Computer Code Is Brittle And Needs A Document Format

If the programmer accidentally presses a key and adds a stray character to a file of code, the entire software project will break. For programming languages that require a semicolon at the end of each statement, just one omission will prevent the entire project from compiling.

This is brittle software engineering inside our code editors. Why is it like this? A short answer is that the file format for code has never been upgraded beyond plain text, making it difficult for modern code editors to parse the code effectively and quickly.

All code can be parsed from XML provided from a document format and then be rendered in any way desired. Existing code should be translated to an XML file format. It can be processed in terms of modern documents, not plain text files. This should be available so that proper organization of code can take place, among other benefits.

```
<switch expression="x">
    <case value="1">
        ...
    </case>
    <case value="2">
        ...
    </case>
    <default>
        ...
    </default>
</switch>
```

```
<class name="MyClass">
    <constructor access="public">
        <parameter type="int" name="x"/>
        <parameter type="string" name="y"/>
    </constructor>
</class>
```

```
<for loopVariable="i" start="1" end="10" step="1">
...
</for>
```

Many document types are made out of XML, including Microsoft Word documents and Microsoft Excel documents. The document format for many IDEs (e.g. Visual Studio) is already XML-based. Only the computer code itself is left in plain text.