

# AttachmentExtractor for MS CRM 2013

Version 2013.7 - November 2014

**User Guide** (How to work with AttachmentExtractor for MS CRM 2013)

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### 1 User Guide

This guide gives detailed explanations of all functionalities provided by **AttachmentExtractor for MS CRM 2013**.

If you need to reach us, see the <u>contact page</u>.

# 2 Introduction

**AttachmentExtractor** offers you a service based tool to move attachments from within your CRM 2013 to either a *Sharepoint location or a fileshare*, saving precious database space on the CRM 2013 and enabling various indexing & search options via Sharepoint and Microsofts Search Server functionality.

AttachmentExtractor is able to connect to any Microsoft Dynamics CRM 2013 (onPremise, online and hosted) and offers extracting email and note attachments, as well as extracting the email and note item itself for indexing its contents (both email and note descriptions are NOT changed, just replicated to an indexable file).

### 3 Trial Mode Restrictions

In trial mode the service will stop after each processed batch of items. The processing batch size is limited to 25 items per cycle and a maximum of 500 Items is supported in total.



# 4 Detailed functionality

AttachmentExtractor will install a separate Service for each configured Organization.

**"url-extension":** AttachmentExtractor requires the "url"-extension to be allowed in CRM. During setup, AttachmentExtractor modifies the blocked extensions List in CRM to allow "url". (This setting can be found in the system settings of your CRM Organization)

Each service will be listed in the Windows Service overview separately (see <u>section 9</u>, Additional information for a sample screenshot).

The Services **cannot** be started directly from the ServiceManagement. The product also installs a heartbeat service, which is monitoring the index services and restarting them if required. (E.g. on a server reboot). This service starts automatically on boot of the server and can be controlled via windows ServiceManagement.

Alternatively the services can be launched via the ServiceManagement Application, which is installed with the product.

AttachmentExtractor creates a new application log named <u>www.mscrm-addons.com</u> where status information, errors and batch process summaries are logged. This is independent of the extended logging features available in the service configuration panel.

Batches are processed every 100 seconds, the heartbeat service checks for service restarts every 500 seconds.

These times can be configured via registry, HKEY\_LOCAL\_MACHINE\SOFTWARE\PTM EDV-Systeme\AttachmentExtractorserver.

Create a DWORD value called HeartBeatInterval to change the heartbeat services default, a similar value called ServiceInterval is available for the extraction services.

With every batch processed, AttachmentExtractor analyses the emails and/or notes, saves the attachment to the configured location (FileShare or SharePoint) and then replaces the existing attachment with a url-file pointing to the new location. The new attachment is usually less than 500 bytes in size.

In addition the email or annotation item can be saved itself to allow indexing and searching in the actual entities description fields. If you choose to index those entities, the file saved to the external location will also contain some meta information, as for example with an email the subject, from, to, cc and bcc are also saved into the content file.



If you are using a SharePoint save location, additional attributes will be created with the documents

- CrmBackLink Containing a link to the actual CRM item
- EntityGuid
   The unique ID of the item
- EntityTypeName The name of the Entity in CRM
- IsCrmRecord Indicating if this item is an actual CRM record, or an attachment
- LinkGuid Containing the GUID and TypeName as a csv list for the attributes specified below
   LinkData
- LinkData
   Containing the display values for the attributes specified below
- EntityDate The created on date of the item in CRM

A comma separated list of the following items is saved into the SharePoint Attributes. The Attributes are separated by a semicolon:

For Email:

"from", "to", "cc", "bcc", "subject", "regardingobjectid"

For Annotation (Note):

"subject", "filename", "filesize", "notetext", "objectid"

Please note that the attributes are set for both the attachments and the actual entity.

The AttachmentExtractor creates a weekly or daily subfolder, based on the created date of an item.

weekly subfolder

2014 week42 (13-07-2014 to 19-07-2014) 13.10.2014 09:13

daily subfolder

2014 week42 (13-07-2014 to 19-07-2014)\_13Mo 13.10.2014 09:13

# 5 Overview - ServiceManagement

Velcome to the Attachme iis tool will help you create and m	AttachmentExtractor Management (V. 2015.7)	s.con
Add New Service	ServiceName	Other
Active Services Inactive Services	General         Logfile Path:         Min. Attachment Size:         64         Blocked Extensions:         ade;adp;app;bas;bat;chm;cmd;com;cpl;crt;csh;exe_fxp;hlp;hta;inf;ins;isp;js;jse;ks;hink;mda:mdb;mde:mdt;mdw;mdz;msc;msi;msp;mst;ops;pcd;plf;prf;prg;reg;scf;sc;r;sct;shb;shs;unf;vb;vbe;vbs;wsc;wsf;wsh         CRM Data Processing:       Consider option carefully)         Batch Size:       50         Process these Emails:       Canceled         Process these Emails:       Canceled         Pratt       Sending	
bal: HeartBeatService is fine	☐ Failed       ✓ Sent         Other:       ☐ Activate Debugging         Stop Service       Start Service         Delete       Save service config	guration

### Add New Service:

• <u>New service setup</u>: Start here to create a new Service

When creating a new service, you need to give it a descriptive service name, that name cannot be changed once set.

