

My top
XrmToolBox
tips

The Insider's Version

Jonas Rapp

```
var jonas = (WhoAmIResponse)service.Execute(new WhoAmIRequest());
```

Enterprise Architect, Avanade Center of Excellence

Software Developer (1994-)

100% MS Dynamics CRM (2009-)

XrmToolBox contributor (2014-)

Microsoft MVP (2017-)

Twitter: [@rappen](https://twitter.com/rappen)
Email: jonas@jonasrapp.net
Blog: jonasrapp.net

XrmToolBox: Tanguy Touzard
Twitter: [@XrmToolBox](https://twitter.com/XrmToolBox)
Web: www.xrmtoolbox.com



Audience

```
var you = (WhoAreYouResponse)service.Execute(new WhoAreYouRequest());
```

Heard of XrmToolBox?

Used XrmToolBox?

Had problems with XrmToolBox?

Reported a bug?



If you are not working with
XrmToolBox...

...you are just working too hard.

-Jonas Rapp, 2018

LINKS AND REFERENCES

jonas@jonasrapp.net



WHY XRMTOOLBOX?

Administrator / User perspective

Limited CRM admin UI

Bulk actions

Data investigation

Advanced editors

Expose SDK-only features



WHY XRMTOOLBOX?

Customizer / Developer perspective

I really don't like working too hard

Internal tools and gadgets

The toolbox is there to be filled

Open Source

Community collaboration



HANDS-ON

INSTALLING XRMTOOLBOX

www.xrmtoolbox.com

Download



Unblock



Unpack



Run



Not an “installation”

TUTORIAL

<https://jonasrapp.net/xtb-school/intro>



PLUGINS STORE

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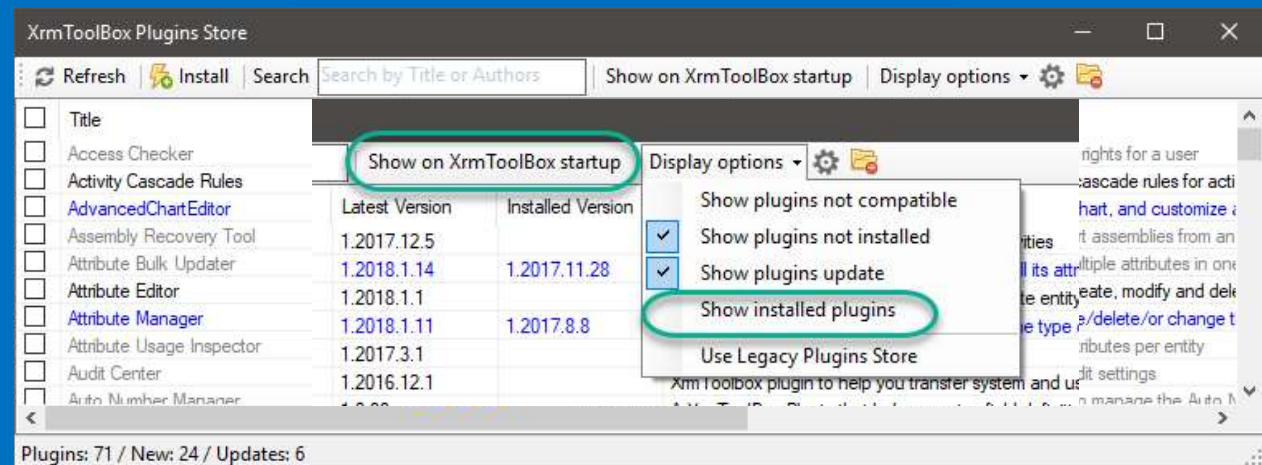
Available tools

