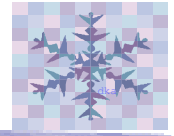


TC Admin DB Sync Tool



Teamcenter Admin Database Synchronization Tool

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In Production since 2005

TCAdmDBSync

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Fast Enough?

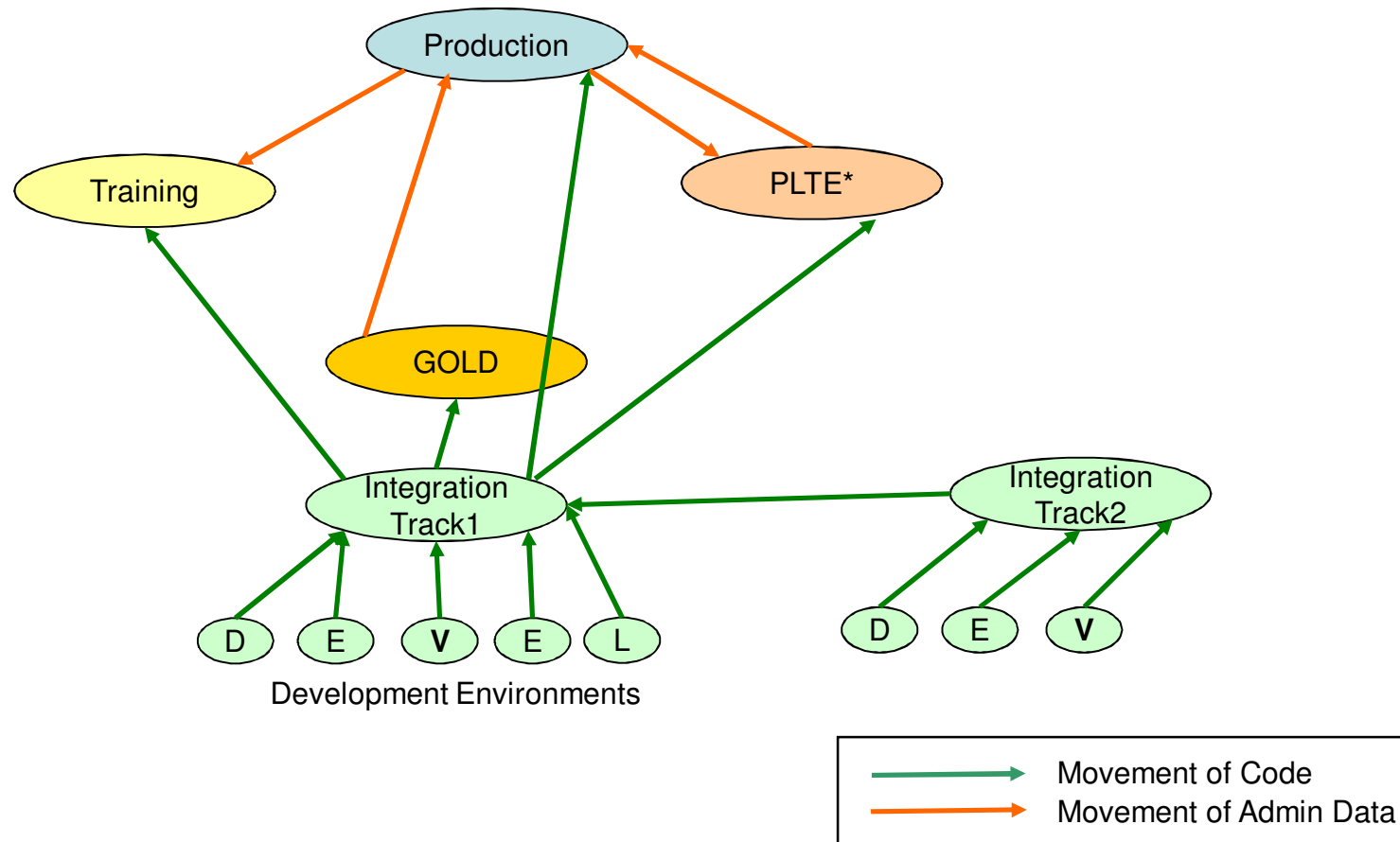


"Speed-to-market is now the ultimate competitive weapon" – Business Week Cover, March 27, 2006

How fast is your PLM implementation responding to your customers ?

