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Meta-Archive

Meta-Update Archiving Solution

This presentation describes the Meta-Archive, the Meta-Update Archiving Solution.

It comprises Instructions for use and configuration as a **Quick Start Guide**..

Please see the Meta-Archive User's Guide for more details.

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Software Tool House is a BMC Partner

bmc

TAP Premier Partner

Ben Chernys

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Release 5.71

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Objectives

- **ITSM Archiving Pain Points, Challenges. Requirements**
- Meta-Update In A Nutshell
- Meta-Update Archiving Solution
- Configuration Files
- Archiving Forms: Creating and Administering
- Archiving and Restoring
- More Information, Next Steps

ITSM Archiving Pain Points

Complex

- Not Documented
- Hierarchical trees of records in many forms
- Hidden Redundant References

OOTB Archive Tables

- Archiving is single table based. There is no concept of the hierarchy that makes an ITSM request
- Dependent tables must be handled as a unit. If a root-request is archived, child records need to be archived.

Building Archive Forms

- Time consuming, manual effort in Developer Studio setting Archive properties.

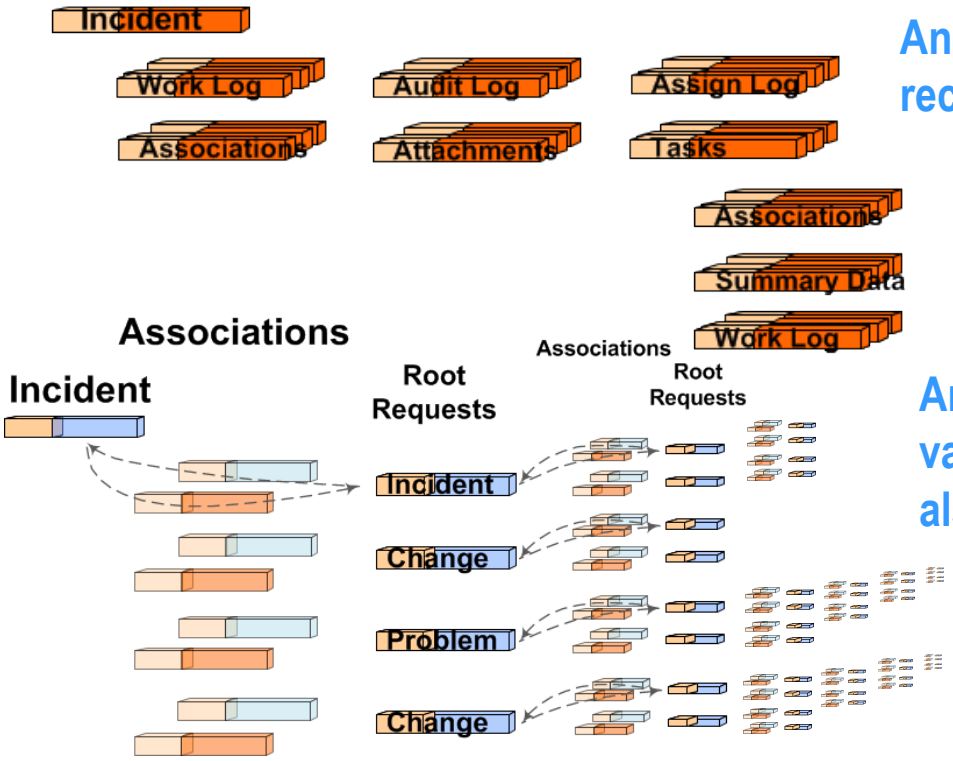
Bespoke Tables

- Adding additional tables presents more challenges.

Validations Restores

- Deletes can only be done if all elements of the tree are archived. This is next to impossible to achieve with other tools.
- Restores of data are also next to impossible.

ITSM Archiving Requirements



An ITSM Incident is a complex tree of records in many forms and levels.

Archival must treat a single Root Request and its tree of records as ***one unit***.

An ITSM Incident may be associated to a variety of other root requests. These are also associated to other root requests.

Only if ***all*** these requests are "archivable", can the original Incident be archived.

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Meta-Update In a Nutshell

ETL – Extract Transform Load – Scripting tool

- **Meta-Update allows *any* BMC Remedy administrator / developer to automate *any* ETL data operation – in record time.**

with no need for API or programming skills.

with no staging forms, no workflow, no customizations, no server changes.

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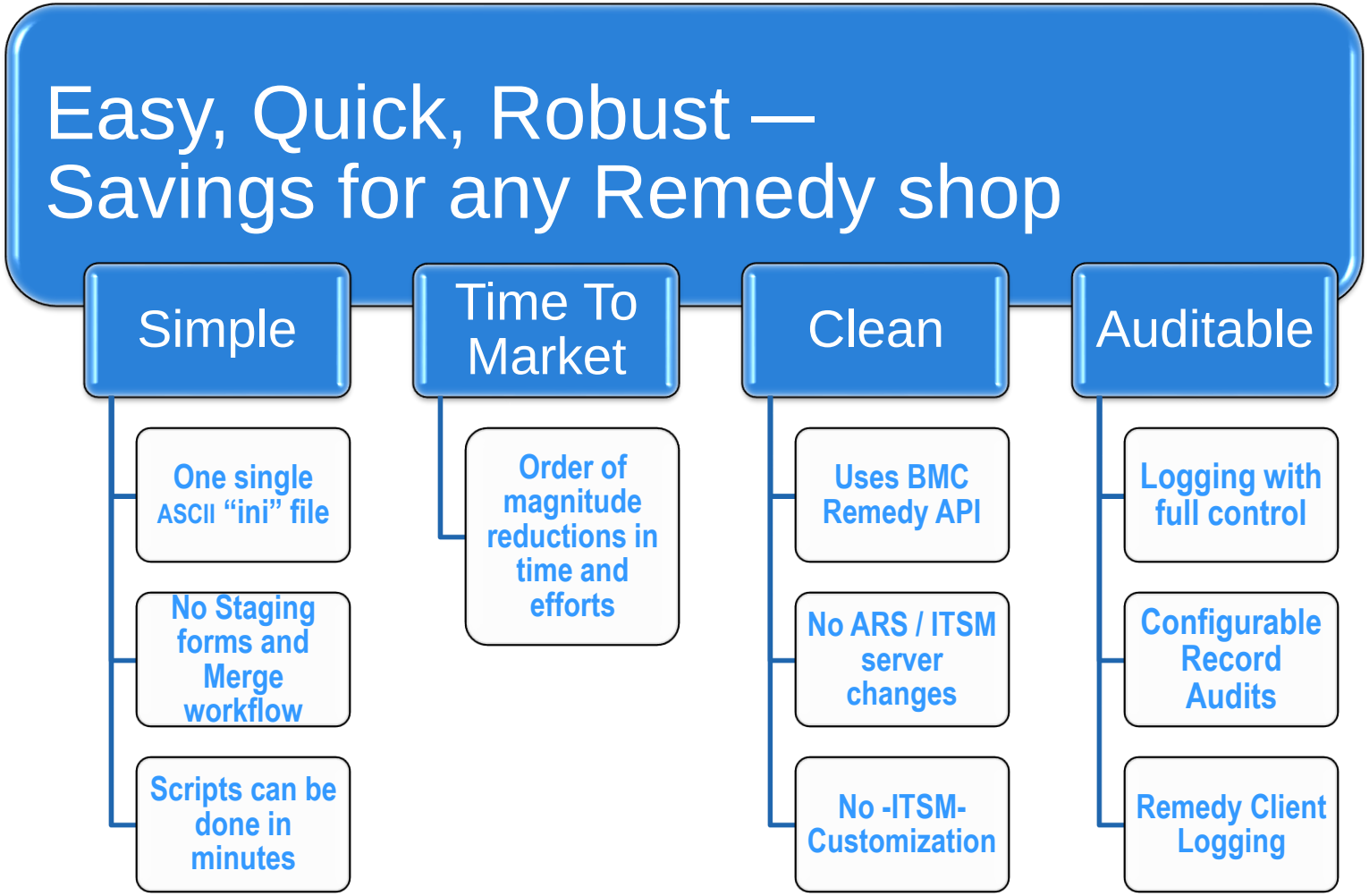
Meta-Update In a Nutshell



