Symbol Table - *LPSolver_st*

August 24, 2021

Scope : *global*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
testLPSolver	Main					<ast.Main object at 0x15045dc5f390>
ProbabilityDistribution	Module					<ast.Module object at 0x15045dc5f250>
ProbabilityGeneration	Module					<ast.Module object at 0x15045dc5fa10>
LPPGeneration	Module					<ast.Module object at 0x15045db41dd0>
LinearProblemSolver	Module					<ast.Module object at 0x15045dcbfad0>
Algorithm	Module					<ast.Module object at 0x15045dc26c50>
Statistics	Module					<ast.Module object at 0x15045dc51050>
HistogramPlot	Module					<ast.Module object at 0x15045dc7e890>
Postprocessor	Module					<ast.Module object at 0x15045dc4c790>
LPTools	Module					<ast.Module object at 0x15045dc73910>
LAOperators	Module					<ast.Module object at 0x15045dc6eb10>
LAPACKOperators	Module					<ast.Module object at 0x15045da53b10>
Augment	Module					<ast.Module object at 0x15045da59a50>
GeoGebra	Module					<ast.Module object at 0x15045da745d0>

Scope : *testLPSolver* - Main						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**

Scope : *ProbabilityDistribution* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
UniformDist	Function				result(u)	<ast.Function object at 0x15045dbaced0>
NormalDist	Function				result(n)	<ast.Function object at 0x15045db41490>

Scope : *UniformDist* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
seed	Scalar	8	integer			<ast.Declaration object at 0x15045dc5fb50>
IA	Scalar	8	integer		['parameter']	<ast.Declaration object at 0x15045dc5f150>
IM	Scalar	8	integer		['parameter']	<ast.Declaration object at 0x15045dc5f150>
IQ	Scalar	8	integer		['parameter']	<ast.Declaration object at 0x15045dc5f150>
IR	Scalar	8	integer		['parameter']	<ast.Declaration object at 0x15045dc5f150>
am	Scalar	16	real		['save']	<ast.Declaration object at 0x15045dc5f190>
ix	Scalar	8	integer		['save']	<ast.Declaration object at 0x15045dbacbd0>

iy	Scalar	8	integer		['save']	<ast.Declaration object at 0x15045dbacbd0>
k	Scalar	8	integer		['save']	<ast.Declaration object at 0x15045dbacbd0>
u	Scalar	16	real			<ast.Declaration object at 0x15045dbacc50>

Scope : ***NormalDist*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
seed	Scalar	8	integer			<ast.Declaration object at 0x15045dbac910>
PI	Scalar	16	real		['parameter']	<ast.Declaration object at 0x15045dbac510>
u1	Scalar	16	real			<ast.Declaration object at 0x15045dbac310>
u2	Scalar	16	real			<ast.Declaration object at 0x15045dbac310>
n	Scalar	16	real			<ast.Declaration object at 0x15045dbac190>

Scope : ***ProbabilityGeneration*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
ProbVecGen	Subroutine					<ast.Subroutine object at 0x15045dcb0090>
ProbMatGen	Subroutine					<ast.Subroutine object at 0x15045dcb0e10>

Scope : *ProbVecGen* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
v	Array	16	real	1		<ast.Declaration object at 0x15045db41f50>
seed	Scalar	8	integer			<ast.Declaration object at 0x15045dcb0350>
count	Scalar	8	integer			<ast.Declaration object at 0x15045dcb0350>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dcb0150>

Scope : *ProbMatGen* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
M	Array	16	real	2		<ast.Declaration object at 0x15045dcb0650>
seed	Scalar	8	integer			<ast.Declaration object at 0x15045dcb0c90>
count	Scalar	8	integer			<ast.Declaration object at 0x15045dcb0c90>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dcb0d90>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dcb0d90>

Scope : ***LPPGeneration*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
LPPGen	Subroutine					<ast.Subroutine object at 0x15045dcbf6d0>

Scope : ***LPPGen*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2		<ast.Declaration object at 0x15045dcbf9d0>
b	Array	16	real	1		<ast.Declaration object at 0x15045dcbf9d0>
c	Array	16	real	1		<ast.Declaration object at 0x15045dcbf9d0>
seed	Scalar	8	integer			<ast.Declaration object at 0x15045dcbfb50>
count	Scalar	8	integer			<ast.Declaration object at 0x15045dcbfb50>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dcbfc50>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dcbfc50>

