

## Integration of FORM-NQ data (Mutual Funds holdings) from Edgar Database with Mutual Fund Database & Analytics platform.

**Mutual Fund Data Collection (MFDC)** is to collect various Mutual Funds' Prospectus and Holdings related data From Edgar and store in a Database.

Every day Edgar generates a pipe delimited file called master control file, a NQ control file and a NCRS control file and uploads it to the ftp server in zipped format. The master control file contains the details of all the active tickers and the filing ids of the file in which the prospectus information is available for each ticker. NQ and NCRS control files contain the details like filing ids of the files in which the holdings data exists for various funds. These files should be downloaded every day morning and the data in the file has to be inserted into Database.

### REQUIREMENTS

1. **Scheduling:** scheduling process is divided into three stages Downloading control files, Inserting data from control files into DB and Downloading pdf and excel files.

a. **Downloading:** The Master, NQ and NCRS control files are available on the Edgar FTP server. The program connects to the FTP server and downloads the specified files into a temporary directory. Then these zipped files are unzipped into a specific sub directory in the server.

b. **Inserting Data from Control Files into Database**

c. **Downloading PDF and EXCEL files**

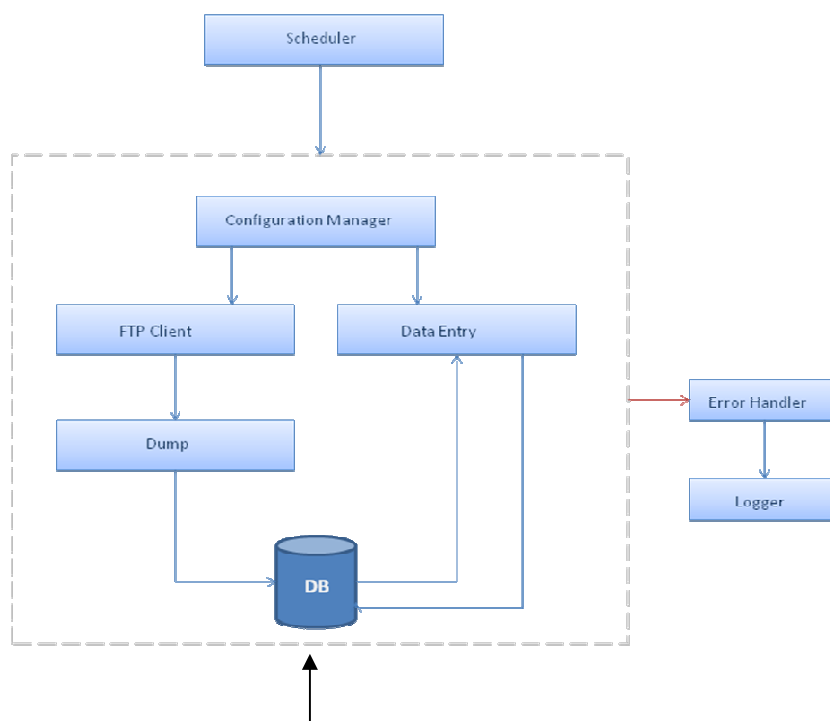
2. **Data Entry:** Includes Prospectus screen, Holdings screen and Admin Privileges

a. **Prospectus:** Shows a list of unprocessed company ids and corresponding form types.

b. **Holdings:** Shows a list of unprocessed fund names and corresponding form types.

c. **Admin Privileges:** Admin to perform various tasks like Scheduling FTP Download, DB backup, CSV file generation, adding new primary group, Modifying Waiver type and opt code definitions etc...

3. **Exporting CSV file to FTP:** A CSV file is generated with all the available Prospectus data from the Database at a scheduled time and placed in a specified directory. The success/failure status of this file generation is reported to the Admin via the "Reporting" screen in the "Validations" section of the MFDC Tool.



**MF Data Entry Information Flow:** Scheduler and Logger run independently. Scheduler starts the operation at the scheduled time while Logger logs every activity, including the scheduling.

**Four tabs for four categories of Holdings data**

**Mutual Fund Data Collection Tool** Welcome NASEEM | LOGO

PROSPECTUS HOLDINGS

ENTRY QC

1 / 261 102% Find

## VIRTUS OPPORTUNITIES TRUST

Virtus Alterna 03/31/2010 Company Id : 26464 7300048

Net AssetValue: 262,531,000 Add Holding Save Hol

	S.No	Holding Name	Holding Value
HOLDINGS	7	PowerShares DB Commodity Index Tracking Fund	39140000
SECTORS	4	Virtus Real E Securities Class I	27228000
	2	Virtus International Real Estate Securities Fund Class I	25952000
	3	Virtus Market Neutral Fund Class I	51539000
ASSETS	9	BlackRock Liquidity Funds TempFund Portfolio - Institutional Shares	450000
	8	PowerShares DB G10 Currency Harvest Fund	26192000
	10	Other assets and liabilities, net	334000
GEOGRAPHY	1	Virtus Global Infrastructure Fund Class I	39561000
	6	iShares S&P North American Natural Resources Sector Index Fund	25913000

Holdings data displayed in the grid, here can add new Holding details as well as Total Net Asset Value is updated accordingly and displayed at the top of the Data Grid, finally the holdings data will be saved to database.