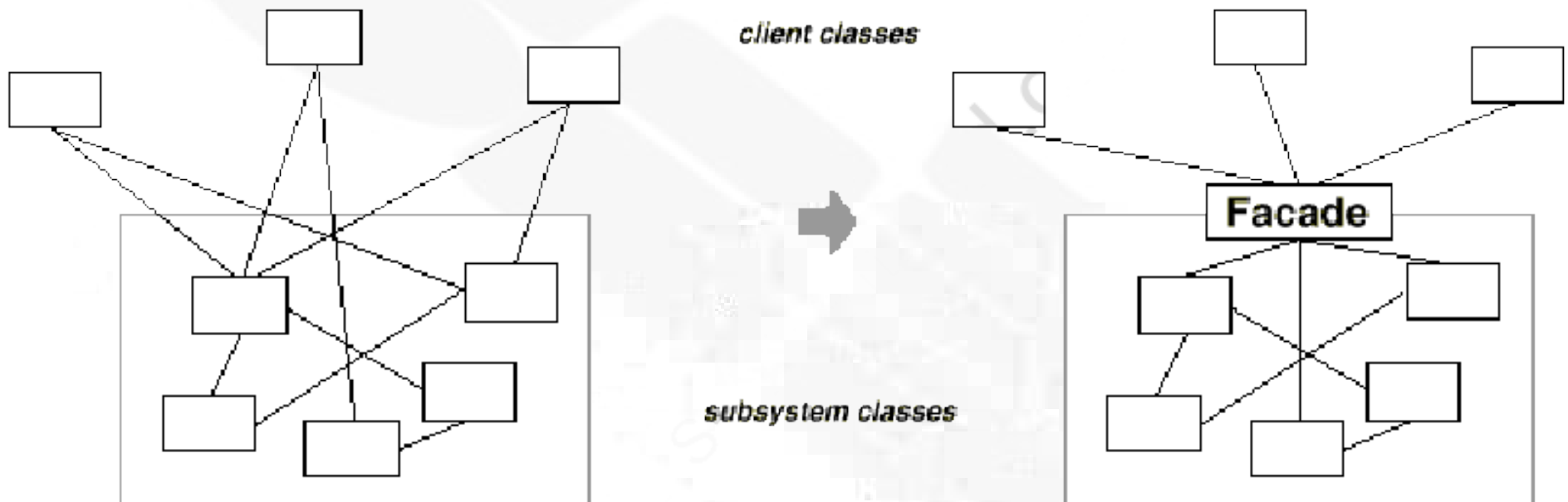


Facade

- [illegible]

