World Wide Remedy Users Group
WWRUG10 - Sharing Tools, Technology and Training.

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Software Tool House Inc

Live ITSM Migration using Meta-Update®
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Outline

- ITSM Migrations: Difficult; No Tools

- How Meta-Update® Handles Migrations

- Meta-Update® Benefits

- Sample Migration (Background, Live Demo)

- A look at Meta-Update® Scripting

- More Information

Objectives/Results

- ➢ Objectives
  - ➢ Learn what's involved in an ITSM 6 to 7 data migration
  - ➢ Learn how Meta-Update® facilitates all requirements for a successful data migration

- ➢ Results
  - ➢ A live ITSM 6 to 7 migration will be demonstrated

- ➢ Skills developed
  - ➢ An introduction to Meta-Update® scripting

ITSM Data Challenges

☐ The ITSM 7 Suite contains:

- ➢ **1,800** **Forms**
- ➢ **25,000** **Active Links**
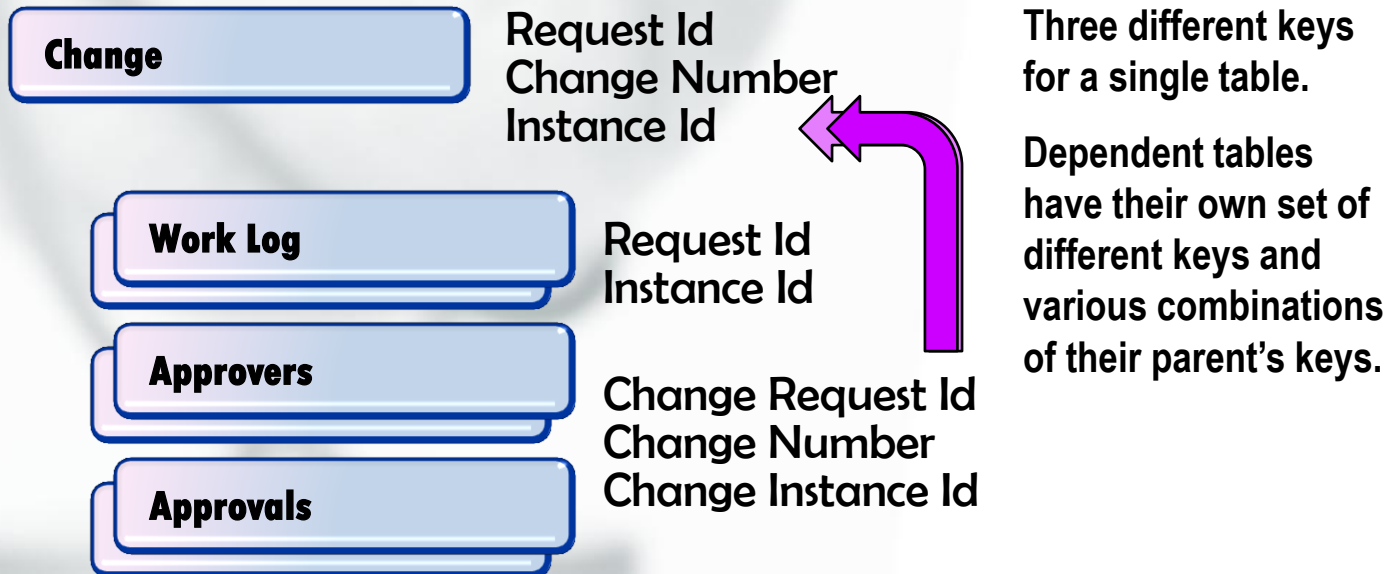- ➢ **8,000** **Filters**
- ➢ **500** **Join Forms**

Data is represented by a complex web of differently related records and tables.