Updated tools

Tool rating

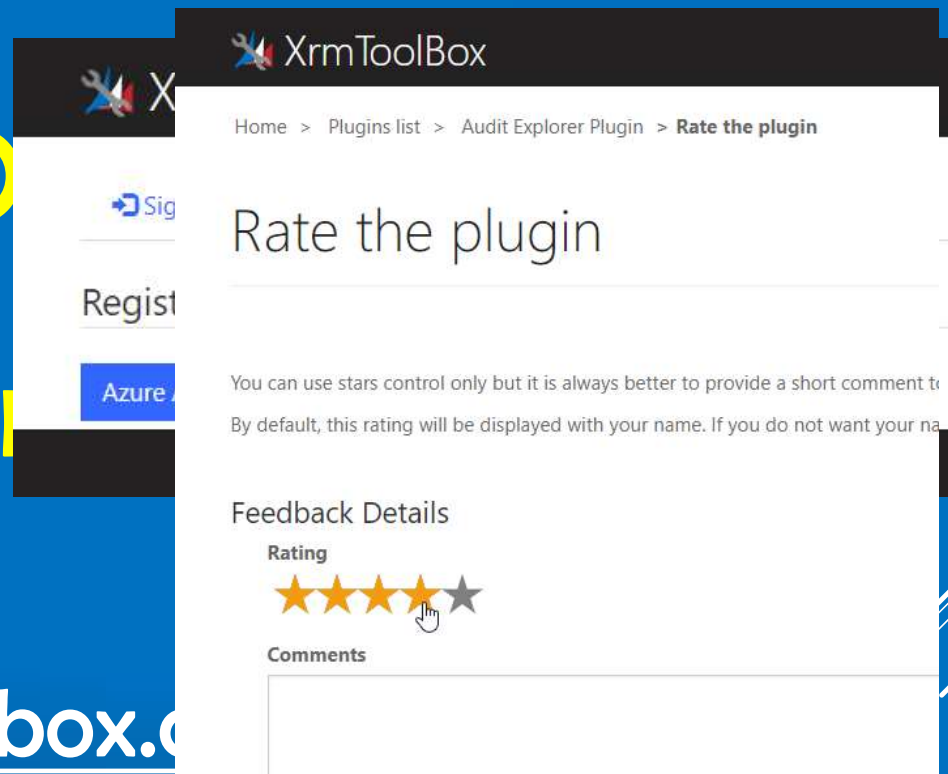
Approved tools

One-click installation
(downloaded from NuGet)



**RATE TO
CONTRIBUTE TO THE**

www.xrmtoolbox.com



FEEDBACK

docs.microsoft.com



XRMTOOLBOX BASICS

FILE STORAGE

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Managed storage area

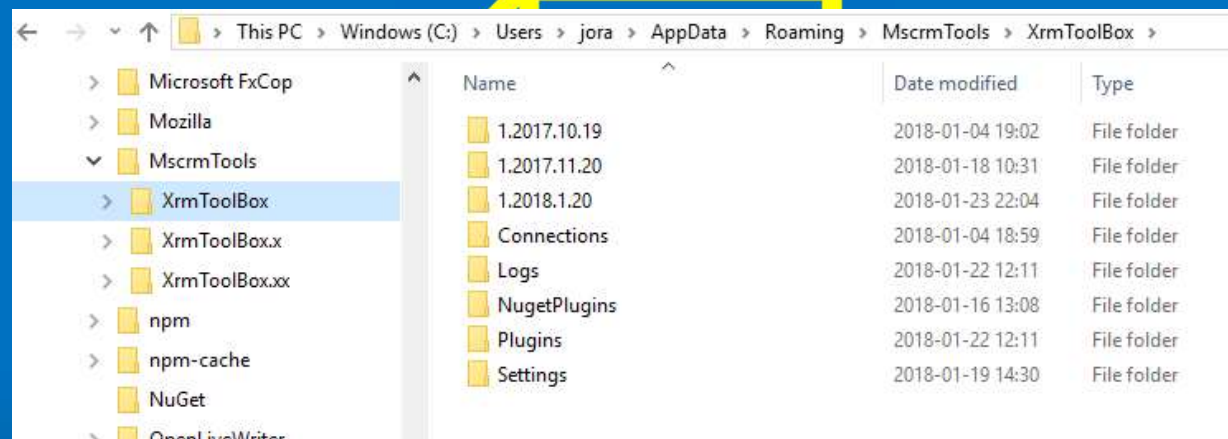
Tools (Plugins)

