```
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< SDFormatParserl
    > sdformat_parser, bool &success)=0
```

GUI

- std::shared_ptr< Command Factory > command_factory std::atomic< bool >
- prevent_input_flag GLFWwindow * window
- ImGuilO * io
- std::shared_ptr< SDFormat Parserl > sdformat_parser
- _to_append_to ImVec4 background_colour

sdf::ElementPtr element

- std::mutex gui_mutex
- bool use_dropdown_for
- _editing_attribute
- sdf::ParamPtr attribute _to_edit
- sdf::ElementPtr element _to_edit
- bool use_dropdown_for _editing_element
- + GUI(const std::string
- &window_name, std::shared
- _ptr< SDFormatParserl > 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 < SDFormatParserl > sdformat _parser, bool &success) override
- bool ShouldClose()
- override
- std::unique_ptr< Command I > Update(std::shared
- command_factory) override
- void SetPreventInputFlag (bool set) override

_ptr< CommandFactoryI >

- void DisplaySDFRootElement
- (std::unique_ptr< CommandI
- > &command, std::shared_ptr < SDFormatParserl > sdformat
- parser, std::shared_ptr< CommandFactory
- I > command_factory) bool SetupNewFrame()
- void DrawCoreFrame
- (std::unique_ptr< Commandl > &command, std::shared
- _ptr< CommandFactoryI > command
- _factory)
- void CreateModifyAttribute
- Dropdown(sdf::ParamPtr attribute, std::unique
- _ptr< Commandl > &command,
- std::shared_ptr< CommandFactoryI > command_factory, int &unique_id)
- void CreateModifyElement Dropdown(sdf::ElementPtr
- element, std::unique_ptr < Commandl > &command, std ::shared_ptr< CommandFactoryl
- command_factory, int &unique_id)
 - void CreateAppendElement Dropdown(sdf::ElementPtr element, std::unique_ptr
 - < Commandl > &command, std ::shared_ptr< CommandFactorvI
 - > command_factory, int &unique_id)
 - void CreateDropdown (const std::vector<
- const std::vector< std ::string > &item_descriptions,

std::string > &items,

::mutex > LockMutex()

- int &selected_item, int &unique_id)
 - std::unique_lock< std
- override
- static void GLFWErrorCallback (int error, const char *description)