Active Services: A list of all running services

Inactive Services: A list of all inactive services



# 6 Configuration of a Service

<u>م</u>	AttachmentExtractor	Management (v. 2013.7)	
Welcome to the Attachment Extractor This tool will help you create and manage your ext		iew MSCrm-addons AttachmentExtractor for MS CRM 2013	.com
Add New Service	General Extractio	n Storage options Crm Connection Setup License Log O	ther
New service setup	ServiceName ServiceName:	AttachmentExtractorTest2014 (Once set, the servicename cannot be changed again)	♥
Active Services	General	( <b></b>	
Inactive Services	Logfile Path: Min. Attachment Size: Blocked Extensions:	64	
	CRM Data Processing: Batch Size:	(Consider option carefully) 50 $\hat{}$	
	Processedflag Field: Process these Emails:	ptm_jsprocessed         Canceled       PendingSend         Completed       Received         Draft       Sending         Failed       Sent	
	Other: Stop Service Start	Activate Debugging Service Delete Save service config	juration
global: HeartBeatService is fine			Close .:

- Logfile Path: The path where the extended logging for this service is saved
- Min. Attachment Size: The minimum file size for an attachment to be extracted
- <u>Blocked Extensions</u>: defines the files, that will be rejected due to their extension
- <u>CRM Data Processing</u>: Select to MOVE or COPY your CRM data. Attention! A move of data cannot be undone.
- <u>Batch Size</u>: Number of items to be processed per step
- Format:
- Strip HTML Tags: Tries to remove the HTML tags from an email body
- <u>Encoding</u>: Option to change encoding. ATTENTION! The encoding must be supported by your <u>search method, if you want to search inside the files extracted.</u>
- Process these Emails: Select the states an email can have to be processed
- Other:
- <u>Activate debugging : Enable extended logging</u>



# 7 Extraction

٥.	AttachmentExtractor Management (v. 2013.7)	_ <b>_</b> X
Welcome to the Attachment Extractor This tool will help you create and manage your ex	or Service Overview tractor services	a <b>ddons</b> .com
Add New Service	General Extraction Storage options Crm Connection Setup License	Log Other
New service setup	Items to index: 🗹 Email	
Active Services	Update Items:  Email Strip HTML Tags :  Only process emails older than	v 0 thours
Inactive Services	Apply delay to date : 🗹	Created 🗹 Modified
	Items to index:  Vote Vpdate Items: Note Only process notes Older than Apply delay to date : V	v 0 ♀ hours Created ✔ Modified
	Other	
	Encoding: Unicode (UTF-8) / utf-8 v Stop on Error: V	
	Excluded Entities: ptm_mscmaddons_dcptemplates	
	If the note is attached to an entity of the above listed, it will not be extracted New Folder per:	
	Day Stop Service Start Service Delete Si	ave service configuration
global: HeartBeatService is fine		Close

### **Email & Notes : Items to Index**

- <u>Selecting Email or Note</u>: will extract the Email/Note body and save it as a File.
- Selecting EmailAttachment or NoteAttachment: does process the attachment ONLY!
- <u>Update Items</u>: updates existing Email/Note files.
- <u>Delay Email/note processing by [0] hours</u>: Set the Email/Note delay processing by hours.
   Supplying a value tells the AttachmentExtractor to ignore all emails, whose modify or created date isn't at least older than the specified delay. (Setting the value to e.g. 168 means, that AE will not process any emails, that have been created/modified within a week)
- <u>Apply delay to date</u>: Specify if the delay should be applied to the created or modified date.



### Other

- <u>Encoding</u> specifies the encoding of the text files. Make sure it's compatible with any further processing like Microsoft Search Server. This setting should not be changed, unless you are sure, your SharePoint needs a different encoding!
- <u>Stop on Error</u>: The service will also shut down on non-critical errors.
- <u>Excluded Entities</u>: Contains a list of entities, which notes will not be processed by the Extraction. This is necessary to prevent the extraction of resource data required by Workflows or other Add-Ins. As an extraction cannot be reverted, please make sure you have identified all system required resources that use annotations for storing data before starting the service.
- <u>New Folder per</u>: Define if the data should be saved in a daily or weekly folder. If you have more than 5.000 items per week it is necessary to choose the daily folder.