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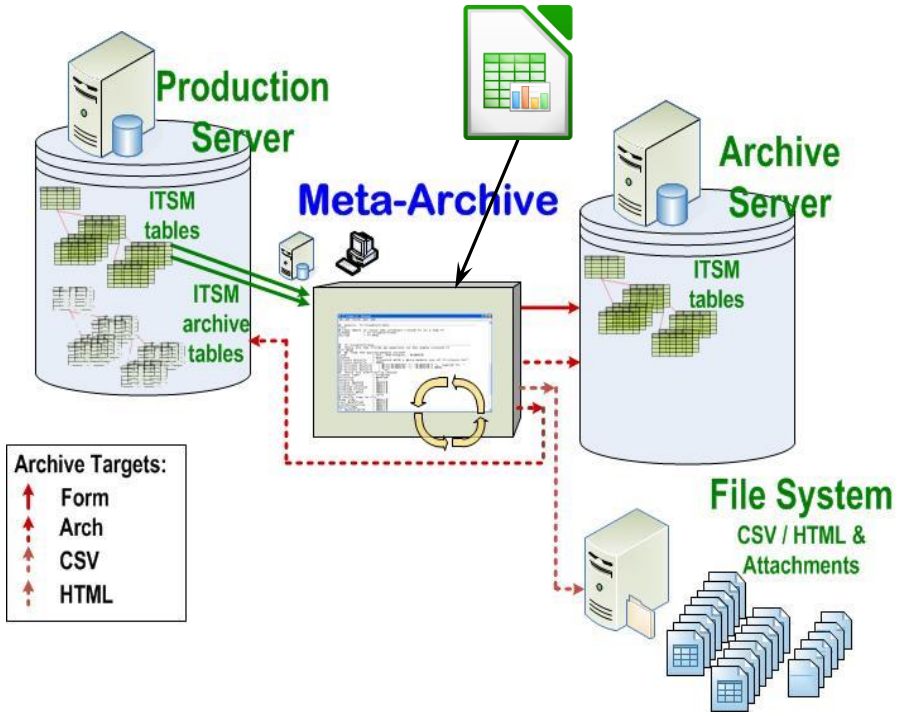
Introducing Meta-Archive

- Meta-Archive lets you configure your forms and archiving rules in an Excel spreadsheet.
- With Meta-Archive you can archive to a combination of targets: Archive forms on the same server, an ITSM on an Archive server, CSV files and HTML files.



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Installation & Running

- Meta-Update must be licensed and installed for the Archive & Production servers.
- The Archiving scripts and config files are a separate zip file which must be expanded.
- Validate the configuration spread sheet for your ITSM release and environment. If you make changes, generate the CSVs.

You can fill in our Meta-Update **Trial Request** form and participate in our **Live Install** service. Meta-Update will then be installed, tested and ready for Archiving.

`Meta-Update\scripts\Meta-Archive\*`

You're Ready!

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Meta-Archive Distribution

Type	File Name	Expect Customer Configuration	Description
spreadsheet	Arch-Cfg-ITSM-810.xlsx cfg-arch-root.csv cfg-arch-tree.csv cfg-arch-assoc.csv cfg-arch-excl.csv	**Yes** Expected to be modified by customer.	This is the main configuration file used by Meta-Archive. You can use it to change the Archive table names, the ages for Archiving and Associations, to add your own tables, to disable modules of ITSM that you are not using. You may create copies for your different customers should they have differing retention requirements. It will automatically generate the CSV files when you are ready.
script	100-Arch-Cfg.ini	**Yes**	This script contains User configurations Config variables need to be reviewed and set
script	350-Arch-FormsAdmin.ini	No	This script builds all configured Archive forms. It is run once only per environment or when new forms are added to the configuration. It can be used to check the status of all Archive forms. It will skip any forms already built if run more than once.
script	500-Arch.ini	No.	This script performs archives. During the initial run, when there is a large backlog of records that must be archived, it is expected that Meta-Update Job Automation will be used to fire this script job. For testing of script or configuration changes, this script will be fired manually.

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Meta-Archive Distribution

Type	File Name	Expect Customer Configuration	Description
document	Meta-Update_Job_Automation_Users_Guide.pdf		Meta-Update Job Automation User Manual.
script	000-Jctl.ini	No	This script does Meta-Update Job Automation and controls series of Meta-Update jobs based on a Meta-Update Job Automation spreadsheet.
spreadsheet	Arch-Jobs-sample.xlsx	**Yes** Specific Job Breakup varies from Enterprise to Enterprise. This will need editing.	This is a sample Meta-Update Job Automation spreadsheet for Meta-Archive. It is expected that for the initial backlog run that this would be configured for the customer's specific data requirements. It is possible that a single job fired weekly or monthly can perform the Archive once the backlog is done. Then, no different spreadsheet will be needed for the monthly run. If the monthly volume is large enough, a different split-up of the jobs would be needed.
script - included files	000-Jctl-Sync.ini 910-Arch-CfgRd.ini 920-Arch-Assoc-Do.ini	No	These scripts are included by the scripts above.

