

<Structure> --> static class ID <Inherit> { <S_Cst>
 --> condensed class ID <Inherit> { <C_Cst>
 --> <Concrete'> class ID <Inherit> { <G_Cst>
 --> symbol ID { <Int_St> } <Structure>
 <EOF> --> ~
 <S_Cst> --> } <Structure>
 --> function <PubPriv'> static <Function_Sig> <S_Cst>
 --> private static <Class_Vars> <S_Cst>
 --> <Public'> static <S_Cst'>
 <S_Cst'> --> DT <S_CstDT>
 --> ID <S_CstID>
 --> dict <Multi_Arr> <S_Cst>
 --> void Main <S_Main>
 <S_CstDT> --> ID <Declare'> <S_Cst>
 --> [] <S_CstDT'>
 --> Main <S_Main>
 <S_CstDT'> --> ID <G_Arr'> <S_Cst>
 --> Main <S_Main>
 <S_CstID> --> ID <Object'> <S_Cst>
 --> [] <S_CstID'>
 --> Main <S_Main>
 --> () <Body_MST> <S_Cst>
 <S_CstID'> --> ID <O_Arr'> <S_Cst>
 --> Main <S_Main>

<S_Main> --> (<PL>) <BodyMST> <S_CstNM>
 <S_CstNM> --> } <Main_Done>
 --> function <PubPriv'> static <Function_Sig> <S_CstNM>
 --> private static <Class_Vars> <S_CstNM>
 --> <Public'> static <ConsVar> <S_CstNM>
 <ConsVar> --> DT <N_Dec>
 --> ID <ConsVar'>
 --> dict <Multi_Arr>
 <ConsVar'> --> (<AL>) <Body_MST>
 --> ID <Object'>
 --> [] <O_Arr'>
 <C_Cst> --> } <Structure>
 --> <PrivPres> <SC> <Class_Vars> <C_Cst>
 --> function <AM> <Types> <C_Cst>
 --> <Class_Vars> <C_Cst>
 --> <Public'> <C_Cst'>
 <C_Cst'> --> static <C_Cst''>
 --> concrete <Class_Vars> <C_Cst>
 <C_Cst''> --> DT <C_CstDT>
 --> ID <C_CstID>
 --> dict <Multi_Arr> <S_Cst>
 --> void Main <GC_Main>
 <C_CstDT> --> ID <Declare'> <C_Cst>
 --> [] <C_CstDT'>

--> Main <GC_Main>
 <C_CstDT'> --> ID <G_Arr'> <C_Cst>
 --> Main <GC_Main>
 <C_CstID> --> ID <Object'> <C_Cst>
 --> [] <C_CstID'>
 --> Main <GC_Main>
 --> (<AL>) <Body_MST> <C_Cst>
 <C_CstID'> --> ID <O_Arr'> <C_Cst>
 --> Main <GC_Main>
 <GC_Main> --> (<AL>) <BodyMST> <GC_Nst>
 <GC_Nst> --> } <Main_Done>
 --> function <AM> <Types> <GC_Nst>
 --> <PresPriv> <SC> <Class_Vars> <GC_Nst>
 --> <Public'> <GC_ConsVar> <GC_Nst>
 <GC_ConsVar> --> concrete <Class_Vars>
 --> <Static'> <ConsVar>
 <G_Cst> --> } <Structure>
 --> <PrivPres> <SC> <Class_Vars> <G_Cst>
 --> function <AM> <Types> <G_Cst>
 --> <Public'> <G_Cst'>
 <G_Cst'> --> concrete <Class_Vars> <G_Cst>
 --> <Static'> <G_Cst''>
 <G_Cst''> --> DT <G_StDT>
 --> ID <G_StID>

--> dict <Multi_Arr> <S_Cst>
 --> void Main <GC_Main>
 <G_CstDT> --> ID <Declare'> <G_Cst>
 --> [] <G_CstDT'>
 --> Main <GC_Main>
 <G_CstDT'> --> ID <G_Arr'> <G_Cst>
 --> Main <GC_Main>
 <G_CstID> --> ID <Object'> <G_Cst>
 --> [] <G_CstID'>
 --> Main <GC_Main>
 --> (<AL>) <Body_MST> <G_Cst>
 <G_CstID'> --> ID <O_Arr'> <G_Cst>
 --> Main <GC_Main>
 <Main_Done> --> \$
 --> static class ID <Inherit> { <S_CstNM>
 --> <ConcCond'> class ID <Inherit> { <GC_Nst>
 --> symbol ID { <Int_St> } <Main_Done>
 <AssignOp> --> =
 --> CompAssign
 <Ref> --> . ID <Ref>
 --> [<Exp>] <Ref>
 --> (<PL>) . ID <Ref>
 --> \$

