



# Using Batch Edit Checks

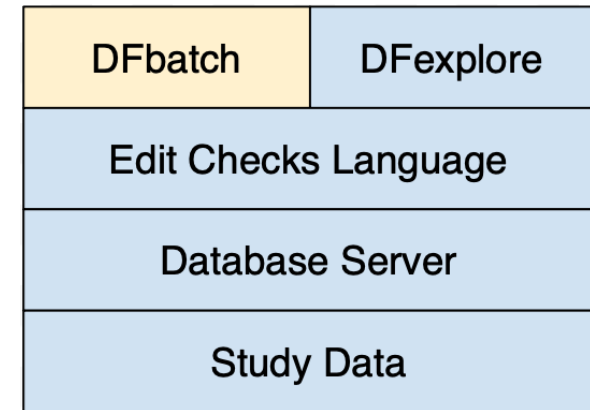
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# What are batch edit checks?

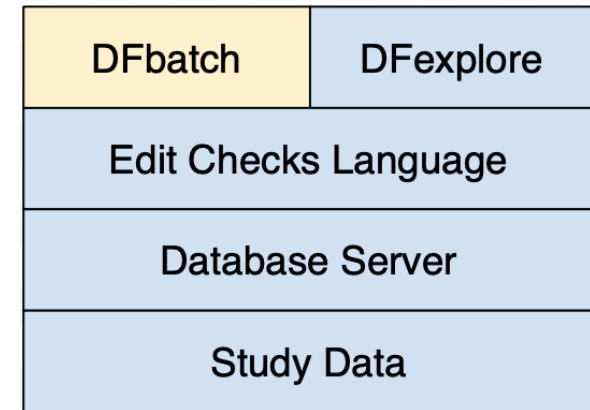
- An **unattended** report that data passes through to apply edit checks **non-interactively**
- Similar to DFExplore
- Efficiently executes same edit checks invoked interactively through DFExplore, but perhaps missed during data entry



See DFExplore User Guide section 12 and Programmer Guide section 6 for further details.

# What are batch edit checks?

- Can apply edit checks written to only run in background
  - Example: Cross-plate references
- Can log edit checks for review and/or apply changes directly to database
  - User specifies which records to "operate" on, and what to do with the output
- *Batch is a powerful tool. Use CAUTION if applying changes directly (irreversible).*



# Batch Basics: Common uses

- **Primary use**
  - Gives user a list of potential issues **to review** prior to applying queries manually
- **Other possibilities**
  - Add queries to data fields in study database
  - Generate and log messages that report inconsistencies
  - Perform exact match coding from lookup tables
  - Change data values on groups of records in study database
  - Edit check testing
- Can run manually in DFexplore or using command line



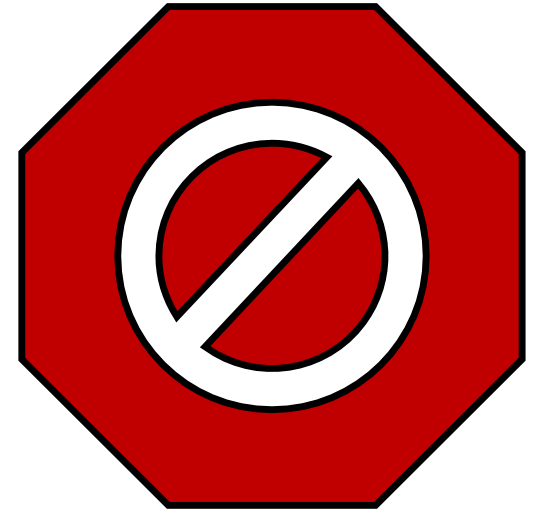
# Batch Basics: When to use batch edit checks

- Regularly!
- Which edits run in batch vs. interactively on CRF?
  - **Cross-plate** edit check?
  - Easy to **skip or ignore** during data entry?
  - Could data related to edit check be entered **later**?
  - Do edit checks need to be **reapplied** due to study changes, or applied retroactively?
- Easy batch-only format: editcheckname\_**b**



# Batch Basics: When batch won't help

- Application of edit checks to Level 0 records
- Changes to key fields
- User interaction required:
  - Queries that require user confirmation or intuition
  - Lookup Tables that require a visual search or display
  - dfcapture

