## pointer:0x7f7d70280010 SgSourceFile

## root node

```
SgNode* p_parent: 0x12f3300
bool p isModified: 0
bool p_containsTransformation: 0
Sq File Info* p startOfConstruct: 0x7f7d70433068
SgStringList p_originalCommandLineArgumentList : [pdfGenerator, -c, variableDeclaration.c]
int p_verbose: 0
bool p_output_warnings: 0
bool p_C_only: 1
bool p_UPC_only: 0
bool p_UPCxx_only: 0
int p_upc_threads: 0
bool p C89 only: 0
bool p_C89_gnu_only: 0
bool p_C99_only: 1
bool p_C99_gnu_only: 1
bool p_Cxx_only: 0
bool p_C11_only: 0
bool p_C11_gnu_only: 0
bool p_Cxx0x_only: 0
bool p_Cxx11_only: 0
bool p_Cxx11_gnu_only: 0
bool p_C14_only: 0
bool p_C14_gnu_only: 0
bool p_Cxx14_only: 0
bool p_Cxx14_gnu_only: 0
bool p_Fortran_only: 0
bool p_F77_only: 0
bool p_F90_only: 0
bool p_F95_only: 0
bool p_F2003_only: 0
bool p_F2008_only: 0
bool p_CoArrayFortran_only: 0
bool p_Java_only: 0
bool p_X10_only: 0
bool p_PHP_only: 0
bool p_Python_only: 0
bool p_Cuda_only: 0
bool p_OpenCL_only: 0
bool p_requires_C_preprocessor: 0
bool p_binary_only: 0
SgFile::outputFormatOption enum p inputFormat: 2
SgFile::outputFormatOption_enum p_outputFormat : 2
SgFile::outputFormatOption_enum p_backendCompileFormat : 2
bool p_fortran_implicit_none: 0
bool p_openmp: 0
bool p openmp parse only: 1
bool p_openmp_ast_only: 0
bool p_openmp_lowering: 0
bool p_cray_pointer_support: 0
bool p_failsafe: 0
bool p output parser actions: 0
bool p_exit_after_parser : 0
bool p_skip_syntax_check: 0
bool p_relax_syntax_check : 0
bool p_skip_translation_from_edg_ast_to_rose_ast : 0
bool p_skip_transformation: 0
bool p_skip_unparse: 0
bool p_skipfinalCompileStep: 0
bool p_unparse_includes: 0
bool p_unparse_line_directives: 0
bool p_unparse_function_calls_using_operator_syntax: 0
```

