

North52 LaunchPad

The fun and free way to learn North52!

Debugging and Tracing in the North52 Decision Suite

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Debug & Trace - Basics - Part 1 - What is a tracelog?

Overview

In North52 a trace log (sometimes called trace file) is the output of a Formula execution. In this series of articles we will breakdown the trace logs providing a clear understanding of:

- What is inside a trace log
- Where to find North52 trace logs
- How to interpret trace logs
- Common errors to watch out for
- We will touch on relevant Microsoft platform limitations and rules (depth, timeouts, execution context, etc.)
- Differences between client side and server tracing

Purpose of Trace Logs

North52 tracing has 2 primary purposes:

- 1. Information reporting (What the formula did and why)
- 2. Error reporting (What the formula did and what went wrong)

Information in a Trace Log

The trace log contains as much relevant information as we can add to it. The items found inside a trace log include:

Information about the plugin context

- Stage (validation, pre-op, post-op etc.)
- Message (update, create, delete, etc.)
- Business Unit it is executing in
- CreatedOn date and time
- Primary entity it is executing against



Information about the primary entity

• Any values that have changed in the transaction



Information about the formulas that are executing

- List of shortcodes
- Start and stop for each formula executing
- Formula description (it's business rules)
- Output of individual function used in the formula

```
~Entity appointment has 1 formulas to execute.

~Start Single Formula:tLQ :: 0

~final Formula@escription: Smartflow( Ifrue([appointment.scheduledstart] < utcdatetime() and [appointment.statecode] = 1, 'You cannot complete an Appointment prior to its Scheduled End Time' ))

~Start Execution

Function Name: utcdatetime Value: 2020-05-25 15:21:012

Function Name: utcdatetime Value: 2020-05-25 15:21:012

Function Name: utcdatetime Value: 2020-05-25 15:21:012

Function Name: startflow Value: You cannot Complete an Appointment prior to its Scheduled End Time

~Single message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Validation message: You cannot Complete an Appointment prior to its Scheduled End Time

~Information about the Formula itself
```

- Source properties
- Description
- Shortcode
- Pipeline event
- Pipeline stage etc

119 "***********************************
100 101 EntityId: f07b0ee3-109c-ex11-x810-000d3abash7b
122 Attributes/
123
124 PrimitiveValue: north52 checksum: B86064A219BB10ED81A1057F775C17D1;
125 OptionSetValue: north52 executeas: 217890000;
126 OptionSetValue: north52 executionprocess: 217890000;
127 OptionSetValue: north52 pipelineevent: 217890002;
128 PrimitiveValue: north52_formuladescription: Smartflow(Iftrue([appointment.scheduledstart] < utcdatetime() and [appointment.statecode] = 1, 'You cannot create an Appointment with a Start Date/Time in the past'
), iftrue([appointment.scheduledend] > utcdatetime() and [appointment.statecode] = 1, 'You cannot Complete an Appointment prior to its Scheduled End Time'));
129 OptionSetValue: north52_pipelinestage: 217890000;
130 PrimitiveValue: north52_deploymentsolution: North52FormulaManagerDeploymentSolution;
131 PrimitiveValue: north52_version: 8cf5b44e-610a-4064-91e7-9f1ec82e193a;
132 OptionSetValue: north52_tracinglevel: 217890001;
133 PrimitiveValue: north52_enablefindfunctionFetchxmloptimization: True;
134 PrimitiveValue: north52_enableprevaluecheck: False;
135 OptionSetValue: north52_mode: 217890002;
136 OptionSetValue: north52_displayformat: 217890000;
137 PrimitiveValue: createdon: 5/22/2020 9:59:22 AM;
138 OptionSetValue: northS2_tormulatype: 21/890004;
139 PrimitiveValue: north52 sourceentityproperty: scheduledstart statecode;
140 Primitivevalue: norths_sourceentityname: appointment;
141 Primitivesule: norths2 shortcode: tU;
142 Primitivesule: norths2 name: Appointment - Validation - Fri May 22 2020 10:54:48 GH1+0100 (British Summer Lime);
145 Primitivevalue: NorthS_TOTMUTALU: NorbeeS-129C-Ball-Boll2-0000580480/0;
149 Formatteveaue: northS_executes; tailing oser;
The Formatter addition in orbits 2 of a logical case as logical to the second sec
The formatter value, not this paperameter of the a option of succession of the second se
148 Formattedvalue: north52 tracinglevel: Information:
149 FormattedValue: north52 enablefindfunctionfetchymiontimization: Yes:
150 FormattedValue: north52 enableprevaluecheck: No:
151 FormattedValue: north52 mode: Server Side:
152 FormattedValue: north52 displayformat: String;
153 FormattedValue: createdon: 22/05/2020 09:59;
154 FormattedValue: north52_formulatype: Validation;
155]
156

With this information you can determine how the logic in the formula has executed and why it chose the paths it did. In later articles we will examine this data in more detail.

Note: Each trace log belongs to a specific Formula, but if multiple Formulas are executing then you can see those Formulas and their outputs in each trace log. This is helpful when you are trying to troubleshoot multiple executing Formulas in more complex logic.



Debug & Trace - Basics - Part 2 - Activating a Trace log

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Overview

In the previous article we discussed that there are 2 types of trace logs:

- Informational trace logs
- Error trace logs

Error tracing is always on, so if something throws an error, North52 will attempt to tell you what happened.

Information tracing is different and must be manually turned on. It can be enabled in 2 ways:

- 1. At the Local level (whenever a specific formula completes successfully it will generate a North52 Trace log).
- 2. Globally via the North52 Configuration Record. (Whenever any North52 formula completes it will generate a tracelog).

Note 1: Having North52 tracing running at the Global level and the Formula level will generate 2 trace logs for a Formula, as the trace will be generated twice, one for the Global and one for the Local level.

Note 2: Global tracing enabled in a production system can generate a lot of trace logs if the system is busy.