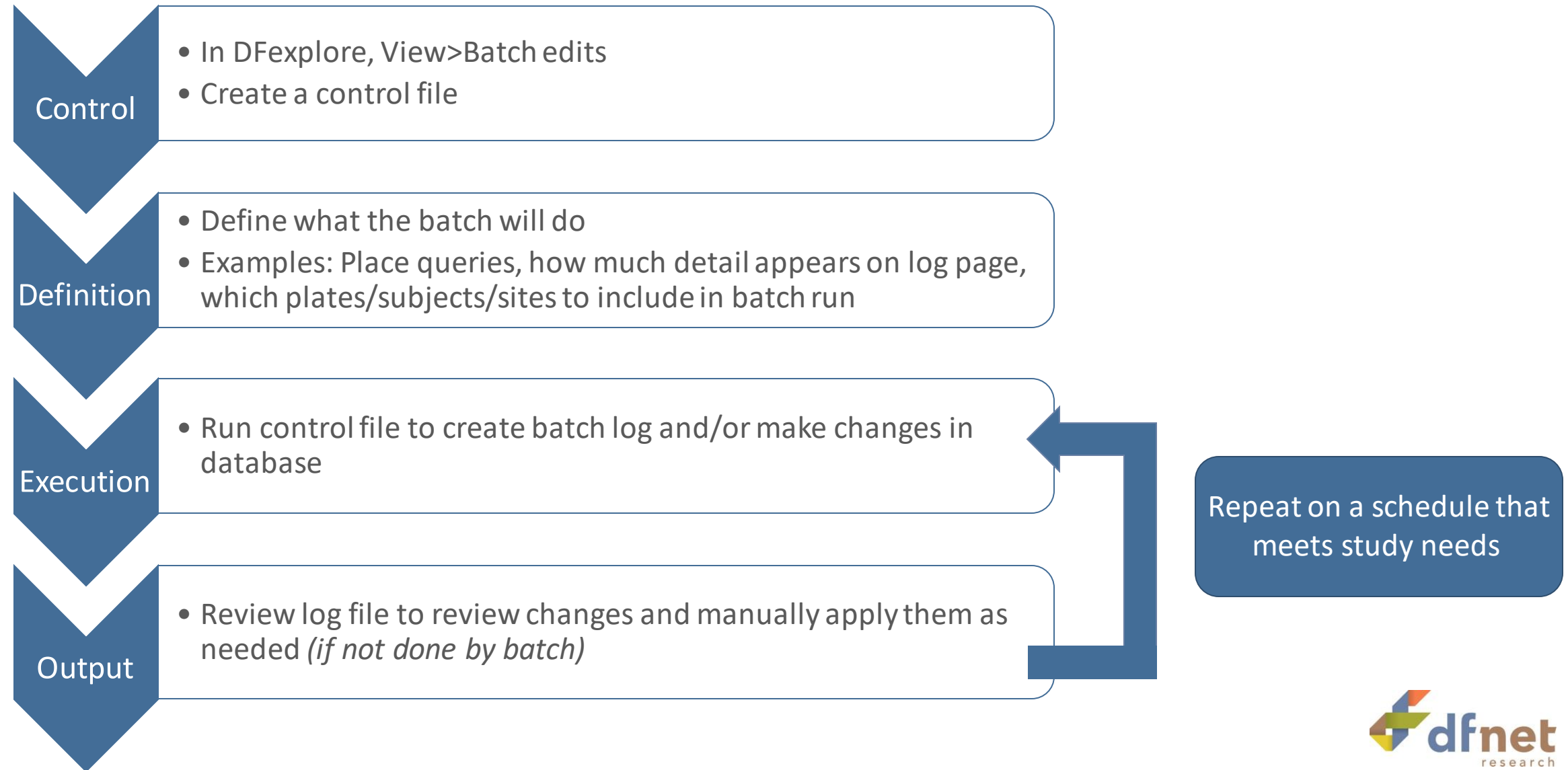


# Caveats

- **Non-interactive** = User does not have to visually confirm or cancel each action. Control file must carefully state which actions will be allowed.
  - Automates running process, not review process
  - Use CAUTION when applying changes directly
- No undo button
- Beware of making data changes in bulk
- Beware of adding large volumes of queries



# Getting Started: Manual batch edits process



# Getting Started: Batch settings

The screenshot shows the DFExplore Batch Edits interface. Three blue arrows point to specific sections: 'Control' points to the CONTROL panel, 'Definition' points to the LOG and ODRF panels, and 'Output' points to the summary table. The 'Run Batchlist' button is highlighted with a red box.