pointer:0x7f7d703ae120 SgGlobal /home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 0:0 IsTransformation:0 IsOutputInCodeGeneration:0

```
SgNode* p_parent : 0x7f7d70280010
bool p_isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d704330c0
Sg_File_Info* p_endOfConstruct : 0x7f7d70433118
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: -1
SgSymbolTable* p_symbol_table: 0x7f7d70363140
SgTypeTable* p_type_table: 0x132dd48
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgDeclarationStatementPtrList p_declarations : <too long>: <too long>: [0x7f7d700d5010, 0x7f7d6fbcf010, 0x7f7d6fbcf3e0, 0x7f7d6fbcf7k
```

```
IsTransformation:0
IsOutputInCodeGeneration:0
Declaration mangled name: foo___Fb_i_Gb___Fe___L1R
  Click here to go to the parent node
SqNode* p parent: 0x7f7d703ae120
bool p isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d6f0cdd28
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0cdcd0
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value : -1
unsigned int p_decl_attributes: 0
std::string p_linkage:
SqDeclarationModifier p_declarationModifier : <too long>: <too long>: SqDeclarationModifier(isUnknown() = false isDefault() = false isFrie
bool p_nameOnly: 0
bool p_forward: 0
bool p_externBrace: 0
bool p_skipElaborateType: 0
SgDeclarationStatement* p_definingDeclaration: 0x7f7d6f3a9d90
SgDeclarationStatement* p_firstNondefiningDeclaration: 0x7f7d6f3a99c0
SgQualifiedNamePtrList p_qualifiedNameList : []
std::string p_binding_label:
SgName p_name: foo
SgFunctionParameterList* p_parameterList: 0x7f7d6f52d990
SgFunctionModifier p_functionModifier : <too long>: <too long>: SgFunctionModifier(isUnknown() = false isDefault() = true isInline()
SgSpecialFunctionModifier p_specialFunctionModifier: <too long>: <too long>: SgSpecialFunctionModifier(isUnknown() = false isDefault()
SgTypePtrList p_exceptionSpecification : []
bool p_named_in_end_statement: 0
std::string p_asm_name :
SgExprListExp* p_decoratorList : 0
SgFunctionType* p_type: 0x7f7d6fdaea40
SgFunctionDefinition* p_definition: 0x7f7d6ef55010
bool p oldStyleDefinition: 1
SgScopeStatement* p_scope : 0x7f7d703ae120
SgDeclarationStatement::template_specialization_enum p_specialization: 1
bool p_requiresNameQualificationOnReturnType: 0
std::string p_gnu_extension_section:
std::string p gnu extension alias:
SgDeclarationStatement::gnu_extension_visability_attribute_enum p_gnu_extension_visability: 1
int p_name_qualification_length : 0
bool p_type_elaboration_required: 0
bool p_global_qualification_required: 0
int p name qualification length for return type: 0
bool p_type_elaboration_required_for_return_type: 0
bool p_global_qualification_required_for_return_type: 0
bool p_prototypeIsWithoutParameters: 0
int p_gnu_regparm_attribute: -1
SgFunctionType* p type syntax: 0
bool p_type_syntax_is_available: 0
bool p_using_C11_Noreturn_keyword: 0
bool p_is_constexpr: 0
bool p_using_new_function_return_type_syntax: 0
SgFunctionParameterScope* p_functionParameterScope: 0
bool p_marked_as_edg_normalization: 0
```

pointer:0x7f7d6f3a9d90 SgFunctionDeclaration

/home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 1:1

pointer:0x7f7d6f52d990 SgFunctionParameterList /home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 1:1 IsTransformation:0 IsOutputInCodeGeneration:0 Declaration mangled name: L1R

## Click here to go to the parent node

SgInitializedNamePtrList p\_args: []

```
SgNode* p_parent : 0x7f7d6f3a9d90
bool p_isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d6f0ce040
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0ce098
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: -1
unsigned int p_decl_attributes: 0
std::string p_linkage:
SgDeclarationModifier p_declarationModifier: <too long>: <too long>: SgDeclarationModifier(isUnknown() = false isDefault() = true isFrien
bool p_nameOnly: 0
bool p_forward: 0
bool p_externBrace: 0
bool p_skipElaborateType: 0
SgDeclarationStatement* p_definingDeclaration : 0
SgDeclarationStatement* p_firstNondefiningDeclaration : 0x7f7d6f52d990
SgQualifiedNamePtrList p_qualifiedNameList : []
std::string p_binding_label :
```

pointer:0x7f7d6ef55010
SgFunctionDefinition
/home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 2:1
IsTransformation:0
IsOutputInCodeGeneration:0

```
SgNode* p_parent : 0x7f7d6f3a9d90
bool p isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d6f0cdee0
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0cdf38
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: -1
SgSymbolTable* p_symbol_table: 0x7f7d703634d0
SgTypeTable* p_type_table : 0x132ddc0
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgBasicBlock* p_body: 0x7f7d6efea010
std::map<SgNode*,int> p_scope_number_list : []
```

