4D User Group

March 13, 2019

Agenda

1. About 4DMethod

2. 4D News, Jim Sobczak, Donna Gallis

3. Wakanda News, Ricardo Mello

4. Virtual Structure redux - Kirk Brooks

5. The 4D iNUG E-Digest, Ed Hammond

6. What the Blog?

7. Special topic: mdWebSocket, 4D WebSockets component, Matt Davis

8. General Q & A

9. Next meeting - May 8, 2019

Welcome

Brent Raymond

4D User Group
4dmethod.com
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4D User Group

- Bring together a scattered community of developers and users

- Stream meetings via YouTube Live to allow people to participate from anywhere

- Record meetings and presentations to be viewed again or shared with others

- Provide fresh new content and exposure for users and developers everywhere

4D method

Guest host in person at AIC

Kirk Brooks

4D News

TAKE A TRIP WITH US
and journey through the best of 4D.

Two days to increase your skill
and learn about 4D v17

2019 **4D** WORLD TOUR

40 stops, 40 cities

Chicago, April 1-2
Boston, April 4-5
Atlanta, April 8-9

Wakanda News

Ricardo Mello

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Wakanda News

End Of Support For Community Edition

^ What does end of support for Community Edition mean for users?

As of February, 4th, 2019, Wakanda Community Edition will no longer be available for download on our website. The users will no longer be eligible for new releases or support. Only the Enterprise Edition will be available for download and support.

^ Will there be any new releases and upgrades in Wakanda platform?

Yes! The Enterprise Edition is still here for the long haul. Each new release will be available for download. We offer an opportunity for a 30 days free trial to test it out.

^ Will existing releases for Wakanda Community Edition continue to be available?

Old releases are still available on Github but there will be no new updates.

^ How do I get Wakanda Enterprise Edition?

You can download the 30 days free trial on our download page. Contact us to know more about how we can help you make the best of it.

^ Has support ended for all users already using the Community Edition?

Yes. With the Community out of support and upgrades, we recommend that customers move to the Enterprise Edition.
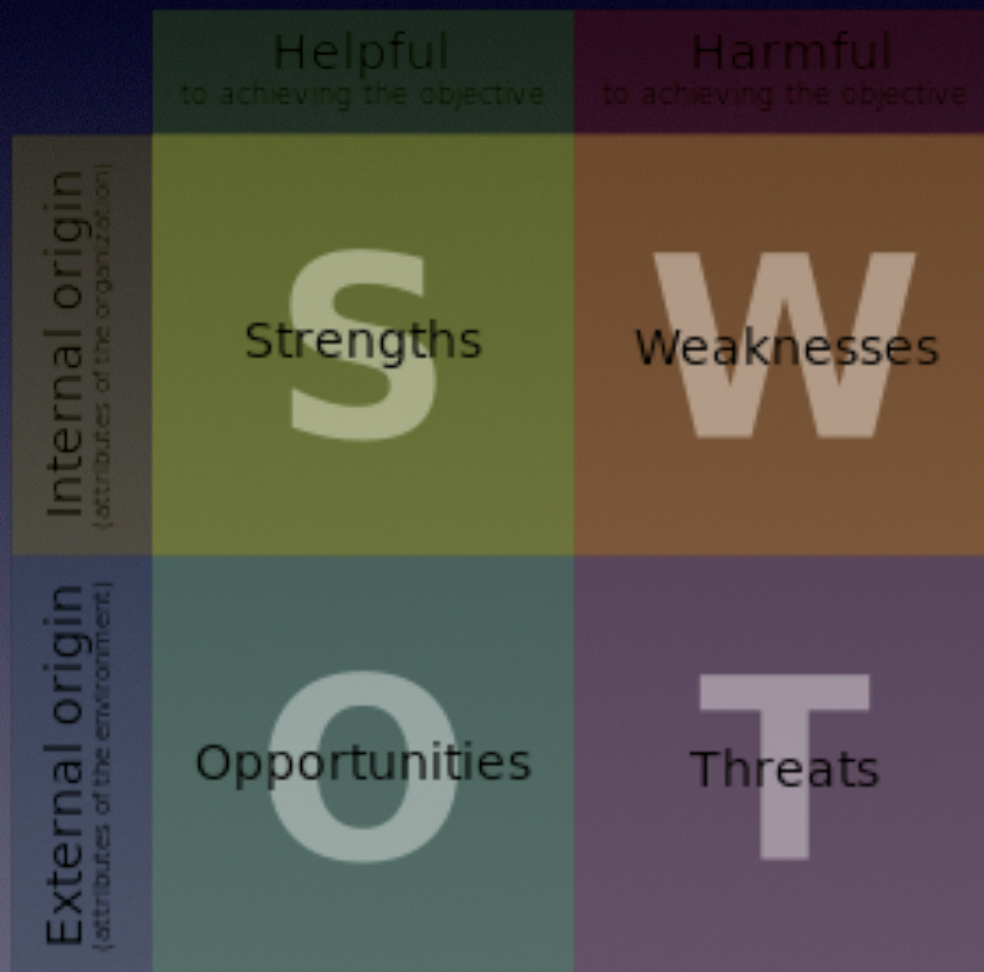
Virtual Structure redux