**CONTROL**

Name: DF:screening  
Move to: 20  
Reason:

**BATCHLIST**

- Screening Batch

**BATCH**

Name: Screening Batch  
Title:  
Desc: Edit checks on incomplete records in screening visits

**LOG**

Which:  data  query  msg  
When:  changes  all  
File: screening\_log  
History:  yes

**ODRF**

Which:  data  
When:  changes  
File:

**CRITERIA**

Sort:  
 IDRF  
Status:  final  incomplete  pending  
Level:  
Site:  
Subject:  
Visit: 0  
Plate:  
Create:  
Modify:  
Edit:

Build task set when changes applied to database

**Summary**

Summary				
Records logged	2			
Elapsed time (seconds)	0			
System messages	1			
Data changes	8	7	0	1
Messages	0	0		
Queries added	1	1	0	
Query edits				
Missing page queries				
Missing page queries o				

**Execution History (sorted by reverse chronological order)**

Date	# of Log Entries	Date	# of Log Entries
2018-03-21 18:25:25 (current)	11		

**Run Batchlist** (highlighted)

# Getting Started: Batch edits components

- **Control file:** XML file saved on server or local machine that contains definitions to run one or more batches
- **Batch definition:**
  - Apply: Specify whether to make changes to data and queries
  - Log: Record changes in output file
  - ODRF: Specify whether to create DRF file with batch records
  - Criteria: Define which records and edit checks to include in batch run, sort output
- **Batch output:** Summary of records, list of batch log entries
  - If specified, may include batch history
  - Double-click to go to field in Data View

# Getting Started: Batch & Apply components

**BATCH**

Name

Title

Desc

**APPLY**

Which  data & query  query only  no apply

When  changes  all

Level change level to

- **Batch:** Name same as control file base

- Title & Description: Documentation only

- **Apply:**

- USE WITH CARE – can easily apply irreversible database changes

- Which: no apply

- When & Level: only applicable when Which is applying something

- When: changes (more efficient) vs. all (comprehensive)

- Level: no change (review all records and choose to manually apply changes later)

# Getting Started: Log & ODRF components

LOG

Which  data  query  msg

When  changes  all

File  ...

History  yes

ODRF

Which  data  query  msg

When  changes  all

File  ...

## ■ Log:

- Which: data, query, msg
- When: all
- File: create file name (never run with none) “xxx\_log.xml”
- **History:** Separates batch log output by time and date to show what’s new since last run
  - If history not marked, all batch entries grouped together

## ■ ODRF: Complete for output to be available later as a data retrieval file on the server

- Can create a task set to sort through each row manually
- Can save log output as PDF or Excel

# Getting Started: Criteria components

The screenshot shows a 'CRITERIA' configuration window with the following fields and options:

- Sort: [Text input field]
- IDRF:  [Text input field]
- Status:  final  incomplete  pending
- Level: [Text input field]
- Site: [Text input field]
- Subject: [Text input field]
- Visit: [Text input field]
- Plate: [Text input field]
- Create: [Text input field]
- Modify: [Text input field]
- Edit: [Text input field]

