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scala> // import the SCSCPCClient and OpenMath libraries
scala> import info.kwarc.mmt.odk.SCSCP.Client.SCSCPCClient
scala> import info.kwarc.mmt.odk.OpenMath._

scala> // establish a connection
scala> val client = SCSCPCClient("scscp.gap-system.org")
client: info.kwarc.mmt.odk.SCSCP.Client.SCSCPCClient =
info.kwarc.mmt.odk.SCSCP.Client.SCSCPCClient@48d61b48

scala> // get a list of supported symbols
scala> client.getAllowedHeads
res0: List[info.kwarc.mmt.odk.OpenMath.OMSymbol] =
List(OMSymbol(Size,scscp_transient_1,None,None),
OMSymbol(Length,scscp_transient_1,None,None),
OMSymbol(LatticeSubgroups,scscp_transient_1,None,None),
OMSymbol(NrConjugacyClasses,scscp_transient_1,None,None),
OMSymbol(AutomorphismGroup,scscp_transient_1,None,None),
OMSymbol(Multiplication,scscp_transient_1,None,None),
OMSymbol(Addition,scscp_transient_1,None,None),
OMSymbol(IdGroup,scscp_transient_1,None,None),
OMSymbol(Phi,scscp_transient_1,None,None),
OMSymbol(SCSCPStartTracing,scscp_transient_1,None,None),
OMSymbol(SCSCPStopTracing,scscp_transient_1,None,None),
OMSymbol(Identity,scscp_transient_1,None,None),
OMSymbol(IsPrimeInt,scscp_transient_1,None,None),
OMSymbol(Factorial,scscp_transient_1,None,None), OMSymbol(Determinant,scscp_t...

scala> // We make a simple example: Apply the identity function to an integer 1
scala> val identitySymbol = OMSymbol("Identity", "scscp_transient_1", None, None)
identitySymbol: info.kwarc.mmt.odk.OpenMath.OMSymbol =
OMSymbol(Identity,scscp_transient_1,None,None)
scala> val identityExpression = OMAApplication(identitySymbol, List(OMInteger(1, None)), None,
None)
identityExpression: info.kwarc.mmt.odk.OpenMath.OMApplication =
OMApplication(OMSymbol(Identity,scscp_transient_1,None,None),List(OMInteger(1,None)),None,
e,None)
scala> client(identityExpression).fetch().get
res1: info.kwarc.mmt.odk.OpenMath.OMExpression = OMInteger(1,None)

scala> // We also try to compute 1 + 1
scala> val additionSymbol = OMSymbol("Addition", "scscp_transient_1", None, None)
additionSymbol: info.kwarc.mmt.odk.OpenMath.OMSymbol =
OMSymbol(Addition,scscp_transient_1,None,None)

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scala> val additionExpression = OMAApplication(additionSymbol, OMInteger(1, None) ::  
OMInteger(1, None) :: Nil, None, None)  
additionExpression: info.kwarc.mmt.odk.OpenMath.OMApplication =  
OMApplication(OMSymbol(Addition,scscp_transient_1,None,None),List(OMInteger(1,None),  
OMInteger(1,None)),None,None)  
scala> client(additionExpression).fetch().get  
res2: info.kwarc.mmt.odk.OpenMath.OMExpression = OMInteger(2,None)  
  
scala> // and close the connection  
scala> client.quit()
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