```
std::enable_shared
_from_this< GUII >
```

```
GUII
```

+ virtual std::unique
  _ptr< CommandI > Update
  (std::shared_ptr< CommandFactory
  I > command_factory)=0
+ virtual bool ShouldClose()=0
+ virtual void OpenChoiceDialog
  (DialogMessage dialogMessage,
   std::vector< std::pair< std
  ::string, bool > > &choices)=0
+ virtual void SetPreventInput
  Flag(bool set)=0
+ virtual std::unique
  _lock< std::mutex >
  LockMutex()=0
virtual void Initialize
  (const std::string &windowName,
   std::shared_ptr< SDFormatParserI
   > sdformat_parser, bool &success)=0

```
GUI
```

- std::shared_ptr< Command
  Factory > command_factory
- std::atomic< bool >
  prevent_input_flag
- GLFWwindow * window
- ImGuiIO * io
- std::shared_ptr< SDFormat
  ParserI > sdformat_parser
- sdf::ElementPtr element
  _to_append_to
- ImVec4 background_colour
- std::mutex gui_mutex
- sdf::ParamPtr attribute
  _to_edit
- sdf::ElementPtr element
  _to_edit

+ GUI(const std::string
  &window_name, std::shared
  _ptr< SDFormatParserI > sdformat
  _parser, bool &success)
+ ~GUI()
+ void OpenChoiceDialog
  (DialogMessage dialogMessage,
   std::vector< std::pair< std
  ::string, bool > > &choices)
  override
- void Initialize(const
  std::string &window
  _name, std::shared_ptr
  < SDFormatParserI > sdformat
  _parser, bool &success) override
- bool ShouldClose()
  override
- std::unique_ptr< Command
  I > Update(std::shared
  _ptr< CommandFactoryI >
  command_factory) override
- void SetPreventInputFlag
  (bool set) override
- void DisplaySDFRootElement
  (std::unique_ptr< CommandI
   > &command, std::shared_ptr
  < SDFormatParserI > sdformat
  _parser, std::shared_ptr< CommandFactory
  I > command_factory)
- bool SetupNewFrame()
- void DrawCoreFrame
  (std::unique_ptr< CommandI
   > &command, std::shared
  _ptr< CommandFactoryI > command
  _factory)
- void CreateAppendElement
  Dropdown(sdf::ElementPtr
   element, std::unique_ptr
  < CommandI > &command, std
  ::shared_ptr< CommandFactoryI
   > command_factory, int &unique_id)
- void CreateDropdown
  (const std::vector<
   std::string > &items,
   const std::vector< std
  ::string > &item_descriptions,
   int &selected_item, int &unique_id)
- std::unique_lock< std
  ::mutex > LockMutex()
  override
- static void GLFWErrorCallback
  (int error, const char *description)