



#bcopendiscussion

53'RD

07-08-2021

C/AL & AL Upgrade Codeunits.





WHERE DO I REGISTER?

Register Here

<http://bit.ly/msdyn365bcopendiscussion>

Meeting Attendees

If you would like to be default attendee for future meeting, please drop **your name & Email address in chat** during meeting.

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SAURAV DHYANI - #MSDYNNNAV & #MSDYN365BC

Hi All,

Welcome to #bcopendiscussion registration page.

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We all are glad to see you attending our next meeting. Its a great place to discuss about business central.

It's free for all. No Sponsor's! & No Marketing.

- 25 Meeting in 2020 with 522 Registered and 207 Attendees.
- A Total of 80 Questions were discussed in 2020.

We will be happy to add more presenters. If you want to be the presenter please let us know.

Next Meeting Details - 22/May/21

- [Link To Register.](#)
- Register Link Expires - 21 May 2021 (03:00 PM IST)
- Topic - Open Discussion.
- Time - 09:30 PM to 10:30 PM (IST)
- Questions - [Add Here.](#)





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WHY UPGRADE CODEUNIT?

Old Upgrade Routine –

Two Steps –

Step 1 (old Version)

Step 2 – (New Version)

```
UpdateSalesHeader(UAR_StateIndicator : Rec
WITH SalesHeader DO
  IF StateIndicator.UpdateTable(TABLENAME)
  TimeLog.TimeLogInsert(TimeLog,TABLENAME)
  IF FINDSET(TRUE) THEN
    REPEAT
      StateIndicator.Update;
      "Service Mgt. Document" := FALSE;
      "Expiration Date" := 00;
      "CP Status" := "CP Status"::"0";
      "Auto Created" := FALSE;
      "Login ID" := '';
      "Web Site Code" := '';
      MODIFY;
    UNTIL NEXT = 0;
    TimeLog.TimeLogInsert(TimeLog,TABLENAME)
    StateIndicator.EndUpdateTable(TABLENAME)
  END;

UpdateSalesLine(UAR_StateIndicator : Record
WITH SalesLine DO
  IF StateIndicator.UpdateTable(TABLENAME)
  TimeLog.TimeLogInsert(TimeLog,TABLENAME)
  IF FINDSET(TRUE) THEN
    REPEAT
      StateIndicator.Update;
      "Service Contract No." := '';
      "Service Order No." := '';
      "Service Item No." := 0;
      "Appl.-to Service Entry" := 0;
      "Service Item Line No." := 0;
      "Serv. Price Adjmt. Gr. Code" := '
      "Appl.-to Job Entry" := 0;
      "Job Applies-to ID" := '';
      CheckAssocPurchOrder := FALSE;
      MODIFY;
    UNTIL NEXT = 0;
    TimeLog.TimeLogInsert(TimeLog,TABLENAME)
    StateIndicator.EndUpdateTable(TABLENAME)
  END;
END;
```

```
UpdateInventorySetup(UAR_StateIndicator : Record Table104037)
WITH InventorySetup DO
  IF StateIndicator.UpdateTable(TABLENAME) THEN BEGIN
    TimeLog.TimeLogInsert(TimeLog,TABLENAME,TRUE);
    IF FINDSET(TRUE) THEN
      REPEAT
        StateIndicator.Update;
        "Average Cost Calc. Type" := "Average Cost Calc. Type" + 1;
        "Average Cost Period" := "Average Cost Period" + 1;
        MODIFY;
      UNTIL NEXT = 0;
      TimeLog.TimeLogInsert(TimeLog,TABLENAME,FALSE);
      StateIndicator.EndUpdateTable(TABLENAME);
    END;

UpdateAccountingPeriod(UAR_StateIndicator : Record Table104037)
IF NOT InventorySetup.GET THEN
  InventorySetup.INIT;
WITH AccountingPeriod DO BEGIN
  SETRANGE("New Fiscal Year",TRUE);
  IF StateIndicator.UpdateTable(TABLENAME) THEN BEGIN
    TimeLog.TimeLogInsert(TimeLog,TABLENAME,TRUE);
    IF FINDSET(TRUE) THEN
      REPEAT
        StateIndicator.Update;
        "Average Cost Calc. Type" := InventorySetup."Average Cost Calc. Type";
        "Average Cost Period" := InventorySetup."Average Cost Period";
        MODIFY;
      UNTIL NEXT = 0;
      TimeLog.TimeLogInsert(TimeLog,TABLENAME,FALSE);
      StateIndicator.EndUpdateTable(TABLENAME);
    END;
  END;
END;
```





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WHAT UPGRADE CODEUNIT ARE?

Upgrade codeunits when you make **changes to a table definition**, either from the Microsoft Dynamics NAV Development Environment or during an upgrade.

A single upgrade Codeunit will typically contain table schema synchronization instructions and **data migration logic** for multiple tables that have changed from one version of Dynamics NAV to another.

Three Main Parts –

- **CheckPreCondition**
- **TableSyncSetup**
- **UpgradePerCompany and/or UpgradePerDatabase**



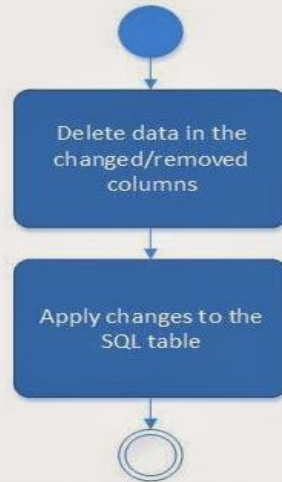
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TABLE SYNC SETUP MODES.

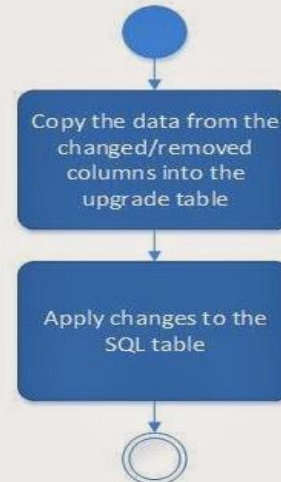
Check



Force



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UPGRADE FUNCTIONS.

UpgradePerCompany

- ▶ these functions are run for all companies in the database.
- ▶ typically use this type of function when the data in the table that you upgrading is company-specific.

UpgradePerDatabase

- ▶ These functions are executed once during an upgrade process
- ▶ Typically use an UpgradePerDatabase function when the data in the table that you are upgrading is not company-specific.



AL Upgrade Codeunit.

An upgrade is defined as enabling an extension that has a greater version number, as defined in the app.json file, than the current installed extension version.

Upgrade Triggers –

- ▶ `OnCheckPreconditionsPerCompany()` & `OnCheckPreconditionsPerDatabase()`
 - ▶ Used to check that certain requirements are met before the upgrade can be run.
- ▶ `OnUpgradePerCompany()` & `OnUpgradePerDatabase()`
 - ▶ Used to do the actual upgrade.
- ▶ `OnValidateUpgradePerCompany()` and `OnValidateUpgradePerDatabase()`
 - ▶ Used to check that the upgrade was successful.



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Thank You!

See You Next Week

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