Scope : ***LinearProblemSolver*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
CanonicalForm	Subroutine					<ast.Subroutine object at 0x15045dc13290>

EqualityForm	Subroutine					<ast.Subroutine object at 0x15045dc13890>
StandardForm	Subroutine					<ast.Subroutine object at 0x15045dc2b8d0>
LeastNegativeForm	Subroutine					<ast.Subroutine object at 0x15045dc07690>

Scope : ***CanonicalForm*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2		<ast.Declaration object at 0x15045dc13690>
c	Array	16	real	1		<ast.Declaration object at 0x15045dc13690>
x_opt	Array	16	real	1		<ast.Declaration object at 0x15045dc13690>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc13590>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dc13590>

Scope : ***EqualityForm*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A_eq	Array	16	real	2		<ast.Declaration object at 0x15045dc2b750>
b_eq	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>

c_eq	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x0	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x_eq	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
eps	Scalar	16	real			<ast.Declaration object at 0x15045dc2b750>
A_can	Array	16	real	2		<ast.Declaration object at 0x15045dc2b750>
c_can	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x_can	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
A_can1	Array	16	real	2		<ast.Declaration object at 0x15045dc2b750>
c_can1	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x_can1	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
A	Array	16	real	2		<ast.Declaration object at 0x15045dc2b750>
b	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
c	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x01	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
x_opt1	Array	16	real	1		<ast.Declaration object at 0x15045dc2b750>
lambda	Scalar	16	real			<ast.Declaration object at 0x15045dc2b750>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc2b690>

j	Scalar	4	integer			<ast.Declaration object at 0x15045dc2b690>

Scope : ***StandardForm*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2		<ast.Declaration object at 0x15045dc2d3d0>
b	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
c	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
x_opt	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
A_can	Array	16	real	2		<ast.Declaration object at 0x15045dc2d3d0>
c_can	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
x_can	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
x	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
a0	Array	16	real	1		<ast.Declaration object at 0x15045dc2d3d0>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc07090>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dc07090>

Scope : *LeastNegativeForm* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A_ln	Array	16	real	2		<ast.Declaration object at 0x15045dc18050>
b_ln	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
c_ln	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
y0	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x0	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x_ln	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
eps	Scalar	16	real			<ast.Declaration object at 0x15045dc18050>
e	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
A_aug	Array	16	real	2		<ast.Declaration object at 0x15045dc18050>
b_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
c_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x0_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
A_augcan	Array	16	real	2		<ast.Declaration object at 0x15045dc18050>
c_augcan	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x_augcan	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>

A_can	Array	16	real	2		<ast.Declaration object at 0x15045dc18050>
c_can	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
x_can	Array	16	real	1		<ast.Declaration object at 0x15045dc18050>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
opt	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
greater	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
num	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
feas	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
fail	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>
ini_feas	Scalar	4	integer			<ast.Declaration object at 0x15045dc26c10>

Scope : ***Algorithm*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
ProjectiveMethod	Function				result(x_can)	<ast.Function object at 0x15045dc0ce50>

Scope : *ProjectiveMethod* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc0c210>
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc0c210>
x_can	Array	16	real	1		<ast.Declaration object at 0x15045dc0c310>
x_p	Array	16	real	1		<ast.Declaration object at 0x15045dc0ccd0>
x	Array	16	real	1		<ast.Declaration object at 0x15045dc0ccd0>
f_p	Scalar	16	real			<ast.Declaration object at 0x15045dc0ccd0>
f	Scalar	16	real			<ast.Declaration object at 0x15045dc0ccd0>
eps	Scalar	16	real			<ast.Declaration object at 0x15045dc0ccd0>
x0_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc0ccd0>
x_aug	Array	16	real	1		<ast.Declaration object at 0x15045dc0ccd0>
n	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
iter	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
iter_limit	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
iter_num	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>

iterz	Scalar	4	integer			<ast.Declaration object at 0x15045dc0cf10>
Optimize	Subroutine					<ast.Subroutine object at 0x15045dc51b10>