Reference fields and tables are completely undocumented.
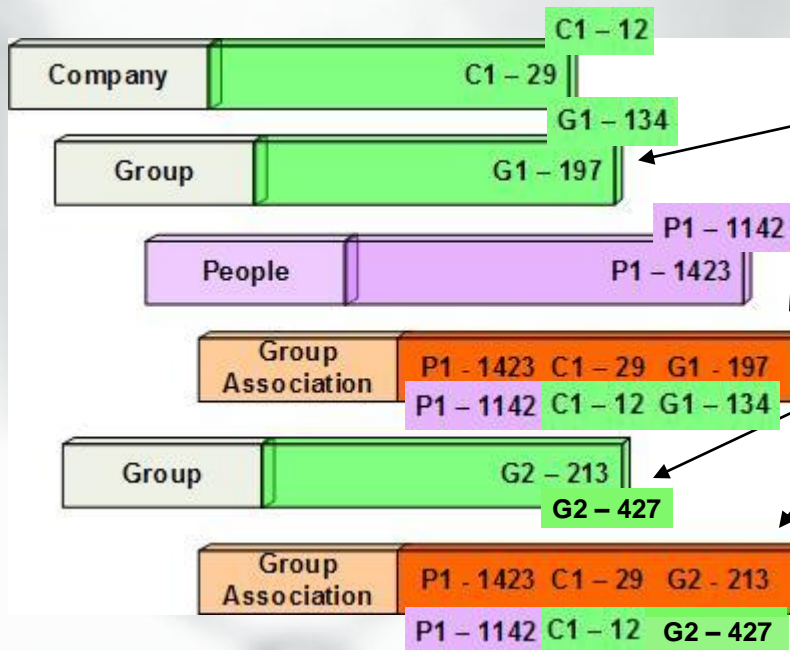
ITSM Data Challenges

□ The ITSM 7.6 Suite contains:

➤	2700	Forms	1,800
➤	36,000	Active Links	25,000
➤	18,000	Filters	8,000
➤	800	Join Forms	500

Data is represented by a complex web of differently related records and tables.

Reference fields and tables are completely undocumented.

ARS Data Challenges

- □ All ARS Applications represent "Requests" by trees of data records.
- □ Records in different forms are connected by referencing data in those records.

Change

Request Id
Change Number
Instance Id

Three different keys for a single table.

Work Log

Request Id
Instance Id

Dependent tables have their own set of different keys and various combinations of their parent's keys.

Approvers

Approvals

Change Request Id
Change Number
Change Instance Id

ITSM Data Challenges

□ Support Staff Example

A symbolic name must be looked up and the new ID reference assigned.

ITSM Data Challenges

Migrating data across environments

- Once Foundation Data changes are developed and tested there is no sure way to extract these changes and merge them *correctly* on a different server.

Migrating data across ITSM releases

- ITSM release changes are significant undertakings. The conventional advise is to *not* migrate data because of the difficulty in automating data cleansing and migration into mismatching schemas and field sets.

Automating Imports, Customer On-boarding

- Can be a complex, time consuming, expensive ARS or ITSM development task using staging forms and merge workflow.

Challenges in Migrating to ITSM 7

Data cleansing

- ITSM data is validated. Addresses and model names for example, need to be looked up against other defining tables. There is no tool that allows you to automate validation and transformation rules.

Dissimilar Data Schema

- Completely different and more complex table structure in ITSM 7. Diary fields need be converted to records. Attachments must be moved. Completely different Company, Person, Support, Groups, Rights, in short, Foundation Data structures.

Following chains of related records

- A primary cause of difficulties with any extract, import, report, validation - *any data operation*, on a complex tree of data.

Ways of Automating Migrations

ARS Import Export

Manual exports to CSVs, Excel to change values, manual imports.

Automated with staging forms and import workflow: a time-consuming, expensive Workflow Project.

Template-based Products

Must use supplied templates.

Can't use your own or handle different sources.

Manual validation and firing.

Automated with staging forms and import workflow.

Panacea Migrator DSO AIE

Automated with complex Merge workflow.

May require changes to application.

Workflow Project can approach API costs.

API Perl Java c

Sure way to automate.

Expensive and slow to develop.

Usually needs outside, non-Remedy staff.

SQL

Dangerous to the integrity of the ARS system data.

Expensive and slow to develop.

Usually needs outside, non-Remedy staff.

Meta-Update Migration Automating

Scripting Tool

Meta-Update reads a simple ASCII script file, and performs your functions through the API.

Replete with look-ups, value transforms, file facilities, messaging and error handling.

No Server Changes No Workflow

No server changes at all.