# 8 Storage Options

(d)	AttachmentExtractor Management (v. 2013.7)	_ <b>D</b> X
Welcome to the Attachment Extractor This tool will help you create and manage your ex		lons.com
Add New Service	General Extraction Storage options Crm Connection Setup License Log	Other
New service setup		<b>~</b>
Active Services	Use Sharepoint Use Fileshare Use Fileshare	
Inactive Services	Sharepoint Browser:	
	Sharepoint user:	D
	File Storage	
	Internal Path:	
	External Path: C:\Users\Administrator\Desktop\mscm-addons.com	
	FileShare user: Password:	Þ
	Stop Service Start Service Delete Save serv	rice configuration
New:Configuration Changed		Close

Active Storage: Select, if you want to use SharePoint or a FileShare

### SharePoint

- <u>SharePoint Navigation</u>: Enter your SharePoint server and port or select from the dropdown list. Browse through your sites and libraries to specify the storage location. You MUST select a library. The (sitecollection) entry is optional and can be omitted, if not required.
- SharePoint user: The Username of the SharePoint user
- <u>Password</u>: The Password of the SharePoint user (Click on the Eye to see your Password unencrypted)

#### File Storage

- Internal Path: Choose the local Path of the Storage (e.g.: C:\AE\Files)
- <u>External Path</u>: Choose the external Path of the Storage, as it would be accessed by the users (<u>\\fileserver\AE\Files</u>)
- <u>FileShare user</u>: The username of the FileShare user
- <u>Password</u>: The Password of the FileShare user (Click on the Eye to see your Password unencrypted)



# 9 CRM-Connection Setup

(1) (1)	AttachmentExtra	ctor Management	(v. 2013.7)	_ <b>D</b> X
Welcome to the Attachment Extract This tool will help you create and manage your e		rview		SCIM- <b>addons</b> .COM achmentExtractor MS CRM 2013
Add New Service	General Extrac		Ons Crm Connection Setup	License Log Other
New service setup	Select your Crm Typ		O IFD (Hosted)	O Crm Online
Active Services				<b>৵</b>
Inactive Services	Authenticated as:			
	Organization infor			
	Friendly name	Unique name ti	ServiceURL ti	<u>^</u>
	Standard	Standard	Standard	
	🧶 CRM2013	CRM2013	CRM2013	~
	Reset LivelD Cac Advanced Optio Stop Service St		e	OK Cancel Save service configuration
New:Configuration Changed				Close

- <u>CRM Server-Url</u>: Url of the CRM-Server you want to use
- <u>Authenticated as</u>: Decide if you want to use default Credentials (not recommended, as the service is run as Networkservice and that user usually doesn't have CRM access) or if you want to log on with other credentials (always use administrator).
- Retrieve all Organizations: Get all Organizations from the selected CRM-Server
- Organization information: Friendly name, unique name and ServiceURL of each Organization



### 10 License

General license information				
	LicenseValue	Systemvalue	Status	
Licensemodel	perSite		6	
Licensekey	crsIXc3MfJrcstgSVJCKFXACR	Licensekey installed	0	
BusinessUnit	Standard	Standard		
Number of site licenses	110	6		
Licenses for Readonly Users	0	0		
Expiration	28.10.2015 00:00:00	730 days left		
Support	28.10.2015 00:00:00	730 days left		
Issued product	AttachmentExtractor	entExtractor AttachmentExtractor		
Version upgrade covered	28.10.2015 00:00:00	01.01.0001 00:00:00	<b>*</b>	
License Status		valid		
Licensestate		valid		
	Delete Licensir	ng Reset Extraction Save service of		

This overview is enabling you to quickly check your license state. If the license is invalid, the service will not start.

While in Trial mode, the service will terminate after each batch and only work through a maximum of 500 items total. After reaching that margin, it will stop completely.



# 11 Log

Message	TimeStamp	2
AttachmentExtractorService has shutdown all subprocesses	03.07.2012	
	03.07.2012	
<ul> <li>PTM has requested a shutdown, service is terminating</li> </ul>	03.07.2012	
I) PTM has requested a shutdown, service is terminating	03.07.2012	
I PTM has requested a shutdown, service is terminating	03.07.2012	09:33:07
AttachmentExtractorService has requested a shutdown, service is stopping running batches	03.07.2012	09:33:07
PTM has started successfully	03.07.2012	09:32:27
<ol> <li>AttachmentExtractorService has shutdown all subprocesses</li> </ol>	03.07.2012	09:25:29
I PTM batch reportEmailitems : 1, total 1EmailAttachments : 2, total 2Annotation	03.07.2012	09:25:28
IPTM has requested a shutdown, service is terminating	03.07.2012	09:25:28
IPTM has requested a shutdown, service is terminating	03.07.2012	09:25:28
I) PTM has requested a shutdown, service is terminating	03.07.2012	09:25:28
<ol> <li>AttachmentExtractorService has requested a shutdown, service is stopping running batches</li> </ol>	03.07.2012	09:25:28
<ol> <li>PTM has started successfully</li> </ol>	03.07.2012	09:25:02
<ol> <li>AttachmentExtractorService has shutdown all subprocesses</li> </ol>	03.07.2012	09:19:25
I PTM batch reportEmailitems : 1, total 1EmailAttachments : 0, total 0Annotation	03.07.2012	2 09:19:24
<ol> <li>PTM has requested a shutdown, service is terminating</li> </ol>	03.07.2012	09:19:24
I PTM has requested a shutdown, service is terminating	03.07.2012	2 09:19:24
I PTM has requested a shutdown, service is terminating	03.07.2012	
AttachmentExtractorService has requested a shutdown, service is stopping running batches	03.07.2012	2 09:19:24
Image: Constraint of the second se		
	Save service	e configuratio

The log provides an excerpt of the AttachmentExtractors eventlog, filtered for this specific service. This helps you to identify any issues with the service.