Settings

Logs

(Default) Connections

NuGet downloads



FILE STORAGE

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Managed storage area

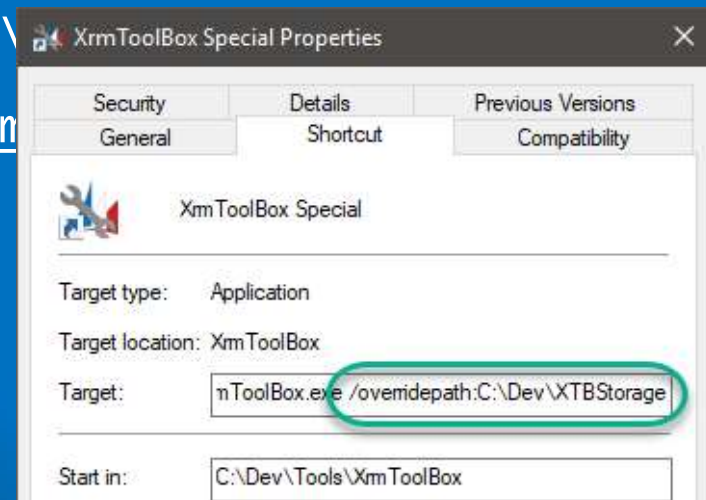
%AppData%\MscrmTools\XrmToolBox\
c:\Users\jonas.rapp\AppData\Roam

Override default location

/overridepath:[mypath]

Custom shortcut

Project specific setup



CONNECTION FILES

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tips

Use them!