Script Configurations

100-Arch-Cfg.ini

- The Archive script does NOT delete records as they are archived. This is to allow adequate testing.

```
#   Cfg,    QryDateFormt    char:    the Remedy Query Date format.  One of:
#                                    mdy | dmy | ymd
#
#   Cfg,    Del             bool:    0 No deletes; 1 deletes after a tree is archived
#
#   Cfg,    SqlCtr          bool:    0 Do not; 1 use SQL select count(*) queries to
#                                           avoid zero record Launches
#                                    This should not normally be set off.
#
#   Cfg,    NoAssocErr      bool: 0 no error if no association cfg (skip assoc check)
#                                 1 error; must have at least one association config
#
###  Keep this off to prevent deletes during testing
@Cmd        = Ref,   Cfg,    Del,            0
###  Adjust to one of "mdy", "dmy", "ymd" depending on your machines locale
###   and date formats and the formats that a Remedy query expects.
@Cmd        = Ref,   Cfg,    QryDateFormat,  mdy
###  This should not normally require adjustments
@Cmd        = Ref,   Cfg,    SqlCtr,         1
###  If no associations are defined for a root request, turn this off else an error will be thrown
@Cmd        = Ref,   Cfg,    NoAssocErr,     1
```

To change this, edit the script so that the value of Del is 1.

Script Configurations

100-Arch-Cfg.ini

- The Archive script sets query dates in the format m/d/y. For the EU, Australia, NZ, and some Asian countries this must be changed.

```
#   Cfg,    QryDateFormt    char:   the Remedy Query Date format.  One of:
#                                   mdy | dmy | ymd
#
#   Cfg,    Del             bool:   0 No deletes; 1 deletes after a tree is archived
#
#   Cfg,    SqlCtr          bool:   0 Do not; 1 use SQL select count(*) queries to
#                                           avoid zero record Launches
#                                   This should not normally be set off.
#
#   Cfg,    NoAssocErr      bool: 0 no error if no association cfg (skip assoc c
#                                 1 error; must have at least one association co
#
###  Keep this off to prevent deletes during testing
@Cmd        = Ref,   Cfg,    Del,            0
###  Adjust to one of "mdy", "dmy", "ymd" depending on your machines locale
###   and date formats and the formats that a Remedy query expects.
@Cmd        = Ref,   Cfg,    QryDateFormat,  mdy
###  This should not normally require adjustments
@Cmd        = Ref,   Cfg,    SqlCtr,         1
###  If no associations are defined for a root request, turn this off else an error will be thrown
@Cmd        = Ref,   Cfg,    NoAssocErr,     1
```

To change this, edit the script so that QryDateFormat is one of these three settings: "mdy", "dmy", "ymd".

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Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Contents

Meta-Archive Introduction

This spreadsheet is a configuration for the **Meta-Archive Scripts** for the OOTB ITSM 8.1 for the **Incident, Change, Problem, Known Error, Release, Work Order** root requests. This sheet may be adapted to include your own forms or for other root requests.

Contents

Instructions and Settings

This explains the other sheets in detail. Please read this page to adapt this for other modules or your own customized tables.

Config

Use this sheet to set the archive table names (in formulas) and to create appropriate CSV extract files (with a macro).

root

This sheet defines root forms. All Root Form requests to be archived should be listed in this sheet. Records are queried from these forms and all dependent records (given by the "tree" sheet) are archived for requests returned by this query.

tree

This sheet describes the tree of forms and linking fields from the root forms. It can specify forms on two levels. The first level is directly related to a root form and the second level is related to a form on the first level. An example is a Task. A Task has its own set of forms with records related to only the Task form, hence these forms are on level 2.

assoc

This sheet describes the associations and linking fields from the root forms. A root request can only be archived if and only if all its associated root requests can be archived. This sheets configures association rules and tables.

exclusions

This sheet lists individual Customer companies that will be excluded by the script with this configuration file.

Meta-Update

Meta-Update is used to automate any ARS / ITSM data **ETL - Extract, Transform, Load** operation:
— without staging forms, workflow, or any server changes at all
— without any programming skills at all
— in a language your ARS admin already speaks

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Archive configuration for ITSM 8.1.0

Want more information about Meta-Update? Please click the following links:

Management Summary Presentation

Learning Meta-Update

Trial License Request

Live Install

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Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Instructions

root	Describes each "Root Request" such as Incidents, Problems, Changes, that participate in archiving.
Form	This is the name of the root request form. It is one of these forms that will be queried when an archive is run.
Enable	Must be 1. It will be flagged as an error is not equal to 1.
Delete Flag	Should be 1. No deletions of any kind will happen if the root's Delete Flag is not 1; records will still be archived.
Archive Qualification	A qualification that is appended to the archive qualification. It is used to restrict the records to be archived. It used as " ... and (qual)" in the query qualification. Use of "@date@" in the text will be replaced with the archive date age setting and the Date Field will not be used.
Age	Age of root requests eligible for archiving.
Company Field	If a root request can have customer company specific ages, this specifies the name of the field in the root request form that will contain the Company name on the Tenant Ages sheet.

tree	Describes the tree of forms making up a root request
Level	Must be 1 or 2
Root Form	One of the above forms in the root sheet.
Source Form	The name of a child form of the Upper Form.
Enable	If 1 will participate in the archive script. If 0, table (and all its children)
Delete Flag	If this form is enabled and the Delete Flag set to 1 then records will be deleted
Upper Form	If the level is 1, this form must equal the Root-Request form. If the level is 2 it must equal one of the level 1 source forms on a preceeding row.
Source Field	The name of a field that will be queried and makes the dependency against the upper form - the upper form's value on the source form. A query is formed like: '$Source Field$' = "$Upper Field$".
Upper Field	The name of the upper form's field who's value will be in the dependent forms field. A query is formed like: **'$Source Field$' = "$Upper Field$"**.
Archive Form	The name of the archive form for this Source form. The script, **350-ArchAdmin.ini** will set and reset archive form properties to manage your archive forms according to this configuration sheet.

assoc	Describes the root requests' associations to be validated as ready to be archived before archiving the root request.
Root Form	One of the above forms in the root sheet.
Enable	If 1 will participate in the archive script. If 0,table ignored.
Src Asc Form	The Root Form's Association form.
Tgt Form	When Associated, the value and name of the associated root request form in the association record.
Src Tgt Form Value	A value that in the above field of the **Src Asc Form** that indicates and association with the **Src Tgt Form**.
Src Tgt Form Value	A value that in the above field of the **Src Asc Form** that indicates and association with the **Src Tgt Form**.
Src Asc Id Field	The field of the **Src Asc Form** that contains the source root request id.
Age	Age of root requests eligible for archiving. Set to a formula copying root ages.

Exclusions	Lists any companies that should be excluded from this Config file.
Company	Required. If this configuation is for general use - that is a specific company's config file would have 'Company' = "x" added to all Root Queries - then exclude all companies that will be handled through their own config file.

General Tips

Handling different types of the same root requests

Say you have two different requirements for Incidents depending on the Incident Priority. For example, for one Priority, you may want to archive after three years and for the rest after one year.