Achieve Faster PLM Implementation

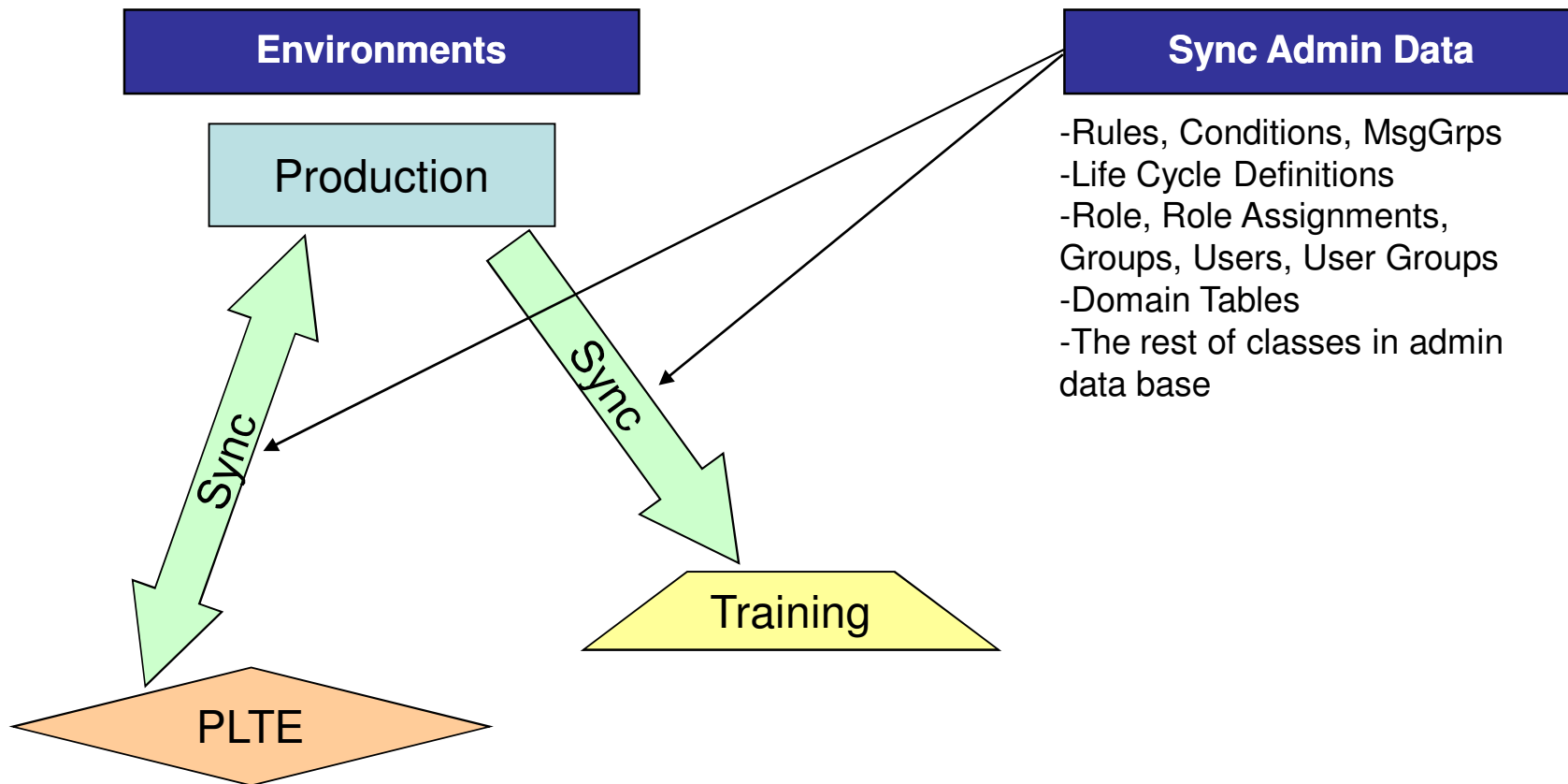
Multiple Environments



*PLTE: Production Like Test Environment/Validation Environment

Requirements

Synchronize admin data across environments





Requirements



Why Synchronize?

- **Catch mistakes related to rules, life cycles, etc. early on** - Developers are developing and unit testing in an environment with same administrative setup.
- **Users' training reflects actual work** - Training environment can be configured like the production system.
- **More effective testing** - Implementers can test Life Cycles, Message Access Rules, domain tables, etc. in PLTE or Setup environment and then transfer to Production environment.