Enable Local Tracing

• Open the formula and expand the deployment settings:

Execution Process *	
Dynamics Sandbox	
Execute As *	
CallingUser	
Trace Level *	
Information	

- Set the Trace Level to Information
- When the Formula executes, it will generate a trace log

Enable Tracing Globally

• Open the North52 Configuration record and locate Tracing Level:



Iorth52 Configura	ition			
orth52 System Setti	ngs Related			
🗀 Activity Count	1,000,000	🗀 BPA Release Date	23/04/2020	
🗄 User Count	1,000,000	🛆 License Expiration Date	30/09/2020	
🛆 Portal Enabled	Yes	A Maintenance Expiration Date		
🛆 Data Package Enabled	Yes			
A TestShield Enabled	Yes			
Formula Manager Se	ttings			
Tracing Level	Information	Refresh Formula Cache	5/25/2020 3:20:19 PM	
Refresh Cache Interval (Secs)	30	Refresh User Cache	5/25/2020 1:49:15 PM	
Publish Auto	Yes	Refresh Metadata Cache	5/25/2020 1:49:15 PM	
Publish Count	10	Refresh XCache	5/21/2020 11:52:32 AM	

• When Tracing Level is set to Information, every North52 Formula that executes will generate a trace log when it completes successfully



Debug & Trace - Basics - Part 3 - Locating Trace logs

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Informational Trace logs

In North52 informational trace logs are available in two locations:

- From within the Formula form
- From Trace Logs menu on the North52 App

On the Formula Form

Here you will find trace logs generated by this specific formula:

A N	ppointment - Validation 52 Formula · Standard Form ~	n - Fri May 22 2020 10:54:48 GM	T+0100 (British Summer Time)		Validation tL Formula Type Sh	.Q hort Code
F	ormula FetchXml Queries	System Settings Formula Trace Relat	ted			
				+ New N52 Trace	🖄 Add Existing N52 Trace 💍 Refres	sh :
	\checkmark Name \uparrow \checkmark	N52 Formula \sim	Message \vee	Created On $\downarrow~~\checkmark$	Created By \backsim	
	North52 Plugin Trace	Appointment - Validation - Fri Ma	ay 22 2020 10:54:48 GMT+0100 (B ~Start Formula Processing ::: 0 ~********************************	25/05/2020 15:21	O Patrick McInerney	
	North52 Plugin Trace	Appointment - Validation - Fri Ma	ay 22 2020 10:54:48 GMT+0100 (B ~Start Formula Processing ::: 0 ~*********************** Start	25/05/2020 15:21	Patrick McInerney	
	North52 Plugin Trace	Appointment - Validation - Fri Ma	ay 22 2020 10:54:48 GMT+0100 (B ~Start Formula Processing ::: 0 ~*********************** Start	25/05/2020 15:20	O Patrick McInerney	
	North52 Plugin Trace	Appointment - Validation - Fri Ma	ay 22 2020 10:54:48 GMT+0100 (B ~Start Formula Processing ::: 0 ~********************************	25/05/2020 15:20	O Patrick McInemey	

In the North52 App you can access a list of all North52 trace logs in the Dynamics instance:

III Dynamics 365 🗸	North52	North52 Dec	cision Suite	> Trace Log	9																Q	ଷ ଚ	+ 1	· 7 (§ ?	R
=	🕅 Show	Chart -	New	🗓 Delete	 	🖔 Refresh	🕼 Emi	iil a Link \mid 🗅	∕ ₀∕® Fl	ow 🗸	💷 Run	Report 🗸	帼 Ex	cel Templat	es ∨	Export	to Excel	~ 4	Import fro	m Excel	~ 🖪	Create viev	N			
⇔ Home	Acti	ve Trace	×																				8	earch this view	v	Q
C Recent ∨	✓ Na	me† ∨			N5	2 Formula 🗸						Message N	/						Created On 👃	~		Cn	eated By `	~		
	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles San	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	13:19		C	Bruce E	Buxton		
North52 Decision Suite	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles Sam	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	13:18		C	Bruce B	Buxton		
A Start	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles San	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	13:14		C	Bruce B	Buxton		
Business Process Activities	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles Sam	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	13:10		C	Bruce B	Buxton		
√x Formulas	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles San	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	10:49		C	Bruce B	Buxton		
() Schedules	No	orth52 Plugi	n Trace		Ac	count - Quic	k Tiles Sam	iple - Demo				~Start Pr	ocessing	:-: 0 ~ ****	********	** ClientSi	de Contex	t ***	12/06/2020	10:47		C	Bruce E	Buxton		
Cache																										
Trace Log																										
Data Packager																										
🗃 Data Packages																										
TestShield																										
🖺 Tests																										
Test Results																										
👌 Test Runner																										
📋 Test Data																										
North52 Support																										
IN Knowledge Base																										
🔧 Contact Support	All	#	А	В	с	D	E F	G	н	1	1	к	L	м	Ν	0	Р	Q	R S	т	U	۷	W	х	Y	z
	1 - 6 of 6 (0 selected)																								

Error Trace Logs

Error trace logs are made available in different ways depending on where the error occurs:

Client Side Errors

Client Side Formula's will throw an error on the screen that gives you information. However, often the most detailed error messages for these are available via pressing F12 on your keyboard and accessing the Console tab within the Developer Tools window.





If you click Show Details and download the log file you can see information like shown below:

Cannot read property 'setVisible' of null<>
nRI:*:Update::0:217890000:217890000:217890000:217890000 <>
nRI<>
<pre>TypeError: Cannot read property 'setVisible' of null at Object.HideShowTabs (https://10052020.crm4.dynamics.com/ %7b637273058420018042%7d/webresources/north52_/javascript/n52.clientside:1:19514) at Object.CallFormulaActionResult (https://10052020.crm4.dynamics.com/ %7b637273058420018042%7d/webresources/north52_/javascript/n52.clientside:1:9927) at RetrieveFormulaCallBack (https://10052020.crm4.dynamics.com/ %7b637273058420018042%7d/webresources/north52_/javascript/n52.clientside:1:4490) at XMLHttpRequest.o.onreadystatechange (https://10052020.crm4.dynamics.com/ %7b637273058420018042%7d/webresources/north52_/javascript/n52.rest:98:68)<></pre>
<pre>{"FormulaType":"217890015","PropertyName":"showtabs","PropertyValueAction":["fake_tab"]} Activity Id: 67e12571-c7d9-4fd2-8f8b-add0ac050de7</pre>

You can also access this error message in the Console tab within the Developer Tools window (pressing F12 usually):

Cannot read property 'setVisible' of null<>
nRI:*:Update::0:217890000:217890000:217890000 <>
nRI<>
TyneError: (annot read property 'setVisible' of null
at Object HideShowTabs (https://10053020.crmd.dvnamics.com/%7h63727.%7d/webresources/north52 /javascrint/n52 clientside:1:19514)
at Object. failson to
at RetrieveFormulaCallBack (https://10052020.crm4.dynamics.com/%7b63727%7d/webresources/north52 /javascript/n52.clientside:1:4490)
at XMLHttpRequest.o.onreadystatechange (<u>https://10052020.crm4.dynamics.com/%7b63727%7d/webresources/north52 /javascript/n52.rest:98:68)<></u>
{"FormulaType":"217890015","PropertyName":"showtabs","PropertyValueAction":["fake_tab"]}
A > Some icons were re-registered. Applications should only call registerIcons for any given icon once. Redefining what an icon is may have unintended co
A FAUNE LODS WELE LETEPENSIELEG. ADDITIONS SOUTH DOLY CALL PENSIELLODS TO LARY PIVED LOD DUCE. RECEITING WORL AD LOD IS MAY DAVE DUTIENDED LO

In the above example we are trying to show a tab with a name of **fake_tab**, which doesn't exist, therefore the HideShowTabs() function is failing since it can't make something that doesn't exist visible.