Constant pain

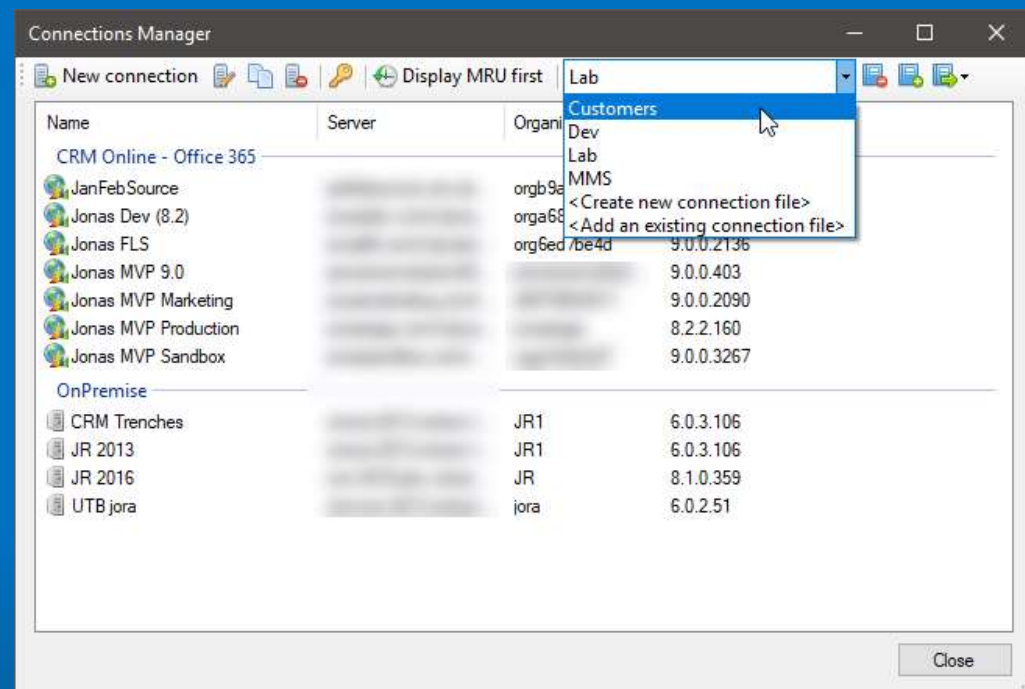
Separate files

Custom storage

Commit to your repo

Store on your OneDrive

<https://jonasrapp.net/xtb-school/conn>



SETTINGS

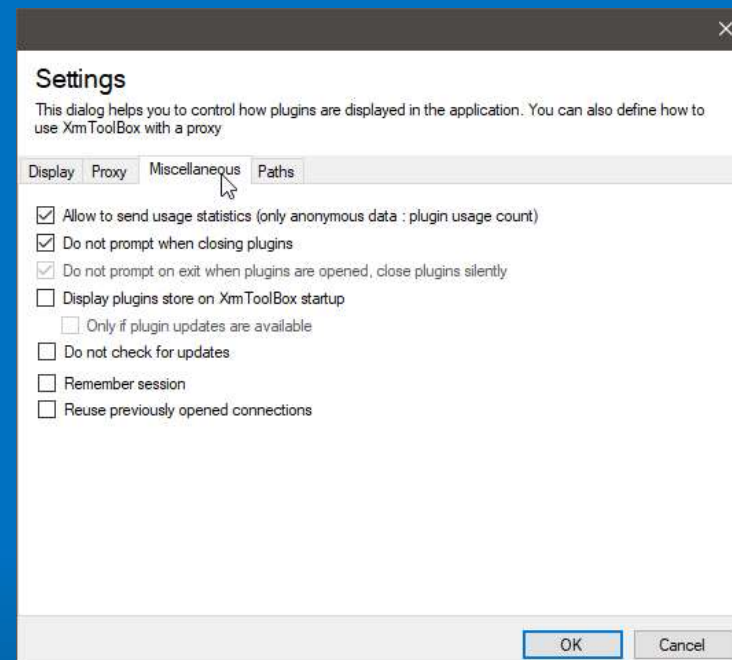
My top
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Sort tools

Hide tools

Quit prompting

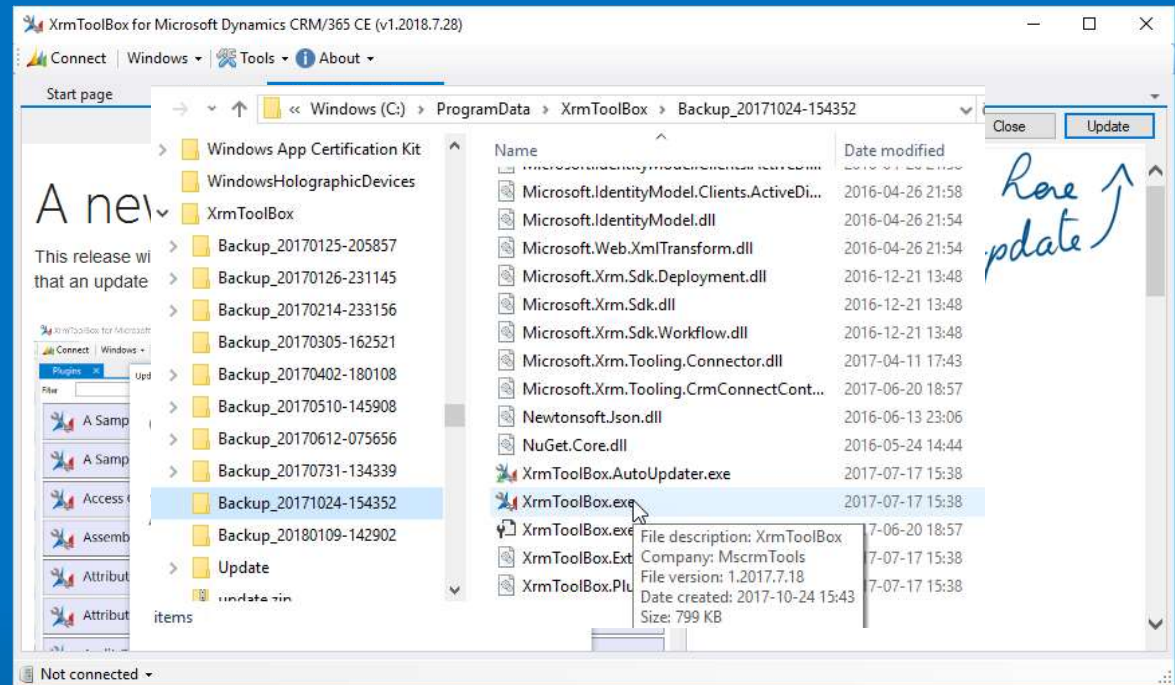
Find file storage



UPDATING XRMTOOLBOX

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Just say Yes
File conflicts
Delete tools
Connections lost Saved!
Backup



