```
pointer:0x7f9703f5d010
SgSourceFile
```

```
root node
```

```
SgNode* p_parent: 0xb8d080
bool p isModified: 1
bool p containsTransformation: 0
Sq File Info* p startOfConstruct: 0x7f970fa1c080
SgStringList p_originalCommandLineArgumentList: [pdfGenerator, -c, constant_declaration.ads]
int p_verbose: 0
bool p_output_warnings: 0
bool p_C_only: 0
bool p_Cxx_only: 0
bool p Fortran only: 0
bool p_CoArrayFortran_only: 0
int p upc threads: 0
bool p_Java_only: 0
bool p_Jovial_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_Csharp_only: 0
bool p_Ada_only: 1
bool p Cobol 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_openacc: 0
bool p_openacc_parse_only: 0
bool p_openacc_ast_only: 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 skip parser: 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
bool p_unparse_function_calls_using_operator_names: 0
bool p unparse instruction addresses: 1
bool p_unparse_raw_memory_contents: 1
bool p unparse binary file format: 1
SgFile::languageOption enum p outputLanguage: 12
SgFile::languageOption_enum p_inputLanguage: 12
std::string p_sourceFileNameWithPath:/home/liao6/workspace/ada-to-cpp-FY21/rose-ast/ada/constant_declaration.ads
std::string p_sourceFileNameWithoutPath : constant_declaration.ads
std::string p_unparse_output_filename :
std::string p_objectFileNameWithPath:
std::string p_objectFileNameWithoutPath:
bool p useBackendOnly: 0
```

pointer:0x7f970f993128 SgGlobal /home/liao6/workspace/ada-to-cpp-FY21/rose-ast/ada/constant_declaration.ads 0:0 IsTransformation:0 IsOutputInCodeGeneration:0

```
SgNode* p_parent : 0x7f9703f5d010
bool p_isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f970fa1c0f0
Sg_File_Info* p_endOfConstruct : 0x7f970fa1c160
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 0
SgSymbolTable* p_symbol_table: 0x7f970f93d170
SgTypeTable* p_type_table: 0xbc7b08
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgPragma* p_pragma: 0
SgDeclarationStatementPtrList p_declarations : [0x7f97039b9010]
```

pointer:0x7f97039b9010
SgAdaPackageSpecDecl
Constant_Declaration.ads 1:1
IsTransformation:0
IsOutputInCodeGeneration:1

Declaration mangled name: ada\$pkg\$Constant_Declaration

SgAdaPackageSpec* p_definition : 0x7f9703ed0130 SgScopeStatement* p_scope : 0x7f970f993128

```
SgNode* p_parent : 0x7f970f993128
bool p_isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f970fa1c860
Sg_File_Info* p_endOfConstruct : 0x7f970fa1c8d0
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: 0x7f97039b9010
SgQualifiedNamePtrList p_qualifiedNameList : []
std::string p_binding_label :
SgDeclarationScope* p_declarationScope : 0
SgName p_name : Constant_Declaration
```

pointer:0x7f9703ed0130 SgAdaPackageSpec transformation 0:0 IsTransformation:1 IsOutputInCodeGeneration:1

```
SgNode* p_parent : 0x7f97039b9010
bool p isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f970fa1c5c0
Sg_File_Info* p_endOfConstruct : 0x7f970fa1c630
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 2
SgSymbolTable* p_symbol_table: 0x7f970f93d4e0
SgTypeTable* p_type_table: 0xbc7b80
std::set<SgSymbol*> p_type_elaboration_list : []
std::set<SgSymbol*> p_hidden_type_list : []
std::set<SgSymbol*> p_hidden_declaration_list : []
SgPragma* p_pragma: 0
SgAdaPackageBody* p_body: 0
SgDeclarationStatementPtrList p_declarations : [0x7f970358c010]
```

```
IsOutputInCodeGeneration:1
Declaration mangled name: ada$pkg$spec_variable_declaration__variable_type_Ci_variable_name_Constant_Declaration__scope__The
  Click here to go to the parent node
SqNode* p parent: 0x7f9703ed0130
bool p isModified: 1
bool p_containsTransformation: 0
Sg_File_Info* p_startOfConstruct : 0x7f970fa1d820
Sg_File_Info* p_endOfConstruct : 0x7f970fa1d890
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SgLabelRefExp* p_numeric_label: 0
int p_source_sequence_value: 3
unsigned int p decl attributes: 0
std::string p_linkage:
SqDeclarationModifier p_declarationModifier : <too long>: <too long>: SqDeclarationModifier(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: 0x7f970358c010
SgQualifiedNamePtrList p qualifiedNameList : []
std::string p binding label:
SgDeclarationScope* p_declarationScope: 0
SgDeclarationStatement* p_baseTypeDefiningDeclaration: 0
SgInitializedNamePtrList p_variables : [0x7f9703742010]
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: 1
SgVariableDeclaration::gnu_extension_declaration_attributes_enum p_gnu_extension_declaration_attribute: 1
int p_name_qualification_length: 0
bool p_type_elaboration_required: 0
bool p_global_qualification_required: 0
```