Double clicking on an entry in the list brings up the full description in a message box.



# 12 Other

(D)	AttachmentExtractor Management (v. 2013.7)	_ 🗆 X			
Welcome to the Attachment Extractor Service Overview This tool will help you create and manage your extractor services					
Add New Service New service setup Active Services Inactive Services	General       Extraction       Storage options       Crm Connection Setup       License       Log         Other CRM options       Image: Comparison of the storage option opti				
global: HeartBeatService is fine		Close .:			

<u>Activate revert extraction in emails</u>: Activating this option gives you the possibility to revert Email extractions. If you want to pass on, answer, or work with extracted Emails you should activate this option.

<u>Open custom storage location designer</u>: Clicking this button will lead you to the AttachmentExtractor custom storage location designer.



# 13 AttachmentExtractor custom storage location designer

This is a preview tool for designing and testing custom storage locations based on CRM entity data.

٥	AE Syntax Check	- • ×
Level1 Level2 Level3 [[Object1d, :createdby], fullname]	Â	Copy to Clipboard Save Value for service
Level1 Level2 Level3 B B	Data	et SP integrated

Attention: please note, that this tool requires profound knowledge of the CRM metadata!

### Section A

The different levels of AttachmentExtractor Syntax Check show example Syntaxes (for detailed information on how to define Syntax for the folder creation, please read <u>chapter 14</u>)

#### Level1

۵.	AE Syntax Check	_ <b>D</b> X
Level1 Level2 Level3		
[[ObjectId, :createdby], fullname]		Copy to     Clipboard
		Save Value for service

**Example:** always starting from the attachment, this example gets the createdby user of the entity referenced by objectID (this is the email in case of an email attachment and the parent entity in case of an annotation) and returns the fullname of that system user.



#### Level2

AE Syntax Check	_ 🗆 X
[[ObjectId, email:RegardingObjectId]   [ObjectId], account:name]   [[ObjectId, email:RegardingObjectId]   [ObjectId], contact fullname]   [[[ObjectId, email:RegardingObjectId]   [ObjectId], lead;opportunity;order;incident;new_project:owningbusinessunit],:name]   [[[ObjectId, :createdon{FormatByWeekAndDay}] ]	Copy to Clipboard Save Value for service

#### **Example:** RegardingEntityPattern.

Building the reference to the parent object, this is a reusable pattern to either retrieve the emails regarding object or the annotations parent entity, whatever the attachment reviewed is attached to.

[ObjectId, email:RegardingObjectId] <= check if the parent object is an email, if so, return the emails regarding object

| <= logical or, will only be evaluated, if above statement doesn't return data</p>

[ObjectId] <= In case of an annotation, retrieve the parent entity.

**Summary:** this sample pattern returns an entity reference pointing to either the emails regardingObject, or if the attachment is an annotation, to the parent entity of the annotation.

#### Level3

۵.	AE Syntax Check		_ <b>D</b> X
[[[ObjectId, email:Regardin [[[ObjectId, email:Regardin [[[[ObjectId, email:Regardin [[[[ObjectId, email:Regardin	gObjectId]   [ObjectId], new_project:new_operator_review_id],:name]   gObjectId]   [ObjectId], opportunity:parentaccountid],:name]   gObjectId]   [ObjectId], incident;order:customerid],account:name]   igObjectId]   [ObjectId], incident;order:customerid],contact:parentcustomerid], :name]   gObjectId]   [ObjectId], incident;order:customerid],contact:fullname]   [[ObjectId, [ObjectId], lead:companyname]	<	Copy to Clipboard Save Value for service

**Example:** in the screenshot above you can see another example of cascaded reference resolves.

[ [ [ObjectId, email:RegardingObjectId] | [ObjectId], <= RegardingEntityPattern

If the regardingentitypattern returns an entity of type incident or order, retrieve the customerid, which is another reference, pointing to an account. incident;order:customerid],contact:parentcustomerid],

this receives the name of the referenced Account, if it exists :name]



#### In General:

- Copy to Clipboard: Click here to copy your Syntax code to Clipboard
- Save Value for service: Click here to save your Syntax Value for Service

#### Section **B**

Shows a detailed tree-view of the chosen Level. E.g.: Level2. (See next screenshot)

