

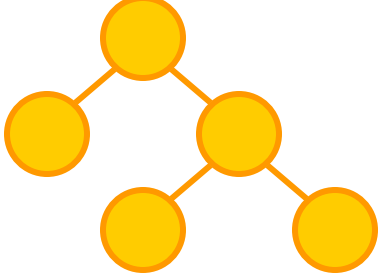
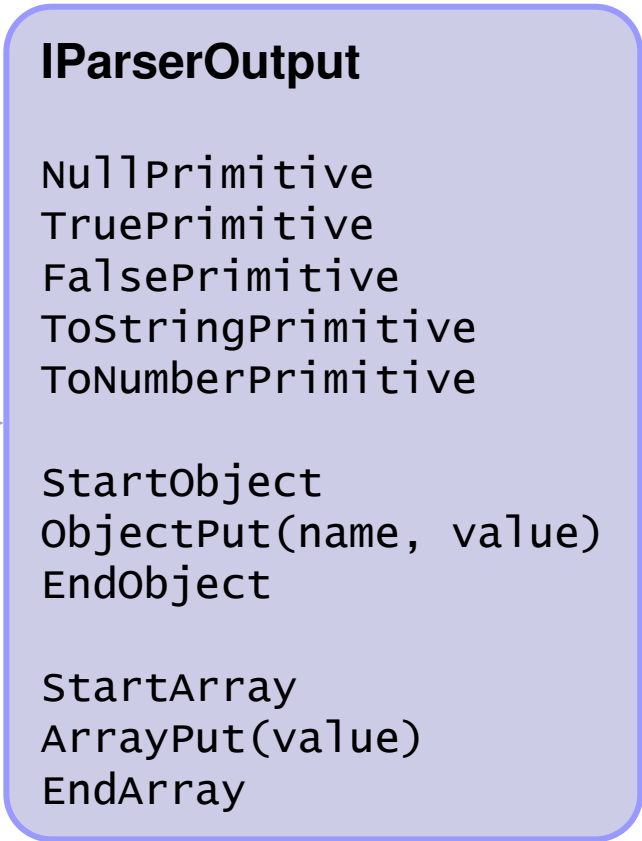
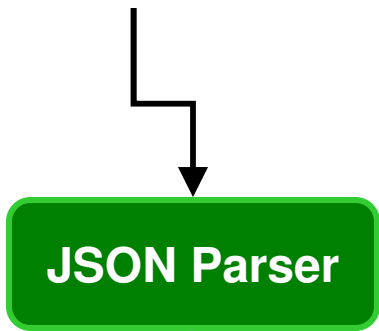


