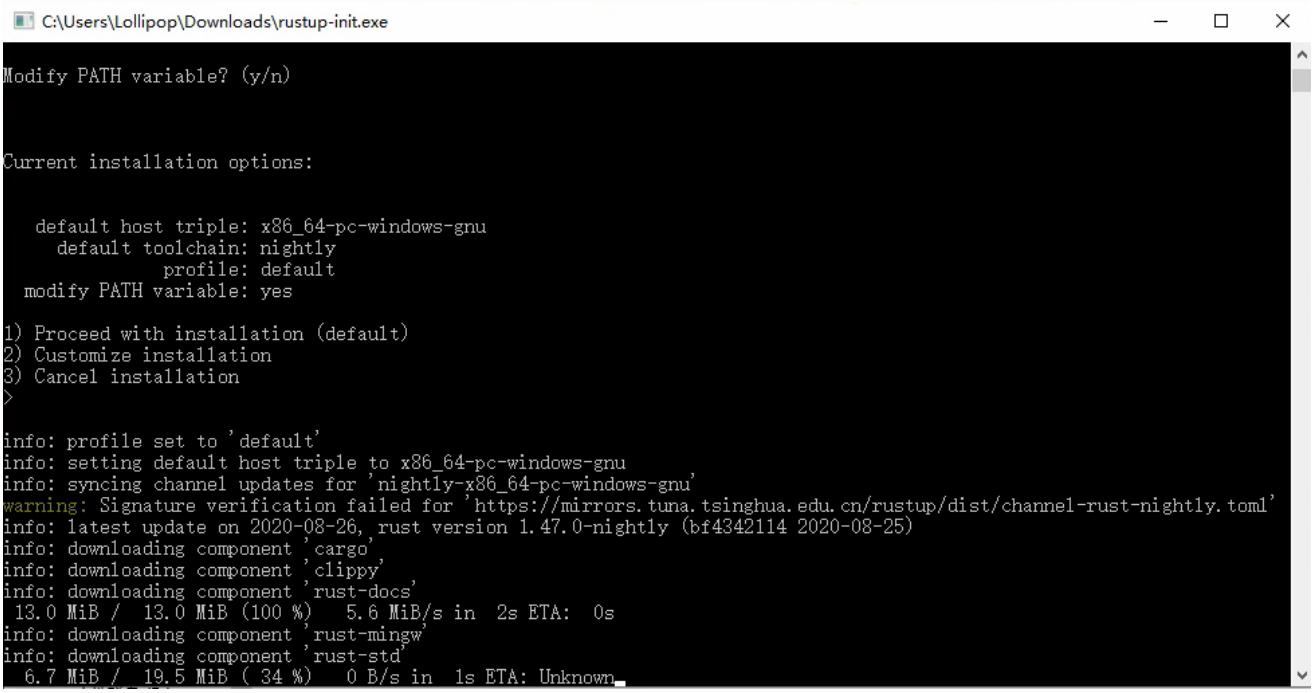


> x86_64-pc-windows-msvc编译速度相对慢一点，因而选用x86_64-pc-windows-gnu，如何选择无伤大雅，不用太纠结。

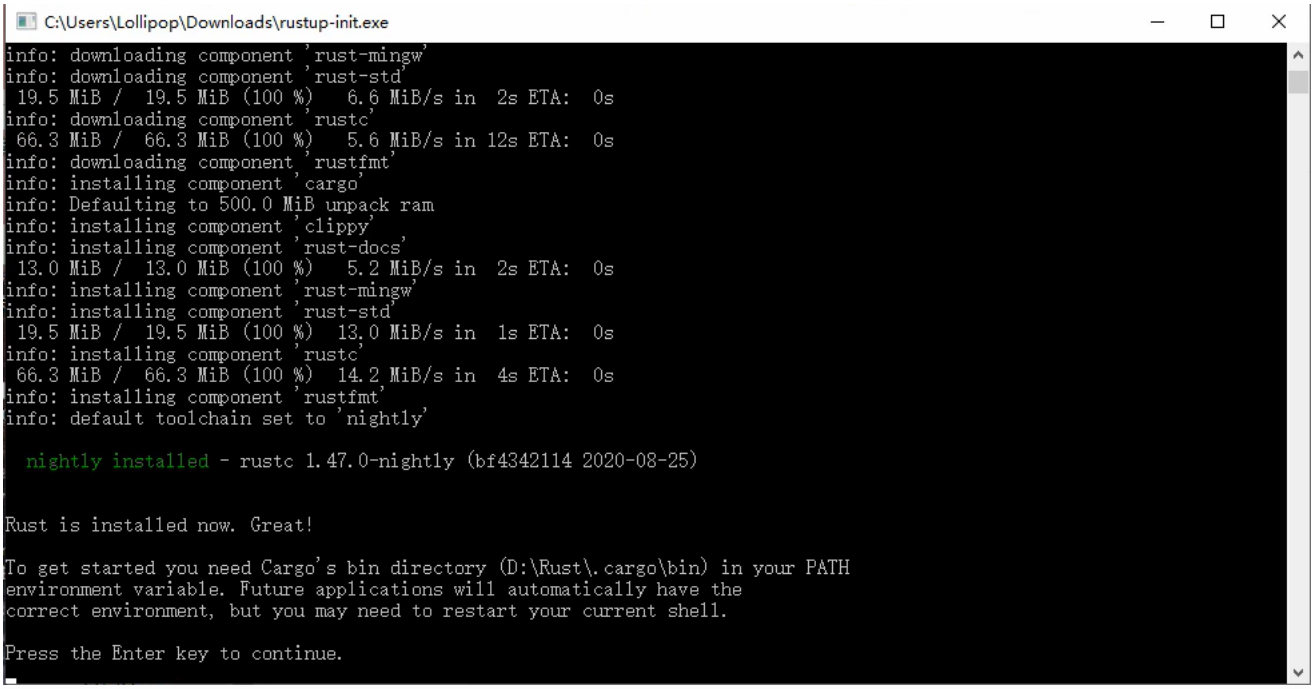
接着输入 nightly



接着直接按回车继续即可

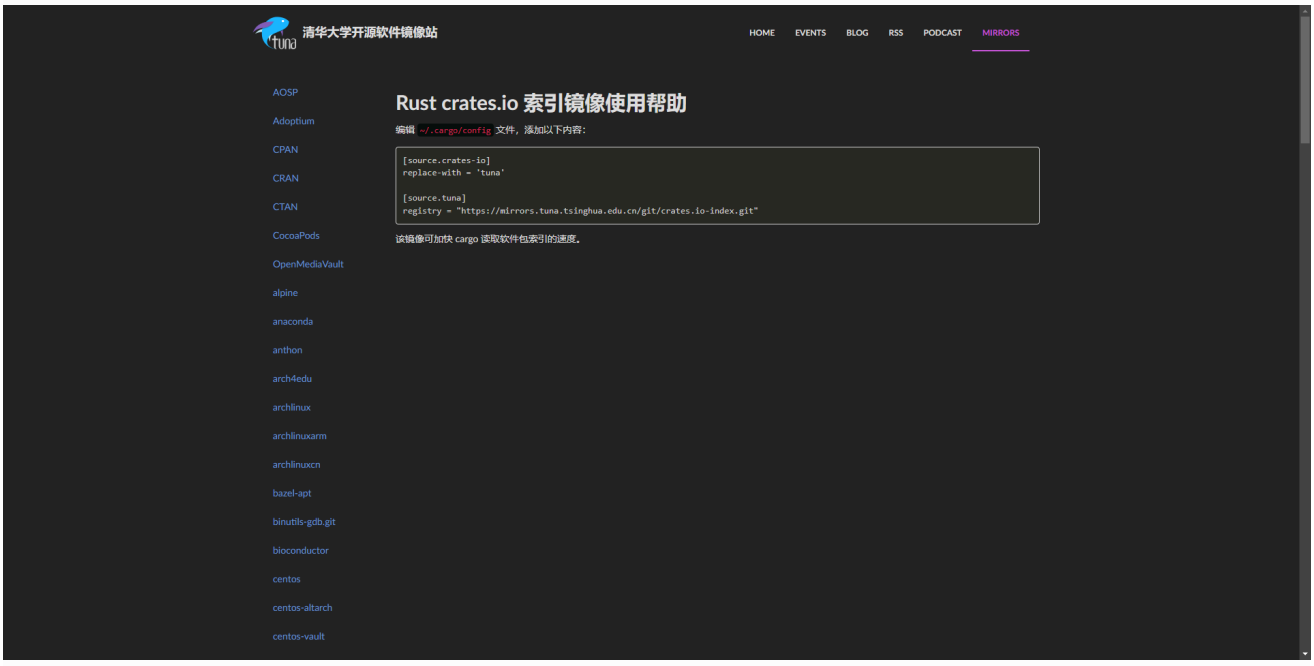


等待下载安装完成



五、配置 crates 镜像

接着在清华镜像站搜索 crates 打开如下页面



在 .cargo 文件夹下新建 config 文件，并添加如下内容

```
[source.crates-io]
replace-with = 'tuna'

[source.tuna]
registry = "https://mirrors.tuna.tsinghua.edu.cn/git/crates.io-index.git"
```