Requirements

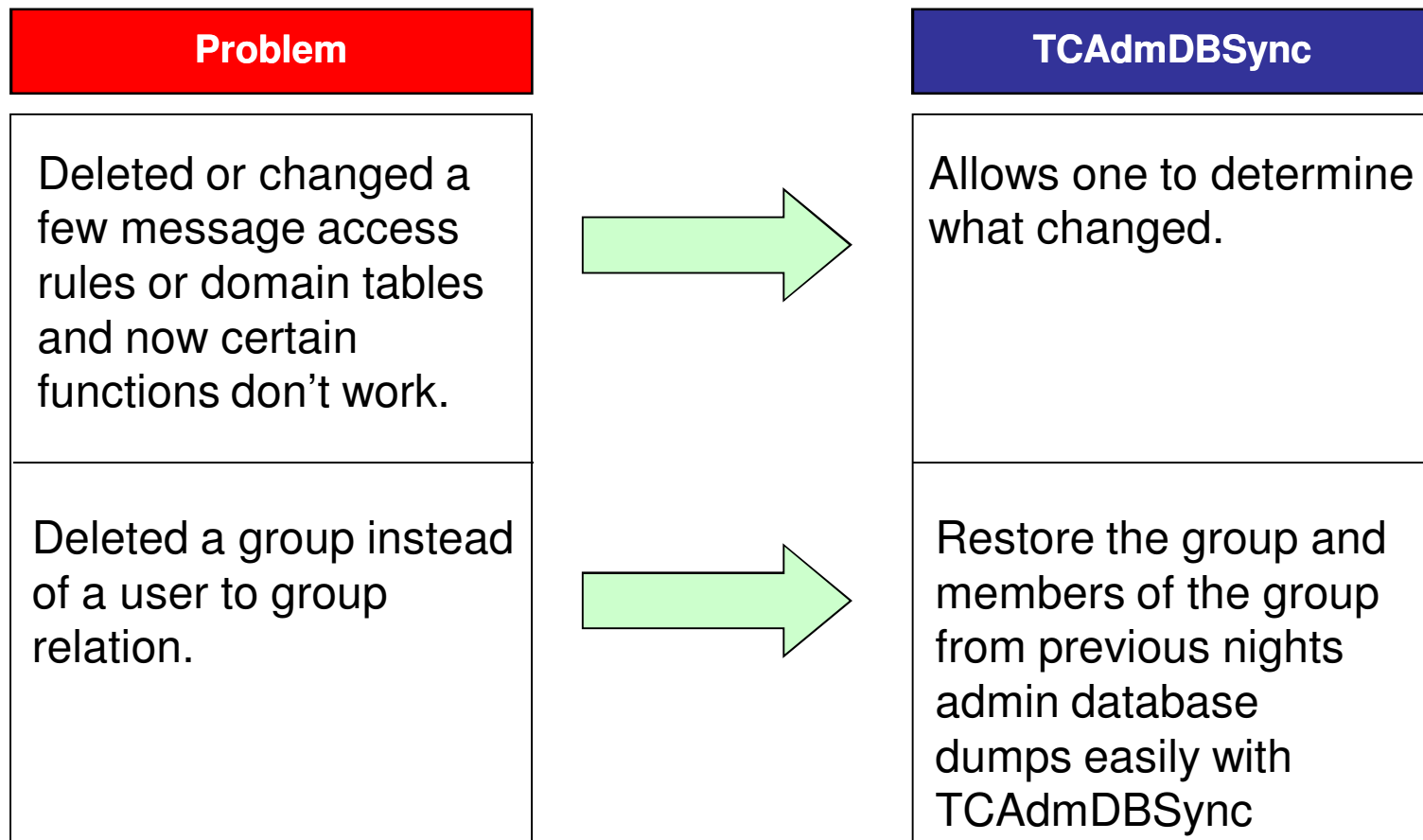


Audit Trail

- Capture the changes to Admin setup for each day.
- Audit trail required by business practices.
- Run the TCAdmDBSync utility each day to capture the changes. Takes couple of minutes to run. Generates small files with the changes.
- Teamcenter Event Log provides only partial information and would take significant programming to figure out the changes from the event logs and apply them.

Requirements

Recovery from grave mistakes





Requirements



Compare two versions of Teamcenter

- **Contemplating upgrade to new version?** - Want to know what all (Conditions, MsgAccRu, Domains, Lifecycles, etc.) UGS has changed between Teamcenter 4 and Teamcenter 2005.
- **See all the admin changes & evaluate how these will impact your system** - Compare the admin setup of current production environment and a PLTE that has been upgraded.