Jayrock

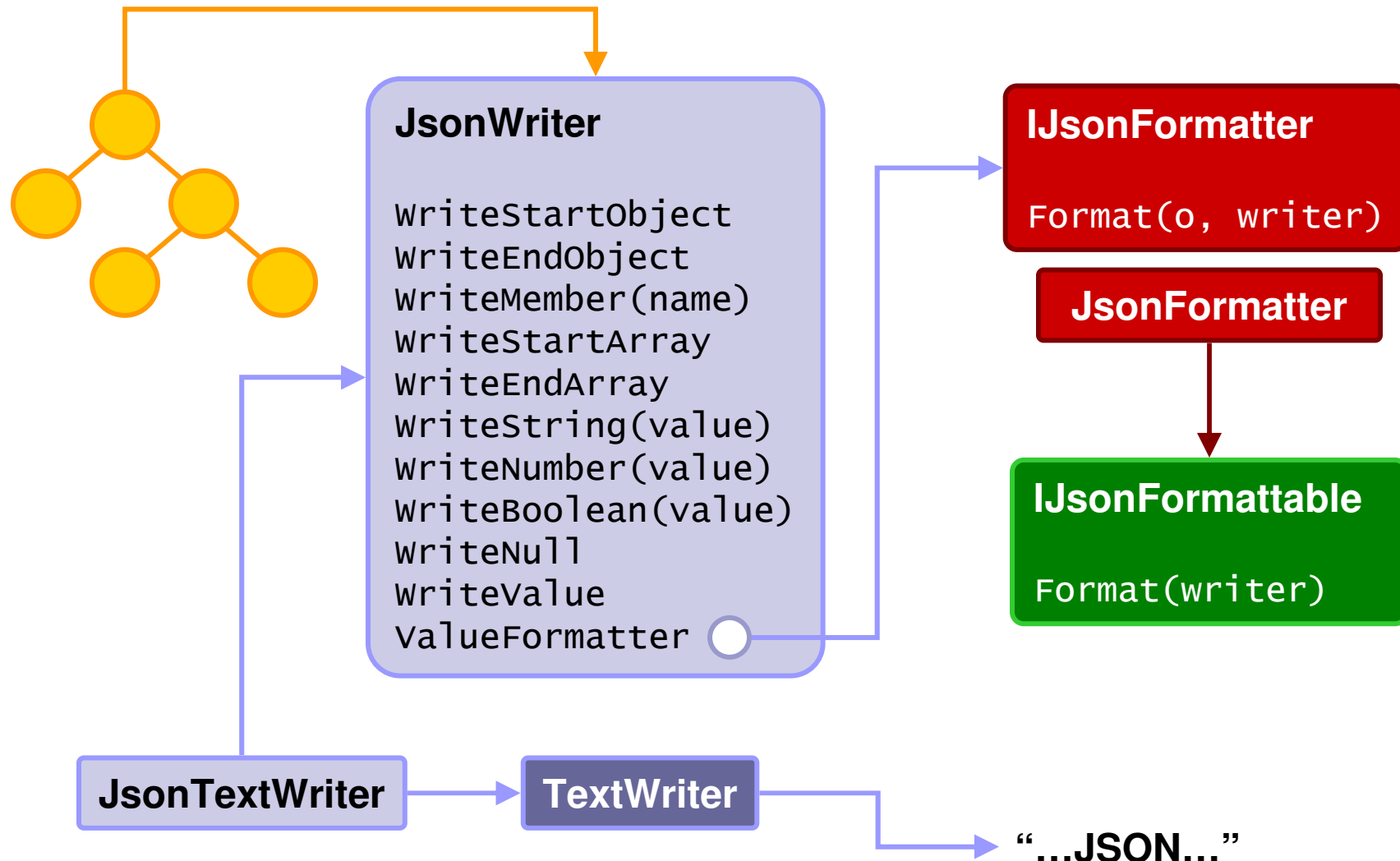
- **JSON and JSON-RPC for ASP.NET**
- **Open Source project, using LGPL**
- **See <http://jayrock.berlios.de>**
- **Goals:**
 - **Collaborative development, open source-style**
 - **Open and pluggable architecture**
 - **Use documented standards!**
 - **Run on Microsoft .NET Framework and Mono**

From JSON to Objects

“...JSON...”



From Objects to JSON





Built-in Formatters

- **DataSetFormatter**
- **DataTableFormatter**
- **DataRowFormatter**
- **DataRowViewFormatter**
- **ComponentFormatter**
 - **Writes properties of an object in JSON**
- **ControlFormatter**
 - **Renders control HTML as JSON string**
- **CompositeFormatter**

Composite Formatter

- Mother of all formatters :-)
- Registry of formatters by type
- Supports lazy registration by base types

```
CompositeFormatter cf = new CompositeFormatter();
```

```
cf.AddFormatter(typeof(DataSet), new DataSetFormatter());  
cf.AddFormatter(typeof(DataTable), new DataTableFormatter());  
cf.AddFormatter(typeof(DataRowView), new DataRowViewFormatter());  
cf.AddFormatter(typeof(DataRow), new DataRowFormatter());  
cf.AddFormatter(typeof(Control), new ControlFormatter(), true);
```

Applies to all subclasses ←



Jayrock's RPC Architecture

■ IRpcService

- **Invoke**(methodName, args)
- **Begin/EndInvoke**
- **GetDescriptor** – optional

■ Reflection

- **IRpcServiceDescriptor**
- **IRpcMethodDescriptor**
- **IRpcParameterDescriptor**
- **IRpcAnnotated** – extensions via attributes

JsonRpcService

- A component implementing **IRpcService**
- Provides reflection services
 - Type reflection → RPC service descriptors
 - e.g., **MethodInfo** → **IRpcMethodDescriptor**

```
public class HelloWorld : JsonRpcService
{
    [ JsonRpcMethod("greetings") ]
    public string Greetings()
    {
        return "welcome to Jayrock!";
    }
}
```



RPC Service Feature

- Feature is an “end-point” service
- Dynamically pluggable service model

```
public interface IRpcServiceFeature
{
    void Initialize(IRpcService service);
    IRpcService TargetService { get; }
}
```

- **Examples**
 - **JsonRpcExecutive**
 - **JsonRpcProxyGenerator**
 - **JsonRpcHelp**
 - **JsonRpcTester**

Jayrock RPC Architecture