I AE Synt	ax Check	- 🗆 X
Level1       Level2       Level3         [[ObjectId] email:RegardingObjectId] [ObjectId], account.name]         [[ObjectId] email:RegardingObjectId] [ObjectId], contact.fulname]           [[ObjectId] email:RegardingObjectId] [ObjectId], contact.fulname]         [[[ObjectId] email:RegardingObjectId] [ObjectId], contact.fulname]           [[[ObjectId] email:RegardingObjectId] [ObjectId], endopportunity.order/incident.new_project.owningbusinessunt       [[ObjectId], createdon(FormatByWeekAndDay)]         Level1       Level2       Level3         [[] \Bar Y Return fint O]       [[] \Bar Y f certity-] is account.receive name.from self		Copy to Clipboard Save Value for service
f (antity) is email receive RegardingObjectId by resolving reference ObjectId         X receive ObjectId from self         A receive ObjectId from self         X receive ObjectId from self		
< III >	Connection       Use AE Connection       Data       Load random Attachments       Load email       Processing       Repeat for current record       Process	

Choose the appropriate Level, activate the "Use AE Connection" check-box + [Connect] to connect to the current system or deactivate the checkbox and click on [Connect] to choose a different CRM connection.

This will activate the three Data Buttons shown in the next screenshot:

Connection Use AE Connection	Connect	
Data Load random Attachments	Load email	Load Note
Processing Repeat for current record		Process next

[Load random Attachments] Click here to load 50 random Attachments.

[Load email] Click on this button to insert a CRM link to an email.



	CRM Link to email or note
Link:	OK Cancel

**Please note**: Use the CRM send as link functionality to receive the proper link. Click on [OK] to continue.

[Load Note] Click on this button to insert a CRM link to an email or note.

AE Syntax Check - http://crm2013srv1:5555/Standard				
Level]  Level2  Level3    -   Depetdi, emai RegardingObjectid] Depetdi, accountiname]   Depetdi, emai RegardingObedi()Depetdi, land apportunity under/incident.new_project.owningbusinessunt].name]   Depetdi, unsetedon(Formatb)Week/ndDay]	A Copy to Gapboard Save Value for service			
Level1       Level2       Level3       Level3	Results     Log       Results     Log       Results     Log       Results     Contract       Contraction     Use AE Connection       Use AE Connection     Preset SP integrated       Data     Logd random Attachments       Logd random Attachments     Logd email       Processing     Process next       Respect for current record     Process next			

A		
AE Syntax Check - http://crm2013srv1:5555/Standard		_ 🗆 X
Level1         Level2         Level3           [         [ObjectId, email:RegardingObjectId]   [ObjectId], account:name]           [[ObjectId, email:RegardingObjectId]   [ObjectId], contact:fullname]             [[ObjectId, email:RegardingObjectId]   [ObjectId], contact:fullname]           [[[ObjectId, email:RegardingObjectId]   [ObjectId], lead;opportunity;order;incident;new_project:owningbusinessunit];name]             [[[ObjectId, :createdon{FormatByWeekAndDay}]]         []	^ 	Copy to Clipboard Save Value for service



В	
Level1 Level2	Level3
■ × ff ≪	THROUGH] returned 2013 Week42 (14-10-2013 to 20-10-2013)/15_Tu entity> is account receive name from self [SELF] {&29feb3-7c35-e311-93f0-00155dc80c07 email} returned {d4423aaf-4c5c-e011-9bb1-00155dc88112 quote} receive ObjectId from self [SELF] {&29feb3-7c35-e311-93f0-00155dc80c07 email} returned {d4423aaf-4c5c-e011-9bb1-00155dc88112 quote} receive ObjectId from self if <entity> is lead;opportunity;order;incident;new_project receive owningbusinessunit from self [SELF] {&amp;29feb3-7c35-e311-93f0-00155dc80c07 email} returned {d4423aaf-4c5c-e011-9bb1-00155dc88112 quote} if <entity> is lead;opportunity;order;incident;new_project receive owningbusinessunit from self </entity></entity>

After running a test, the result browser shows the actual return values and pathes resolved for the result.

С

Results         Log           Attachment:9229feb3-7c35-e311-93f0-00155dc80c07 of email 8f29feb3-7c35-e311-93f0-00155dc80c07/email         http://cm2013srv1:5555/Standard//main.aspx?etn=email&pagetype=entityrecord&id=%7B8f29feb3-7c35-e311-93f0-00155dc80c07%7D           Admin lstrator/2013 Week42 (14-10-2013 to 20-10-2013)/15_Tu/				
Connection Use AE Connection Connect		Preset SP integrated		
Data Load random Attachments Load email	Load Note	Items loaded 50Items		
Processing Repeat for current record	Process next	Process per Click 1		

In the Result-window shown in the screenshot above you can see:

<u>First line</u>: The attachment <u>Second line</u>: CRM-link to the attachment <u>Third line</u>: The result of the first and second line