No staging forms and complex Merge workflow.

No changes to OOTB applications.

No API Needed

No API programmers.

No time-consuming, expensive, frustrating development projects.

Your ARS staff easily implement any automation.

Any Sources

Handle CSVs of any type – even with line feeds.

Handle your own developed templates.

Apply automatic value transforms.

Use CSVs as Look Ups.

Efforts Costs Time

ROI is typically its first use.

Reduce efforts and time to delivery by an order of magnitude.

Comparison of Automation Costs

> ## ITSM 6 to ITSM 7 Migration

Based on estimates for an unrealized migration, a real migration implemented with Meta-Update, and an inadequate partial migration implemented with ARS facilities.

Note that conversion of Diary entries into Work Logs is not possible without Meta-Update or the ARS API.

	Partial Migration	Estimated Migration	Meta-Update
Months	7	24	3

Comparison of Automation Costs

➢ ITSM 6 to ITSM 7 Migration
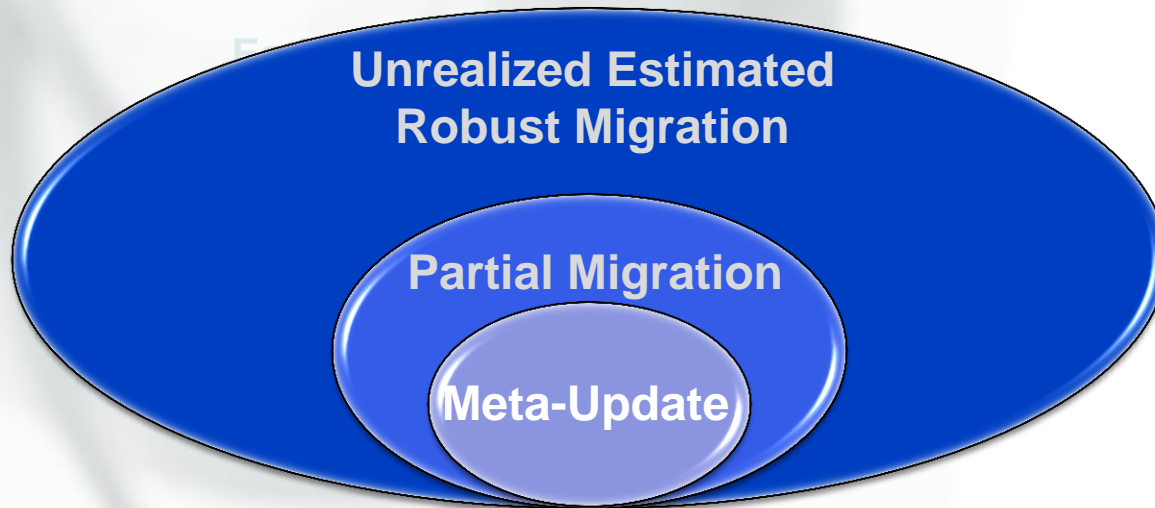
People	Months
3	24
1	7
1	3