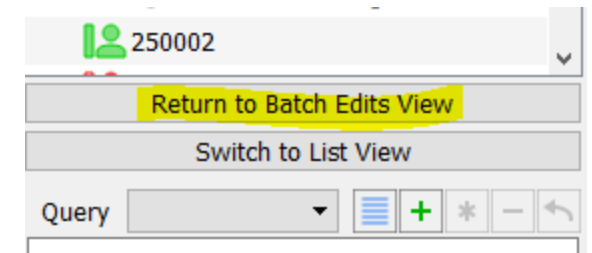
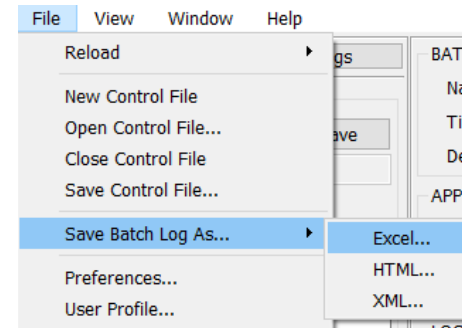
Blue arrows point from the text descriptions in the adjacent list to the 'Sort', 'IDRF', and 'Edit' fields in the screenshot.

- Leave blank in control file to run on everything
  - Not recommended for large studies
- **Sort:** Sort log output in certain order (+id +visit +plate)
- **IDRF:** Instead of specifying criteria, you can create a DRF of specific records to run batch on (task set)
- **Edit:** Choose which edit checks should be processed
  - By default, all edit checks that are referenced by the criteria are executed

# Getting Started: Example output

Keys: ID, Visit, Plate Meta: Status, Level, CRF	Variable Edit check	Action	Log Entry
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>Change Data</b>	Change VNNUM010 from blank to 1.0
250001, 1, 20 2, 1, 1737R0013001	ENRPROTNUM g_LegalRange	<b>Add query</b>	external fax/refax Query added for illegal value to: ENRPROTNUM status=new Query: 2. Under which protocol did subj consent has a value of 1.1, which is inconsistent with our expected legal range of 1.0,2.0. Please verify that this value is correct.
250001, 1, 60 1, 1, 1737/000M001	PROCDAT g_LegalRange	<b>Add query</b>	external fax/refax Query added for illegal value to: PROCDAT status=new Query: Procedure Date has a value of 01-SEP-2017, which is inconsistent with our expected legal range of 01/JAN/2016-today. Please verify that this value is correct.
250001, 10, 30 1, 1, 1739R0008001	HEIGHT_VSHSTAT_030 g_NotReqIfNotBlank(-2)	<b>Add query</b>	external fax/refax Query added for inconsistent value to: HEIGHT_VSHSTAT_030 status=new Query: Because Height Result has been completed, Height Not Done is not expected to be completed. Please review.
250001, 10, 50 1, 1, 1737/000L001	VISDAT050 g_Required	<b>Add query</b>	external fax/refax Query added for missing value to: VISDAT050 status=new Query: Visit Date is a required field, but currently it is blank. Please review.
250001, 20, 30 1, 1, 1739R0008002	HEIGHT_VSHSTAT_030 HeightNonENRfill	<b>Change Data</b>	Change HEIGHT_VSHSTAT_030 from 0 to 1
250001, 60, 30 1, 1, 1739R0008003	WEIGHT_VSSTAT_030 g_ReqIfNotBlank(-2)	<b>Add query</b>	external fax/refax Query added for missing value to: WEIGHT_VSSTAT_030 status=new Query: Because Weight Result has not been completed, Weight Not Done is required but currently is blank. Please review.
250001, 201, 200 1, 1, 1737R001G001	VISDAT200 g_Required	<b>Add query</b>	external fax/refax Query added for missing value to: VISDAT200 status=new Query: Visit Date is a required field, but currently it is blank. Please review.

- Save output in multiple formats
- Interactive output takes you straight to data
- “Return to batch edits view” below subject binder





# Batch Demonstration

1. Create and save control file
2. Adapt and reuse control file

# Using History

- Batch history organizes batch log entries by date
- Makes batch review process quicker
  - Only shows new issues since last batch output
  - Don't have to skip through recurring non-issues
  - Consider running batch without history near closeout or on occasion

LOG

Which  data  query  msg

When  changes  all

File  ...