The easiest way to do this is to save two different copies of this spreadsheet and generate two different sets of CSVs with the qualifications being changed to exclude and include the special company. That is, add the text "'Priority' = "xxx"" and 'Priority' != "xxx" to the incident qualification.

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Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Config

Archive Table Names

Please specify a suffix for Source table names used when naming the Archive table.

Archive Table Name Suffix: -ARC

Suffix used in root and tree sheet formulas for the Archive Table Names. Once built, should not be changed.

Export to CSVs

Please specify an output file "prefix" such as `C:\cfg\cfg-arch`

With C:\cfg\cfg-arch, files will be: `C:\cfg\cfg-arch-root.csv`, `C:\cfg\cfg-arch-tree.csv`, `C:\cfg\cfg-arch-assoc.csv`, and, `C:\cfg\cfg-arch-excl.csv`.

Directory `C:\cfg\` must exist before the button is pressed.

Output files' prefix: e:\Dta\BST\Dev\Mupd\dev\proj\Unisys\2014-02-14-Arch\cfg-arch-uni-restore

Simply copy a directory from Windows explorer and add a file "prefix" such as "cfg-arch-uni-restore", or ,"test-1".

Press the button to the left to export the files.

With the example, these four files will be created:

```
cfg-arch-root.csv
cfg-arch-tree.csv
cfg-arch-assoc.csv
cfg-arch-excl.csv
```

Make as many of these sets of four files as you need.

You can set up different companies, ages, forms, associations, as needed.

Unless you start Excel in a specific directory, it is best that an explicit path be specified for the file name prefix.

Save copies of the spreadsheet with generated files' prefix for reference.

Macros must be enabled to produce the four CSV files.

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Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Root Request Configuration

The root sheet is the set of ITSM root requests.
These are the Archive configurable items.

Form	Enable	Delete Flag	Archive Qualification	Date Field	Archive Form	Age
HPD:Help Desk	1	1	((('Status' = "Closed" and 'Closed Date' < "@date@) or ('Status' = "Cancelled" and 'Cancelled Date' < "@date@")) and not ('VIP' = "Yes"))	Closed Date	HPD:Help Desk-ARC	1y
CHG:Infrastructure Change	1	1	(('Change Request Status' = "Closed" and 'Closed Date' < "@date@") or ('Change Request Status' = "Cancelled" and 'Last Modified Date' < "@date@") or ('Change Request Status' = "Rejected" and 'Last Modified Date' < "@date@"))	Completed Date	CHG:Infrastructure Change-ARC	1y
PBM:Problem Investigation	1	1	(('Investigation Status' = "Closed" amd 'Closed_Date' < "@date") or ('Investigation	Closed_Date	PBM:Problem Investigation-ARC	1y
			and ('Last Modified			
			or ('Investigation Status'			
			st Mod			
			stigati			
			st Mod			
			' = "Cl		C	1y
			elled"			

Add `('Company' = "xx")` to the qualifications as needed except on the *default* sheet.

Fill in Company exclusions only on the *default* sheet.

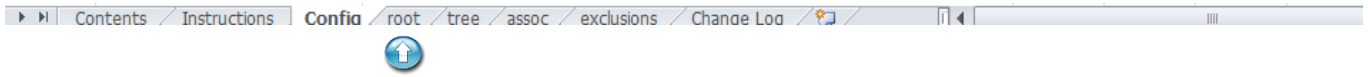
Qualification errors will cause the script to fail.

Validate qualifications with `SthMqry.exe`.

Check or modify the Age and Archive Qualification fields.

You may make copies of the spreadsheet with different qualifications and ages as needed.

The Date Field is ignored when the Qualification includes @date@ which becomes Now – Age.



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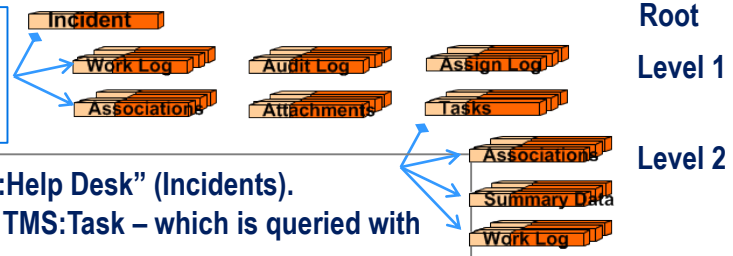
Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Tree Configuration

The tree sheet describes, for each root request, the set of level one and two forms and how they are related.



- The root is "HPD:Help Desk" (Incidents).
- A level 1 form is TMS:Task – which is queried with Incident's data.
- A level 2 form is TMS:WorkInfo – which is queried from TMS:Task's data.

Root Form	Lvl	Source Form	Enable	Delete Flag	Source Field	Upper Field	Archive Form	Source Field View
HPD:Help Desk	1	HPD:Associations	1	1	Request ID02	Incident Num	HPD:Associations-ARC	Request_I
HPD:Help Desk	1	HPD:Attachments	1	1	Incident Number	Incident Num	HPD:Attachments-ARC	Incident_I
HPD:Help Desk	1	HPD:Help Desk Assignment	1	1	Incident Entry ID	1	HPD:Help Desk	Incident_I
HPD:Help Desk	1	HPD:Help Desk Audit Log	1	1	Incident Number	Incident Num	HPD	
HPD:Help Desk	1	HPD:HelpDesk_AuditLogSys	1	1	Original Request ID	Incident Num	HPD	
HPD:Help Desk	1	HPD:Impacted Areas	1	0	Incident Number	Incident Num	HPD	
HPD:Help Desk	1	HPD:IncidentInterface_Crea	1	1	Incident Number	Incident Num	HPD	
HPD:Help Desk	1	HPD:WorkLog	1	1	Incident Number	Incident Num	HPD	
HPD:Help Desk	1	PBM:Investigation	0	1	Request ID01	Incident Num	PBM	
HPD:Help Desk	1	PBM:Solution DB				ident Num	PBM:Solution DB	Request_ID
HPD:Help Desk	1	TMS:Association				179	TMS:Association-ARC	RootRequ
HPD:Help Desk	1	TMS:Task				179	TMS:Task-ARC	RootRequ
HPD:Help Desk	1	TMS:Variable				179	TMS:Variable-ARC	RootRequ
HPD:Help Desk	2	TMS:AuditLog				179	TMS:AuditLog-ARC	Audit_Rec
HPD:Help Desk	2	TMS:TaskEffort				179	TMS:TaskEffort-ARC	TaskInstar
HPD:Help Desk	2	TMS:WorkInfo				179	TMS:WorkInfo-ARC	TaskOrTas

Add rows for any customized forms you may have.

Field name errors will cause the script to fail.

Validate field names with **SthMsch.exe**.