Tool: DBSynch



Developed in Java

Works off dump files generated from the admin database.

Compares all classes (OOTB and custom) in Admin data bases (except a couple of relation classes that go across data bases, like AccessOn)



Can ignore differences that have already been evaluated and marked as acceptable.

Independent of Teamcenter version, does not need to be recompiled for each version of Teamcenter.

Output Examples

Adding to
Destination

```
/* Transaction Number 2*/  
/* Following record did not exist in Destination  
* so it is being added  
*/  
class CondTbl  
{  
    Class = 'CondTbl';  
    Condition = 'EnableGlobalItemIdentity C(e) := (1=1)';  
    ConditionName = 'EnableGlobalItemIdentityC';  
    CreationDate = '2002/08/15 -13:38:45:665';  
    LastUpdate = '2003/10/03 -20:38:04:748';  
    OBID = 'mipnMWgmongooadmm20p -aag';  
    ZBlob = '+';  
}
```

```
/* Transaction Number 20*/  
/* Following record exists in Destination  
* but not in Source so it is being deleted  
*/  
class CondTbl  
* {  
*     Class = 'CondTbl';  
*     Condition = 'includeCADTrackedItemsC(e) := 1 = 1 ;';  
*     ConditionName = 'includeCADTrackedItemsC';  
*     CreationDate = '2005/03/04 -22:52:54:299';  
*     LastUpdate = '2005/03/04 -22:52:54:299';  
*     OBID = 'pdetQ1crmphsuadmm20p -u0R';  
*     ZBlob = '+';  
* }  
*/  
delete from CondTbl where OBID= 'pdetQ1crmphsuadmm20p -u0R';
```

Deleting
from
Destination

Output Examples

```
/* Transaction Number 45*/
/* Following record is different in Destination
 * so it is being deleted and added from Source
 * The original record is shown in comments
 * class CondTbl
 * {
 *   Class = 'CondTbl';
 *   Condition = 'n8IsFirescoutEngChange(o,e) := ($o.b2ChangeType =
\'ERN\' OR $o.b2ChangeType = \'DCN\' OR $o.b2ChangeType = \'ECO\' OR
$o.b2ChangeType = \'DVA\' OR $o.b2ChangeType = \'RCI\' OR
$o.b2ChangeType = \'SCO\' AND ($o.FrozenIndicator = \'-\') AND
($o.b2ProgramName = \'FIRESOOUT\'))';
 *   ConditionName = 'n8IsFirescoutEngChange';
 *   CreationDate = '2004/12/11-23:01:34:192';
 *   Description = 'Used to select appropriate life cycle or change
object for the Firescout Program. Casey 12/11/2004';
 *   LastUpdate = '2004/12/11-23:01:34:192';
 *   OBID = 'omlwE3krmpshuadmm20p -KzO';
 *   ZBlob = '+';
 * }
 */
delete from CondTbl where OBID= 'omlwE3krmpshuadmm20p -KzO';
class CondTbl
{
  Class = 'CondTbl';
  Condition = 'n8IsFirescoutEngChange(o,e) := ($o.b2ChangeType =
\'ERN\' OR $o.b2ChangeType = \'DCN\' OR $o.b2ChangeType = \'ECO\' OR
$o.b2ChangeType = \'DVA\' OR $o.b2ChangeType = \'RCI\' OR
$o.b2ChangeType = \'SCO\' OR $o.b2ChangeType = \'AMR\' \nOR
$o.b2ChangeType = \'DCO\' OR $o.b2ChangeType = \'STOP\' \nOR
$o.b2ChangeType = \'LIFT\') \nAND ($o.FrozenIndicator = \'-\') AND
($o.b2ProgramName = \'FIRESOOUT\') AND n8IsFIRESOOUTCDM(o,e)';
  ConditionName = 'n8IsFirescoutEngChange';
  CreationDate = '2004/12/11-23:01:34:192';
  Description = 'Used to select appropriate life cycle or change
object for the Firescout Program. Casey 12/11/2004';
  LastUpdate = '2005/03/01-01:56:45:302';
  OBID = 'omlwE3krmpshuadmm20p -KzO';
  ZBlob = '+';
}
```