Scope :			***Optimize*** **- Subroutine**			
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
x_p	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc51690>
x	Array	16	real	1		<ast.Declaration object at 0x15045dc51810>
e	Array	16	real	1		<ast.Declaration object at 0x15045dc57910>
Ad	Array	16	real	2		<ast.Declaration object at 0x15045dc57910>
B	Array	16	real	2		<ast.Declaration object at 0x15045dc57910>
v	Array	16	real	1		<ast.Declaration object at 0x15045dc57910>
c_p	Array	16	real	1		<ast.Declaration object at 0x15045dc57910>
c_unit	Array	16	real	1		<ast.Declaration object at 0x15045dc57910>
x0	Array	16	real	1		<ast.Declaration object at 0x15045dc57910>
alpha	Scalar	16	real			<ast.Declaration object at 0x15045dc57910>

Scope : *Statistics* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
arithmetic_vector	Function				result(amean)	<ast.Function object at 0x15045dc57b90>
arithmetic_matrix	Function				result(amean)	<ast.Function object at 0x15045dc773d0>
geometric_vector	Function				result(gmean)	<ast.Function object at 0x15045dc77b50>
geometric_matrix	Function				result(gmean)	<ast.Function object at 0x15045dc7e410>
harmonic_vector	Function				result(hmean)	<ast.Function object at 0x15045dc7ed10>
harmonic_matrix	Function				result(hmean)	<ast.Function object at 0x15045dc5d610>

Scope - *arithmetic_vector*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
vector	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc57bd0>
amean	Scalar	16	real			<ast.Declaration object at 0x15045dc57d90>

Scope - *arithmetic_matrix*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Matrix	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc77410>

amean	Scalar	16	real			<ast.Declaration object at 0x15045dc77690>

Scope - *geometric_ vector*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
vector	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc77cd0>
gmean	Scalar	16	real			<ast.Declaration object at 0x15045dc77e50>

Scope - *geometric_ matrix*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Matrix	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc7e450>
gmean	Scalar	16	real			<ast.Declaration object at 0x15045dc7e6d0>

Scope - *harmonic_ vector*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
vector	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc7ec50>

hmean	Scalar	16	real			<ast.Declaration object at 0x15045dc7eed0>

Scope - *harmonic_ matrix*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Matrix	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc5d650>
hmean	Scalar	16	real			<ast.Declaration object at 0x15045dc5d8d0>

Scope : *HistogramPlot* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
histogram_vector	Subroutine					<ast.Subroutine object at 0x15045dc4f9d0>
histogram_matrix	Subroutine					<ast.Subroutine object at 0x15045dc4fdd0>
Plot	Subroutine					<ast.Subroutine object at 0x15045dc4c490>

Scope - *histogram_ vector*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**

vector	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc4f0d0>
i	Scalar	8	integer			<ast.Declaration object at 0x15045dc4f390>
s	Scalar	8	integer			<ast.Declaration object at 0x15045dc4f390>
n	Scalar	8	integer			<ast.Declaration object at 0x15045dc4f390>
limit	Scalar	16	real			<ast.Declaration object at 0x15045dc4f510>
interval	Scalar	16	real			<ast.Declaration object at 0x15045dc4f510>
lowerbound	Scalar	6	character			<ast.Declaration object at 0x15045dc4f710>
upperbound	Scalar	6	character			<ast.Declaration object at 0x15045dc4f710>
filename	Scalar	16	character			<ast.Declaration object at 0x15045dc4f850>
group	Array	16	real	2	['allocatable']	<ast.Declaration object at 0x15045dc4fa90>
p	Array	8	integer	1	['allocatable']	<ast.Declaration object at 0x15045dc4fc90>

Scope - *histogram_ matrix*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Matrix	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc4ffd0>

Scope : *Plot* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Y	Array	16	real	1		<ast.Declaration object at 0x15045dc4c350>
Z	Array	16	real	1		<ast.Declaration object at 0x15045dc4c450>
X	Array	16	real	1		<ast.Declaration object at 0x15045dc4c5d0>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc4c610>

Scope : *Postprocessor* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Stats_vector	Subroutine					<ast.Subroutine object at 0x15045dc46110>
Stats_matrix	Subroutine					<ast.Subroutine object at 0x15045dc46850>
EIGENRECORD	Subroutine					<ast.Subroutine object at 0x15045dc46e10>
EigenAnalysis	Subroutine					<ast.Subroutine object at 0x15045dc734d0>

Scope - *Stats_ vector*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
vector	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc4ced0>