Contents | Instructions | Config | root | tree | assoc | exclusions | Change Log

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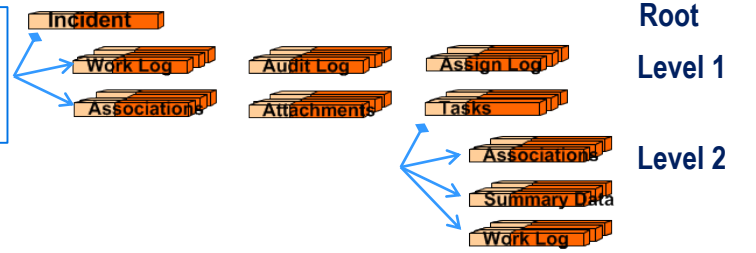
Meta-Update Archive Configuration

Arch-Cfg-ITSM-810.xlsm

Tree Configuration

The tree sheet describes, for each root request, the set of level one and two forms and how they are related.



Normal data tables that can contain child records are configured in the tree form.

Join forms may also be configured, even though the tables making up the join forms will also be configured.

Joins may not have required “Core” fields. Remedy generated Archive forms do. Meta-Archive assigns a dot “.” for such text fields and the current time for such date fields.

HPD:Help Desk	1	HPD:Help Desk Assignment	1	1	Incident Entry ID	1			
HPD:Help Desk	1	HPD:Help Desk Audit Log	1	1	Incident Number	Incident N			
HPD:Help Desk	1	HPD:HelpDesk_AuditLogSys	1	1	Original Request ID	Incident N			
HPD:Help Desk	1	HPD:Impacted Areas	1	0	Incident Number	Incident N			
HPD:Help Desk	1	HPD:IncidentInterface_Crea	1	1	Incident Number	Incident N			
HPD:Help Desk	1	HPD:WorkLog	1	1	Incident Number	Incident N			
HPD:Help Desk	1	PBM:Investigation	0	1	Request ID01	Incident N			
HPD:Help Desk	1	PBM:Solution DB	1	1	Request ID01	Incident N			
HPD:Help Desk	1	TMS:Association	1	1	RootRequestInstanceID	179			
HPD:Help Desk	1	TMS:Task	1	1	RootRequestInstanceID	179			
HPD:Help Desk	1	TMS:Variable	1	1	RootRequestInstanceID	179			
HPD:Help Desk	2	TMS:AuditLog	1	1	Audit Record Instance ID	179	TMS:AuditLog-ARC	Audit_Rec	
HPD:Help Desk	2	TMS:TaskEffort	1	1	TaskInstanceID	179	TMS:TaskEffort-ARC	TaskInstar	
HPD:Help Desk	2	TMS:WorkInfo	1	1	TaskOrTaskGroupInstance	179	TMS:WorkInfo-ARC	TaskOrTas	

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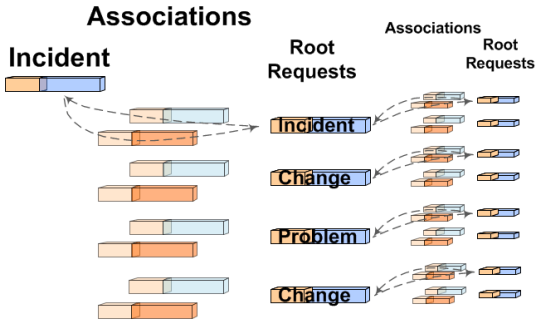
Meta-Update Archive Configuration

`Arch-Cfg-ITSM-810.xlsm`

Associations Configuration

The assoc sheet describes the set of associations to other root requests.
This ensures records can only be archived when not associated to other root requests that are not ready for archiving.



Root Form	Level	Enabl	Src Asc Form	Tgt Form	Age	Src Tgt Form Field	Src Tgt Form Value	Tgt Asc Form	Src Asc ID Field	Src Src ID Fiel	Tgt Form ID Field	Tgt Form Status Field	Status Value Names	Status Values
HPD:Help Desk	1	1	HPD:Associations	PBM:Problem	1d	Form01 R	Problem	PBM:Problem Investigation						
HPD:Help Desk	1	1	HPD:Associations	PBM:Solution	1s	Form01 R	Solution	PBM:Solution DB Associations						
HPD:Help Desk	1	1	HPD:Associations	CHG:Infrastruc ture Change	1y	Form01 R	Infrastruc	CHG:Associations						
HPD:Help Desk	1	1	HPD:Associations	HPD:I				ns						

Check or modify the Age fields.

Add rows for any customized forms you may have.

Field name errors will cause the script to fail.

Validate field names with `SthMsch.exe`.

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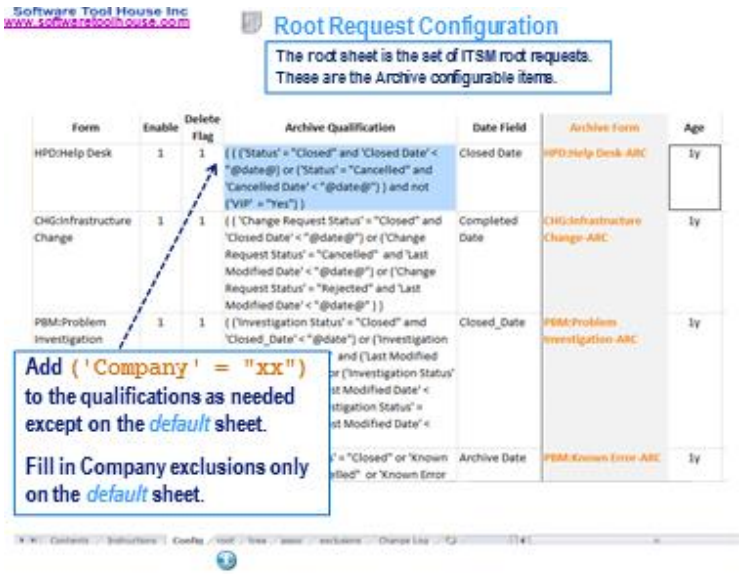
Exclusions Configuration

Used for Multi-tenancy.

In multi-tenancy environments, you can code one configuration for the default customer and as many as you need to handle other customers.

The exclusions sheet is only used for the default configuration to exclude archiving records from these companies.

Company specific configurations have added Company Qualification in their Root sheet.



Company	Enable
Calbro Services	1
Company1	1
Company2	1

The exclusions sheet is only used for the Default configuration.

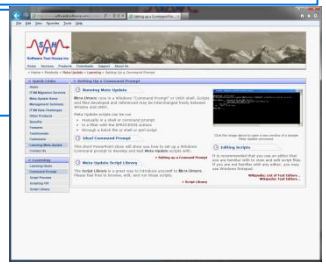
Records found to be from these companies are not archived.

Running Archive

Windows
Linux / Solaris

Preparing the command prompt

Help on setting up and using a Command Prompt.