Server Side Errors

Server side errors in Dynamics will throw an error that will appear on screen:





The above is a generic error message that you will see when the Global Tracing Level (in the North52 Configuration record) is set to None. This is designed to be a gentle 'something went wrong' for end users, instead of throwing a full stack trace onto their screen.

Unfortunately the error report generated in the Unified Interface when they download the log file isn't very helpful as it shows a Microsoft stack trace, not a North52 trace log:

File Edit Format View Help at Microsoft.Crm.Extensibility.OrganizationSdkServiceInternal.Update(Entity entity, InvocationContext invocationContext, CallerOriginToken callerOriginToken, WebServiceType serviceType, Boolean checkAdminMode, Boolean checkForOptimisticConcurrency, Dictionary`2 optionalParameters) at Microsoft.Crm.Extensibility.OData.CrmODataExecutionContext.Update(Entity entity, UpdateOption updateOption) at Microsoft.Crm.Extensibility.OData.CrmODataServiceDataProvider.UpdateEdmEntity(CrmODataExecutionContext context, String edmEntityName, String entityKeyValue, EdmEntityObject entityObject) at Microsoft.Crm.Extensibility.OData.EntityController.PatchEntityImplementation(String& entityName, String key, EdmEntityObject entityDelta) at Microsoft.Crm.Extensibility.OData.CrmODataUtilities.<>c__DisplayClass10_0`2.<InvokeActionAndLogMetric>b__0() at Microsoft.PowerApps.CoreFramework.ActivityLoggerExtensions.Execute[TResult](ILogger logger, EventId eventId, ActivityType activityType, Func`1 func, IEnumerable'1 additionalCustomProperties)
 at Microsoft.Xrm.Telemetry.XrmTelemetryExtensions.Execute[TResult](ILogger logger, XrmTelemetryActivityType activityType, Func'1 func)
 at lambda_method(Closure , Object , Object[]) at System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ActionExecutor.<>c_DisplayClass10.<GetExecutor>b_9(Object instance, Object[] methodParameters) at System.Web.Http.Controllers.ReflectedHttpActionDescriptor.ExecuteAsync(HttpControllerContext controllerContext, IDictionary 2 arguments, CancellationToken cancellationToken) --- End of stack trace from previous location where exception was thrown --at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at System.Web.Http.Controllers.ApiControllerActionInvoker.<InvokeActionAsyncCore>d_0.MoveNext() --- End of stack trace from previous location where exception was thrown at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at System.Web.Http.Controllers.ActionFilterResult.<ExecuteAsync>d_2.MoveNext() -- End of stack trace from previous location where exception was thrown at System.Runtime.ExceptionServices.ExceptionDispatchInfo.Throw() at System.Runtime.CompilerServices.TaskAwaiter.HandleNonSuccessAndDebuggerNotification(Task task) at System.Web.Http.Dispatcher.HttpControllerDispatcher.<SendAsync>d_1.MoveNext() Activity Id: 651abe9d-136b-4294-910b-95a35466b42a

Are you able to determine what went wrong from the above error message? There is not enough information in this message - there are 2 steps to help troubleshoot this:

Step 1: Change the North52 Configuration Tracing level

- Go to the North52 Configuration record and set the Tracing Level to Information(Show Exception Details)
- Reproduce the error message following the same steps. This will produce a new error pop up with some more helpful information:

() Business Process Error	×
North52.Core.Repository.FormulaRepository.U entityname_String entityguid_String[] values S	pdateReco
Show Details	
	ОК

• However Microsoft only allows a tiny visual window to access the error log, so you can copy it out into Notepad and read it there:



File Edit Format View Help An error has occurred in North52 FormulaManager. The field name faxx does not exist on the entity account at North52.Core.Repository.FormulaRepository.UpdateRecord(String entityname, String entityguid, String[] values, StringBuilder traceLog) at North52.Core.Domain.FormulaDelegates..(String , FunctionArgs) at EvaluateFunctionHandler.Invoke(String name, FunctionArgs args) at Domain.EvaluationVisitor.(String FunctionArgs) at Domain.Function.Accept(LogicalExpressionVisitor visitor) at Expression.Evaluate() at North52.Core.Domain.Formula.E___() at North52.FormulaManager.Plugins.AnyEntity.SingleFormula.(IServiceProvider . UserId: 0aad6d4c-f237-44b0-9b00-8c0540d166dc OrganizationId: 94584a47-3818-413e-bac1-26cd8a674302 OrganizationName: orgfae6242c MessageName: Update Stage: 40 Mode: 0 PrimaryEntityName: account SecondaryEntityName: none Parent PrimaryEntityName: account Parent MessageName: Update BusinessUnitId: a0dedc30-9a91-ea11-a811-000d3ab6d424 CorrelationId: 261646c9-48b1-4f72-878c-b4edad11d112 Depth: 1 InitiatingUserId: 0aad6d4c-f237-44b0-9b00-8c0540d166dc IsExecutingOffline: False IsInTransaction: True IsolationMode: 2 Mode: 0 OperationCreatedOn: 6/11/2020 8:20:52 AM OperationId: 82627033-7e44-4b85-b93a-9365a293b392 PrimaryEntityId: 60ee4899-0dab-ea11-a812-000d3aba6b7b OwningExtension LogicalName: sdkmessageprocessingstep OwningExtension Name: North52.FormulaManager.Plugins.AnyEntity.SingleFormula: account : Update : PostInsideTransaction OwningExtension Id: f0ee7b47-98a9-ea11-a812-000d3aba6b7b SharedVariables: ******************************* EntityId: 60ee4899-0dab-ea11-a812-000d3aba6b7b Attributes:[PrimitiveValue: name: Name1121111; PrimitiveValue: accountid: 60ee4899-0dab-ea11-a812-000d3aba6b7b; PrimitiveValue: modifiedon: 6/11/2020 8:20:52 AM; EntityReference: modifiedby: 0aad6d4c-f237-44b0-9b00-8c0540d166dc; ; Null parameter