Facade

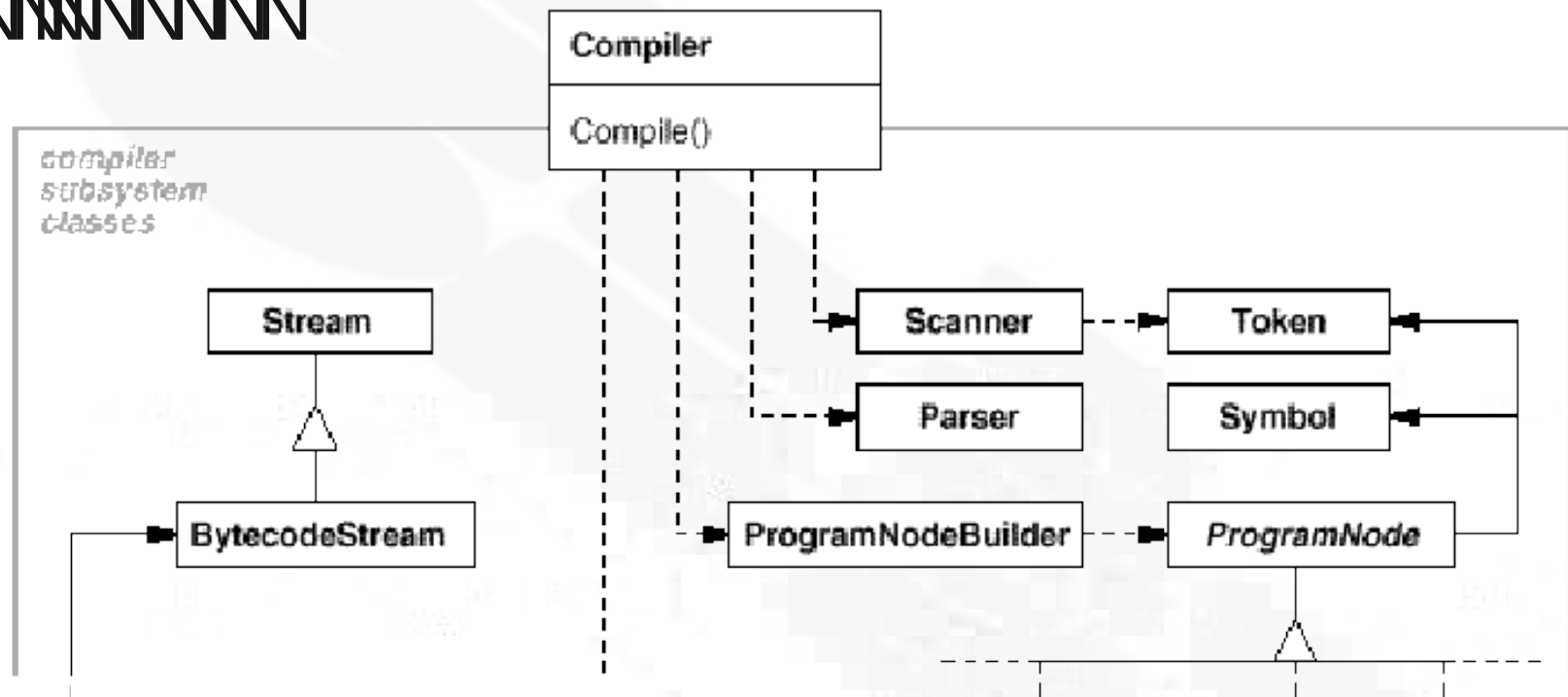
- **N N N N N N N N**



- Scanner
Parser
ProgramNode
-

Facade

■ N N N N N N N N N



Facade

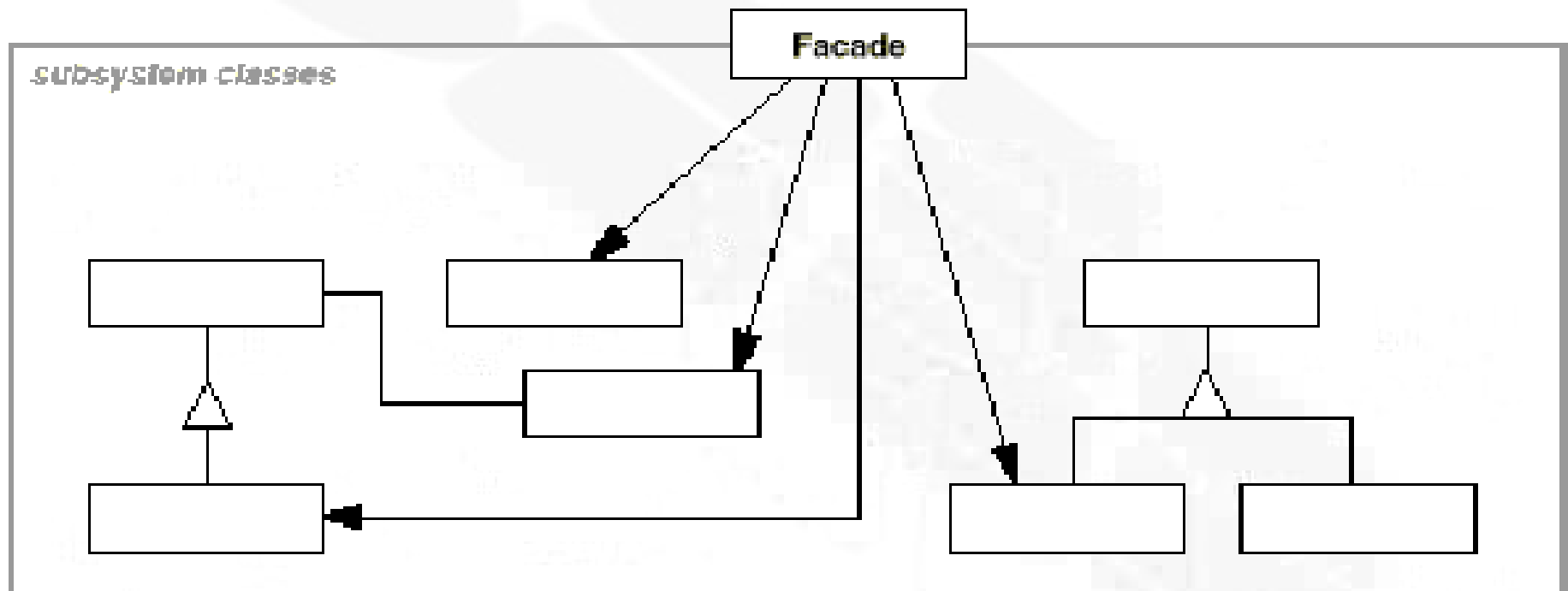
- **Facade**
 - **Facade** is a design pattern that provides a simplified interface to a complex system of classes and objects.
 - **Facade** is used to reduce the complexity of a system by providing a single point of entry for clients.
 - **Facade** is used to decouple the client from the details of the system.
 - **Facade** is used to provide a consistent interface to a system.
 - **Facade** is used to provide a simple interface to a complex system.