- Set PATH

```
path D:\Apps\SoftwareToolHouse\bin;%path%
```

```
export PATH=/apps/STH/bin:$PATH
export LD_LIBRARY_PATH=/apps/STH/bin:$LD_LIBRARY_PATH
```

- Set Script Path

```
set     SthScriptPath=D:\Dta\Dev\Arch\Scripts\500-
        Archive\Include;%SthScriptPath%
```

```
export  SthScriptPath=~/Dev/Arch/MupdScripts/500-
        Archive/Include:$SthScriptPath
```

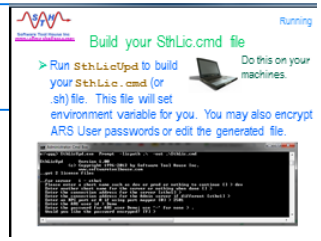
- Change to your working directory

```
cd      D:\Dta\Dev\Arch\wrk
cd      ~/wrk
```

- Set Meta-Update Licensing

```
SthLic.cmd     dev
. SthLic.sh    dev
```

Help on generating your SthLic file on next page.

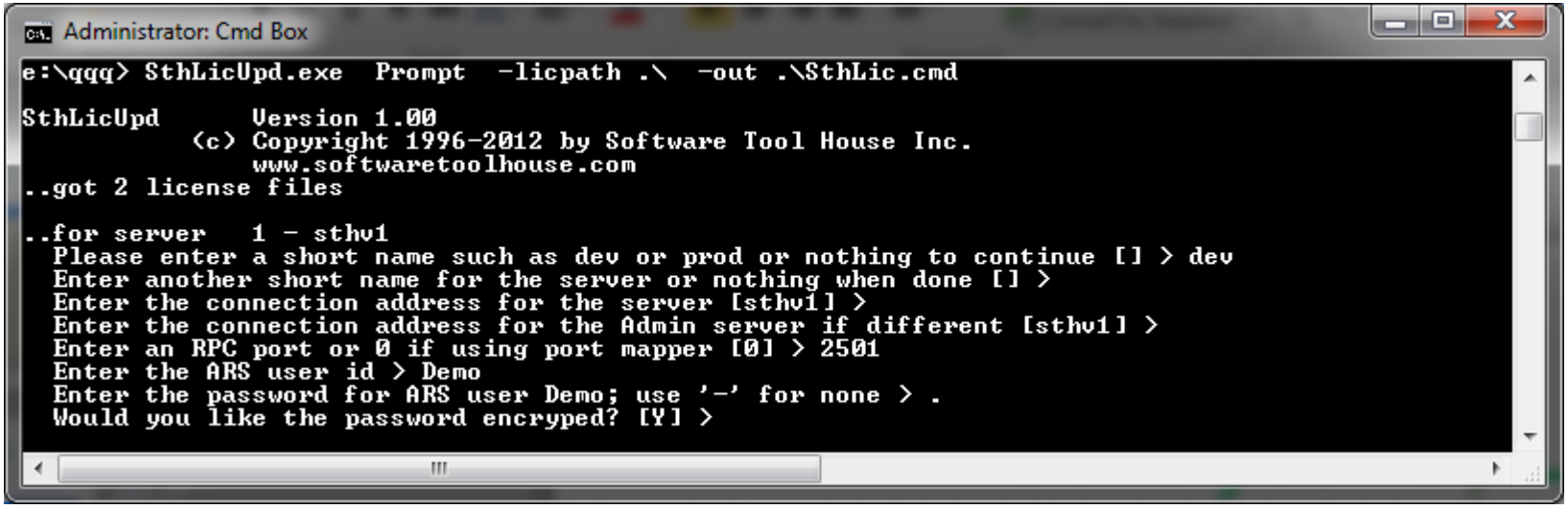


Build your SthLic.cmd file

- Run `SthLicUpd.exe` to build your `SthLic.cmd` (or `SthLic.sh`) file. This file will set environment variables.

Do this on your machines.

- This needs to be run once when you open a new command or terminal window
- Run `SthLicUpd.exe` to encrypt other ARS server passwords if needed.



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Step 1: Build Archive Forms

- Run Forms Admin script with ***set***, **reset**, **check**.

350-Arch-FormsAdmin.ini

The **set** operation places a load on the server and should be done off peak hours.

It may take an hour or more to complete.

STH & customer tests on various server releases have shown a possibility of ARS Server crashes!

This seems better in 8.1.

Cmd Box

```
2010-05-03   9:07:35.38
e:\Dta>

SthMupd 350-Arch-FormsAdmin.ini Do -cmd set
                                   -fle cfg-arch
```

The Meta-Update script sets the archive properties of configured forms causing the archive forms to be built for root forms and their trees.

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Step 2: Remove Archive Links

- Run Forms Admin script with **set**, ***reset***, **check**.

350-Arch-FormsAdmin.ini

The **reset** operation, while *not* placing a load on the server, should be done off peak hours.

STH & customer tests on various server configurations have indicated a possibility of ARS Server crashes!

Cmd Box

```
2010-05-03   9:07:35.38
e:\Dta>

SthMupd 350-Arch-FormsAdmin.ini Do -cmd reset
                                   -fle cfg-arch
```

The Meta-Update script sets the archive properties of configured forms to None severing the links between the source and archive forms for root forms and their trees.

Step 3: Check Archive Forms

- Run Forms Admin script with **set**, **reset**, ***check***.

350-Arch-FormsAdmin.ini

Cmd Box

```
2010-05-03   9:07:35.38
e:\Dta>

SthMupd 350-Arch-FormsAdmin.ini Do -cmd check
                                   -fle cfg-arch
```

The Meta-Update script simply issues messages to the screen and logs.
Ensure all Statuses are “Ok”.

Step 4a: Configuring Archive Delete

500-Arch.ini

- The Archive script, as delivered, does NOT delete records as they are archived. This is to allow adequate testing.

```
#-------------------------------------------------------------------.cfg
[Cfg]
# Configuration assignments
#
# Output Tags
#   Cfg,     Del              bool: 0 No deletes; 1 deletes after a tree is archived
#
@Cmd         = Ref,    Cfg,     Del,              0


#-------------------------------------------------------------------------.main
[Main]
[Do]
```

To change this, edit the script so that the value of Del is 1.

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Step 4: Perform an Archive

500-Arch.ini

- Run the Archive script with

  arch, **restore**.

Cmd Box

```
2010-05-03   9:07:35.38
e:\Dta>

SthMupd 500-Arch.ini Do        -cmd arch
                               -fle cfg-arch
                               -qry   "1=1"
```

Use Meta-Update to copy data from the source forms to the archive forms, and *if configured*, to delete the data from the source forms.

Step 5: Review Archive Output

500-Arch.ini

- The Archive script produces three CSV output files with each run in addition to the Meta-Update log file.