M	Scalar	16	real		['intent(out)']	<ast.Declaration object at 0x15045dc46190>
StdDev	Scalar	16	real		['intent(out)']	<ast.Declaration object at 0x15045dc46190>
s	Scalar	16	real			<ast.Declaration object at 0x15045dc46390>
ssq	Scalar	16	real			<ast.Declaration object at 0x15045dc46390>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc46510>
n	Scalar	4	integer			<ast.Declaration object at 0x15045dc46510>

Scope - *Stats_ matrix*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Matrix	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc46890>
M	Scalar	16	real		['intent(out)']	<ast.Declaration object at 0x15045dc46b50>
StdDev	Scalar	16	real		['intent(out)']	<ast.Declaration object at 0x15045dc46b50>

Scope : *EIGENRECORD* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
M	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc46ed0>

E	Array	16	real	1		<ast.Declaration object at 0x15045dc73290>
COND	Scalar	16	real			<ast.Declaration object at 0x15045dc73290>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc73090>

Scope : ***EigenAnalysis*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
E	Array	16	real	2		<ast.Declaration object at 0x15045dc737d0>
COND	Array	16	real	1		<ast.Declaration object at 0x15045dc737d0>
IOstatus	Scalar	4	integer			<ast.Declaration object at 0x15045dc73a10>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc73a10>
n	Scalar	4	integer			<ast.Declaration object at 0x15045dc73a10>

Scope : ***LPTools*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
Potential	Function				result(f)	<ast.Function object at 0x15045dc73fd0>
zero_ratio	Function				result(alpha)	<ast.Function object at 0x15045dc71810>

min_ratio	Function				result(alpha)	<ast.Function object at 0x15045dc6e110>
Dual	Subroutine					<ast.Subroutine object at 0x15045dc6ead0>
StdToCan	Subroutine					<ast.Subroutine object at 0x15045dc65890>
Transform	Subroutine					<ast.Subroutine object at 0x15045dc531d0>
InvTransform	Function				result(x)	<ast.Function object at 0x15045dc53cd0>

Scope : ***Potential*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc73c90>
x	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc73c90>
f	Scalar	16	real			<ast.Declaration object at 0x15045dc73b10>

Scope - ***zero_ratio***						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
n	Scalar	4	integer		['intent(in)']	<ast.Declaration object at 0x15045dc71590>
c_unit	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc716d0>

alpha	Scalar	16	real			<ast.Declaration object at 0x15045dc71950>
a	Scalar	16	real			<ast.Declaration object at 0x15045dc71950>
beta	Scalar	16	real			<ast.Declaration object at 0x15045dc71690>
idx	Scalar	4	integer			<ast.Declaration object at 0x15045dc71bd0>

Scope - *min_ ratio*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
n	Scalar	4	integer		['intent(in)']	<ast.Declaration object at 0x15045dc71fd0>
c_unit	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc6e150>
alpha	Scalar	16	real			<ast.Declaration object at 0x15045dc6e310>
beta	Scalar	16	real			<ast.Declaration object at 0x15045dc6e490>
idx	Scalar	4	integer			<ast.Declaration object at 0x15045dc6e610>

Scope : *Dual* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc6ee10>

b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc6ee10>
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc6ee10>
A_dual	Array	16	real	2	['intent(out)']	<ast.Declaration object at 0x15045dc6c450>
b_dual	Array	16	real	1	['intent(out)']	<ast.Declaration object at 0x15045dc6c450>
c_dual	Array	16	real	1	['intent(out)']	<ast.Declaration object at 0x15045dc6c450>

Scope : ***StdToCan*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A_std	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc6cc50>
b_std	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc6cc50>
c_std	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc6cc50>
A_can	Array	16	real	2	['intent(out)']	<ast.Declaration object at 0x15045dc69a10>
c_can	Array	16	real	1	['intent(out)']	<ast.Declaration object at 0x15045dc69a10>
a0	Array	16	real	1	['intent(out)']	<ast.Declaration object at 0x15045dc69a10>
A	Array	16	real	2		<ast.Declaration object at 0x15045dc68b10>
b	Array	16	real	1		<ast.Declaration object at 0x15045dc68b10>
c	Array	16	real	1		<ast.Declaration object at 0x15045dc68b10>

x0	Array	16	real	1		<ast.Declaration object at 0x15045dc65790>
y0	Array	16	real	1		<ast.Declaration object at 0x15045dc65790>
u0	Array	16	real	1		<ast.Declaration object at 0x15045dc65790>
v0	Array	16	real	1		<ast.Declaration object at 0x15045dc65790>
lambda_0	Scalar	16	real			<ast.Declaration object at 0x15045dc65790>
m	Scalar	4	integer			<ast.Declaration object at 0x15045dc658d0>
n	Scalar	4	integer			<ast.Declaration object at 0x15045dc658d0>
i	Scalar	4	integer			<ast.Declaration object at 0x15045dc658d0>
j	Scalar	4	integer			<ast.Declaration object at 0x15045dc658d0>