pointer:0x7f970358c010 SgVariableDeclaration transformation 0:0 IsTransformation:1

bool p_isAssociatedWithDeclarationList: 0 bool p_isFirstDeclarationOfDeclarationList: 1

bool p_is_thread_local : 0
bool p_is_constexpr : 0
bool p_builtFromUseOnly : 0

```
pointer:0x7f9703742010
SgInitializedName
transformation 0:0
IsTransformation:1
IsOutputInCodeGeneration:1
```

```
SgNode* p parent : 0x7f970358c010
bool p isModified: 0
bool p containsTransformation: 0
Sg File Info* p startOfConstruct: 0x7f970fa1d660
Sg_File_Info* p_endOfConstruct : 0x7f970fa1d6d0
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr : 0
AstAttributeMechanism* p attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
SqName p name: The_Constant
std::string p_microsoft_uuid_string:
SgType* p_typeptr : 0x7f97038b2010
SgInitializer* p initptr: 0x7f9703840010
SgInitializedName* p_prev_decl_item: 0
bool p is initializer: 1
SgDeclarationStatement* p_declptr: 0
SgStorageModifier* p_storageModifier: 0xcb48e0
SgScopeStatement* p_scope : 0x7f9703ed0130
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: 0
bool p_protected_declaration: 0
int p_name_qualification_length: 0
bool p_type_elaboration_required: 0
bool p_global_qualification_required: 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
SqNode* p constant or type argument for Alignas keyword: 0
bool p_using_auto_keyword: 0
SgType * p_auto_decltype : 0
bool p using device keyword: 0
bool p_is_braced_initialized: 0
bool p using assignment copy constructor syntax: 0
bool p needs definitions: 0
bool p is parameter pack: 0
bool p is pack element: 0
```

pointer:0x7f9703840010 SgAssignInitializer transformation 0:0 IsTransformation:1 IsOutputInCodeGeneration:1 Expression type: int

SgType* p_expression_type: 0

```
SgNode* p_parent : 0x7f9703742010
bool p_isModified: 0
bool p_containsTransformation: 0
$CLASSNAME* p_freepointer : 0xfffffffffffff
Sg_File_Info* p_startOfConstruct : 0x7f970fa1d3c0
Sg_File_Info* p_endOfConstruct : 0x7f970fa1d430
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p containsTransformationToSurroundingWhitespace: 0
bool p_need_paren: 0
bool p_lvalue: 0
bool p_global_qualified_name: 0
Sg_File_Info* p_operatorPosition: 0x7f970fa1d350
bool p_is_explicit_cast: 1
bool p_is_braced_initialized: 0
SgExpression* p_operand_i : 0x7f9703873090
```

pointer:0x7f9703873090 SgIntVal transformation 0:0 IsTransformation:1 IsOutputInCodeGeneration:1 Expression type: int

```
SgNode* p_parent : 0x7f9703840010
bool p_isModified: 0
bool p_containsTransformation: 0
$CLASSNAME* p_freepointer : 0xfffffffffffff
Sg_File_Info* p_startOfConstruct : 0x7f970fa1d200
Sg_File_Info* p_endOfConstruct : 0x7f970fa1d270
AttachedPreprocessingInfoType* p_attachedPreprocessingInfoPtr: 0
AstAttributeMechanism* p_attributeMechanism: 0
bool p_containsTransformationToSurroundingWhitespace: 0
bool p_need_paren: 0
bool p_lvalue: 0
bool p_global_qualified_name: 0
Sg_File_Info* p_operatorPosition : 0x7f970fa1d2e0
SgExpression* p_originalExpressionTree : 0
int p_value: 1
std::string p_valueString: 1
```