History  yes

Execution History (sorted by reverse chronological order)			
Date	# of Log Entries	Date	# of Log Entries
2019-10-21 13:38:44 (current)	3	2019-10-18 13:20:36	166
2019-10-21 13:36:39	0		

- For batch history to work, each time batch history is run:
  - Under LOG section, history marked “yes”
  - Definitions in CRITERIA section needs to be the same
  - File name in the ODRF section and LOG section need to be the same

# Tips & Tricks: Expand output list

View	Stylesheet	Build Task from Batch History	
<input checked="" type="radio"/> spreadsheet <input type="radio"/> xml	<input checked="" type="radio"/> batchlog <input type="radio"/> byeditcheck	Build Task from Batch History	
2019-10-18 11:09:12	1/106	No Split	
Keys: ID, Visit, Plate Meta: Status, Level, CRF	Variable Edit check	Action	Log Entry
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>Change Data</b>	Change VNNUM010 from blank to 1.0
250001, 1, 20 2, 1, 1737R0013001	ENRPROTNUM g_LegalRange	<b>Add query</b>	external fax/refax Query added for illegal value to: ENRPROTNUM status=new Query: 2. Under which protocol did subj consent has a value of 1.1, which is inconsistent with our expected legal range of 1.0,2.0. Please verify that this value is correct.
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250001, 10, 30 1, 1, 1739R0008001	HEIGHT_VSHSTAT_030 g_NotReqIfNotBlank(-2)	<b>Add query</b>	external fax/refax Query added for inconsistent value to: HEIGHT_VSHSTAT_030 status=new Query: Because Height Result has been completed, Height Not Done is not expected to be completed. Please review.

Open each plate's folder to view all nested issues

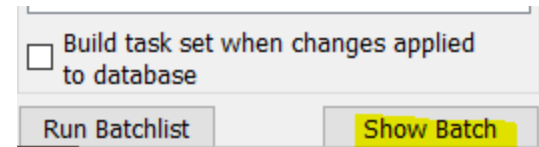
Keys: ID, Visit, Plate Meta: Status, Level, CRF	Variable Edit check	Action	Log Entry
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>Change Data</b>	Change VNNUM010 from blank to 1.0
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>system</b>	Ignoring attempt to store invalid value '1.0' to field 25 VNNUM
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>Change Data</b>	Change VNNUM010 from blank to 1.0
250001, 0, 10 1, 1, 1737R0018001	VNNUM010 g_AutoFill("1.0")	<b>system</b>	Ignoring attempt to store invalid value '1.0' to field 25 VNNUM
250001, 0, 10 1, 1, 1737R0018001	VNDAT010 g_AutoFill("20/FEB/18")	<b>Change Data</b>	Change VNDAT010 from blank to 20/FEB/18
250001, 0, 10 1, 1, 1737R0018001	VNDAT010 g_AutoFill("20/FEB/18")	<b>system</b>	Ignoring attempt to store invalid value '20/FEB/18' to field 26 VNDAT
250001, 0, 10 1, 1, 1737R0018001	VNDAT010 g_AutoFill("20/FEB/18")	<b>Change Data</b>	Change VNDAT010 from blank to 20/FEB/18
250001, 0, 10 1, 1, 1737R0018001	VNDAT010 g_AutoFill("20/FEB/18")	<b>system</b>	Ignoring attempt to store invalid value '20/FEB/18' to field 26 VNDAT
250001, 1, 20 2, 1, 1737R0013001	ENRPROTNUM g_LegalRange	<b>Add query</b>	external fax/refax Query added for illegal value to: ENRPROTNUM status=new Query: 2. Under which protocol did subj consent has a value of 1.1, which is inconsistent with our expected legal range of 1.0,2.0. Please verify that this value is correct.

# Tips & Tricks: code and features

- To keep track of edit checks that fire in batch only, add “**\_b**” at the end of the edit check name in the DFedits file in DFsetup.
  - “g\_OnlyReqIf” will display for sites *and* run in batch (also called basic)
  - “g\_OnlyReqIf\_b” will **only** run in batch
- To stop a batch edit check from running (email notification)

```
if (@[7] >9000000) return;           #If test site PTID range, end the check.  
if (dfbatch()) return;             #Don't run check in batch  
if (dfmode() != "validate") return; #Only run edit check in validate mode
```

- Default view is to hide batch; “show batch” view and adjust



Build task set when changes applied to database

Run Batchlist Show Batch



# User Experience

- Define a single batch execution per control file
- Populating multiple data fields at once
- Open discussion



Questions?  
[support@datafax.com](mailto:support@datafax.com)

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