Scope :		***Transform* - Subroutine**				
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045dc65f10>
b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc65f10>
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc65f10>
a0	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc65f10>
A_can	Array	16	real	2	['intent(out)']	<ast.Declaration object at 0x15045dc534d0>

c_can	Array	16	real	1	['intent(out)']	<ast.Declaration object at 0x15045dc534d0>

Scope : ***InvTransform*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
x_can	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc53b90>
x0	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045dc53b90>
x	Array	16	real	1		<ast.Declaration object at 0x15045dc53b10>

Scope : ***LAOperators*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
DIAG	Function				result(D)	<ast.Function object at 0x15045da49590>
ONES	Function				result(D)	<ast.Function object at 0x15045da49850>
COLMULT	Function				result(cA)	<ast.Function object at 0x15045da4b250>
ADD	Function				result(a)	<ast.Function object at 0x15045da4ba50>
DOT	Function				result(bTc)	<ast.Function object at 0x15045da4c350>
ENORM	Function				result(n)	<ast.Function object at 0x15045da4c6d0>

UPPER	Function				result(U)	<ast.Function object at 0x15045da4c950>
LOWER	Function				result(L)	<ast.Function object at 0x15045da4e110>
CholeskyDecomp	Function				result(L)	<ast.Function object at 0x15045da4ecd0>
SPDLUD	Subroutine					<ast.Subroutine object at 0x15045da4fa90>
ForSubstitution	Function				result(x)	<ast.Function object at 0x15045da510d0>
BackSubstitution	Function				result(x)	<ast.Function object at 0x15045da51850>
GEMV	Function				result(Mv)	<ast.Function object at 0x15045da53210>
GEMM	Function				result(AB)	<ast.Function object at 0x15045da53710>
TRANS	Function				result(AT)	<ast.Function object at 0x15045da54110>

Scope :	***DIAG* - Function**					
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
x	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da49190>
D	Array	16	real	2		<ast.Declaration object at 0x15045da49250>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da49290>

Scope : *ONES* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
n	Scalar	4	integer		['intent(in)']	<ast.Declaration object at 0x15045da49bd0>
D	Array	16	real	2		<ast.Declaration object at 0x15045da49cd0>
e	Array	16	real	1		<ast.Declaration object at 0x15045da49e90>

Scope : *COLMULT* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da4b3d0>
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da4b3d0>
cA	Array	16	real	2		<ast.Declaration object at 0x15045da4b350>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da4b550>

Scope : *ADD* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
v	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da4bad0>
a	Scalar	16	real			<ast.Declaration object at 0x15045da4bb90>

i	Scalar	4	integer			<ast.Declaration object at 0x15045da4bcd0>

Scope : ***DOT*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da4c210>
c	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da4c210>
bTc	Scalar	16	real			<ast.Declaration object at 0x15045da4bc90>

Scope : ***ENORM*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
u	Array	16	real	1		<ast.Declaration object at 0x15045da4c550>
n	Scalar	16	real			<ast.Declaration object at 0x15045da4c650>

Scope : ***UPPER*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**

A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da4c9d0>
U	Array	16	real	2		<ast.Declaration object at 0x15045da4cb50>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da4cb90>

Scope : ***LOWER*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da4e190>
L	Array	16	real	2		<ast.Declaration object at 0x15045da4e310>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da4e350>

Scope : ***CholeskyDecomp*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2		<ast.Declaration object at 0x15045da4e850>
L	Array	16	real	2		<ast.Declaration object at 0x15045da4ea10>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da4ea50>
summ	Scalar	16	real			<ast.Declaration object at 0x15045da4edd0>