https://blog.4d.com/?s=2016+summit

https://www.youtube.com/watch?v=16CBVqiMGhw

4D method — Virtual Structure redux

Virtual Structure redux

- Works well with access control system (field and record based privileges per user)

- Enables easier interface exposure of data stored in Object fields

- Encourages generic coding

- Inherently better data security due to abstraction of data access

```
{
    "number": 4,
    "constant": "Object_kVFArtistNatCulture",
    "label": "Artist / Display",
    "tableNumber": 3,
    "tableName": "Objects",
    "categoryNumber": 1,
    "categoryName": "Attribution",
    "searchable": true,
    "viewable": true,
    "batchChange": true,
    "inputViewForm": "Object_CreatorPlaces",
    "columnWidth": 125,
    "dataTypeNumber": 2,
    "dataType": "Text",
    "fieldModelNumber": 3,
    "fieldModelName": "VF_kFldMdlTextRecsSingle",
    "viewPrivilegeNumber": 290,
    "viewPrivilegeLabel": "Objects:View Artist/Place Text",
    "modifyPrivilegeNumber": 291,
    "modifyPrivilegeLabel": "Objects:Modify Artist/Place Text",
    "callbackMethodRetrieval": "InterGet_RetrieveCommonVFs",
    "callbackMethodQuery": "InterGet_QueryCommonVFs",
    "callbackMethodSort": "ObjMgr_ListViewColumnSort",
    "callbackMethodBatchSave": "InterPut_SaveTextRecsData",
    "searchComparators": {
        "values": [
            6,
            7,
            1,
```

Virtual Structure Tips

- Start fresh: Begin a method/module/database with the intent of implementing the new coding techniques

- A VS is essentially a schema - something most devs already have a lot of experience with

- Primarily about the UI and presentation of the data

  - Streamline the user's interaction with the data

  - Won't fix existing structural issues

- Easily extends to the new tools and options for data presentation (Form, dynamic form objects, DYNAMIC FORMS)

Virtual Structure redux

```
$vsRecObj:=New object
$vsRecObj["field1"]:=New object("$ref";"#/foo/1")
$vsRecObj["field2"]:=New object("$ref";"#/")
$vsRecObj["field3"]:=New object("$ref";"#/deep/deeper/value")
$vsRecObj["field4"]:=New object("$ref";"#/billingAddress/street")
$vsRecObj["field5"]:=New object("$ref";"#/lastname")
```