Migration Milestones

Demo of a ITSM 6 to 7.6 Migration

On-boarding CSVs

Translates

ARS ITSM 6

Meta-Update Script

ARS 7 ITSM 7

Production

Data Migrations, Imports, Batch Operations

New System

Output files
CSV, html, XML, Report files, processes.
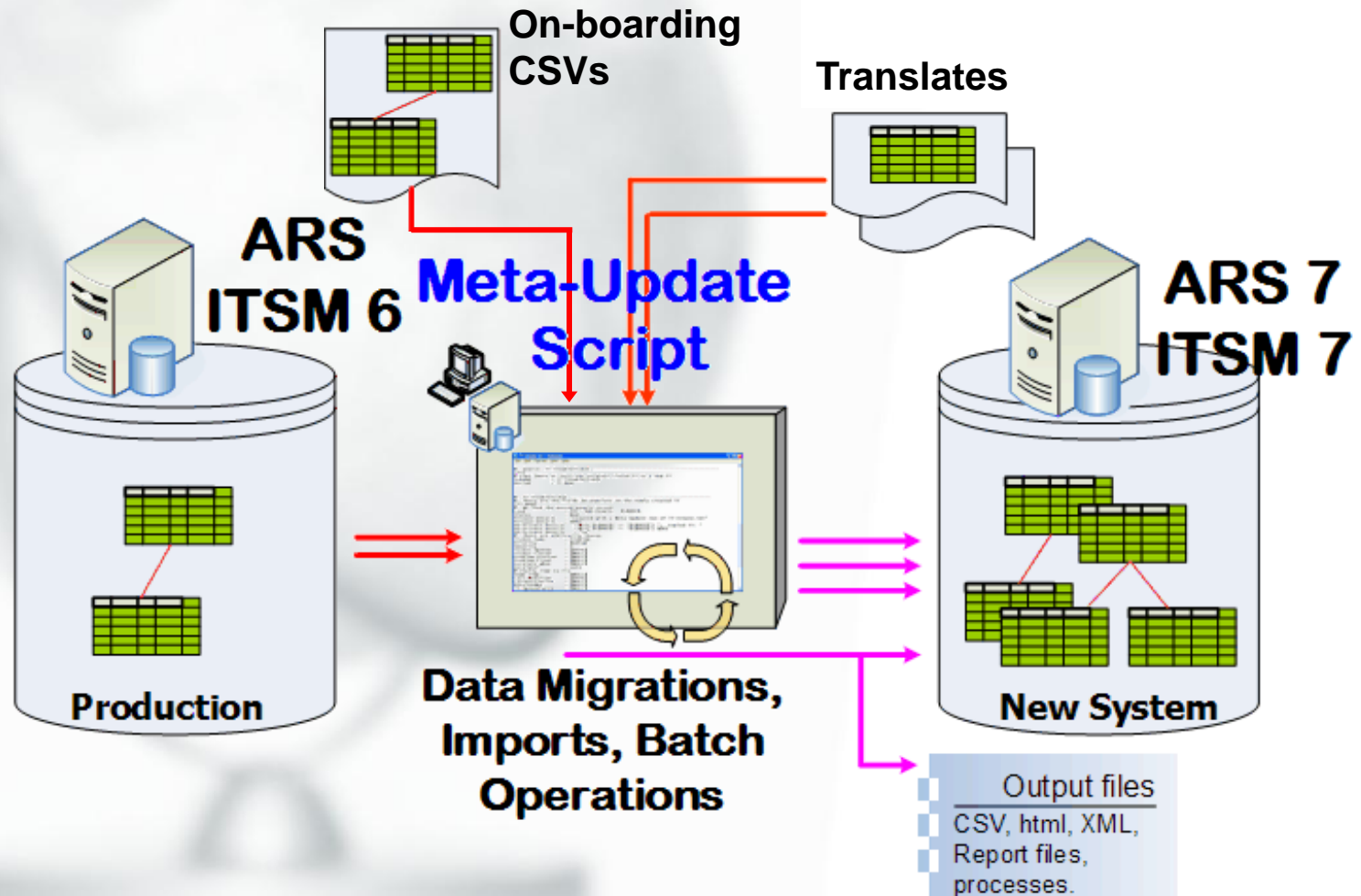
Demo: ITSM 6 to 7.6 Migration

➢ We'll now move to the Demo part of the presentation

➢ We'll start by showing you a running ITSM 6 server and a partially migrated 7.6.03 ITSM Suite

➢ We'll run the Help Desk to Incident script in debug mode with an editor open to walk through a bit of it