Scope : *SPDLUD* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da4f210>
L	Array	16	real	2	['intent(out)']	<ast.Declaration object at 0x15045da4f650>
U	Array	16	real	2	['intent(out)']	<ast.Declaration object at 0x15045da4f650>
q	Scalar	4	integer			<ast.Declaration object at 0x15045da4fa50>
n	Scalar	4	integer			<ast.Declaration object at 0x15045da4fa50>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da4fa50>
j	Scalar	4	integer			<ast.Declaration object at 0x15045da4fa50>
D	Array	16	real	1		<ast.Declaration object at 0x15045da4fd50>
Dia	Array	16	real	2		<ast.Declaration object at 0x15045da4fd50>

Scope : *ForSubstitution* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
L	Array	16	real	2		<ast.Declaration object at 0x15045da511d0>
b	Array	16	real	1		<ast.Declaration object at 0x15045da511d0>

x	Array	16	real	1		<ast.Declaration object at 0x15045da51390>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da51350>

Scope : ***BackSubstitution*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
U	Array	16	real	2		<ast.Declaration object at 0x15045da513d0>
b	Array	16	real	1		<ast.Declaration object at 0x15045da513d0>
x	Array	16	real	1		<ast.Declaration object at 0x15045da51a10>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da519d0>

Scope : ***GEMV*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
M	Array	16	real	2		<ast.Declaration object at 0x15045da51c90>
v	Array	16	real	1		<ast.Declaration object at 0x15045da51c90>
Mv	Array	16	real	1		<ast.Declaration object at 0x15045da53090>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da531d0>

Scope : ***GEMM*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da53050>
B	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da53050>
AB	Array	16	real	2		<ast.Declaration object at 0x15045da538d0>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da53c90>
j	Scalar	4	integer			<ast.Declaration object at 0x15045da53c90>

Scope : ***TRANS*** **- Function**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da53fd0>
AT	Array	16	real	2		<ast.Declaration object at 0x15045da54250>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da54510>
j	Scalar	4	integer			<ast.Declaration object at 0x15045da54510>

Scope : *LAPACKOperators* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
DOT	Function				result(uTv)	<ast.Function object at 0x15045da54c90>
ENORM	Function				result(NormV)	<ast.Function object at 0x15045da561d0>
DPOINV	Function				result(AINV)	<ast.Function object at 0x15045da56510>
EIGEN	Function				result(E)	<ast.Function object at 0x15045da57910>
LAGEMV	Function				result(AX)	<ast.Function object at 0x15045da59710>
LAGEMM	Function				result(C)	<ast.Function object at 0x15045da5d2d0>

Scope : *DOT* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
SX	Array	8	real	1	['intent(in)']	<ast.Declaration object at 0x15045da54b90>
SY	Array	8	real	1	['intent(in)']	<ast.Declaration object at 0x15045da54b90>
uTv	Scalar	8	real			<ast.Declaration object at 0x15045da54a90>
N	Scalar	8	integer			<ast.Declaration object at 0x15045da54e90>
INCX	Scalar	8	integer			<ast.Declaration object at 0x15045da54e90>
INCY	Scalar	8	integer			<ast.Declaration object at 0x15045da54e90>

Scope : *ENORM* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
X	Array	8	real	1	['intent(in)']	<ast.Declaration object at 0x15045da56190>
NormV	Scalar	8	real			<ast.Declaration object at 0x15045da56110>
N	Scalar	8	integer			<ast.Declaration object at 0x15045da56410>
INCX	Scalar	8	integer			<ast.Declaration object at 0x15045da56410>

Scope : *DPOINV* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	8	real	2	['intent(in)']	<ast.Declaration object at 0x15045da56750>
AINV	Array	8	real	2		<ast.Declaration object at 0x15045da566d0>
UPLO	Scalar		character			<ast.Declaration object at 0x15045da56890>
N	Scalar	4	integer			<ast.Declaration object at 0x15045da56a10>
LDA	Scalar	4	integer			<ast.Declaration object at 0x15045da56a10>
IPIV	Array	4	integer	1		<ast.Declaration object at 0x15045da56a10>
INFO	Scalar	4	integer			<ast.Declaration object at 0x15045da56a10>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da56a10>
j	Scalar	4	integer			<ast.Declaration object at 0x15045da56a10>

Scope : *EIGEN* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	8	real	2		<ast.Declaration object at 0x15045da57290>
E	Array	8	real	1		<ast.Declaration object at 0x15045da574d0>
JOBZ	Scalar		character			<ast.Declaration object at 0x15045da57590>
N	Scalar	4	integer			<ast.Declaration object at 0x15045da579d0>
LDA	Scalar	4	integer			<ast.Declaration object at 0x15045da579d0>
LWORK	Scalar	4	integer			<ast.Declaration object at 0x15045da579d0>
INFO	Scalar	4	integer			<ast.Declaration object at 0x15045da579d0>
WORK	Array	8	real	1	['allocatable']	<ast.Declaration object at 0x15045da57b10>

