



World Wide Remedy Users Group

WWRUG10 - Sharing Tools, Technology and Training.



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FAST AND ROBUST DATA TRANSFER BETWEEN FORMS AND SERVERS USING RRR|CHIVE MISI MLADONICZKY

Outline

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- RRR | Chive core functionality
- Demo
- Discussion

Objectives/Results

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➤ Objectives

- Why RRR | Chive?
- Download and configure RRR | Chive (<http://www.rrr.se>)
- Copy data between two forms on the same server
- Move data to an archive form
- Synchronize all form data from server A to server B, while minimizing the down-time
- Change the entry-id-prefix and field-size on a form
- Merge data from two live servers into one server
- Oracle to MS-SQL, ISO-8859-1 to UTF8,
Unix to Windows, Remedy 6.3 to 7.6
- Tips and tricks

Benefits/Value Add

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- **When to use**
 - Load data into new server
 - Synchronize test-/reporting-server with production server
 - Restore data after testing
 - Merge data from two servers
 - Change of entry-id-prefix
 - Backup/restore data to/from ARX files
- **Minimize downtime**
 - Delta transfer of data (only changed or deleted records)
 - Turn off old server when everything is tested
- **Agnosticism**
 - Move from one character encoding to another
 - Move from one Remedy version to another
 - Move from one Database-vendor to another
 - Move from one OS to another
- **Dependable**
 - Used by many
 - Good and robust logging

Why RRR | Chive?

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- No tool to copy/move data from server to server
- First version (same idea) at former employer in **1998**
- I missed the functionality
- First free downloadable version of RRR | Chive in **2002**
- runmacro/aruser.exe + arimport/arimportcmd.exe does not quite do it...
- Fast Delta-Updates of changed data only
- Back to basics in **2010** support for ARX-files 😊

Demo

- Download RRR | Chive
 - <http://www.rrr.se>
 - RRR | Online Login
 - Download the appropriate version of RRR | Chive

Real Refined Resource Scandinavia AB
RRR|Chive - download
Please report any problems to support@rrr.se

[\[RRR|Online\]](#) [\[RRR|Chive\]](#)

Choose Platform:
Include ARAPI dll/lib files:

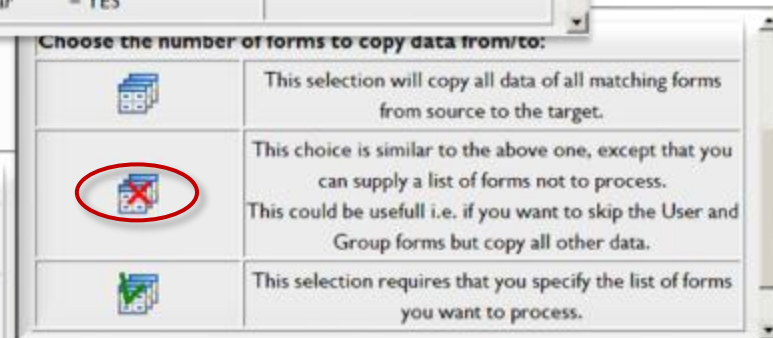
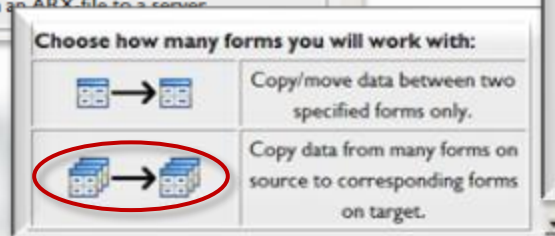
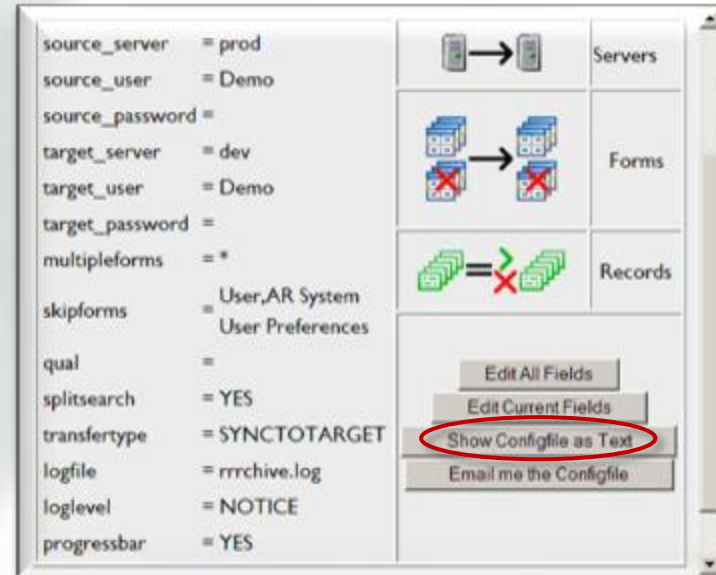
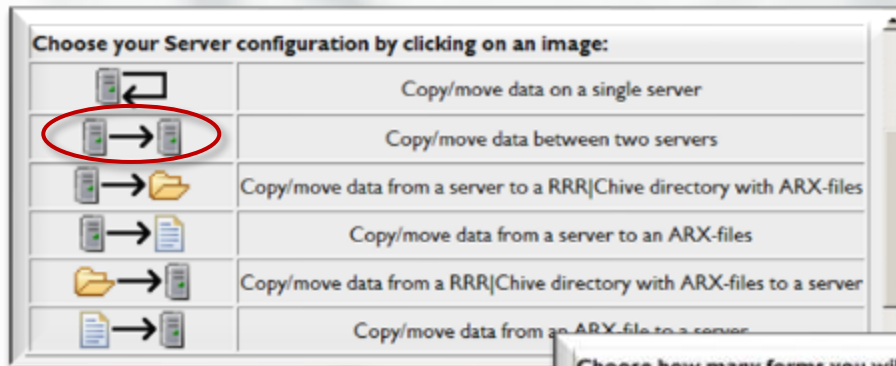
Platform	Size of binary	Size including dll/lib	ARAPI version	RRR Chive version
Windows	81K	5.0M	7.0.1	2.07
Linux	41K	5.9M	7.1.0	2.07
Solaris	37K	5.9M	7.0.1	1.27
HP-UX	n/a	n/a	n/a	1.11
AIX	1.6M	n/a	5.1.1	1.11

