

# Custom String Converter Plug-ins

If the [default string converter plug-in](#) does not satisfy your requirements, you can implement your own solution with help from the `StringConverterPlugin` class:

## C++

```
namespace Ice {
class StringConverterPlugin : public Ice::Plugin {
public:

    StringConverterPlugin(const CommunicatorPtr& communicator,
                        const StringConverterPtr&,
                        const WstringConverterPtr& = 0);

    virtual void initialize();

    virtual void destroy();
};
}
```

The converters are installed by the `StringConverterPlugin` constructor (you can supply an argument of 0 for either converter if you do not wish to install it). The `initialize` and `destroy` methods are empty, but you can subclass `StringConverterPlugin` and override these methods if necessary.

In order to create a string converter plug-in, you must do the following:

- Define and export a [factory function](#) that returns an instance of `StringConverterPlugin`.
- Implement the converter(s) that you will pass to the `StringConverterPlugin` constructor, or use the ones [included with Ice](#).
- Package your code into a shared library or DLL.

To install your plug-in, use a [configuration property](#) like the one shown below:

```
Ice.Plugin.MyConverterPlugin=myconverter:createConverter ...
```

The first component of the property value represents the plug-in's [entry point](#), which includes the abbreviated name of the shared library or DLL (`myconverter`) and the name of a factory function (`createConverter`).

If the configuration file containing this property is shared by programs in multiple implementation languages, you can use an alternate syntax that is loaded only by the Ice for C++ run time:

```
Ice.Plugin.MyConverterPlugin.cpp=myconverter:createConverter ...
```

## See Also

- [The Ice String Converter Plug-in](#)
- [Plug-in API](#)
- [Ice Plug-In Properties](#)