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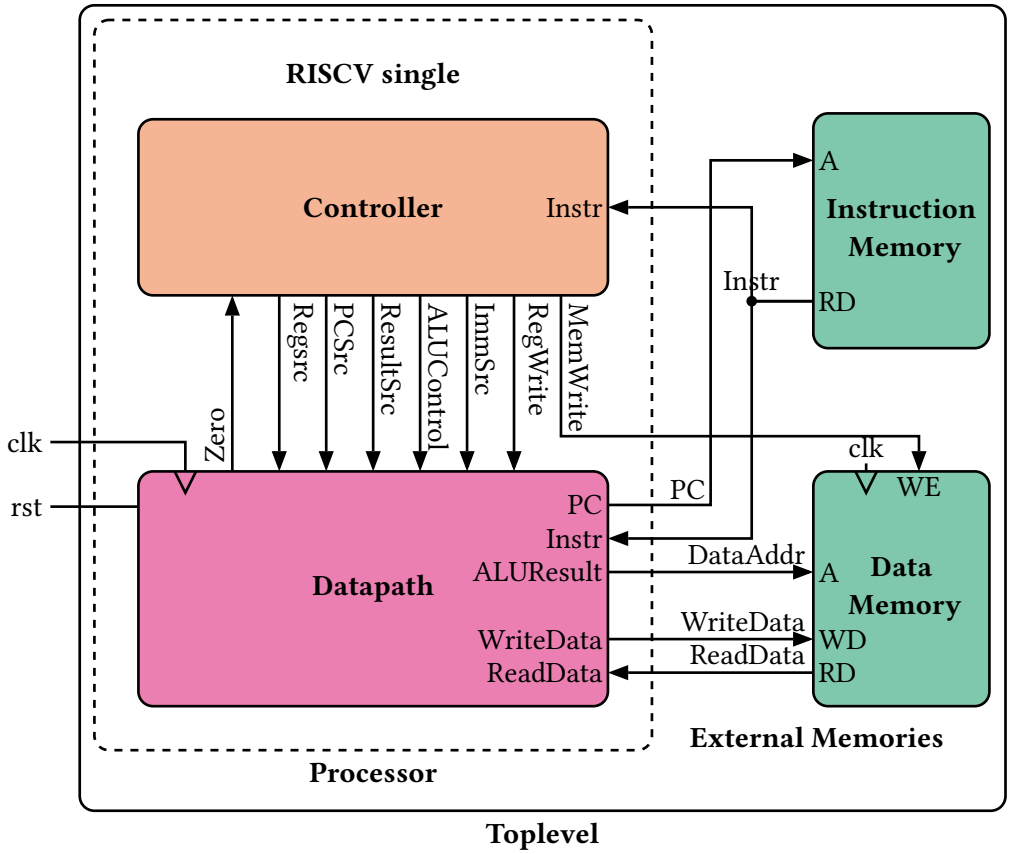

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5.1 RenameUnit

重命名单元将逻辑寄存器地址映射成实际寄存器。逻辑寄存器指的是 ISA 定义的 x0-x31，而实际寄存器数量多于 32 个，一般可达 128 个。主要解决 WAW，WAR 等问题。

RenameUnit 的构造参数如下：

Name	Type	Description
test	Int	

IO 端口定义如下：

Name	Type	Description
in	Input(Vec(p.RENAME_WIDTH, DecodedInstr))	输入
out	Output(Vec(p.RENAME_WIDTH, RenamedInsr))	soaeuaoeu

```scala
  val io = IO(new Bundle {
    val in = Input(Vec(p.RENAME_WIDTH, DecodedInstr))  /*  输入 */
    val out = Output(Vec(p.RENAME_WIDTH, RenamedInsr))  //soaeuaoeu
  })
```

5.2 DispatchUnit

oeusnth

IO 端口定义如下：

Name	Type	Description
in	Input(Vec(p.RENAME_WIDTH, RenamedInsr))	
out	Output(Vec(p.DISPATCH_WIDTH, DispatchedInsr))	

```scala
  val io = IO(new Bundle {
    val in = Input(Vec(p.RENAME_WIDTH, RenamedInsr))
    val out = Output(Vec(p.DISPATCH_WIDTH, DispatchedInsr))
  })
```

5.3 IssueUnit

IO 端口定义如下：

Name	Type	Description

in	Input(Vec(p.DISPATCH_WIDTH, DispatchedInsr))	
out	Output(Vec(p.ISSUE_WIDTH, IssuedInsr))	

```scala
  val io = IO(new Bundle {
    val in = Input(Vec(p.DISPATCH_WIDTH, DispatchedInsr))
    val out = Output(Vec(p.ISSUE_WIDTH, IssuedInsr))
  })
```

5.4 ExcUnit

IO 端口定义如下：

Name	Type	Description
in	Input(Vec(p.ISSUE_WIDTH, IssuedInsr))	

```scala
  val io = IO(new Bundle {
    val in = Input(Vec(p.ISSUE_WIDTH, IssuedInsr))
  })
```