### Section c: repeat for the current record.

### Result:

Level2         Level2           Level2         Level3           Image: PASSTHRDUGH[reland 2013 Week/2 (14-10-2013 to 20-10-2013)/15_Tu           Image: PASSTHRDUGH[reland 2013 Week/2 (14-10-2013 to 20-10-2013)/15_Tu/FormatbyWeek/PodDay)           Image: PASSTHRDUGH[reland 2013 Week/2 (14-10-2013 to 20-10-2013)/15_Tu/FormatbyWeek/PodDay)	Result         Log           Plastment 5229eb 37:536-311-330-001556:58:07 of email #229eb 37:536-311-330-001556:58:077/email flast_c/concil/biol/15505 Sended/.html and threemail.gover.emthmodeld-1789/249b 7:536-311-330-001556:88:075.72 Admin Instance 2013 Viewek 2(1419-001556:58:07 of email #229eb 37:536-311-330-001556:88:075.72 Admin Instance 2013 Viewek 2(1419-001556:58:07 of email #229eb 37:536-311-330-001556:88:072.72 Admin Instance 2013 Viewek 2(1419-00156:58:07 of email #229eb 37:536-311-330-001556:88:07 of email the administration of the administration of the administration of the administration of email #229eb 37:536-311-330-001556:88:072.72 Admin Instance 2013 Viewek 2(1419-00156:58:50)           Connection         Data         Example Administration Occurrent Instance 20156:88:072           Data         Load email         Load Note         Items loaded 508eme           Processing         Process nest         Process per Click         1
--	---



# 14 AttachmentExtractor Folder Creation Syntax

The new AttachmentExtractor folder creation syntax allows navigating through relations in CRM and picking fields from any related entity, starting from the Attachment Entity itself.

### Definition of the new syntax:

Blue: optional; Green: mandatory

[EntityReference], [EntityFilter separated by ;]:fieldname

### Basic example, get one field from the entity itself

,:filename

This tells the parser to stay in the entity itself (EntityReference is omitted). EntityFilter must be empty for fields inside the own entity. The parser will try to locate a property called filename and return the value of this property as a foldername.

### Example of getting an item from the owning entity of the attachment

ObjectId: createdon

The parser will locate the EntityReference ObjectID, load the Entity, that the reference is pointing at and return the property "createdon" from it.

Return: 29.07.2011 06\_04\_10

ObjectId: createdon{FormatByWeekAndDay}

The addition {FormatByWeekAndDay} tells the parser to convert the date into a more readable version

Returns: 2011 Week30 (25-7-2011 to 31-7-2011)/29\_Fr



### Working with entity filters

ObjectId, email:RegardingObjectId

By supplying entity schema names you can tell the parser to only return a field, if the entityreference is of a specific entity type.

In the above case, the RegardingObjectId is only returned, if the ObjectID reference is pointing to an email. In Case of an annotation, this expression would return no value.

#### Working with encapsulated References

By encapsulating a term, you can resolve a reference and work with the result item.

[ObjectId, annotation:ObjectId], :name

This will read the Entity the annotation is attached to and return the name property. If the attachment is owned by an email, the expression would not return a value

#### Working with optionals

### NOTE! Expressions containing optionals must be grouped by surrounding []

You can combine expression by a | (Pipe) sign. This tells the Parser to evaluate all expression until a result is found.

[[ObjectId, email:RegardingObjectId] | [ObjectId, annotation:ObjectId],: createdon]

This Expression will analyze the ObjectID reference and return the RegardingObjectId, if the entity is an email. If the entity in ObjectID is an annotation, it will return the ObjectId Reference of the annotation object.

The resulting expression is Entity Reference and the Parser will try to locate the created on field in the resulting entity

With entity filter:

[[ObjectId, email:RegardingObjectId] | [ObjectId, annotation:ObjectId], account:name]

Same expression, but the return value will only be evaluated if the referenced entity is of type account (Annotation is attached to account or email is having a Regarding Object of type account), returning the account name



### The big picture

[ [[ObjectId, email:RegardingObjectId] | [ObjectId, annotation:ObjectId], account:name] | [[ObjectId, email:RegardingObjectId] | [ObjectId, annotation:ObjectId], contact:fullname] | [[ObjectId, email:RegardingObjectId] | [ObjectId, annotation:ObjectId], :createdon{FormatByWeekAndDay}] ]

Above expression has 3 optionals:

- Identify the Regarding entity of the attachment and return the regarding object. (Via regardingObjectID in case of an email and the ObjectID in case of an annotation) If the regarding entity is of type account, return the property name.
- Identify the Regarding entity of the attachment and return the regarding object. (Via regardingObjectID in case of an email and the ObjectID in case of an annotation) If the regarding entity is of type contact, return the property fullname.
- 3. Return the createdon of the entity, the attachment is associated with (Email or annotation) and format it.

The parser will stop at the first match; hence the 3<sup>rd</sup> option is a fallback, as all entities (Except the actual attachment itself) have a createdon date.

### **Fixed Functions in detail**

The following functions are available :

{FormatByWeekAndDay} : Treat the referenced field as a date and format by day and week

{DocumentLocation} : Resolve the EntityReference as CRM would create the Sharepoint location.