All deleted records

pfx–**del.csv**

Root Form	Root Id	Root 179	Del Form	Del Id
HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	TMS:WorkInfo	TAS000000000016
HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	TMS:Task	TAS000000000017
HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:WorkLog	WLG000000000023
HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:Impacted Areas	HIA000000000023
HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:Help Desk	INC000000000025
HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	TMS:Task	TAS000000000014
HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:WorkLog	WLG000000000021
HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:Impacted Areas	HIA000000000021
HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:Help Desk	INC000000000023
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:WorkInfo	TAS000000000013
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:WorkInfo	000000000000004
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:Task	TAS000000000009
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:WorkLog	WLG000000000015
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:Impacted Areas	HIA000000000015
HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:Help Desk	INC000000000017

Records with associations not ready for archive

pfx–**not-arch.csv**

Root Form	Root Id	Root 179	Asc Form	Asc Form Id	Msg
HPD:Help Desk	INC_CAL_1000005	AG001	PBM:Problem Investigation	PBI_CAL_1000004	root had non archivable association
HPD:Help Desk	INC_CAL_1000003	AG001	PBM:Problem Investigation	PBI_CAL_1000003	root had non archivable association
HPD:Help Desk	INC_CAL_1000002	AG001	PBM:Problem Investigation	PBI_CAL_1000002	root had non archivable association
HPD:Help Desk	INC_CAL_1000001	AG001	PBM:Problem Investigation	PBI_CAL_1000001	root had non archivable association

Records archived or restored

pfx–**idlog.csv**

Time	Server	Cntl section	Assign section	User	Schema	Key	Operation	Op2	Result
2013-11-17 16:38	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000002	Create	Merge	OK
2013-11-17 16:38	cent	Do-arch-x		Demo	HPD:Impacted Areas-ARC	HIA000000000002	Create	Merge	OK
2013-11-17 16:38	cent	Do-arch-x		Demo	HPD:WorkLog-ARC	WLG000000000002	Create	Merge	OK
2013-11-17 16:38	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000002	Create	Merge	OK
2013-11-17 16:38	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000003	Create	Merge	OK
2013-11-17 16:40	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000003	Create	Merge	OK
2013-11-17 16:40	cent	Do-arch-x		Demo	HPD:Impacted Areas-ARC	HIA000000000003	Create	Merge	OK
2013-11-17 16:40	cent	Do-arch-x		Demo	HPD:WorkLog-ARC	WLG000000000003	Create	Merge	OK
2013-11-17 16:41	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000004	Create	Merge	OK
2013-11-17 16:41	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000004	Create	Merge	OK

Archive Output: Id Log

500-Arch.ini

- Standard Meta-Update Id Log file.

500-Arch-130-11624.idlog.csv - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View Team

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	A	B	C	D	E	F	G	H	I	J
1	Time	Server	Cntl section	Assign section	User	Schema	Key	Operation	Op2	Result
2	2013-11-17 16:38	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000002	Create	Merge	OK
3	2013-11-17 16:38	cent	Do-arch-x		Demo	HPD:Impacted Areas-ARC	HIA000000000002	Create	Merge	OK
4	2013-11-17 16:38	cent	Do-arch-x		Demo	HPD:WorkLog-ARC	WLG000000000002	Create	Merge	OK
5	2013-11-17 16:38	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000002	Create	Merge	OK
6	2013-11-17 16:38	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000003	Create	Merge	OK
7	2013-11-17 16:40	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000003	Create	Merge	OK
8	2013-11-17 16:40	cent	Do-arch-x		Demo	HPD:Impacted Areas-ARC	HIA000000000003	Create	Merge	OK
9	2013-11-17 16:40	cent	Do-arch-x		Demo	HPD:WorkLog-ARC	WLG000000000003	Create	Merge	OK
10	2013-11-17 16:41	cent	Do-arch-l2		Demo	TMS:Task-ARC	TAS000000000004	Create	Merge	OK
11	2013-11-17 16:41	cent	Do-arch-Upd		Demo	HPD:Help Desk-ARC	INC000000000004	Create	Merge	OK
12	2013-11-17 16:41	cent	Do-arch-x		Demo	HPD:Impacted Areas-ARC	HIA000000000004	Create	Merge	OK

500-Arch-130-11624.idlog

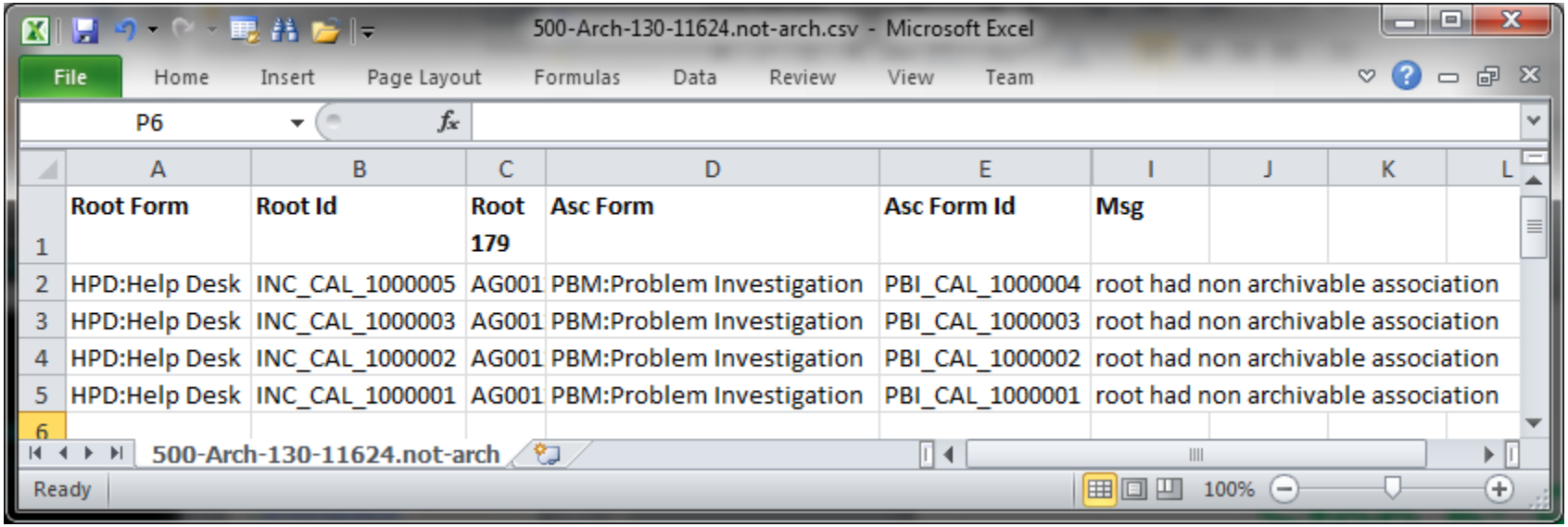
Select destination and press ENTER or choose Paste

100%

Archive Output: Not Archived Log

500-Arch.ini

- Logs all root requests that are ready to be archived and are associated with root requests that are not ready for archive.



