
Subject: Talking to Matlab

Posted by [rcohen](#) on Thu, 30 Sep 2004 16:12:51 GMT

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I'm trying to get and set variables in Matlab from IDL. Using an older newsgroup posting of how to do this, I'm able to put an array created in IDL into Matlab and see it in Matlab's workspace, but I'm getting a "bad variable type" response from Matlab when I try to get the array back into IDL. Anyone see what my problem is in the code below? Or, if there's a better way to do this that would be valuable information as well. This is with IDL 6 and Matlab 6.5 R13. Many thanks.

```
IDL> oMatlab6=OBJ_NEW('IDLcomIDDispatch$PROGID$Matlab_Application_6')
IDL> data=DINDGEN(100)
IDL> PLOT, data
IDL> oMatlab6->PutFullMatrix,'fromidl','base',data,data
IDL> oMatlab6->Execute,'plot(fromidl);'
IDL> fromMat = oMatlab6->GetFullMatrix('fromidl','base',zreal,zimag)
% IDLCOMIDISPATCH$PROGID$MATLAB_APPLICATION_6::GETFULLMATRIX: Unable
to
call method GETFULLMATRIX.
Bad variable type.
% Execution halted at: $MAIN$
```

Subject: Re: Talking to Matlab

Posted by [p.sommer](#) on Wed, 06 Oct 2004 14:11:28 GMT

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rcohen@raytheon.com (Rob) wrote in message

news:<ac2cbce6.0409300812.3b62cd9f@posting.google.com>...

> I'm trying to get and set variables in Matlab from IDL. Using an older
> newsgroup posting of how to do this, I'm able to put an array created
> in IDL into Matlab and see it in Matlab's workspace, but I'm getting a
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> IDL> PLOT, data
> IDL> oMatlab6->PutFullMatrix,'fromidl','base',data,data
> IDL> oMatlab6->Execute,'plot(fromidl);'
```

```
> IDL> fromMat = oMatlab6->GetFullMatrix('fromidl','base',zreal,zimag)
> % IDLCOMIDISPATCH$PROGID$MATLAB_APPLICATION_6::GETFULLMATRIX: Unable
> to
> call method GETFULLMATRIX.
> Bad variable type.
> % Execution halted at: $MAIN$
```

Rob,

We *should* be able to figure something out for you. I'm fairly certain the GetFullMatrix method returns a SAFEARRAY which is not supported by the IDL 5.5 COM bridge - SAFEARRAY majority is the opposite of IDL's storage.

I'd suggest we try using the MATLAB Engine which is a lower level C API. Please contact me directly to discuss in more detail and then we can share our findings with the group once we have tried a few things.

Thanks,
-Paul

Subject: Re: Talking to Matlab
Posted by [p.sommer](#) on Thu, 21 Oct 2004 15:32:09 GMT
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```
p.sommer@comcast.net (Paul) wrote in message
news:<c2d97616.0410060611.21b8eb2f@posting.google.com>...
> rcohen@raytheon.com (Rob) wrote in message
news:<ac2cbce6.0409300812.3b62cd9f@posting.google.com>...
>> I'm trying to get and set variables in Matlab from IDL. Using an older
>> newsgroup posting of how to do this, I'm able to put an array created
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>> Matlab 6.5 R13. Many thanks.
>>
>> IDL> oMatlab6=OBJ_NEW('IDLcomIDispatch$PROGID$Matlab_Application_6')
>> IDL> data=DINDGEN(100)
>> IDL> PLOT, data
>> IDL> oMatlab6->PutFullMatrix,'fromidl','base',data,data
>> IDL> oMatlab6->Execute,'plot(fromidl);'
>> IDL> fromMat = oMatlab6->GetFullMatrix('fromidl','base',zreal,zimag)
>> % IDLCOMIDISPATCH$PROGID$MATLAB_APPLICATION_6::GETFULLMATRIX: Unable
>> to
```

```
>> call method GETFULLMATRIX.  
>> Bad variable type.  
>> % Execution halted at: $MAIN$  
>  
> Rob,  
>  
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> certain the GetFullMatrix method returns a SAFEARRAY which is not  
> supported by the IDL 5.5 COM bridge - SAFEARRAY majority is the  
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> I'd suggest we try using the MATLAB Engine which is a lower level C  
> API. Please contact me directly to discuss in more detail and then we  
> can share our findings with the group once we have tried a few things.  
>  
> Thanks,  
> -Paul
```

Update: Anyone interested should contact RSI directly. A solution does exist, but is not ready for general useage (yet). Also, would like to gauge interest to justify whether or not a more complete solution would be useful.