• This is a little more readable, but it's hard to copy and paste correctly from the tiny window, and all formatting is lost in the trace log

Step 2: Enable Plugin Tracing from with System Settings

• Go to Settings > Administration > System Settings > Customization and set the Plug-in and custom workflow activity tracing to Exception:

System Settings Set the forms for values such as numbers, the caendar, and current Microsoft Dynamics 365 for Outlook options. Manage report categories. Subscription Management See payment and billing options, and purchase additional licenses. You mure Were deals about your organization's use of storage, custom entities, and "Open Microsoft Dynamics 365 in Application mode" Were deals about your organization's sue of storage, custom entities, and "Open Microsoft Dynamics 365 in Application mode" Wicrosoft Dynamics 365 to Microsoft Dynamics 365 to Microsoft Dynamics 365 in Microsoft Dynamics 365 in Application mode Plays and custom workflow activity tracing Connect Microsoft Dynamics 365 to Microsoft Broggement for Social Engagement for Social										Sp Sp	ecify the prefix nur	mbers for contr	acts, cases, quotes,	, orders, articles, in	voices, and can	ipaigns. Select t
Subscription Management See symmet and billing options, and purchase additional licenses. You mut General Romats Auditing Email Marketing Cutomization Outlook Reporting Calendar Goals Sales Service Synchronization Mobile Client Image: Securces in Use New details about your organizations use of storage, cutom entities, and Dynamics 365 to Microsoft Dynamics 365 to Microsoft Social Engagement for Social Sciences in Use Securces in Use Secures in Use Securces in Use <t< td=""><td>js arlous values, suo s 365 for Outlook</td><td>th as numbers, the calendar options. Manage report ca</td><td>and currence Set syst</td><td>em Sett</td><td>tings tings for N</td><td>Microsoft D</td><td>Dynamics 365</td><td>5.</td><td></td><td></td><td></td><td></td><td></td><td></td><td>? X</td><td></td></t<>	js arlous values, suo s 365 for Outlook	th as numbers, the calendar options. Manage report ca	and currence Set syst	em Sett	tings tings for N	Microsoft D	Dynamics 365	5.							? X	
Resources In Use Wew details about your organizations use of storage, custom entities, and Concest Microsoft Dynamics 385 to Microsoft Social Engagement for Social	Aanagement illing options, and	l purchase additional licens	s. You must	rmats Audi	liting Ema	nail Marketin	ting Custom	ization Outic	ook Reportir	ng Calendar	Goals Sale:	s Service	Synchronization	Mobile Client	Previews	
Microsoft Social Engagement Configuration Enable logging to plug-in trace log Enable logging to plug-in trace log Enable Microsoft Power is 365 to Microsoft Social Engagement for Social Show Microsoft Row on forms and in the site map. You cannot disable Microsoft Row once it is enabled in your organization. (a) Yes Yes Yes	ise your organization	's use of storage, custom e	Application Set whether tities, and w	10de licrosoft Dynan n Microsoft Dy	mics 365 can ynamics 365	n be opened in in Application	n a browser wind n mode	dow without mer	nu, navigation, a	and command b	ars.					
Enable Microsoft Flow Show Microsoft Flow on forms and in the site map. You cannot disable Microsoft Flow once it is enabled in your organization. Yes No	i al Engageme Dynamics 365 to	ent Configuration Microsoft Social Engageme	t for Social I	ustom workflo g to plug-in tra	ow activity ace log	tracing					Exception	1	~	•		ties in the syst
			Enable Micros	soft Flow ft Flow on form	ms and in the	ie site map. You	u cannot disable	e Microsoft Flow	once it is enable	led in your orgar	ization. 🔘 Yes	O No				

This means that when an error occurs Microsoft will store the trace log in Settings > Plugin trace logs:

4	🗰 Dynamic	:s 365 ∨	Settings ~	Plug-In Trace Log >		
	-⊨ All Plug-i	n Trace Lo	igs ¥			
	More Action	ons 👻				
:	System Creat	Operation Ty.	Type Name	Message Name	Execution Start Time ψ	
	Yes	Plug-in	North52.Formula	Manager.Plug Update	11/06/2020 13:3	2

• When you open the trace log here you can see the entire output in a far more readable state:



두 🏭 Dynamics 365 🗸 Setting	gS → Plug-In Trace Log → North52.FormulaMa		
PLUG-IN TRACE LOG : INI	ORMATION	Undata	account
North52.Formula	aManager.Plugins.AnyEntity.SingleFormula 📹	Opdate	account
	n centry may ca		
	PostEntityImages:		

	~GetFormulas: account Count: 1 : 0		
	~Validate Configuration: Oty :: True :: True :: 0		
	~ColumnNames: accountid :: 0		
	~GetSourceEntityPreValues ************************************		
	Entityld: 60ee4899-0dab-ea11-a812-000d3aba6b7b Attributes:[
	PrimitiveValue: accountid: 60ee4899-0dab-ea11-a812-000d3aba6b7b;]		
	~Entity account has 1 formulas to execute.		
	~Start Single Formula: Oty :: 0		
	$\sim Final FormulaDescription: UpdateRecord('account', [account.accountid], SetAttribute('faxx', 'Test1234'))$		
	~Start Execution		
	Function Name: setattribute Value: faxx Test1234 ~Exception Occurred		
	~Message: The field name faxx does not exist on the entity account		
	~StackTrace: at North52.Core.Repository.FormulaRepository.UpdateRecord(String entityname, String entityguid, String[] values, Strin at North52.Core.Domain.FormulaDelegates(String , FunctionArgs) at EvaluateFunctionHandler.Invoke(String name, FunctionArgs args) at Domain.Evaluation/Visitor.UString.FunctionArgs) at Domain.Evaluation/Visitor.Visit(Function function) at Domain.Function.Accept(LogicalExpression/Visitor visitor) at Expression.Evaluate() at Korth52.Core.Domain.Formula.E0 at North52.FormulaManager.Plugins.AnyEntity.SingleFormula.□(IServiceProvider)	ngBuilder traceLog)	

- In this case my Formula is attempting to update a field that doesn't exist in the account, the 'faxx' field instead of the 'fax' field
- Finally you can access these plugin-trace logs from within XRMToolBox using the Plugin Trace Viewer by Jonas Rapp