500-Arch-130-11624.not-arch.csv - Microsoft Excel

File | Home | Insert | Page Layout | Formulas | Data | Review | View | Team

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	A	B	C	D	E	I	J	K	L
1	Root Form	Root Id	Root 179	Asc Form	Asc Form Id	Msg			
2	HPD:Help Desk	INC_CAL_1000005	AG001	PBM:Problem Investigation	PBI_CAL_1000004	root had non archivable association			
3	HPD:Help Desk	INC_CAL_1000003	AG001	PBM:Problem Investigation	PBI_CAL_1000003	root had non archivable association			
4	HPD:Help Desk	INC_CAL_1000002	AG001	PBM:Problem Investigation	PBI_CAL_1000002	root had non archivable association			
5	HPD:Help Desk	INC_CAL_1000001	AG001	PBM:Problem Investigation	PBI_CAL_1000001	root had non archivable association			
6									

500-Arch-130-11624.not-arch

Ready 100%

Archive Output: Delete Log

500-Arch.ini

- Logs all records that were deleted.

	A	B	C	D	E	F
1	Root Form	Root Id	Root 179	Del Form	Del Id	
2	HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	TMS:WorkInfo	TAS000000000016	
3	HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	TMS:Task	TAS000000000017	
4	HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:WorkLog	WLG000000000023	
5	HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:Impacted Areas	HIA000000000023	
6	HPD:Help Desk	INC_CAL_1000023	AG00123F73CF5Eqc4TSQ_uMxAgcUQB	HPD:Help Desk	INC000000000025	
7	HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	TMS:Task	TAS000000000014	
8	HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:WorkLog	WLG000000000021	
9	HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:Impacted Areas	HIA000000000021	
10	HPD:Help Desk	INC_CAL_1000021	AG00123F73CF5Eqc4TSQgeMxAgbUQB	HPD:Help Desk	INC000000000023	
11	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:WorkInfo	TAS000000000013	
12	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:WorkInfo	000000000000004	
13	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	TMS:Task	TAS000000000009	
14	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:WorkLog	WLG000000000015	
15	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:Impacted Areas	HIA000000000015	
16	HPD:Help Desk	INC_CAL_1000015	AG00123F73CF5Eqc4TSQvOExAgYUQB	HPD:Help Desk	INC000000000017	

Note inverse order of deletions.

Controlling Archiving

000-Jctl.ini

- Meta-Update Job Automation may be used to enhance performance by breaking up the Archive jobs by server, record chunks, companies, and/or root requests.

- Jobs are set in a Jobs configuration file. The Job Control script fires and controls processes based on the jobs file.

- See Meta-Update Job Automation User's Guide for details on Job Automation.

Meta-Update_Job_Automation_Users_Guide.pdf

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Meta-Update Archive Configuration

Arch-Jobs-sample.xslx

Job Automation: Sample Jobs file

Jobs are set in a Jobs configuration file. The Job Control script fires and controls processes based on the jobs file.

	Lvl	Seq	Enable	Job Classes	Skip When No Cla	ARS Table Name	Job File Source	Job File	Script File	Script Section	Company	Chunk-Num	Chunk	Archive Config File	Args	Notes
7	1	1	1			HPD:Help D	100-Hpd	100-Hpd_dft-05	500-Arch	Do	_	5	5000	e:\Dt	-start 5000 -max 1000 -c	
8	1	2	1			HPD:Help D	100-Hpd	100-Hpd_dft-06	500-Arch	Do	_	6	6000	e:\Dt	-start 6000 -max 1000 -c	
9	1	2	1			HPD:Help D	100-Hpd	100-Hpd_dft-07	500-Arch	Do	_	7	7000	e:\Dt	-start 7000 -max 1000 -c	
17	1	3	1			HPD:Help D	100-Hpd	100-Hpd_dft-15	500-Arch	Do	_	15	15000	e:\Dt	-start 15000 -max 1000 -	
18	1	3	1			HPD:Help D	100-Hpd	100-Hpd_dft-16	500-Arch	Do	_	16	16000	e:\Dt	-start 16000 -max	
19	2	1	0			CHG:Infras	200-Chg	200-Chg_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max	
20	2	1	0			PBM:Proble	310-Pbml	310-Pbml_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max	
21	2	1	0			PBM:Knowr	320-PbmE	320-PbmE_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max	
22	2	1	0			PBM:Soluti	320-PbmS	320-PbmS_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max 0000 -c	
23	2	1	0			RMS:Relea	400-Rel	400-Rel_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max 0000 -c	
24	2	1	0			WOI:WorkC	500-Woi	500-Woi_dft	500-Arch	Do	_			e:\Dt	-start 0000 -max 0000 -c	
25	2	2	0			HPD:Help D	110-Hpd	110-Hpd_calbro	500-Arch	Do	Calbro Services			e:\Dt	-start 0000 -max 0000 -c	
26	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
27	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
28	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
29	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
30	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
31	2	2	0							Do	Calbro Services			e:\Dt	-start 0000	
32	2	3	0							Do	Biosphere			e:\Dt	-start 0000 -max 0000 -c	
33	2	3	0							Do	Biosphere			e:\Dt	-start 0000 -max 0000 -c	
34	2	3	0							Do	Biosphere			e:\Dt	-start 0000 -max 0000 -c	
35	2	3	0							Do	Biosphere			e:\Dt	-start 0000 -max 0000 -c	
36	2	3	0			PBM:Soluti	300-PbmS	300-PbmS_biosp	500-Arch	Do	Biosphere			e:\Dt	-start 0000 -max 0000 -c	

Contents | Help | Config | Jobs | ArchCfgs | Change History

Formulas set up record chunking.

A second sheet, ArchCfgs, is used in a formula for the –fle argument.

Company	Config	Job File Name
_		_dft
Calbro Services	_Calbro	_calbro
Biosphere	_Biosphere	_biosphere

Contents | Help | Config | Jo

All jobs with the same Lvl & Seq are fired simultaneously.

Some experimentation is needed to determine the optimum mix in any given server environment.

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Firing Sets of Archive Jobs

- Run the Job Automation script with the Jobs file `500-Arch.ini`

`Arch-Jobs-sample.xslx`

```
Cmd Box
2010-05-03   9:07:35.38
e:\Dta>

Wrk\2014-05-28> SthMupd 000-Jctl.ini Do -fle Arch-Jobs-sample.csv
```

All jobs in the file will be run in batches.
Each will produce a output files based on the Job Name.

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- Binaries, trial licenses, User's Guide available on the web.
- Pick up a trial license with our Live Install and Scripting 101 presentation
- Download the Scripting 101 presentation and the Meta-Update User's Guide
- Look at the samples in the Script Library
- Contact Us at www.softwaretoolhouse.com

We Thank You for Your Time

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