<SST>	--> <For_St>	--> ;
	--> <If_St>	<SST_2> --> ;
	--> <While_St>	--> . ID <SST_ID'>
	--> <DoWhile_St>	<Break> --> Break ;
	--> <Return_St>	<Continue> --> Continue ;
	--> <Continue>	<While_St> --> While (<Exp>) <Body>
	--> <Break>	<Body> --> ;
	--> <Try_St>	--> <BodyMST>
	--> inc_dec <SP'> ID <Ref> ;	<DoWhile_St> --> do <BodyMST> while (<Exp>)
	--> throw <Throw'>	<Try_St> --> try <BodyMST> <CatchFinally>
	--> <SP> ID <Ref> <AssignOP> <Exp> ;	<CatchFinally> --> <Finally>
	--> DT <N_Dec>	--> <Catch> <Finally'>
	--> dict <Multi_Arr>	<Finally> --> finally <BodyMST>
	--> ID <SST_ID>	<Finally'> --> finally <BodyMST>
<SST_ID>	--> ID <Object'>	--> \$
	--> <SST_ID'>	<Catch> --> catch (<Exception> ID) <BodyMST> <Catch'>
<SST_ID'>	--> . ID <SST_ID'>	<Catch'> --> <Catch>
	--> [<Exp>] <SST_1>	--> \$
	--> (<PL>) <SST_2>	<Swicth_St> --> swicth (ID) { <Swicth_Body> }
	--> inc_dec ;	<Swicth_Body> --> <Case> <Default>
	--> <AssignOp> <Exp> ;	<Case> --> case (<Const>) : <MST> <Case>
<SST_1>	--> . ID <SST_ID'>	--> \$
	--> inc_dec ;	<Default> --> default : <MST> <Case>
	--> <AssignOp> <Exp> ;	--> \$

<If_St>	--> if (<Exp>) <BodyMST> <OElse>		--> [<Exp>] <For_Opt'>
<OElse>	--> else <OElse'>		--> (<PL>) . ID <For_Opt>
	--> \$		--> inc_dec <For_Opt">
<OElse'>	--> if (<Exp>) <BodyMST> <OElse>		--> <AssignOp> <Exp> <For_Opt">
	--> <BodyMST>	<For_Opt'>	--> . ID <For_Opt>
<For_St>	--> For (<St1> <St2> ; <St3>) <Body>		--> inc_dec <For_Opt">
<St1>	--> <Dec>		--> <AssignOp> <Exp> <For_Opt">
	--> <AssignSt>	<For_Opt">	--> \$
	--> ;		--> , ID <For_Opt>
<Dec>	--> DT ID <Declare'>	<Inherit>	--> <Expands> <Applies>
<AssignSt>	--> <SP'> ID <Ref> <AssignOP> <Exp> ;	<Expands>	--> Expands ID
<St2>	--> \$		--> \$
	--> <Cond>	<Applies>	--> Applies ID <Applies'>
<St3>	--> inc_dec <Var>		--> \$
	--> ID <For_Opt>	<Applies'>	--> , ID <Applies'>
	--> \$		--> \$
<Cond>	--> ID <Cond'>	<Concrete'>	--> Concrete
	--> <Const> <Cond'>		--> \$
<Cond'>	--> \$	<Int_St>	--> <Public'> <RT> ID (<AL>) { } ;
	--> ROR <Exp>		--> \$
<Return>	--> return <Ret'> ;	<Public'>	--> Public
<Ret'>	--> \$		--> \$
	--> <Exp>	<RT'>	--> []
<For_Opt>	--> . ID <For_Opt>		--> \$

<RT> --> DT <RT'>
 --> ID <RT'>
 --> Void
 --> dict []
 <AL> --> \$
 --> <AL'>
 <AL'> --> ID <AL'"> ID <AL">
 --> DT <AL'"> ID <AL">
 --> dict [] <AL">
 <AL'"> --> \$
 --> , <AL'>
 <AL'"> --> \$
 --> []
 <<PubPriv'> --> Public
 --> Private
 --> \$
 <Function_Sig> --> <RT> ID (<AL>) <Body_MST>
 <Class_Vars> --> DT <N_Dec>
 --> ID <O_Dec>
 --> dict <Multi_Arr>
 <Multi_Arr> --> [] ID <<Multi_Arr'>
 <Multi_Arr'> --> ;
 --> , ID <Multi_Arr'>
 --> = <Init_Multidim> <Multi_Arr'>