5	Open 🕶 📅	Save • 9	𝔅 View ▪	Retrieve	e Logs (F5) Refresi	h Mode 0	ff	 Trace Log 	g Setting Exception	-			by Jonas Ra
ter													
Date Fr	om >> 2020-0	6-11 14:41	🛛 🗉 Tim	es in UTC								Exceptions	s only
Date To	>> 2020-0	6-11 14:41										✓ Plugins	WF Activities
Plugin							Excention	An error har occur	rred in North52 Form	ulaManager	The field name favy does not exist on the entity account	t at North52 Core Reportion: FormulaReportion: UndateReport(String entit	Async
Messag	e						1	An enter has been		ranamanagen	me neta nume tax abes not exist on the entity account	PreVal	PreOp PostOp
Entity							1					V Duration	0 💠 - 0 🛊
orrelat	ion Id						~Entity a	ccount has 1 f	formulas to exec	ute.		Records	100
							Start St	ngle Formula:	059 0				List
uain '	Trace Loos	×						ingle formita.	oby 0				aa.
wick F	iter						~Final Fo	rmulaDescripti	on: UpdateReco	rd('accoun	t', [account.accountid], SetAttribute	('faxx', 'Test1234'))	
Corr	Start Time	Duration	Operation	Plugin	Step	Depth							
	2020-06-11 1	62	Plug-in	North52	North52.Formula	Coport	1	ecución					
	2020-06-11 1	2864	Plug-in	North52	North52.Formula	1	-Function -Exception	Name: setattri n Occurred	bute Value: fax	x/Test1234			
	2020-06-11 1	2718	Plug-in	North52	North52.Formula	1	1	The 61-14					
	2020-06-11 1	62	Plug-in	North52	North52.Formula	1	-message.	The field has	e lann does not	exist on	the entroy account		
	2020-06-11 1	78	Plug-in	North52	North52.Formula	1	-StackTra	ce: at Nort	h52.Core.Reposi	tory.Formu	laRepository.UpdateRecord(String entitynam	me. String entityquid. String() values. StringBuilder trace	
	2020-06-11 1	46	Plug-in	North52	North52.Formula	1	at Nor	th52.Core.Doma	in.FormulaDeleg	ates (St	ring , FunctionArgs)		
	2020-06-11 1	46	Plug-in	North52	North52.Formula	1	at Eva at Dom	ain.Evaluation	Wisitor. (Strin	g , Functi	, sunctionargs args) onArgs)		
	2020-06-11 1	2734	Plug-in	North52	North52.Formula	1	at Dom	ain.Evaluation	Visitor.Visit(B	unction fu	nction) sitor visitor)		
	2020-06-11 1	46	Plug-in	North52	North52.Formula	1	1					×	
	2020-06-11 1	31	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	33 Update	account	An error has occurred in North52 hom	Depth: 1	
	2020-06-11 1	46	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	InitiatingUserId: 0aad6d4c-f237-44b0-9b00-8c0540d166dc IsExecutingOffline: False	
	2020-06-11 1	31	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	IsInTransaction: True	
	2020-06-11 1	46	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	IsolationMode: 2 Mode: 0	
_	2020-06-11 1	78	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	OperationCreatedOn: 6/11/2020 1:32:29 FM OperationId: 27ed2004e220-452e2a7e4525bb222a2	
_	2020-06-11 1	3047	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	PrimaryEntityId: 60ee4899-0dab-eall-a812-000d3aba6b7b	
_	2020-06-11 1	1234	Plug-in	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	OwningExtension LogicalName: sdkmessageprocessingstep OwningExtension Name: North52.FormulaManager.Plugins.AnvEntity.SingleFormula:	account : Update : Pos
_	2020-06-11 1	2688	Plugin	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	OwningExtension Id: f0ee7b47-98a9-eall-a812-000d3aba6b7b	
_	2020-06-11 1	46	Plugin	North52	North52.Formula	1	1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	SharedVariables: PrimitiveValue: IsAutoTransact: True;	
_	2020-06-11 1	46	Plug-in	North52	North52.Formula		1 Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	Tenne Deservations, Tennet, 1999-1999-1999-1999 Patien Tenne for second 1999	
_	2020-06-11 1	46	Mugin	North52	North52.Formula	-	I Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	anyweight and the second the seco	
_	2020-06-11 1	62	Mugin	North52	North52.Formula		i synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	EntityId: 60ee4899-0dab-eall-a812-000d3aba6b7b Attributes:[
_	2020-06-11 0	2609	Mugin	North52	North52.Formula		synchro	Post-operation	99 Update	account	An error has occurred in North52 Form		
	202066-11.0	46	I Muglin	North52	worth52.Formula	1 1	I Synchro	Post-operation	99 Update	account	An error has occurred in North52 Form	Frimitivevalue: name: Name1121111;	

• This will allow you to examine the Plug-in Traces easier than using the viewer in the web client



Debug & Trace - Intermediate - Part 1 - Reading a Trace log

Overview

When using North52, being able to understand a trace log can help you to resolve any issues you come across during the development and testing of your formulas.

Note: There are multiple sections from different trace logs in this article, we will review each of them individually.

Plugin Context

A formula trace will start with information about the Plugin Context:

In the above, you can see the following useful information:

- This is a Stage 40 plugin which means it executed post-operation
- The message name is Update something changed on an already existing record, i.e. Not a Create or Delete Operation etc.
- It was fired against the Account entity
- It's Depth is 1 this is the first step in the Execution Pipeline
 - The more consecutive layers of logic that are triggered by this action will increase the Depth (Microsoft uses depth count to detect infinite loops)
 - In online instances the max Depth allowed is 16
 - In on-premise instances the default is 8, but it can be raised by using PowerShell scripts
- The date and time the plugin fired

You can learn more about the execution pipeline here: https://docs.microsoft.com/en-us/powerapps/developer/common-data-service/event-framework#event-execution-pipeline

Changed Attributes (Fields)

In the above server-side trace snippet you can see the input parameters - i.e. What has changed. In the above the values that changed are:

- name > changed to Name13
- modifiedon > date and time of save
- modifiedby > Guid of the User who made the change

Formulas Registered for Trigger Event

~GetFormulas: account Count: 1 : 0 ~Validate Configuration: Oty :: True :: 0 ~ColumnNames: accountid :: 0 ~GetSourceEntityPreValues

These lines show how many formulas are being triggered by this server-side save event.