Differing record:
added from Source
to Destination

Output Examples

| Class | Type | TotalSrc | TotalDest | Same | Diff | Added | Deleted | Ignored |
|--------------|--|---------------------|-----------|------|------|-------|---------|---------|
| Advisor | Relation | 2 | 1 | 0 | 0 | 2 | 1 | 0 |
| ClsSbscr | PdmlItem | 8 | 5 | 0 | 0 | 8 | 5 | 0 |
| CndProc | PdmlItem | 84 | 86 | 1 | 63 | 20 | 22 | 0 |
| Colltm | Relation | IGNORED, Across DBs | | | | | | |
| CondTbl | PdmlItem | 595 | 703 | 456 | 76 | 63 | 171 | 0 |
| DirSelRu | PdmlItem | 19 | 30 | 1 | 0 | 18 | 29 | 0 |
| DLstProc | PdmlItem | 28 | 31 | 0 | 0 | 28 | 31 | 0 |
| DynPrtcp | PdmlItem | 22 | 20 | 15 | 4 | 3 | 1 | 0 |
| Event | PdmlItem | 186 | 185 | 185 | 0 | 1 | 0 | 0 |
| EventGrp | PdmlItem | NO CHANGES | | | | | | |
| EvtToEvg | Relation | 30 | 30 | 0 | 0 | 30 | 30 | 0 |
| FileSys | PdmlItem | 6 | 1 | 0 | 0 | 6 | 1 | 0 |
| FTRIdxCt | PdmlItem | NO CHANGES | | | | | | |
| Host | PdmlItem | 9 | 1 | 0 | 0 | 9 | 1 | 0 |
| HostGrp.cdmp | No Matching File in Destination, Please Evaluate | | | | | | | |
| MsgAccRu | PdmlItem | 1846 | 1871 | 1671 | 1 | 174 | 199 | 0 |
| MsgGrp | PdmlItem | 1060 | 1055 | 1011 | 22 | 27 | 22 | 0 |
| MsgProc | PdmlItem | 51 | 51 | 3 | 0 | 48 | 48 | 0 |



Tool: xfrLifeCycle



Transfers Life Cycle Definition for one or more lifecycles from source to destination environment.

Creates a load file for destination environment.



Processes Relation classes (Assignee, Reviewer, etc.)

Processes recursively through all sub life cycles and life cycles in breakdown processes.

Collects info on LCProcesses (RvwProc, DlstProc, AsgProc, MsgProc, b2RlcPrc, etc.)

Tool: xfrLifeCycle, Sample output

| | | | | |
|--------------------------|----------------------------|----------------------|----------------------------------|---|
| Start Processing LifeCyc | Drawing Release LC | Rev - | | |
| CondTbl | n6lsNotFrozenCN | Written to load file | | |
| LifeCyc | Abort Release LC | Written to load file | | |
| WbdProc | BD Abort Resulting Drawing | Written to load file | | |
| AsgProc | Fix Transfer Problem | Written to load file | | |
| | Assignee | Written to load file | LCM admin grp | Same Participant Key as in Dest |
| VltProc | Transfer to WIP Vault | Written to load file | | |
| CndProc | LCM TrueCnd | Written to load file | | |
| DLstProc | Abort Notice | Written to load file | | |
| | Recipient | Written to load file | \$obj.WbsOriginator | Same Participant Key as in Dest |
| | Recipient | Group Lead | Participant(Role) does not exist | Add Participant and relation manually in Dest |

Tool: xfrLifeCycle, Sample output

| | | | | |
|---------|---------------------------|----------------------|----------------------------------|---|
| CndProc | Check for Abort | Written to load file | | |
| AsgProc | Incorporate PPP Comments | Written to load file | | |
| | Assignee | Written to load file | \$obj.WbsOriginator | Same Participant Key as in Dest |
| AsgProc | Incorporate Lead Comments | Written to load file | | |
| | Assignee | Written to load file | \$obj.WbsOriginator | Same Participant Key as in Dest |
| RevProc | Review PRD | Written to load file | | |
| | Reviewer | Program Planner | Participant(Role) does not exist | Add Participant and relation manually in Dest |
| RevProc | Lead Review | Written to load file | | |
| | Reviewer | Group Lead | Participant(Role) does not exist | Add Participant and relation manually in Dest |



Summary of Benefits



- **Saves painstaking manual work**
 - Imagine transferring a 100 step lifecycle with sub lifecycles
 - Finding the differences in MsgAccRu in two environments
- **Lightens the work of most experienced and valuable resources in identifying problems**
- **Meets audit needs of Medical/Aerospace environments**
- **Allows for easier management of multiple environments**
- **Eases recovery from grave mistakes**