➢ We'll let it run to completion and examine the results with the User tool

ITSM 6: HD Case 8

ITSM 6: HD 8: Requester Profile

ITSM 6: Attachments Needed

Meta-Update Scripting

ITSM 6: HD 8 Add Attachments

ITSM 6: Add Attachments

ITSM 6: Attachments Added

ITSM 6: Notes Diary

ITSM 6 to 7.6 Help Desk Migration

ITSM 6 to 7.6 Help Desk Migration

```
[DoHPD]
AssignInit      = ReqPpl-asg-Init
Launch          = PplReq
Launch          = @if ("$HpdScrV, DoContact$" == "1") PplCust
Launch          = @if ("$HpdSrc, Assigned To Group+$" != ""    &&              &
                        "$HpdSrc, Assignee Login Name$" != "")                  &
                  PplAsg
Launch          = DoHPD-2
[DoHPD-2]
#  ITSM 7:   HPD:Help Desk   "Incident"    create / update --------------------
#    This section is Launched for every 6.0 ticket Tag: HpdSrc
#
#    Tags available
#      HpdSrc               an @Prod ITSM 6.0 HPD:HelpDesk rec
#
#    It creates an Incident Ticket on the 7 server using Merge with NoFilters
#    It then launches sections:
#      DoWrkLog           to loop through the Notes Diary field
#      DoWrkLog-Att       loops $HpdSrc, Notes$ diary entries updating WorkLog recs
#      DoTasks            Queries CHG:Tasks for related tasks and builds
#                           TMS:Tasks, TMS:SummaryData, TMS:Association
#      DoAssoc            If configued or set, processes the SHR:Association records
#      DoSurvey           If configured, updates a SRM:Survey record
#      DoSrmReq           If configured, updates a SRM:Request record
#
Update      = HpdTgt,                                                      &
              HPD:Help Desk,                                               &
              '179'         =  "$HpdSrc, 179$"
Merge       = Yes, NoWorkflow
AssignNew   = Hpd-asg-new
Assign      = Hpd-asg-upd
Launch      = DoWrkLog
Launch      = @if ("$HpdSrcV, DoAtt      $" == "1") DoWrkLog-Att
Launch      = @if ("$HpdSrcV, DoWL-Req   $" == "1") DoWrkLog-Req-NF
Launch      = @if ("$HpdSrcV, DoWL-Cust  $" == "1") DoWrkLog-Cust-NF
Launch      = @if ("$HpdSrc, _dataport:Express" == "Yes"    &&             &
                    ("$HpdSrc,  Priority$" == "Urgent"  ||                 &
                     "$HpdSrc,  Priority$" == "High"         )     )       &
              DoWrkLog-Exp
Launch      = DoAudLog
```

ITSM 7.6: WL: Attachments

```
[DoWrkLog-Att]
#      HpdSrcV    DoWL-Req-Text    string; text of the description (short)
#      HpdSrcV    DoWL-Req-Text-1  string; text of the description
#   This grabs the Ticket's Attachments and creates a single specific
#     "Attachments" HPD:WorkLog record.
#   Do not launch if the attachments are null.
Update        = WrkTgt,                                                &
                HPD:WorkLog,                                           &
                'Incident Number'    = "$HpdTgt, Incident Number$" AND &
                'Short Description'  = "Attachments"              AND  &
                'Submitter*'         = "Migration"
Assign        = Wrk-Att-asg
AssignNew     = Wrk-Att-asg
Merge         = Yes
[Wrk-Att-asg]
Incident Number       = HpdTgt, Incident Number
Incident Entry ID     = HpdTgt, 1
Submitter             = Migration
Submit Date           = $date$
Last Modified By      = Migration
Last Modified Date    = $date$
Short Description      = Attachments
Description           = Original HPD Attachments
Detailed Description  = Original HPD Attatchments migrated to this Work Log entry
Status                = Enabled
Secure Work Log       = Yes
View Access           = Internal
Work Log Submitter    = Migration
Work Log Submit Date  = $date$
Work Log Date         = $date$
Work Log Type         = "Working Log"
z2AF Work Log01       = @if ("$HpdSrc, Attachment1$" != "") HpdSrc, Attachment1
z2AF Work Log02       = @if ("$HpdSrc, Attachment2$" != "") HpdSrc, Attachment2
z2AF Work Log03       = @if ("$HpdSrc, Attachment3$" != "") HpdSrc, Attachment3
```