	field1	{"$ref":"#/foo/1"}
▶	field2	{"$ref":"#/"}
▶	field3	{"$ref":"#/deep/deeper/value"}
▶	field4	{"$ref":"#/billingAddress/street"}
▶	field5	{"$ref":"#/lastname"}

```
// append the vs obj to the data object
$dataObj.$vsRecObj:=$vsRecObj

// resolve the pointers - the pointers in $vsRecObj are transformed to values
$oResult:=JSON Resolve pointers($dataObj)

// remove the vs map
OB REMOVE($dataObj;"$vsRecObj")
```

field1	"baz"
field2	0
field3	"asdfgr"
field4	"95 S. Market Street"
field5	"Doe"

https://doc.4d.com/4Dv17R3/4D/17-R3/JSON-Resolve-pointers.301-3906940.en.html

Virtual Structure redux

```
$oVSdef:=New object
$oVSdef["field1"]:=New formula($1.foo[1])
$oVSdef["field2"]:=New formula($1[""])
$oVSdef["field3"]:=New formula($1.deep.deeper.value)
$oVSdef["field4"]:=New formula($1.billingAddress.street)
$oVSdef["field5"]:=New formula($1.lastname)
$oVSdef["field6"]:=New formula(Uppercase($1.lastname))
$oVSdef["field7"]:=New formula($1[" "]*2)
$oVSdef["field8"]:=New formula($1[" "]+$1["e^f"])
$oVSdef["field9"]:=New formula("My favorite number: "+String($1[" "]))
```

```
$vsRecObj2:=New object
$vsRecObj2["field1"]:=$oVSdef["field1"]($dataObj)
$vsRecObj2["field2"]:=$oVSdef["field2"]($dataObj)
$vsRecObj2["field3"]:=$oVSdef["field3"]($dataObj)
```

field1	"baz"
field2	0
field3	"asdfgr"
field4	"95 S. Market Street"
field5	"Doe"
field6	"DOE"
field7	14
field8	10
field9	"My favorite number: 7"

https://doc.4d.com/4Dv17R3/4D/17-R3/New-formula.301-3958154.en.html

The 4D iNUG E-Digest
Ed Hammond

- Wide breadth of topics and 4D tech issues

- Take advantage of a wealth of 4D experience and knowledge

- Check out http://4dmethod.com/e-digests/ for a list of recent topics being discussed in the iNUG

- To register:
http://lists.4d.com/mailman/listinfo

- All discussion accessible online at:
http://4d.1045681.n5.nabble.com

What the Blog???

- 4D Write Pro

  - Now supports virtual structures!

  - Get coordinates

  - Say hello to Vertical ruler

- 4D View Pro

  - Name your ranges and formulas

  - Get and Set cell content

  - Code a range

- 4D for iOS

  - Restricted queries

  - Create a custom data formatter

  - Multi-criteria search in 4D for iOS

https://blog.4d.com

What the Blog???

- Easily synchronize your processes

```
// Creation of a signal
$signal:=New signal


// call main process and execute OpenForm method
CALL WORKER(1;"OpenForm";$signal)


// do another calculation

...


// Waiting for the end of the process
$signaled:=$signal.wait()


// Calculate the results
$calc:=$signal.result+...
```

```
$signal:=$1
$form:=New object("value";0)


// Open the form and ask the user for a value
$win:=Open form window("Information";Movable form dialog box)
DIALOG("Information";$form)
CLOSE WINDOW($win)


// Add a new attribute to $signal to pass result to other process
Use ($signal)
  $signal.result:=$form.value
End use


// Trigger the signal for the waiting process
$signal.trigger()
```

https://blog.4d.com

What the Blog???