UPDATING TOOLS

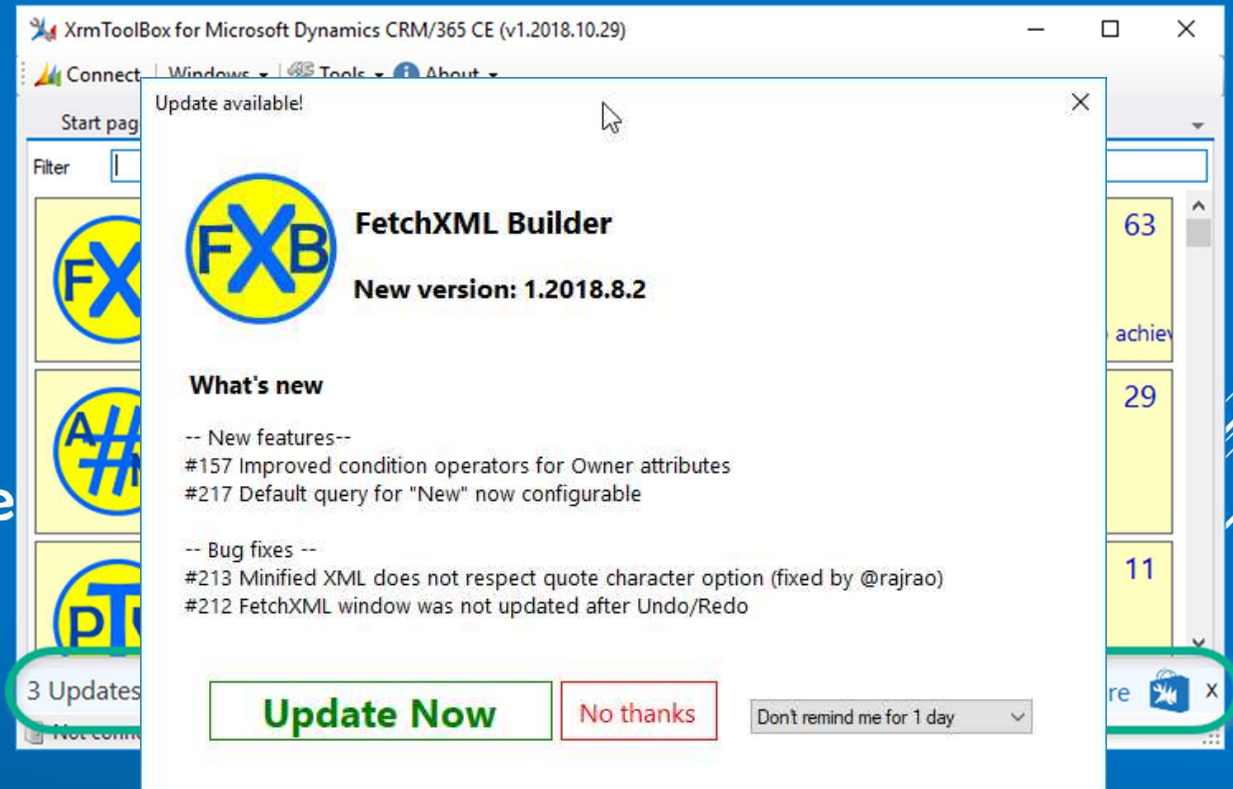
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Just say Yes