ITSM 7.6: WL: Missing Requester

```
[PplReq]
#  Will lookup the submitter and get his people record into PplReq
#  If there are no records, we'll point it at          PplReqDmy
#    and build a nice text message with the contents of the ITSM 6
#    SHR:People
QuerySql        = ReqCnt,                                        &
                  ,                                              &
                  select count(*) from CTM_People               &
                  where Remedy_Login_ID = '$X, Req$'
AssignPost      = ReqPpl-asg-Term

[PplCust]
[ReqPpl-asg-Term]
@Cmd          = @if ("$ReqCnt, 1$" == "0")
   @Cmd         = Msg, W,        "HPD: $HpdSrc, 1$ requester: $X, Req$ not found;     &
                                 using: $PplReqDmy, Remedy Login ID$ instead"
   @Cmd         = Ref, HpdSrcV,  DoWL-Req,         "1"
   @Cmd         = Ref, HpdSrcV,  DoWL-Req-Text,     "Migration: ticket's requester was: $X, Req$"
   @Cmd         = @if("$X, Req$" == "$X, ReqB$")
      LoadQ       = @Prod, PplReq-6,  SHR:People,  'Login*' = "$X, Req$"
      @Cmd        = Ref, HpdSrcV,  DoWL-Req-Text-1,  @ReqPpl-asg-Text
      @Cmd        = Ref, PplReq-6, /delete
   @Cmd         = else
      @Cmd        = Ref, HpdSrcV,  DoWL-Req-Text-1,  @ReqPpl-asg-Text-2
   @Cmd         = endif
   @Cmd         = Ref, X,        Req,        "$PplReqDmy, Remedy Login ID$"
   @Cmd         = Ref, PplReq, PplReqDmy, @equ
@Cmd          = else
```

Help

Work Info (itsm7rtm) -- Notes

File Edit

The ticket's original ITSM 6 requester with login "Erica Engineer" was
CTM:People table

```
Login:        Erica Engineer
ID:           000000000000002
Full Name:    Erica Engineer
Last Name:    Engineer
First Name:   Erica
Telephone:    222-2221
Region:       USA
Site:         25 Bay St, Mountain View, CA
Department:   Engineering
```

```
[DoHPD-2]
Update         = HpdTgt,                                                    &
                 HPD:Help Desk,                                             &
                 '179'          =    "$HpdSrc, 179$"
Merge          = Yes, NoWorkflow
AssignNew      = Hpd-asg-new
Assign         = Hpd-asg-upd
Launch         = DoWrkLog
Launch         = @if ("$HpdSrcV, DoAtt      $" == "1") DoWrkLog-Att
Launch         = @if ("$HpdSrcV, DoWL-Req   $" == "1") DoWrkLog-Req-NF

[DoWrkLog-Req-NF]
#   This  simly creates a new WL entry indicating the
#     original requester was not found.  It picks up the
#     SHR:People record from the source server and forms a
#     text string.
Update         = WrkTgt,
                 HPD:WorkLog,
                 'Incident Number'    = "$HpdTgt, Incident Number$"
                 'Short Description'  = "$Config, AddDta-Lbl-Req-NF$"
                 'Submitter*'         = "Migration"
Assign         = Wrk-Req-NF-asg
AssignNew      = Wrk-Req-NF-asg
Merge          = Yes

[Wrk-Req-NF-asg]
Incident Number       = HpdTgt, Incident Number
Incident Entry ID     = HpdTgt, 1
Submitter             = Migration
Submit Date           = $date$
Last Modified By      = Migration
Last Modified Date    = $date$
Short Description      = Config,    AddDta-Lbl-Req-NF
Description           = HpdSrcV,   DoWL-Req-Text
Detailed Description  = HpdSrcV,   DoWL-Req-Text-1
Status                = Enabled
Secure Work Log       = Yes
View Access           = Internal
```

Work Info (itsm7rtm) -- Notes

File   Edit

The ticket's original ITSM 6 requester with login "Erica Engineer" was not found in the ITSM 7.0 CTM:People table

```
Login:        Erica Engineer
ID:           000000000000002
Full Name:    Erica Engineer
Last Name:    Engineer
First Name:   Erica
Telephone:    222-2221
Region:       USA
Site:         25 Bay St, Mountain View, CA
Department:   Engineering
```

OK   Can

Conclusion

➢ Meta-Update is the only tool available to automate the value transformations and the ability to follow chains of records needed to perform a complete data migration from prior releases of ITSM or from differing on-boarding data structures.

Thank You   Questions

- Check out the Web Site
  www.softwaretoolhouse.com

- See Learning, Script Library

- Request a Trial License with
  a Live Install WebEx
  Training session

- Contact us at:
  sales@softwaretoolhouse.com

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