Scope : *LAGEMV* - Function						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	8	real	2	['intent(in)']	<ast.Declaration object at 0x15045da57f90>
X	Array	8	real	1	['intent(in)']	<ast.Declaration object at 0x15045da57f90>
AX	Array	8	real	1		<ast.Declaration object at 0x15045da59050>

TRANS	Scalar		character			<ast.Declaration object at 0x15045da59290>
M	Scalar	8	integer			<ast.Declaration object at 0x15045da597d0>
N	Scalar	8	integer			<ast.Declaration object at 0x15045da597d0>
LDA	Scalar	8	integer			<ast.Declaration object at 0x15045da597d0>
INCX	Scalar	8	integer			<ast.Declaration object at 0x15045da597d0>
INCY	Scalar	8	integer			<ast.Declaration object at 0x15045da597d0>
ALPHA	Scalar	8	real			<ast.Declaration object at 0x15045da599d0>
BETA	Scalar	8	real			<ast.Declaration object at 0x15045da599d0>

Scope :			***LAGEMM* - Function**			
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	8	real	2	['intent(in)']	<ast.Declaration object at 0x15045da59bd0>
B	Array	8	real	2	['intent(in)']	<ast.Declaration object at 0x15045da59bd0>
C	Array	8	real	2		<ast.Declaration object at 0x15045da59d50>
TRANSA	Scalar		character			<ast.Declaration object at 0x15045da5d190>
M	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>
N	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>

K	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>
LDA	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>
LDB	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>
LDC	Scalar	8	integer			<ast.Declaration object at 0x15045da5d690>
ALPHA	Scalar	8	real			<ast.Declaration object at 0x15045da5d8d0>
BETA	Scalar	8	real			<ast.Declaration object at 0x15045da5d8d0>

Scope : ***Augment*** **- Module**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
HAugment_vv	Function				result(ab)	<ast.Function object at 0x15045da5f290>
HAugment_Mv	Function				result(Ab)	<ast.Function object at 0x15045da5fed0>
HAugment_vM	Function				result(aB)	<ast.Function object at 0x15045da63c90>
HAugment_MM	Function				result(AB)	<ast.Function object at 0x15045da66590>
VAugment_ss	Function				result(ab)	<ast.Function object at 0x15045da69490>
VAugment_sv	Function				result(sv)	<ast.Function object at 0x15045da69dd0>
VAugment_vs	Function				result(vs)	<ast.Function object at 0x15045da6c850>
VAugment_vv	Function				result(ab)	<ast.Function object at 0x15045da6f390>

VAugment_Mv	Function				result(Ab_T)	<ast.Function object at 0x15045da723d0>
VAugment_vM	Function				result(a_TB)	<ast.Function object at 0x15045da74190>
VAugment_MM	Function				result(AB)	<ast.Function object at 0x15045da78110>

Scope - *HAugment_vv*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
a	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da5ded0>
b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da5ded0>
ab	Array	16	real	2		<ast.Declaration object at 0x15045da5df90>

Scope - *HAugment_Mv*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da5f310>
b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da5f310>
Ab	Array	16	real	2		<ast.Declaration object at 0x15045da5f950>

Scope - *HAugment_ vM*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
a	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da63690>
B	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da63690>
aB	Array	16	real	2		<ast.Declaration object at 0x15045da63610>

Scope - *HAugment_ MM*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da66150>
B	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da66150>
AB	Array	16	real	2		<ast.Declaration object at 0x15045da66250>

Scope - *VAugment_ ss*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
a	Scalar	16	real		['intent(in)']	<ast.Declaration object at 0x15045da691d0>
b	Scalar	16	real		['intent(in)']	<ast.Declaration object at 0x15045da691d0>
ab	Array	16	real	1		<ast.Declaration object at 0x15045da69210>

Scope - *VAugment_sv*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
s	Scalar	16	real		['intent(in)']	<ast.Declaration object at 0x15045da699d0>
v	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da699d0>
sv	Array	16	real	1		<ast.Declaration object at 0x15045da69ad0>