Send an email to support@rrr.se if you want us to make other platforms available.

Demo

➤ Online Configurator

- <http://www.rrr.se>
- RRR | Online Login
- RRR | Chive Configurator



Demo

➤ Copy data between two forms on the same server

➤ Configurator

➤ Save config

➤ Start cmd.exe

➤ Run rrrchive

➤ Check log

```
source_server    = dev
source_user      = Demo
source_password  =
source_form      = test a
target_server    = dev
target_form      = test b
splitsearch      = YES
transfertype     = SYNCTOTARGET
logfile          = rrrchive.log
loglevel         = NOTICE
progressbar      = YES
```



```
C:\rrr\>rrrchive.exe copy.cfg
```

```
rrrchive: 2010-09-06 18:42:58, type=APP, level=NOTICE, file=rrrchive.cpp, line=3346
Program Start: configfile=currency.cfg
```

```
Sync to target on form source=dev, test a, target=dev, test a, source records=89,
target records=89, copied=89, deleted=0, timetorun=0:00:05
```

```
rrrchive: 2010-09-06 18:43:07, type=APP, level=NOTICE, file=rrrchive.cpp, line=3360
Program End: configfile=currency.cfg, timetorun=0:00:09
```


Demo

➤ Log file summary

```
C:\rrr\>rrrchivelog rrrchive.log rrrchive.txt
```

- Convert the log with rrrchivelog.exe to a tab-separated txt-file
- Open in Excel

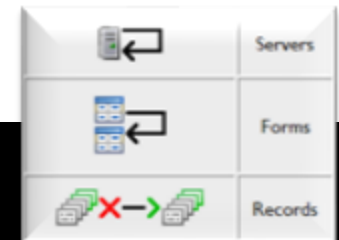
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	source server	source form	target server	target form	source found	target found	copied	deleted	timetorun	arerr	errmsg	errappend	errcount
2	prod	AR System Email Association	test	AR Sys	978	0	978	0	00:00:15				
3	prod	AR System Email Attachments	test	AR Sys	1055	0	1055	0	00:00:20				
4	prod	AR System Migrator Preference	test	AR Sys	2	1	0	0	00:00:00				
5										ARERR 311	Field ID is not related to this form	20236	1
6										ARERR 311	Field ID is not related to this form	536870921	1
7										ARERR 311	Field ID is not related to this form	536870925	1
8	prod	AR System User Central File	test	AR Sys	218	0	218	0	00:00:12				
9	prod	AR System User Preference	test	AR Sys	1517	1	1514	0	00:00:35				
10										ARERR 306	Value does not fall within the limits specified for the field	(Maximum length - 200) : 23627	3