Improvements

Bug fixes

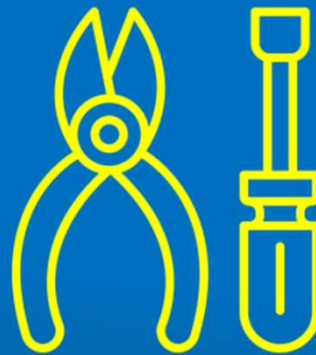
New: Prompt to update



LATEST IS GREATEST



MY FAVORITE TOOLS



MY FAVORITE TOOLS



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Web Resources Manager

Metadata Browser

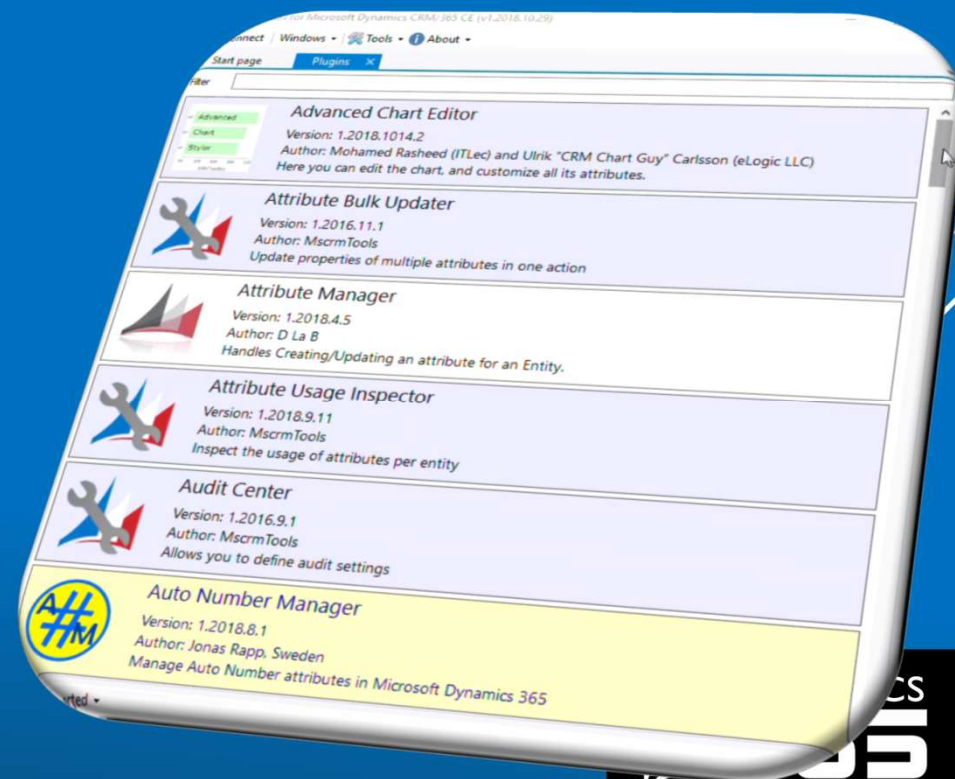
Sitemap Editor

Plugin Registration

View Layout Replicator

FetchXML Builder

Easy Translator



CS
SATURDAY

MY FAVORITE TOOLS



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Plugin Trace Viewer
Ribbon Workbench
Shuffle Builder / Runner
Attribute Manager
Auto Number Manager
Early Bound Generator
Latebound Constants Generator

 DYNAMICS
365
SATURDAY

MY FAVORITE TOOLS



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Plugin Auto Deployer

Bulk Data Updater

Solution Installer

Solution History

View Designer

Code Now



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Demo Time!

Web Resources Manager

Plugin Trace Viewer

Plugin Auto Deployer

Metadata Browser

Ribbon Workbench

Bulk Data Updater

Sitemap Editor

Shuffle Builder/Runner

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Thanks to our great sponsors



... and also D365 Saturday Seattle for a gracious contribution!



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Solution History (MMS 2016 Full1)

From	To	Type	Component Name	Message
18/01/2017 08:45	25/01/2017 08:45	Entities	System Translation	

SiteMap Editor (MMS 2016 Full1)

SiteMap: Area (MMS_MUA_1)

Properties: Id * cint_mms_mua_membership, Available Offline ☐

Plugin Registration (Rappen 365)

Registered Plugins & Custom Workflow Activities:

- (Assembly) ActivityFeeds.Filtering.Plugins
- (Assembly) ActivityFeeds.Plugins

Entities

Display name	Logical name
Account	account
Account Project Price List	msdyn_account...
Activity	activitypointer
Actual	msdyn_actual
Actual Data Export (Dep...	msdyn_dataexp...
Address	customeraddress
Advanced Similarity Rule	advancedsimila...
Agreement	msdyn_agreem...
Agreement Booking Date	msdyn_agreem...
Agreement Booking Inc...	msdyn_agreem...
Agreement Booking Pro...	msdyn_agreem...
Agreement Booking Ser...	msdyn_agreem...
Agreement Booking Ser...	msdyn_agreem...
Agreement Booking Set...	msdyn_agreem...

Source Views

View Name	View Type
<input type="checkbox"/> Accounts: No Orders in Last 6 Months	Public view
<input type="checkbox"/> Accounts: Responded to Campaigns in Last 6 Months	Public view
<input checked="" type="checkbox"/> Active Accounts	Public view
<input type="checkbox"/> Customers	Public view
<input type="checkbox"/> Inactive Accounts	Public view
<input checked="" type="checkbox"/> My Active Accounts	Default public view
<input checked="" type="checkbox"/> My Connections	Public view