In this case, only 1 formula is registered to be fired: Oty

In the validate configuration line you can see it is listed with two boolean values. Both of these need to be true for the formula to actually execute. If either is false, then the formula wont be triggered.

The boolean values represent if the formula is active and if the attributes that have changed will trigger it.



Below you can see a portion of a trace log on a the Account entity that has many Formulas connected:

However only 4 of the 14 formulas are True :: True, so it makes understanding the complex log easier.

Start Single Formula execution

He we will cover what actually happens during function execution.

We will use the following formula for our example:

Operators Snippets Commands	
<pre>Upper(Left([account.name] ,3)) + '-'</pre>	+
PadLeft(FindCountFD('GetCurrentAuto	Value',
	'accountnumber',
	'0',
	true,
	<pre>SetParams(Upper(Left([account.name] ,3)) + '%')</pre>
	+1,
4,'0')	

This formula is creating an auto number. The specific requirement is that the first 3 characters of the account name is used as a prefix and that when generating the AutoNumber we need to count the number of existing prefix records and increment by one. You can see the detailed example here: https://support.north52.com/knowledgebase/article/KA-01066-dynamics-crm-365-xRM-Formula-062-Advanced-AutoNumber/en-us

Formula Execution

We will analyse this Formula and determine what function will execute first, and how the output of a function becomes the input for another function.

The account name here is Microsoft - UK.

The first statement to execute will be the Left([account.name], 3)

North52 functions will execute left to right and inside out. In this example the Upper(Left([account.name], 3)) doesn't depend on anything else executing first, but the Upper() function needs the output of the Left([account.name], 3) function before it can execute.

In the trace log you will see

Function Name: left Value: Mic (the output of the Left() function is Mic and this becomes the input for the Upper() function)
Function Name: upper Value: MIC (the output of the Upper() function is MIC)
The next function to execute will be populating the SetParams() of the FindCountFD().

Again it's an Upper (Left ([account.name], 3)), so you will see a repeat of the first two function outputs in the trace log:

Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: left Value: Mic Function Name: upper Value: MIC

Next the SetParams() value will be populated with the output of the Upper() being added to a % symbol:

SetParams(Upper(Left([account.name] ,3)) + '%')

Function Name: left Value: Mic
Function Name: upper Value: MIC
Function Name: left Value: Mic
Function Name: upper Value: MIC
Function Name: setparams Value: MIC%
Next comes the evaluation of the FindCountFD() function. In the trace log you will be able to see the Fetch-XML that was executed:

Function Name: left Value: Mic



Function Name: upper Value: MIC Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: setparams Value: MIC% FetchXml-A.: <fetch distinct='false' mapping='logical' no-lock='true' aggregate='true'> <entity name="account"> <attribute name='accountnumber' alias='accountnumber_count' aggregate='count' /> <filter type="and"> Function Name: findcountfd Value: 3 The FindCountFD() function returns a value a 3. FindCountFD('GetCurrentAutoValue','accountnumber','0',true,SetParams(Upper(Left([account.name] ,3)) + '%'))+1 The result of the FindCountFD() is incremented by 1 giving a value of 4. That number is then the input of the **PadLeft()** function: PadLeft(FindCountFD('GetCurrentAutoValue','accountnumber','0',true,SetParams(Upper(Left([account.name],3)) + '%')) +1, 4, '0')PadLeft (4,4,'0') is what is actually executed: Pad to the left of the value 4, with zeros until we have a 4 digit string: Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: setparams Value: MIC% FetchXml-A.: <fetch distinct='false' mapping='logical' no-lock='true' aggregate='true'> <entity name="account"> <attribute name='accountnumber' alias='accountnumber_count' aggregate='count' /> <filter type="and"> <condition attribute="accountnumber" operator="like" value="MIC%" /> </filter> </entity> </fetch> Function Name: findcountfd Value: 3 Function Name: padleft Value: 0004 So now we have evaluated all function calls: 'MIC' + '-' + '0004' Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: left Value: Mic Function Name: upper Value: MIC Function Name: setparams Value: MIC% FetchXml-A.: <fetch distinct='false' mapping='logical' no-lock='true' aggregate='true'> <entity name="account"> <attribute name='accountnumber' alias='accountnumber_count' aggregate='count' /> <filter type="and"> <condition attribute="accountnumber" operator="like" value="MIC%" /> </filter> </entity> </fetch> Function Name: findcountfd Value: 3 Function Name: padleft Value: 0004 Function Name: padleft Value: 0004 ~Result: MIC-0004 This value is then put into the Account Number field:



Account Num	Account Name
MIC-0004	Microsoft - UK
MIC-0003	Microsoft - Ireland
MIC-0002	Microsoft - USA
MIC-0001	Microsoft - Spain

Entity Trace for north52_formula

The entity trace for the North52 formula appears next and will give you plenty of relevant information about the settings on formula that was triggered.

~*************************************
000d3aba6b7b Attributes:[PrimitiveValue: north52_checksum: 16D5887A6BE54E96E8E2C12902EC3061; OptionSetValue:
north52_executeas: 217890000; OptionSetValue: north52_executionprocess: 217890000; OptionSetValue: north52_pipelineevent:
217890002; PrimitiveValue: north52_formuladescription: UpdateRecord('account', [account.accountid],
SetAttribute('fax', '0211234567')) ; OptionSetValue: north52_pipelinestage: 217890001; PrimitiveValue:
north52_deploymentsolution: North52FormulaManagerDeploymentSolution; PrimitiveValue: north52_version: 9dec3b94-c248-4d30-
8096-4effe2cb8ac4; OptionSetValue: north52_tracinglevel: 217890001; PrimitiveValue:
north52_enablefindfunctionfetchxmloptimization: True; PrimitiveValue: north52_enableprevaluecheck: False; OptionSetValue:
north52_mode: 217890002; OptionSetValue: north52_displayformat: 217890000; PrimitiveValue: createdon: 6/11/2020 8:15:34
AM; OptionSetValue: north52_formulatype: 217890013; PrimitiveValue: north52_sourceentityproperty:
name address1_line1 address1_line2 address1_line3; PrimitiveValue: north52_sourceentityname: account; PrimitiveValue:
north52_shortcode: Oty; PrimitiveValue: north52_name: Account - Save - Perform Action - Thu Jun 11 2020 09:15:34 GMT+0100
(British Summer Time); PrimitiveValue: north52_formulaid: 6d9503b9-bbab-eal1-a812-000d3aba6b7b; FormattedValue:
north52_executeas: Calling User; FormattedValue: north52_executionprocess: Dynamics Sandbox; FormattedValue:
north52_pipelineevent: Create & Update; FormattedValue: north52_pipelinestage: Post-Operation (Synchronous);
FormattedValue: north52_tracinglevel: Information; FormattedValue: north52_enablefindfunctionfetchxmloptimization: Yes;
FormattedValue: north52_enableprevaluecheck: No; FormattedValue: north52_mode: Server Side; FormattedValue:
north52_displayformat: String; FormattedValue: createdon: 11/06/2020 08:15; FormattedValue: north52_formulatype: Save -
Perform Action;]

Relevant pieces of information:

- north52_sourceentityname what entity the Formula is executing against
- north52_sourceentitypropertyname what are the triggers for the Formula
- north52_pipelinestage where the event execution pipeline is the Formula going to fire
- north52_formulatype e.g. Formula type: Save Perform Action, Save To Current Record, Process Genie, etc.



