* **Export Families from Revit to DWG**
  + Will save Families to Blocks
* **Open exported file(s) in Microstation**
  + Save as DGN
  + All blocks will be converted to Cells
* **Create Compound cell**
  + Place Plan View Linework
  + Use Compound Cell Manager
    - Create new library if needed
  + Create compound cells
    - Select 3D content
    - Select Plan content
    - Select Origin
* **Definition Editor**
  + Make sure there are definition files for appropriate Properties that will be need later
  + If one does not exist, one will need to be created
    - File, New
    - Give Location and Name
    - Once created, right click on new Definition file
      * Select New Property
      * Add/Edit as needed
* **DataGroup Catalog**
  + Select an existing catalog or create one if a suitable one dose not exist
    - Select View, Show Catalog Items
    - Select Insert, New Catalog Type
      * Give appropriate name
      * Select destination file or Create New DataGroup File
    - Select Catalog Type from list
      * Right Click on catalog type
      * Select Attach Definition
        + Select definition file from Definition to Attach list

ParaDef should be first added

The definition created earlier should be in list

* + - * + Set destination file

should be the catalog type selected

* + - * + repeat as many times until all needed definitions are listed
    - Select Show Catalog Items icon
  + Add Catalog Items
    - Right click on Catalog Item from list
    - Select New Catalog Item
      * Give appropriate name
      * Select destination file or Create New DataGroup File
    - Repeat for each Compound Cell needed
      * Name EXACTLEY the same as name of compound cell
  + Set Catalog Item
    - Select catalog item
      * On right side of window select
        + Parametric Type Property

Set value to BXC

* + - * + Parametric File

Set to Compound Cell Name

* + - * + Edit other parameters as needed
    - Repeat for all Catalog Items
* **Place Compound Cell**
  + From Tools Menu, select Tool Box’s and select the FF&E toolbox
  + Select the Place User Defined icon
  + Select Instance Data Type icon
    - Set to desired catalog
  + From bottom left corner, select cell to place
  + Edit information on Left side of window if needed
  + Place cell…
* **Schedule**
  + Select Schedules & Reports from Task List
  + Select DataGroup Explorer
  + Select Catalog Type from list
    - All items in your project file, of that catalog type, will be listed
    - Select Schedule Menu, Properties to set a default Excel template
    - Select Data menu, Export to export schedule to Excel and other formats
      * Place Schedule can also be selected to place schedule as is in a project

**Future concerns that need looking into …**

* Definition parameters don’t seem to be editable from the schedule.
  + You must edit the individual cell, then update the DataGroup Explorer, then re-export
* If you edit a placed cell, it will not update others of same type.
  + If you have 10 cells of the same type, they must be edited individually.
* To allow users to create content, Dataset/Groups & Definition files must be in an unprotected network location.
* 3 ways to place a cell only one is schedulable
  + Must use “Place User Defined” cell to place a schedulable cells.
  + Vs. using Compound Cell Manager
    - Compound cells are created through Compound cell manager, but if you use that command to place them (and you can), they won’t be schedulable.
  + Vs. Place Active cell…
    - Legacy method
* Including the Cell, there are at least 3 different files to maintain for each cell
  + The Compound Cell(s)
  + The Compound Cell BXC library(s)
  + The Definition XSD(s)
  + The Program data XML(s)
  + Dataset Component(s)