Scope - *VAugment_vs*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
v	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da6c4d0>
s	Scalar	16	real		['intent(in)']	<ast.Declaration object at 0x15045da6c4d0>
vs	Array	16	real	1		<ast.Declaration object at 0x15045da6c2d0>

Scope - *VAugment_vv*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
a	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da6cf90>

b	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da6cf90>
ab	Array	16	real	1		<ast.Declaration object at 0x15045da6cf10>

Scope - *VAugment_ Mv*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da6fa10>
b_T	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da6fa10>
Ab_T	Array	16	real	2		<ast.Declaration object at 0x15045da6fd50>

Scope - *VAugment_ vM*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
a_T	Array	16	real	1	['intent(in)']	<ast.Declaration object at 0x15045da72c10>
B	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da72c10>
a_TB	Array	16	real	2		<ast.Declaration object at 0x15045da72b90>

Scope - *VAugment_ MM*						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da74150>
B	Array	16	real	2	['intent(in)']	<ast.Declaration object at 0x15045da74150>
AB	Array	16	real	2		<ast.Declaration object at 0x15045da749d0>

Scope : *GeoGebra* - Module						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
GGBInit	Subroutine					<ast.Subroutine object at 0x15045da78850>
GGBPlot	Subroutine					<ast.Subroutine object at 0x15045da78cd0>
GGBPlotSystem	Subroutine					<ast.Subroutine object at 0x15045da7c690>
GGBPlotPoint	Subroutine					<ast.Subroutine object at 0x15045da7e050>
GGBPlotVector	Subroutine					<ast.Subroutine object at 0x15045da7e890>
GGBPlotPlane	Subroutine					<ast.Subroutine object at 0x15045da7ef10>
GGBLabel	Subroutine					<ast.Subroutine object at 0x15045da810d0>
GGBCommand	Subroutine					<ast.Subroutine object at 0x15045da813d0>

Scope : *GGBInit* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
X	Array	16	real	1		<ast.Declaration object at 0x15045da78dd0>
Y	Array	16	real	1		<ast.Declaration object at 0x15045da78dd0>
Z	Array	16	real	1		<ast.Declaration object at 0x15045da78dd0>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da78390>
j	Scalar	4	integer			<ast.Declaration object at 0x15045da78390>

Scope : *GGBPlot* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**

Scope : *GGBPlotSystem* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
A	Array	16	real	2		<ast.Declaration object at 0x15045da7c290>
c	Array	16	real	1		<ast.Declaration object at 0x15045da7c290>
b	Array	16	real	1		<ast.Declaration object at 0x15045da7c410>
i	Scalar	4	integer			<ast.Declaration object at 0x15045da7c3d0>

str	Array	10	character	1		<ast.Declaration object at 0x15045da7c6d0>
vstr	Scalar	100	character			<ast.Declaration object at 0x15045da7c2d0>

Scope : ***GGBPlotPoint*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
v	Array	16	real	1		<ast.Declaration object at 0x15045da7cc50>
label	Scalar	10	character			<ast.Declaration object at 0x15045da7c9d0>
color	Scalar	6	character			<ast.Declaration object at 0x15045da7cf50>
str	Array	10	character	1		<ast.Declaration object at 0x15045da7cd50>
vstr	Scalar	100	character			<ast.Declaration object at 0x15045da7cb50>

Scope : ***GGBPlotVector*** **- Subroutine**						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
v	Array	16	real	1		<ast.Declaration object at 0x15045da7e550>
str	Array	10	character	1		<ast.Declaration object at 0x15045da7e450>
vstr	Scalar	100	character			<ast.Declaration object at 0x15045da7e710>

Scope : *GGBPlotPlane* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
c	Array	16	real	1		<ast.Declaration object at 0x15045da7ed10>
b	Scalar	16	real			<ast.Declaration object at 0x15045da7ed10>
str	Array	10	character	1		<ast.Declaration object at 0x15045da7ed50>
vstr	Scalar	50	character			<ast.Declaration object at 0x15045da7ec10>

Scope : *GGBLabel* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
label	Scalar	10	character			<ast.Declaration object at 0x15045da7ea90>

Scope : *GGBCommand* - Subroutine						
Id	**type**	**precision**	**Dtype**	**ndim**	**Attributes**	**ref**
str	Scalar	10	character		['intent(in)']	<ast.Declaration object at 0x15045da81490>