Debug & Trace - Intermediate - Part 2 - Client Side Debugging

[TOC]

Overview

Sometimes it becomes necessary to perform debugging of client-side code. This would usually be needed in the following circumstances:

- Allowing us to see how a Formula that is set to execute on a form [e.g. onChange() event] interacts between the web page and the server
- Debugging some element related to the North52 user interface

Fiddler

In order to perform this debugging we need a free debugging tool called Fiddler. If you do not have this installed please download from http://www.telerik.com/fiddler

•					Fiddler Web
<u>F</u> ile <u>E</u>	dit <u>R</u> ules <u>T</u> ools <u>V</u> iew	<u>H</u> elp G	GET /book	🔛 GeoEdge	
📢 Win	8 Config 🔍 🍫 Replay 🄀	(+ 🕨 Go	o 🛛 🌲 Stre	am 龖 Decode Keep: All sessions 🔻 🤅	🗄 Any Process 🏦 Find 🔣 Save 🗓 🖄 🏉 Browse 🔹 🕀 Clear Cache 🎢 TextV
#	Overall_Elapsed	Result	Protocol	Host	URL
Ξ1	0:00:00.560	200	HTTP	www.telerik.com	/UpdateCheck.aspx?isBeta=False
\mu 2	0:00:00.216	200	HTTP	Tunnel to	orga6aa8c28-preview.crm4.dynamics.com:443
≪≫3	0:00:01.918	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/main.aspx?etn=north52_formula&pagetype=entitylist
a s 4	0:00:00.251	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/_common/entityproperties/entitypropertiesutil.js.aspx?tstamp=-1619972768&ver=212950
\mu 5	0:00:00.162	200	HTTP	Tunnel to	orga6aa8c28-preview.crm4.dynamics.com:443
6 🖺	0:00:00.158	200	HTTP	Tunnel to	orga6aa8c28-preview.crm4.dynamics.com:443
5 7	0:00:00.242	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/_common/EntitiesCustomizedHelp/EntitiesCustomizedHelp.js.aspx?tstamp=-1619972768&v
8 25	0:00:01.733	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/_controls/ribbon/RibbonLayout.js.aspx?cb=true&hierarchy=00000000-0000-0000-0000-000
≪≫9	0:00:02.578	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/_root/homepage.aspx?etc=10063&pagemode=iframe&sitemappath=Settings%7cCustomiz
2 10	0:00:00.229	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/AppWebServices/MetricsReportingService.asmx/Report
2 11	0:00:00.242	200	HTTP	en-gb.appex-rf.msn.com	/cgtile/v1/EN-GB/News/Today.xml
5 12	0:00:01.763	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/_controls/ribbon/RibbonLayout.js.aspx?cb=true&econtext=HomePageGrid&etn=north52_f
2) 13	0:00:00.256	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/AppWebServices/RecentlyViewedWebService.asmx
5 14	0:00:00.227	200	HTTPS	orga6aa8c28-preview.crm4.dynamics.com	/%7B635524582110003543%7D/WebResources/Ribbon_main_system_library.js?ver=2129.

Setup Debugging

- In order to perform debugging you need to start Fiddler
- It should look something like the screenshot above
- If the CRM system you are accessing runs under HTTPS \SSL then go to Tools > Fiddler Options and enable the 2 check boxes as shown in the screenshot below. Note some popups will appear and you can just accept these.
- Ensure that in the top left hand corner of Fiddler that the Capture Traffic is turned on

Decrypt HTTPS Traffic

Fiddler Options
General HTTPS Connections Gateway Appearance Extensions Tools
${\sf Fiddler} \ is \ able \ to \ decrypt \ {\sf HTTPS} sessions \ by \ re-signing \ traffic \ using \ a \ self-generated \ certificate.$
✓ Capture <u>H</u> TTPS CONNECTs
☑ Decrypt HTTPS traffic Learn about decryption and certificate errors
from all processes V Certificates generated using Fiddles Default
Ignore server certificate errors C:\Program Files (x86)\Fiddler_v:idler.exe
Check for certificate revocation
Skip decryption for the following hosts:
Export Root Certificate to Desktop <u>R</u> emove Interception Certificates
Help Note: Changes may not take effect until Fiddler is restarted. OK Cancel



Capture Traffic

File	Edit	Rules	Tools	View	1
~	Captu	re Traffi	c 🛌	F12	
	New \	/iewer			
	Load Archive				
	Recent Archives				
	Save		•		
	Import Sessions				
	Export Sessions				
	Exit				
^(A) 1(0:0	0:00.07)		
1	1 0:0	0:00.06	1		

How to Perform Debugging

- Now that Fiddler is up and running you need to navigate to the web page in CRM and perform the desired action
- This could be changing the value of a field on the form which would then trigger the North52 Formula to execute
- What happens then is Fiddler records this interaction so we can see all the details of what happened
- You can click File -> Save -> All Sessions to save a file which will contain this interaction
- Finally you can send this file to support@north52.com to get it reviewed and a resolution to your issue



Debug & Trace - Top 10 - Tips & Tricks

[TOC]

Overview

In this article we review a variety of common error messages and scenarios and the steps to help you begin troubleshooting.

Tip #1

Error Message

"An error has occurred in North52 FormulaManager.System.ServiceModel.QuotaExceededException: The size necessary to buffer the XML content exceeded the buffer quota."

Resolution

The usual cause of an error like this would be when the Formula is running Post-Operation and the Formula is updating a field on the record, that is also a trigger field for the Formula, thereby creating an infinite loop. This will also apply if the **Source Property** is set to **All Properties**.

