



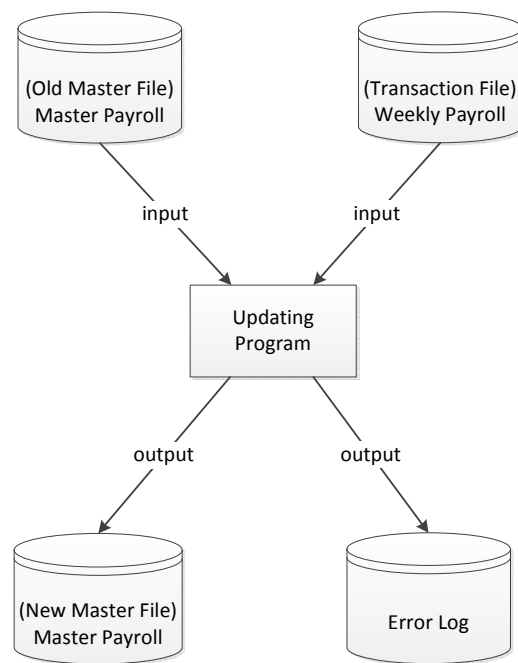
### Purpose

Learn how to update a sequential master file with a transaction file and generate an audit trail.

### Problem

Update the master payroll file given the weekly payroll file. Each employee has exactly one entry in the weekly payroll file. Your program should add the amounts of gross pay, income tax withheld, and net pay to associated amounts in the master file for the same employee. In addition, those transaction records that couldn't find a matching employee ID in the master file should be written to a separate file called error log. The following figure depicts the updating process.

### Input



Two input files are given with the layout shown below. These files are sorted based on the employee ID.

Old Master Payroll (OLDMASTER.DAT), record size 28			
Field	Size	Type	Decimal
Employee ID	4	Alphanumeric	-
Gross Pay	8	Numeric	2
Income Tax Withheld	8	Numeric	2
Net Pay	8	Numeric	2

Weekly Payroll (TRANS.DAT) record size 25			
Field	Size	Type	Decimal
Employee ID	4	Alphanumeric	-
Gross Pay	7	Numeric	2
Income Tax Withheld	7	Numeric	2
Net Pay	7	Numeric	2

## Output

Two output files should be created with the layout shown below.

New Master Payroll (NEWMASTER.DAT) record size 28			
Field	Size	Type	Decimal
Employee ID	4	Alphanumeric	-
Gross Pay	8	Numeric	2
Income Tax Withheld	8	Numeric	2
Net Pay	8	Numeric	2

Error Log (ERRLOG.DAT) record size 28			
Field	Size	Type	Decimal
Employee ID	4	Alphanumeric	-
Gross Pay	8	Numeric	2
Income Tax Withheld	8	Numeric	2
Net Pay	8	Numeric	2

## Updating Process

1. Open all files.
2. Read the first record from the old master file.
3. Read the first record from the transaction file.
4. Compare master file employee ID and transaction file employee ID.
  - a. if they are EQUAL, then
    - apply the update
    - write to new master file
    - read next old master record
    - read next transaction record
  - b. if transaction file employee ID is smaller, then no relevant master employee ID exists;
    - write the transaction record to error log.
    - read next transaction record
  - c. if transaction file employee ID is larger, then no update necessary for the master record
    - write the unchanged old master record to the new master file
    - read next old master record
5. Repeat step 4 until both input files reach the END OF FILE.
6. Close all files.

## Submission and Demo

You **MUST demo on April 25** in order to get the credit for Lab08. Submit the following files to the dropbox.

1. \*.CBL
2. **Two output files:** new master file and error log file.