

Connecting Unreal C++ to MongoDB

First create new class within the project's C++ classes

Next create new plugin in project

Call that plugin whatever (MongoDB)

Make sure you have vcpkg installed on system

Create a directory to hold all the packages

Using vcpkg download and install mongo-cxx-driver

Go into the Games folder and expand the Plugins folder

Find the Plugin that you created (MongoDB)

Go into the Source folder

Create new folder (MongoDBSDK)

In that new folder create two folders Binaries and Include

Create a C# file named [folder_name].Build.cs (MongoDBSDK.Build.cs)

Go to the folder you created to hold vcpkg libraries

Go into installed->x64-windows

Depending on your OS the x64-windows may be different

Take everything in the include folder and put it into your the Include folder created within your Unreal project

In the bin folder and lib folder within the installed->x64-windows folder grab the .dll and .lib files and put them into the Binaries folder in your Unreal project

In your editor of choice for Unreal (for me Rider) find the C# file you created (MongoDBSDK.Build.cs)

Create a List<String> of your library names within the class scope (name.dll):

```
private List<string> LibraryNames = new List<string>()
{
    "mongocxx"
    "bsoncxx"
};
```

In your constructor scope (public MongoDBSDK) add the following:

Type = ModuleType.External;

In the PublicIncludePaths.AddRange add the following:

Path.Combine(ModuleDirectory, "Include")

Create a foreach loop to loop through the LibraryNames List:

```
foreach (string libName in LibrayNames)
{
```

```
    string LibraryPath = Path.Combine(ModuleDirectory, "Binaries");
```

```
    PublicAdditionalLibraries.Add(Path.Combine(LibraryPath, libname
```

```
    + ".lib"));
```

```
    RuntimeDependencies.Add($"{BinaryOutputDir}/" + libName +
```

```
    ".dll", Path.Combine(LibraryPath, libName + ".dll"));
```

--Make sure you go into the uplugin file and delete "MongoDBSDK" within the "Modules" : []

Next, in your Games folder in the Unreal project, go to your project folder and find the `ProjectName.Build.cs` file

In that file find the line that says `PublicDependencyModuleNames.AddRange()` and add the name of the build file you were just working in ("MongoDBSDK")

Finally close your unreal project and build Unreal project from the IDE