To resolve this error, you will need to set the Formula's Source Properties correctly.

Tip #2

Error Message

"An error has occurred in North52 FormulaManager"

Resolution

This error message has 2 potential causes:

- 1. Some error has occurred in the Formula that is executing and the North52 Configuration record Trace Level is set to Off
- 2. An error occurs further along the execution pipeline

a. For example, the Formula updates a field on an Account record. There is another piece of logic that triggers on change of that field (a North52 Formula, a plug-in or a real-time workflow) and this has an error in it

To begin resolving this you could change the **Trace Level** value to **Information (Show Exception Details).** This will display the error from the main Formula in scenario 1, or bubble up the error message from the later executing logic in scenario 2.

Tip #3

Error Message

"An error has occurred in North52 FormulaManager.An exception System.FormatException was thrown while trying to convert input value '?' to attribute 'account.primarycontactid'. Expected type of attribute value: System.Guid. Exception raised: Guid should contain 32 digits with 4 dashes (xxxxxxx-xxxx-xxxx-xxxx-xxxxx-xxxxx)."

Resolution

The Formula is attempting to do an **UpdateRecord()** and the value that is passed into the Account's **primarycontactid** field should be a **Guid**, but instead a **?** is being provided instead.

Usually in a FindValue() function a '?' is set as the default if no value is found, so its likely the trace log will show this.

It is possible that there is incomplete data in the Dynamics instance, or the FindValue() needs to be corrected.

Tip #4

Error Message

Behavior: No server side Formulas are executing at all



Resolution

It is possible that the SDK message processing steps that connect North52 Formulas to server-side events have been disabled somehow.

Follow the steps in this article to reactivate them: https://support.north52.com/knowledgebase/article/KA-01989-dynamics-crm-365-Troubleshooting-06-Enable-SDK-Message-Processing-Steps/en-us

Tip #5

Error Message

Time out Exceptions in N52 Publish All workflow

An unexpected error occurred from ISV code. (ErrorType = ClientError) Unexpected exception from plug-in (Execute): North52.FormulaManager.Plugins.Configuration.N52Command: Microsoft.Crm.TimeoutException: Couldn't complete execution of the North52.FormulaManager.Plugins.Configuration.N52Command plug-in within the 2-minute limit.

This is saying the Publish is unable to complete inside the platform 2 minute time limitation. There are two steps you can take to resolve this:

Resolution 1

Delete Trace Logs

North52 Formulas have a parental relationship with their trace logs. Therefore if you have a Formula with hundreds of trace logs, that is being replaced, the delete process will cascade delete all the trace logs. This can take some time.

To resolve:

- Go to the North52 App
- Select all existing Trace Log records and Delete them
 Ideally using a Bulk Delete Job
- Click Publish All Customizations again (to re-trigger the N52 Publish All workflow)

In most cases, this will resolve the issue for you.

Resolution 2

Lower the Publish Count

If you are still seeing timeouts, you can lower the N52 Publish Count. Please see this article: https://support.north52.com/knowledgebase/article/KA-01995-dynamics-crm-365-Troubleshooting-12-Auto-Publishing-Publish-Count/en-us

By lowering the count, it will reduce the number of Formulas that are attempting to be published at the same time, but the publish workflow can take longer to complete.

Tip #6

Error Message

Form names are different between instances

Exception type: System.ServiceModel.FaultException`1[Microsoft.Xrm.Sdk.OrganizationServiceFault] Message: The form named New Form cannot be found. If you have renamed or deleted the form you will need to restore the form so changes can be made to this formula.

Resolution

This error message occurs when you are trying to publish a client-side Formula that is connected to a form that doesn't exist in the target instance. Often the form has been renamed, or maybe has been deleted entirely.

To resolve:

- Correct the form name in the source instance
- Modify the formulas on that form to have the correct form binding
- Save and publish the Formulas
- Re-export from source instance
- Import into target instance and publish



Or you could rename the form in the target instance to match the source instance (usually only applies if the form in the target instance was renamed accidentally).

Tip #7

Error Message

Scheduler infinite loop

Message: This workflow job was canceled because the workflow that started it included an infinite loop. Correct the workflow logic and try again. For information about workflow logic, see Help.

Resolution

This error message occurs when your schedule triggers Microsoft's infinite loop detection. You will need to decrease the Schedule's loop depth tolerance so that you avoid the Microsoft error.

To resolve:

- Decrement the Max Infinite Loop Depth on the Schedule by 2
- Retest Scheduler
- If error persists, decrement infinite loop count again and retest
- Repeat until resolved

Tip #8

Error Message

Nested Exceptions

Unhandled Exception: Microsoft.Xrm.Sdk.InvalidPluginExecutionException: An error has occurred in North52 FormulaManager.

List of the possible sources that a nested exception is being thrown:

- Another formula
- Real-time Workflows
- Custom Plug-In
- Data Integration such as Scribe, Simego, etc.

Resolution

In order to capture the nested exception we need to turn on tracing. The steps below will show you how to do this:

- Navigate to the North52 Configuration record
- Change the Tracing Level to Information (Show Exception Details)
- Click Save
- Perform the action that caused the failure to see the nested exception details

Tracing Level	Off
2	Information (Show Exception Details)
Refresh Cache Interva	Information (Disable Platform Updates)
License Accepted	Information Frror

Tip #9

Error Message

Client-side Formula not executing upon trigger

Client-side formula not executing / bindings are not setup

Resolution

This issue doesn't come with an error but it is noticeable because client-side Formulas don't trigger when they should.

First you need to check if the bindings are set up:



- Open up the form designer for the applicable form
- Open the Form's Properties
 - Under Form Libraries make sure all 3 JavaScript libraries are there: north52_/javascript/n52.json, north52_/javascript/n52.rest and north52_/javascript/n52.clientside
 - Under Event Handler, make sure the expected event has north52_/javascript/n52.clientside
 - For example a client-side formula on the Account entity that triggers on change of the description field would have a north52_/javascript/n52.clientside on Control equal to Description and Event equal to Change

If any of the above are missing, you will need to recreate the bindings:

- Open the Formula and select N52 Command > Publish Formula
- If the issue still persists, you will need to re-select the bindings
- In the Formula, expand Source & Target and set the Source Property to any field, save and then set the Source Property back to the original field and save again
- Publish the Formula once more and retest

Tip #10

Complete our training courses!

We have over 10 courses with 50+ lessons available that can get you North52 certified! The FREE online training is available at: https://support.north52.com/training/

If you still cant find what you need, please contact support@north52.com.