Facade

- [illegible]

Facade

- NNNNNNNNNN



Facade

- **Interface**
 - *Facade*
 - **Interface**
 - **Interface**
 - *SubSystem Classes*
 - **Interface**
 - **Interface** *Facade*
 - **Interface** *Facade*

Facade

- [illegible]

Facade

■ **NNNNNNNNNN**

- **Facade**
 - **Facade** is a design pattern that provides a simplified interface to a complex system of classes and objects.
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- **Facade** is a design pattern that provides a simplified interface to a complex system of classes and objects.
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Facade

- Facade
- Facade
 - Facade
 - Facade
- Facade
 - Facade

Facade

■ NNNNNNNNNNNNNNNN

```
class Parser {  
public:  
    Parser();  
    virtual ~Parser();  
  
    virtual void Parse(Scanner&, ProgramNodeBuilder&);  
};
```

```
class Scanner {  
public:  
    Scanner(istream&);  
    virtual ~Scanner();  
  
    virtual Token& Scan();  
private:  
    istream& _inputStream;  
};
```

Facade

■ NNNNNNNNNNNNNNNNN

```
class ProgramNode {
public:
    // program node manipulation
    virtual void GetSourcePosition(int& line, int& index);
    // ...

    // child manipulation
    virtual void Add(ProgramNode*);
    virtual void Remove(ProgramNode*);
    // ...

    virtual void Traverse(CodeGenerator&);
protected:
    ProgramNode();
};
```

Facade

■ NNNNNNNNNNNNNNNNN

```
class Compiler {
public:
    Compiler();

    virtual void Compile(istream&, BytecodeStream&);
};

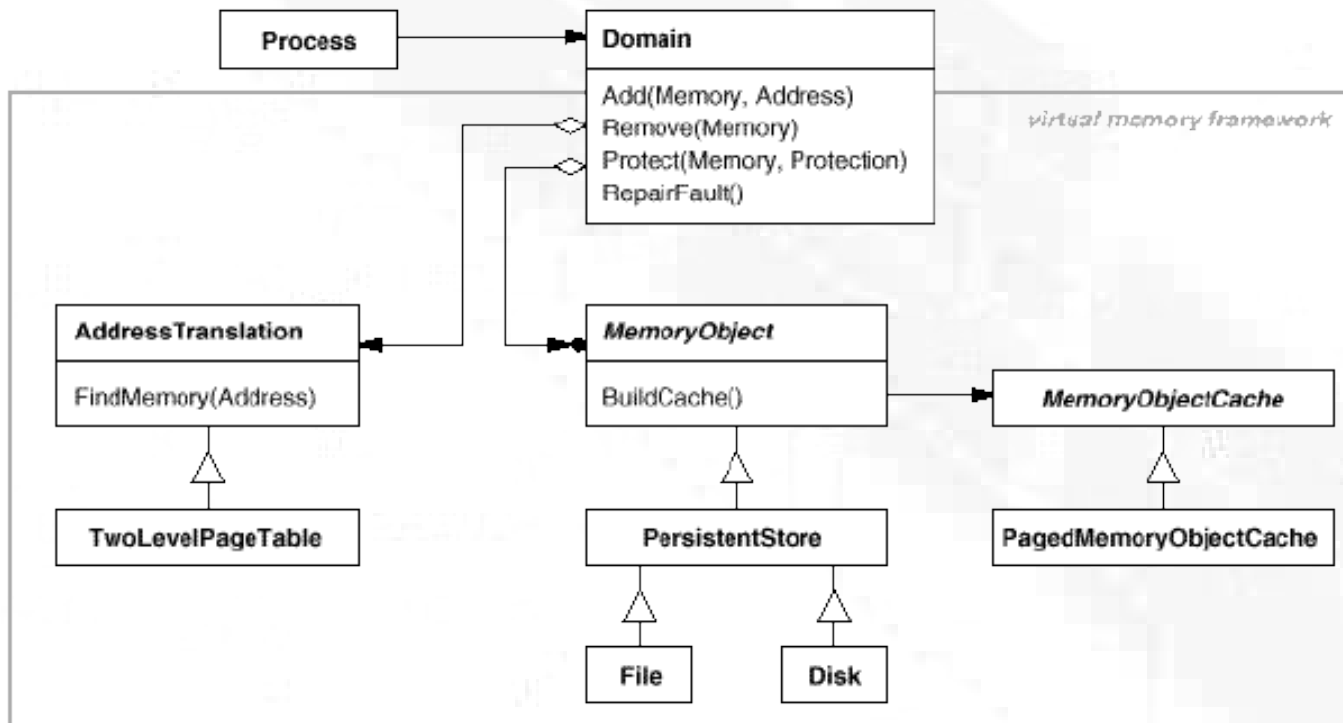
void Compiler::Compile (
    istream& input, BytecodeStream& output
) {
    Scanner scanner(input);
    ProgramNodeBuilder builder;
    Parser parser;

    parser.Parse(scanner, builder);

    RISCCodeGenerator generator(output);
    ProgramNode* parseTree = builder.GetRootNode();
    parseTree->Traverse(generator);
}
```

Facade

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- N N N N
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Facade

- *AbstractFactory*
- *Mediator*
- *Facade*