{ThrowIfEmpty} : Ignore the record, if the value is not present

{Throw} : Ignore the record, if this branch is evaluated



# 15 Additional Information

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ei Aktion <u>A</u> n	sicht ?				
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Dienste (Lokal)	Oienste (Lokal)				
	AttachmentExtractorService PTMEDVSystemeGmbH crm2011r3 5555	Name	Beschreibung	Status	Starttyp
	(fs)	Q Anmeldedienst		Gestartet	Automa
		Anmeldeinformationsverwaltung	Ermöglicht das sichere Speichern un	ocstatict	Manuell
	Den Dienst starten	Anschlussumleitung für Remotedesktopdienst im Benutzermodus	Ermöglicht die Umleitung von Druck	Gestartet	Manuell
		Anwendungserfahrung	Verarbeitet Anwendungskompatibilit		Manuell
		Anwendungsidentität	Bestimmt und überprüft die Identität	ocstatict	Manuell
		Anwendungsinformationen	Erleichtert das Ausführen von interak	Gestartet	Manuell
		Anwendungsverwaltung	Verarbeitet Installations Deinstallati	ocstatict	Manuell
		Arbeitsstationsdienst	Erstellt und wartet Clientnetzwerkver	Gestartet	Automa
		ADDELSSTATIONSCIENCE	Provides support for out-of-process	Oestantet	Manuell
		Aspiner state service     AttachmentExtractorService_PTMEDVSystemeGmbH crm2011r3 5555(fs)	Provides support for out-of-process	Wird gestartet	Automa
		Aufgabenplanung	Ermöglicht einem Benutzer, automat		Automa
		Aurgabenplanung     Automatische Konfiguration (verkabelt)	Mit dem Dienst für die automatische	Gestartet	Manuell
		Automatische Konfiguration (verkabelt)     Automatische WLAN-Konfiguration	Der WLANSVC-Dienst bietet die erfor		Manuell
		Automatische WLAIN-Könnguration     Basisfiltermodul	Das Basisfiltermodul ist ein Dienst. d.,	Gestartet	Automa
		👒 Basisfiltermodul 🧟 Benachrichtigungsdienst für Systemereignisse	Überwacht Systemereignisse und be		
			Dieser Dienst ist für das Laden und A	Gestartet Gestartet	Automa
		Benutzerprofildienst		Gestartet	Automa
		G Bing Bar Update Service	Keeps Bing Bar up-to-date. Disabling		Manuell
		G BitLocker-Laufwerkverschlüsselungsdienst	BDESVC hostet den BitLocker-Laufw		Manuell
		Slockebenen-Sicherungsmodul	Der WBENGINE-Dienst wird von der		Manuell
		G Bluetooth-Unterstützungsdienst	Die Erkennung und Zuordnung von		Manuell
		G BranchCache	Mit diesem Dienst werden Netzwerki		Manuell
		Claims to Windows Token Service	Dienst zum Konvertieren von auf An		Manuell
		CNG-Schlüsselisolation	Der CNG-Schlüsselisolationsdienst w	Gestartet	Manuell
		🔍 COM+-Ereignissystem	Unterstützt den Systemereignis-Bena	Gestartet	Automa
		🔍 COM+-Systemanwendung	Verwaltet die Komponentenkonfigur		Manuell
		Computerbrowser	Führt eine aktuelle Liste der Comput	Gestartet	Manuell
		🔍 DCOM-Server-Prozessstart	Mit dem DCOMLAUNCH-Dienst wer	Gestartet	Automa
		🖗 Defragmentierung	Stellt Funktionen zur Datenträgerfrag		Manuell
		🖗 Designs	Stellt die Designverwaltung zur Verfü	Gestartet	Automa
		Q DHCP-Client	Registriert und aktualisiert IP-Adress	Gestartet	Automa
		🔅 Diagnosediensthost	Der Diagnosediensthost wird vom Di	Gestartet	Manuell
		Q Diagnoserichtliniendienst	Der Diagnoserichtliniendienst ermög	Gestartet	Automa
		Ciagnosesystemhost	Der Diagnosesystemhost wird vom D		Manuell
		Č III			
	Erweitert Standard /				

The services panel allows you to check the service status. You can only stop the services from here, but NOT start them anew.