Demo

➤ Restore data from an archive form

- Maybe you archived something by mistake
- Map 'Original Request Id' and 'Create Date'
- Skip fields not COMMON to both forms

```
source_server           = prod
source_user             = Demo
source_password         =
source_form             = test a archive
source_disabledeletefltr = YES
target_server          = prod
target_form            = test a
target_disablemergefltr = YES
splitsearch           = YES
transfertype         = MOVE
fieldmapping         = \
    450 => 1, \
    451 => 3
logfile                = rrrchive.log
loglevel               = NOTICE
progressbar            = YES
```



Demo

➤ Synchronize data of all forms between two servers

- You can list the forms to skip
- The User-form never works, as the pwd-field has been encrypted
- Multiform set to * will act on all forms common between the source and target servers

```
source_server           = prod
source_user            = Demo
source_password        =
target_server          = test
target_user            = Demo
target_password        =
target_disabledeletefltr = YES
target_disablemergefltr = YES
multipleforms         = *
skipforms              = \
    AR System Application State, \
    User
splitsearch            = YES
transfertype           = SYNCTOTARGET
logfile                = rrrchive.log
loglevel               = NOTICE
progressbar            = YES
```

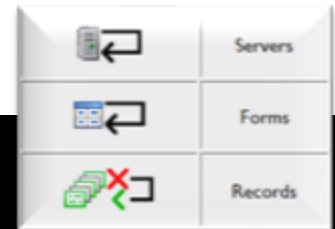


Demo

➤ Change the size and prefix of Entry-Id-Field

- You have to delete before merge only if you have a unique index on any other field
- Change the actual form after you are done when decreasing size
- Log level INFO gives you details of transferred Record Ids

```
source_server           = dev
source_user            = Demo
source_password        =
source_form            = HelpDesk
target_server         = dev
target_form           = HelpDesk
target_disabledeletefltr = YES
target_disablemergefltr = YES
# 15 underscores match the old requests
qual = '1' LIKE "_____"
transfertype           = MOVE
entryidmode           = HPD00000
deletebeforemerge     = YES
logfile               = rrrchive.log
loglevel              = INFO
progressbar          = YES
```



Demo

➤ Combine records from two servers into one

- Setting maxdelete to 0 makes sure that nothing is deleted from the target
- The Request Ids set to +100 000 when transferred
- Set target nextid to 200 000 before you start

```
source_server      = prod2
source_user       = Demo
source_password   =
source_form       = HelpDesk
target_server     = prod1
target_user       =
target_password   =
target_form       = HelpDesk
target_disablemergefltr = YES
splitsearch      = YES
transfertype     = SYNCTOTARGET
syncmaxdeletedpercent = 0
entryidmode       = +100000
logfile          = rrrchive.log
loglevel         = INFO
progressbar      = YES
```



Demo

- Incremental backup (lightning fast) to ARX files
 - One arx-file will be created for each form
 - Only modified, added or deleted records will be processed on second run

```
source_server      = prod
source_user       = Demo
source_password   =
target_dir       = C:\rrr\prod\
splitsearch     = YES
multipleforms   = *
transfertype      = SYNCTOTARGET
logfile           = rrrchive.log
loglevel          = NOTICE
progressbar       = YES
```



Demo

➤ Restore test system from ARX backup

- Just reverse source and target, and your system will be restored to the state before the backup

```
source_dir           = C:\rrr\prod\  
target_server        = prod  
target_user          = Demo  
target_password      =  
target_disabledeletefltr = YES  
target_disablemergefltr = YES  
multipleforms        = *  
splitsearch          = YES  
transfertype         = SYNCTOTARGET  
logfile              = rrrchive.log  
loglevel             = NOTICE  
progressbar          = YES
```



Demo (if time permits)

- Update a single field without changing Modify-Date
 - Fixed values
 - Function calls for EXACT() and ANYWHERE() replace
 - Field Id 1 is needed for the UPDATE-operation
 - Fields that are assigned fixed values does not need to be specified on the list of “onlyfields”
 - Onlyfields is not really needed, but will reduce the data sent over the network

```
source_server = prod
source_user   = Demo
source_password =
source_form   = HelpDesk
target_server = prod
target_form   = HelpDesk
qual          = '536870999' = $NULL$
transfertype = UPDATE
onlyfields    = \
    '1', \
    '536871000', \
    '536871001'
setfields     = \
    '536870999' = "Default Project", \
    '536871000' = EXACT("Demo", "Admin"), \
    '536871001' = ANYWHERE("prod71.rrr.se", "prod76.rrr.se"), \
    '7' = 5
logfile       = rrrchive.log
loglevel      = NOTICE
progressbar   = YES
```


Question/Discussions

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- How can RRR | Chive help you?
- What would you want RRR | Chive to do for you?
- Any functionality you would like to see?
- Your experience of RRR | Chive?

Thank You

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