pointer:0x7f7d6efea010
SgBasicBlock
/home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 2:1
IsTransformation:0
IsOutputInCodeGeneration:0

```
SgNode* p_parent : 0x7f7d6ef55010
bool p isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d6f0cde30
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0cde88
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: -1
SgSymbolTable* p_symbol_table: 0x7f7d703633a0
SgTypeTable* p_type_table: 0x132dd98
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgStatementPtrList p_statements : [0x7f7d6ee14010]
std::string p_asm_function_body :
```

```
Click here to go to the parent node
SqNode* p parent: 0x7f7d6efea010
bool p isModified: 0
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f7d6f0ce250
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0ce2a8
AttachedPreprocessingInfoType* p attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value : -1
unsigned int p decl attributes: 0
std::string p_linkage:
SqDeclarationModifier p_declarationModifier : <too long>: <too long>: SqDeclarationModifier(isUnknown() = false isDefault() = false isFrie
bool p_nameOnly: 1
bool p_forward: 0
bool p_externBrace: 0
bool p_skipElaborateType: 0
SgDeclarationStatement* p definingDeclaration: 0
SgDeclarationStatement* p_firstNondefiningDeclaration: 0x7f7d6ee14010
SgQualifiedNamePtrList p qualifiedNameList: []
std::string p binding label:
SgDeclarationStatement* p_baseTypeDefiningDeclaration: 0
SgInitializedNamePtrList p_variables : [0x7f7d6f117dd8]
bool p_variableDeclarationContainsBaseTypeDefiningDeclaration: 0
SgDeclarationStatement::template_specialization_enum p_specialization: 1
bool p requiresGlobalNameQualificationOnType: 0
std::string p_gnu_extension_section:
std::string p_gnu_extension_alias :
unsigned short p gnu extension initialization priority: 0
SgDeclarationStatement::gnu_extension_visability_attribute_enum p_gnu_extension_visability: 0
SgVariableDeclaration::gnu_extension_declaration_attributes_enum p_gnu_extension_declaration_attribute: 0
int p name qualification length: 0
bool p_type_elaboration_required: 0
bool p_global_qualification_required: 0
bool p_isAssociatedWithDeclarationList: 0
bool p_isFirstDeclarationOfDeclarationList: 1
bool p is thread local: 0
bool p_is_constexpr: 0
```

Declaration mangled name: \_variable\_declaration\_\_variable\_type\_i\_variable\_name\_foo\_\_\_Fb\_i\_Gb\_\_\_Fe\_\_L1R\_\_scope\_

SgSS2

pointer:0x7f7d6ee14010 SgVariableDeclaration

IsOutputInCodeGeneration:0

IsTransformation:0

/home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 3:2

```
pointer:0x7f7d6f117dd8
SgInitializedName
/home/liao6/workspace/github/rose-ast.git/variableDeclaration.c 3:2
IsTransformation:0
IsOutputInCodeGeneration:0
```

```
SgNode* p parent: 0x7f7d6ee14010
bool p isModified: 0
bool p containsTransformation: 0
Sg File Info* p startOfConstruct: 0x7f7d6f0ce1f8
Sg_File_Info* p_endOfConstruct : 0x7f7d6f0ce1a0
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr : 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SqName p name: v
std::string p_microsoft_uuid_string :
SgType* p_typeptr : 0x7f7d6f9d5010
SgInitializer* p initptr: 0
SgInitializedName* p_prev_decl_item: 0
bool p is initializer: 1
SgDeclarationStatement* p_declptr : 0x7f7d6ecf6010
SgStorageModifier* p_storageModifier : 0x1d80ba8
SgScopeStatement* p_scope : 0x7f7d6efea010
SgInitializedName::preinitialization_enum p_preinitialization: 0
bool p isCoArray: 0
SqInitializedName::asm register name enum p register name code: 0
SgInitializedName::excess specifier enum p excess specifier: 0
std::string p register name string:
bool p_requiresGlobalNameQualificationOnType : 0
bool p_shapeDeferred: 0
bool p initializationDeferred: 0
unsigned long int p_gnu_attribute_initialization_priority: 0
std::string p gnu attribute named weak reference:
std::string p_gnu_attribute_named_alias :
std::string p_gnu_attribute_cleanup_function :
std::string p_gnu_attribute_section_name :
int p_gnu_attribute_alignment : -1
SqDeclarationModifier::gnu declaration visability enum p gnu attribute visability: 2
bool p_protected_declaration: 0
int p_name_qualification_length_for_type: 0
bool p_type_elaboration_required_for_type: 0
bool p_global_qualification_required_for_type: 0
bool p_hasArrayTypeWithEmptyBracketSyntax: 0
bool p_using_C11_Alignas_keyword: 0
SgNode* p_constant_or_type_argument_for_Alignas_keyword: 0
bool p using auto keyword: 0
bool p_using_device_keyword: 0
bool p is braced initialized: 0
```