Ereignisanzeige	a Magnet A	
Datei Aktion Ansicht ?		
🗢 🔿 🗾 🖬 🖬		
🔠 Ereignisanzeige (Lokal)	www.mscrm-addons.com Anzahl von Ereignissen: 8	Aktionen
Benutzerdefinierte Ansichter           Administrative Ereignisse	Ebene Datum und Uhrzeit Quelle Ereigni Aufgabenkategorie	www.mscrm-addons.com
Mindows-Protokolle	(i) Informationen 27.04.2012 13:36:25 Attach 0 Keine	ogespeicherte Protokolldatei öffnen
Anwendung	Informationen 27.04.2012 13:36:25 Attach 0 Keine	Panutzerdefinierte Ansicht erstellen
Sicherheit	Informationen 27.04.2012 13:36:14 Attach 0 Keine	Benutzerdefinierte Ansicht importieren
Installation	Informationen 27.04.2012 13:36:03 Attach 0 Keine	Protokoll löschen
System	Informationen 27.04.2012 13:11:45         Attach         0         Keine           IP Fehler         27.04.2012 13:11:45         Attach         0         Keine	Aktuelles Protokoll filtern
Anwendungs- und Dienstpro	Fehler 27.04.2012 13:11:45 Attach 0 Keine     Informationen 27.04.2012 13:09:21 Attach 0 Keine	1 2
Hardware-Ereignisse		- Eigenschaften
Internet Explorer	Ereignis 0, AttachmentExtractor	Suchen
🛃 Key Management Service	Allgemein Details	Alle Ereignisse speichern unter
Media Center Microsoft	Angemein Details	Aufgabe an dieses Protokoll anfügen
Microsoft Office Alerts	AttachmentExtractorService_PTMEDVSystemeGmbH crm2011r3 5555(fs) has started successfully	Ansicht +
Windows PowerShell		Aktualisieren
www.mscrm-addons.cor		R Hilfe ►
📑 Abonnements		-
		Ereignis 0, AttachmentExtractor
		Ereigniseigenschaften
		Aufgabe an dieses Ereignis anfügen
		Kopieren +
		Ausgewählte Ereignisse speichern
	J	Q Aktualisieren
	Protokoliname: www.mscrm-addons.com	
	Quelle: AttachmentExtractor Protokolliert: 27.04.2012 13:36:03	🛿 Hilfe 🕨 🕨
	Ereignis-ID: 0 Aufgabenkategorie: Keine	
	Ebene: Informationen Schlüsselwörter: Klassisch	
	Benutzer: Nicht zutreffend Computer: pc-aweiss.ptm-edv.at	
	OpCode:	
	Weitere Informationen: Onlinehilfe	
	weitere informationen: <u>Onimennire</u>	
< III >		
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The eventviewer is showing key events for each service.

Ereignisanzeige	a Magnet A	
Datei Aktion Ansicht ?		
🗢 🔿 🙍 🖬 🚺 🖬		
Ereignisanzeige (Lokal)	www.mscrm-addons.com Anzahl von Ereignissen: 8	Aktionen
Benutzerdefinierte Ansichter Administrative Ereignisse	Ebene Datum und Uhrzeit Quelle Ereigni Aufgabenkategorie	www.mscrm-addons.com
▲ Windows-Protokolle	(1) Informationen 27.04.2012 13:36:25 Attach 0 Keine	oger Gespeicherte Protokolldatei öffnen
Anwendung	Informationen 27.04.2012 13:36:25 Attach 0 Keine	Benutzerdefinierte Ansicht erstellen
😭 Sicherheit	① Informationen 27.04.2012 13:36:14 Attach 0 Keine	Benutzerdefinierte Ansicht importieren
Installation	Informationen 27.04.2012 13:36:03     Attach     O Keine	Protokoll löschen
😭 System	Informationen         27.04.2012         13:11:45         Attach         0         Keine           Image: Fehler         27.04.2012         13:11:45         Attach         Attach	Aktuelles Protokoll filtern
Anwendungs- und Dienstpro	Informationen 27.04.2012 13:09:21 Attach 0 Keine	Eigenschaften
Hardware-Ereignisse		()
Internet Explorer	Ereignis 0, AttachmentExtractor	Suchen
Key Management Service Media Center	Allgemein Details	Alle Ereignisse speichern unter
Microsoft		Aufgabe an dieses Protokoll anfügen
Microsoft Office Alerts	AttachmentExtractorService_PTMEDVSystemeGmbHlcrm2011r3 5555(fs) processed summary	Ansicht 🕨
Windows PowerShell	BatchRunTimes : emailbatch: 1 items, min: 10356, max: 10356, avg : 10356	Aktualisieren
Abonnements	deletionbatch: 1 items, min: 109, max: 109, avg : 109	👔 Hilfe 🕨 🕨
Aboniteriens	TotalRuntime: 10465,534	Ereignis 0, AttachmentExtractor
	ItemRuntimes : TotalRuntime: 0	Ereigniseigenschaften
		<ul> <li>Aufgabe an dieses Ereignis anfügen</li> </ul>
	SharePointRuntimes : TotalRuntime: 0	
	i otaikunume: 0	Ga Kopieren ►
	QueryRuntimes :	Ausgewählte Ereignisse speichern
	Protokoliname: www.mscrm-addons.com	Aktualisieren
	Quelle: AttachmentExtractor Protokolliert: 27.04.2012 13:36:14	🛛 Hilfe 🔸
	Ereignis-ID: 0 Aufgabenkategorie: Keine	
	Ebene: Informationen Schlüsselwörter: Klassisch	
	Benutzer: Nicht zutreffend Computer: pc-aweiss.ptm-edv.at	
	OpCode:	
	Weitere Informationen: Onlinehilfe	
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## 16 Contact

If you have questions to the product please send an email to <u>support@mscrm-addons.com</u> or visit our blog <u>http://blogs.mscrm-addons.com</u>

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