PDFScanLetters Refactor

PDFScanLetters C# solution has been refactored to validate Actual service charges, between a csv file and a pdf file that contains all of the letters sent to tenants(Note that this refactor only covers Service Charges for Actuals and not Estimations).

* The previous implementation would parse the pdf file, extract the Service Charge details, and insert into the RentLetters Database. From there on further validation would then take place.
* The new implementation uses a new library(https://www.filehelpers.net/) to deserialize the csv into POCO’s(Plain old C# objects).
* The FileHelpers library allows you to map records in a csv to a POCO.
* The test Csv files originally sent differed from the actual csv files sent by the business. The business had saved their files using Excel, with the result of reformatting the files as shown below. This means you have to remove extra columns. In addition the POCO’s have to have their addorned attributes changed.

1,"PRO","191267","172509","569628","MISS E CRAIG","708190","Birdham","Scheme - , Old Common Close"," Havant,  Chichester,","","","","PO20 7SE","26 OLD COMMON CLOSE","BIRDHAM","CHICHESTER","WEST SUSSEX","","PO20 7SE","26 OLD COMMON CLOSE","BIRDHAM","CHICHESTER","WEST SUSSEX","","PO20 7SE",,"AFFWITHPRIV",,,,1187.77,1498.45,-310.68,0.00,0.00,0.00,0.00,"W",,0.00,0.00,0.00,"","",,,0.00,0.00,0.00,"","13 Jul 2021",,0.00,0.00,0.00,"Y",,"191267.172509.pdf","ERIN CRAIG","","Y~”

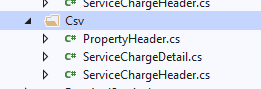
The data in the file provided by the business:

1,PRO,201785,104549,34900,MR DOWNTON,500530,Loxley Court,"Scheme, Loxley Court",HILLSBOROUGH,"SHEFFIELD, SOUTH YORKSHIRE,",,,S6 2PF,FLAT 50,LOXLEY COURT,LIMBRICK CLOSE,HILLSBOROUGH,"SHEFFIELD, SOUTH YORKSHIRE",S6 2PF,FLAT 50,LOXLEY COURT,LIMBRICK CLOSE,HILLSBOROUGH,"SHEFFIELD, SOUTH YORKSHIRE",S6 2PF,,SCNOAUDIT,,,,606.35,572.82,33.53,0,-81.64,8582.9,-8664.54,W,,0,0,0,,,,,0,0,0,,18-Sep-21,,0,0,0,Y,,201785.104549.pdf,JAMES DOWNTON,05/04/2004,Y,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

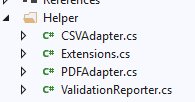
// [FieldQuoted]

public string ServiceChargeDescription;

* Essentially the solution now loads up the csv in a list of POCO’s, parses the pdf using existing code, with the filtering amended.
* Calls a Validation Helper, and produces a report with any differing ServiceCharge discrepancies. This is implemented in the ALWorker Class.
* Below show’s new POCO’s mapped to CSV records.



* New Helper Class’s



* CsvAdapter: will process a given csv file producing an IEnumerable List of service charges for a given Property.
* Extensions: Extends TryParseDecimal method by applying a RegEx expression when converting to Decimal, where any character does not conform to 0-9 and Minus.
* ValidationReporter: Implements the validation between the pdf and the CSV Services Charges.