- ## A new way to send mails

This code builds and sends an email:

```
C_OBJECT($server)
$server:=New object
$server.host:="mail.smtp.host" // Mandatory
$server.port:=25 // Optional, default value: 587

$transporter:=SMTP New transporter($server)

C_OBJECT($email)
$email:=New object
$email.subject:="my first mail"
$email.to:="test.mail@4d.com"
$email.from:="test.noreply@4d.com"
$email.textBody:="this is a test"
$email.attachments:=New collection(MAIL New attachment("schedule.xlsx"))

$status:=$transporter.send($email)
If(Not($status.success))
    ALERT("An error occurred sending the mail: "+$status.statusText)
End if
```
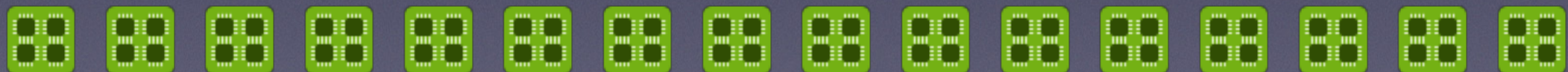
https://blog.4d.com

What the Blog???

- Preemptive processes on 4D remote

  - Everything that's valid on the server, runs the same on the client!

https://blog.4d.com

Special Topic:
mdWebSocket, 4D WebSockets component

Matt Davis
IT Director
Bedrooms and More

https://www.linkedin.com/in/matt-davis-936917123/

BEDROOMS & MORE

FAMILY OWNED

45TH ST

EST. 1972

Questions?

Next Meeting

http://4dmethod.com/schedule/
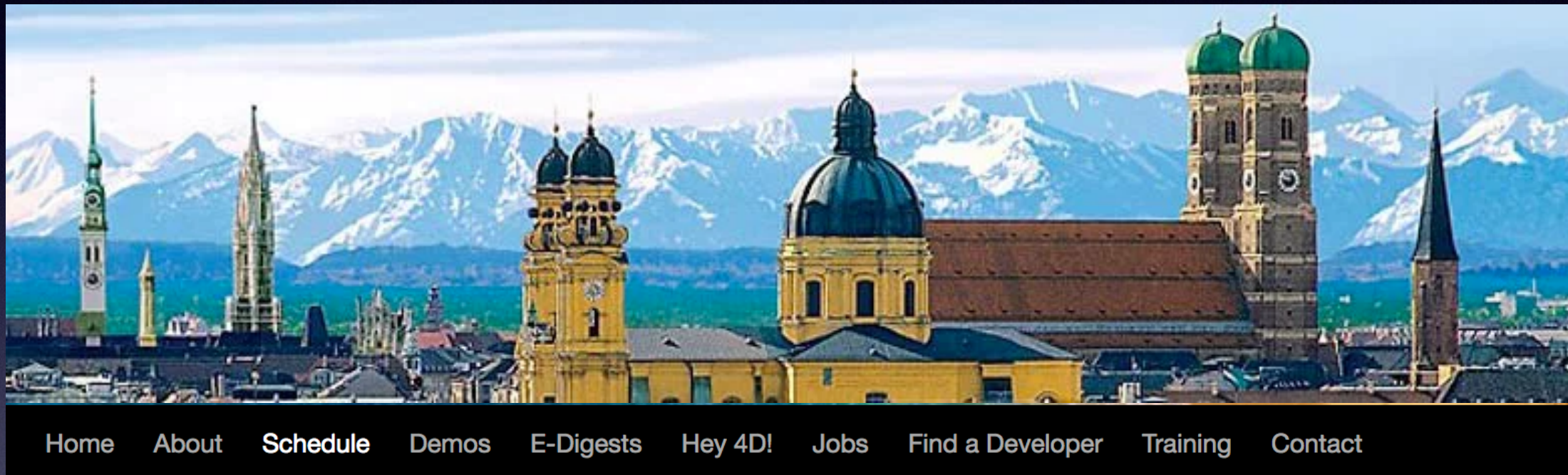
Next Meeting

Calling for speakers who would like to demo some of their work or applications. Open dates include:

- May 8, 2019

- July 3, 2019

Suggestions:
Round table discussion for independent developers?

Pre-recorded project talk/ discussion

Future 4D - round table discussion about 4D growth and dev

Wrap Up

Other questions?

Discussion

Feedback is appreciated

https://www.patreon.com/4dmethod