Target Views

View Name	View
<input checked="" type="checkbox"/> Account Advanced Find View	Adv...
<input checked="" type="checkbox"/> Account Associated View	Ass...

```

CRM 2011 to 2016 (v1.2017.1.5)
ctions | Tabs | Plugins store | Search | Help | Feedback | Donate |
16)
ot | Settings | Tools |
Expand all | File | Edit | Compare | Compress | Beautify | Enable Folding | Get Latest |
cint/_scripts/cint_smsjs x |
1 var Cinteros = Cinteros || {};
2 Cinteros.SMS = Cinteros.SMS || {};
3 Cinteros.SMS.cint_sms = {
4   _savedScheduledStart: null,
5   _validateDate: true,
6   formLoad: function ()
7   {
8     try
9     {
10      switch (Xrm.Page.ui.getFormType())
11      {
12        case CRM_FORM_TYPE_CREATE:
13          Cinteros.SMS.cint_sms.restrictRecipients();
14          Cinteros.SMS.cint_sms.setSender();
15          Cinteros.SMS.cint_sms.setRecipient();
16          break;
17        case CRM_FORM_TYPE_UPDATE:

```

Easy Translator by MscrmTools - 1.2016.8.23



MY FAVORITE TOOLS



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Why?

Editing RibbonDiffXml manually is inhumane

Legacy overkill inherited from SharePoint

How?

Graphical UI to layout buttons

Connect buttons to commands

Connect commands to enable- and display rules

Connect commands to actions

Connect actions to js-functions

RIBBON WORKBENCH
MVP SCOTT
DUROW



Remember

One small solution

Why?

Auto Numbers are finally possible to customize

But only through SDK

How?

Identify existing Auto Number attributes

Facilitate creating new and updating existing

Dynamics 365 UI Limitations

Just not possible in IU

**AUTO NUMBER
MANAGER**





AUTO NUMBER MANAGER – FEATURE

Create new Auto Number attributes

Update existing

Change current value

Snippets

Show sample result

Retrieve existing values (using FXE)

XrmToolBox for Microsoft Dynamics CRM / 365 CE (v1.2018.1.20)

Connect Search Tabs Tools About Open organization

Home Auto Number Manager (Jonas MVP Sandbox)

Close Show data with FXB

Target

Solution: Default Solution (Default)

Entity: Account (account)

Existing Text attributes

☐ Only show auto number attributes ☒ Show all string attributes

DisplayName	Format	LogicalName
Account Number	ACCT-{SEQNUM:5}	accountnumber
Address 1: City		address1_city
Address 1: Country/Region		address1_country
Address 1: County		address1_county
Address 1: Fax		address1_fax
Address 1: Street 1		address1_line1
Address 1: Street 2		address1_line2
Address 1: Street 3		address1_line3
Address 1: Name		address1_name
Address 1: ZIP/Postal Code		address1_postalcode

New Attribute

Auto Numbered attribute

Logical Name: accountnumber

Display Name: Account Number

Description: Type an ID number or code for the account to quickl

Maximum Length: 20

Language Id: 1033

Number Format: ACCT-{SEQNUM:5}

[SEQNUM](#) [DATETIMEUTC](#) [RANDSTRING](#)

Advanced: ☐ Don't require SEQNUM

Seed: Guess current

Sample number: ACCT-00001

Format successfully parsed.

Connected to 'jonassandbox.crm4.dynamics.com (Jonas Rapp Sandbox)'

Why?

FetchXML is the query language for Dynamics CRM

Advanced Find is the only “editor”

FETCHXML BUILDER



How?

Represent query in hierarchical UI

Generate corresponding FetchXML

Dynamics 365 UI Limitations

Not-in queries

Aggregate queries

System/internal entities

Attributes from linked entities

...and so on...



Solution to OOB limitations

Join on other fields than relationships

Generate C# QueryExpression code

Generate OData query string

WebAPI coming soon!

Convert to SQL

Easy to use UI to compose queries for reports in CRM

Easy integration with other tools

FETCHXML BUILDER – FEATURES

<http://fxb.xrmtoolbox.com>

[@FetchXMLBuilder](#)



Why?

Monitor plugin behavior

Development “debugging”

How?

Initialize Tracing Service

Write to trace

Throw exceptions

Dynamics 365 UI Limitations

Filtering, Column set, Form design

PLUGIN TRACE VIEWER



Filter by almost anything

Retrieve > 250 records

Quick view message / exception

Group / filter by correlation id

Aggregated stats

Identify related traces

Show related Plugin Statistics

Update log setting

PLUGIN TRACE VIEWER – FEATURES



<http://ptv.xrmtoolbox.com>
[@PluginTraceView](#)