<Init_Multidim>--> new dict [<Init_Multidim'>]
 --> ID
 <Init_Multidim'>--> <Exp>]
 -->] { <Val_Multidim> }
 <Val_Multidim>--> ID <Val_Multidim'>
 --> \$
 <Val_Multidim'>--> \$
 --> . ID
 <N_Dec> --> ID <Declare'>
 --> [] ID <G_Arr'>
 <O_Dec> --> ID <Object'>
 --> [] ID <O_Arr'>
 <Declare'> --> ;
 --> , ID <Declare'>
 --> = <Init_List>
 <G_Arr'> --> ;
 --> , ID <G_Arr'>
 --> = <Init_GArr> <G_Arr'>
 <Init_GArr> --> ID
 --> new DT [<Init_GArr'>
 <Init_GArr'> --> <Exp>]
 -->] { <Val_GArr> }
 <Val_GArr> --> <Const> <Val_GArr'>
 --> \$

<Val_GArr'>	--> \$	<B'>	--> && <C> <B'>
	--> , <Const> <Val_GArr'>		--> \$
<Init_List'>	--> ;	<C>	--> <E> <C'>
	--> , ID <Declare>	<C'>	--> ROR <E> <C'>
<Init_List>	--> <SP'> ID <List1>		--> \$
	--> <Const> <List2>	<E>	--> <T> <E'>
	--> (<Exp>) <List2>	<E'>	--> PM <T> <E'>
	--> ! <F> <Init_List'>		--> \$
<List1>	--> = <Init_List>	<T>	--> <F> <T'>
	--> . ID <List1>	<T'>	--> MDM <F> <T'>
	--> [<Exp>] <List3>		--> \$
	--> (<PL>) <List2>	<F>	--> (<Exp>)
	--> inc_dec <List2>		--> <Const>
	--> <List2>		--> ! <F>
<List2>	--> <T'> <E'> <C'> <B'> <A> <Init_List'>		--> <SP'> ID <OptF>
		<SP>	--> Self .
<List3>	--> = <Init_List>		--> Parent .
	--> . ID <List1>	<SP'>	--> Self .
	--> inc_dec <List2>		--> Parent .
	--> <List2>		--> \$
<Exp>	--> <A>	<SC>	--> Static
<A>	--> <A>		--> Concrete
	--> \$		--> \$
	--> <C> <B'>	<OptF>	--> . ID <OptF>

--> [<Exp>] <OptF>
 --> (<PL>) <OptF2>
 --> inc_dec
 --> \$
 <OptF1> --> inc_dec
 --> . ID <OptF>
 <OptF2> --> . ID <OptF>
 --> \$
 <BodyMST> --> { <MST> }
 <MST> --> <SST> <MST>
 --> \$
 <Object'> --> ;
 --> , ID <Object'>
 --> = <Init_Obj> <Object'>
 <Init_Obj> --> new ID (<PL>)
 --> ID
 <O_Arr'> --> ;
 --> , ID <O_Arr'>
 --> = <Init_OArr> <O_Arr'>
 <Init_OArr'> --> ID
 --> new ID [<Init_OArr'>
 <Init_OArr'> -->] { <Val_OArr> }
 --> <Exp>]
 <Val_OArr> --> new ID <PL>) <Val_OArr'>

--> \$
 <Val_OArr'> --> , new ID (<PL>) <Val_OArr'>
 --> \$
 <PL> --> \$
 --> <Exp> <PL'>
 <PL'> --> , <Exp> <PL'>
 --> \$
 <Function_Sig> --> <RT> ID (<AL>) <BodyMST>
 <AM> --> Public
 --> Private
 --> Preserved
 --> \$
 <Types> --> Condensed <RT> ID (<AL>) ;
 --> <SC> <Function_Sig>
 <PresPriv> --> Preserved
 --> Private
 <ConcCond'> --> Concrete
 --> Condensed
 --> \$
 <Const> --> Int_Const
 --> Float_Const
 --> String_Const
 --> Char_Const
 --> Bool_Const