> 该镜像可加快 cargo 读取软件包索引的速度。

六、创建工程

在命令行工具中输入如下命令创建rust工程

```
cargo new hello-rust
```

接着执行下面的命令运行程序

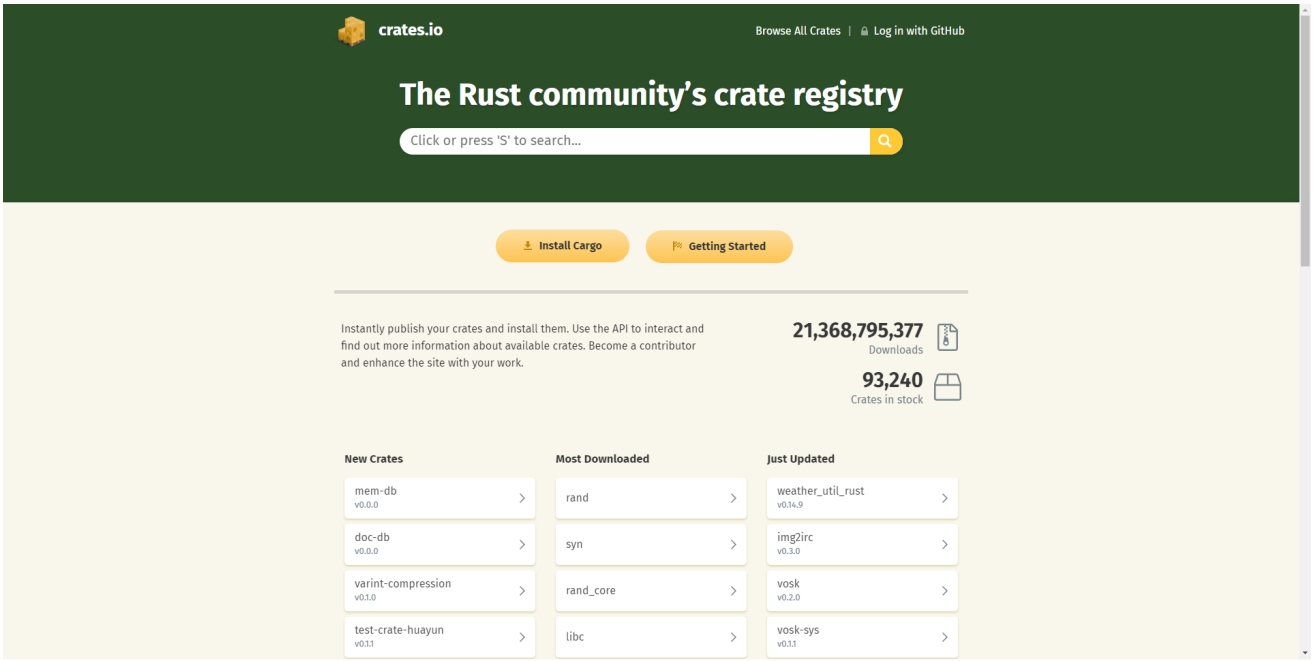
```
cargo run
```

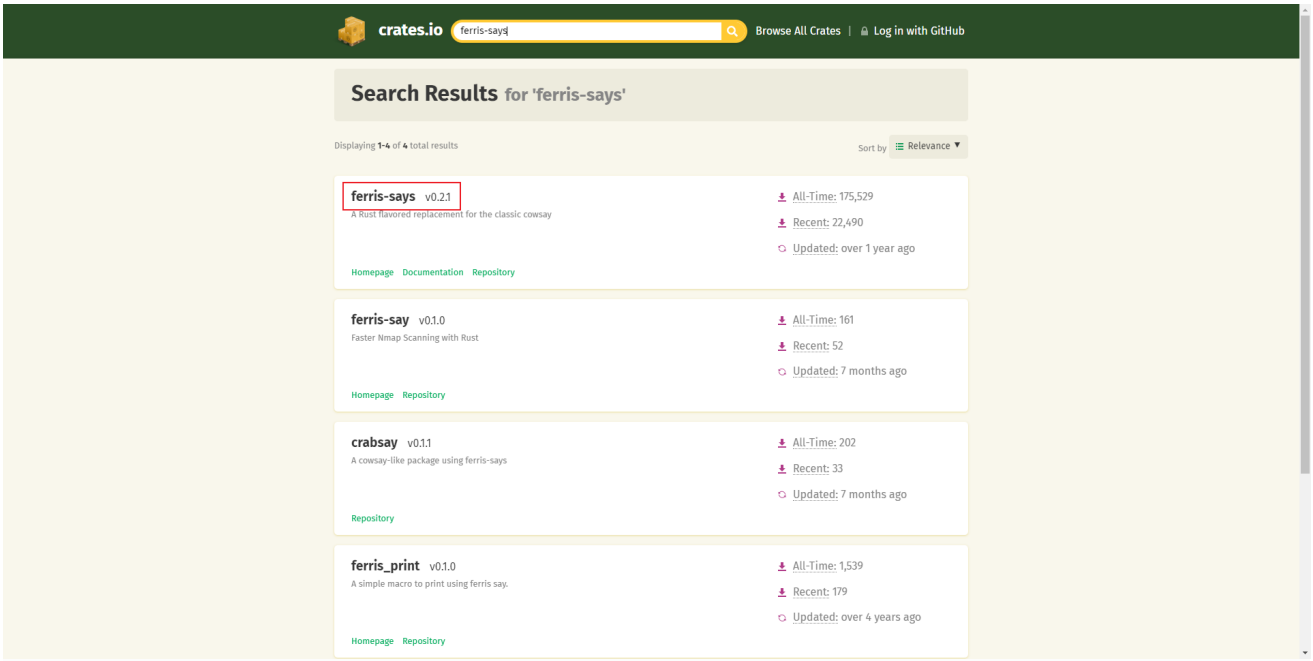
执行完后能在终端看到如下内容

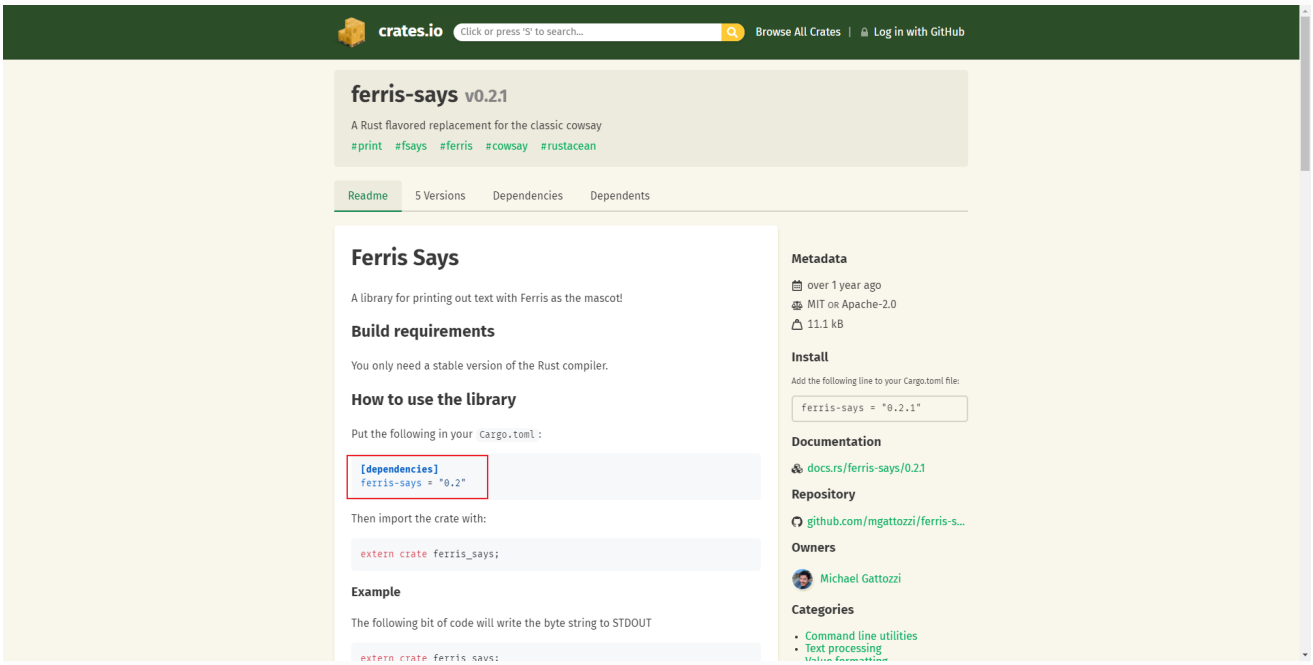
```
$ cargo run
    Compiling hello-rust v0.1.0 (/Users/ag_dubs/rust/hello-rust)
      Finished dev [unoptimized + debuginfo] target(s) in 1.34s
        Running `target/debug/hello-rust`
Hello, world!
```

七、引入依赖

在 `Cargo.toml` 文件中添加以下信息（从 crate 页面上获取**https://crates.io/**）：







Cargo.toml

```
[dependencies]
ferris-says = "0.2"
```

接着在 **main.rs** 中添加以下代码：

```rust
use ferris_says::say; // from the previous step
use std::io::{stdout, BufWriter};

fn main() {
    let stdout = stdout();
    let message = String::from("Hello fellow Rustaceans!");
    let width = message.chars().count();

    let mut writer = BufWriter::new(stdout.lock());
    say(message.as_bytes(), width, &mut writer).unwrap();
}
```

接着执行 `cargo run` 命令安装依赖