How Listbuilder works

Friday, January 24, 2014   12:10 PM

IS needs to setup a data source within ListBuilder and create an entity that references your DB. (You cannot create it yourself.) It will also setup permissions for users to read from your DB.

Listbuilder setup

1. Create a database named **InformationSystems** on your server. It must be named that. And it MUST be on the same server as the database that it will be querying against. MS SQL Server 2008 and 2012 are supported.
2. Run the SQL provided by IS to add the required Listbuilder objects to your server [in the DB above] Grant Windows Authentication permissions to InformationSystems DB:
   For production and staging environments, you will need to grant access to: GREENWICH**svc-is**
   For QA and Development environments, you will need to grant access to: GREENWICH**svc-isdev**
3. Submit RPD for IS to create a record in the App.Application and   App.DatabaseConnection tables; required data:
   a. Connection string (including username & password) to the database
   b. List of any employees that need admin rights to the application (indicates who can edit the Listbuilder entity)
4. Create the entity at http://iswebdev.pc.factset.com:8090/core/listbuilderportal/admin/
5. When your entity is ready it can be exported to production
6. ListBuilder svc-is, svc-isdev need datareader permission to your db.

To create Listbuilder app

1. Call JavaScript API (new Listbuilder) to render Listbuilder widget on your page (hosted on your website)
2. Give it the entity name to load
3. It will take care of data loading
4. For custom styling (such as row color coding), use XSLT, and upload it in admin UI

ListBuilder admin setup introduction

Monday, February 24, 2014   10:06 AM

To perform administration:
1. Open URL:
   http://is.factset.com/core/listbuilderportal/admin/
2. Select **Tellus** for **Application**
3. Select **Tellus** for **Select Entity**
4. Click **Load** to load selected entity, or click **New** to create new Entity

To change Build ID column:
1. Click **Columns & Params** tab
2. Click **Build ID**
3. The **SQL** field under Column Options is the SQL table/view column, for example, `$base.BuildID,`
   where "`$base.`" prefix means the source table/view.

Production URL:
   http://is.factset.com/core/listbuilderportal/admin/
   http://is.factset.com/core/listbuilderportal/?entity=Tellus

Dev URL:
   http://iswebdev/core/listbuilderportal/admin/
   http://iswebdev/core/listbuilderportal/?entity=Tellus

Tip: It is recommended to setup on Prod only for production. Dev only propagate once a day.

Entity Details Tab

Entity Details Section
Singular Entity Name
   Entity name
Base Table
   fully qualified table name. For example: Tellus.dbo.TellusTestResult
   Needs to be fully qualified dbname.schema.tablename

Is Default Entity:
   Yes
   Can be viewed
Primary Key Column
   Need Primary Key Column, but selectable only after columns setup.

Entity Defaults Section
Default Columns
   Columns that will always be displayed.

Advanced section
DB Connection ID
   It's blank in beginning.

Columns & Params Tab

Enum
>Unique parameter definition name corresponding to a table column, no spaces.
>
>Note: This is not the actual column name, but settings associated with a SQL column.

Display Name

Description

Data Type (required)
>For bit column, select Bool type.

Join Group
>Join Group is a configuration name for a table join. If you select a join group here, this column will come from the foreign table in the select join.

Column Options:

SQL
>Column name: $base.*columnname*
>
>$base = base table, use `$base' to refer to main table
>
>$t0 = join group's foreign table, for example, if this column comes from foreign table in a join, then use: `$t0.testCaseName`

Display Format
>Uses C# toString() format. Applies after SQL is done.
>
>You can leave it blank, if you don't need to transform it.
>
>Reference: http://msdn.microsoft.com/en-us/library/az4se3k1.aspx, http://msdn.microsoft.com/en-us/library/dwhawy9k.aspx

Attributes
>hidden: users do not see it
>
>static: always displayed regardless of user selection
>
>groupable
>>SQL does not support grouping text, ntext

Parameter Options:

SQL:
>usually $base.column1 (usually same as SQL under Column Options)
>
>can use $compexpr: for SELECT subquery

IsEmployeeBased
>Auto user-specific settings

Requires User Input
>Value Mask:
>>UI dropdown value selection
>
>Setup under Value Mask tab
>
>Operators
>>Allowed operators
>
>Autocomplete
>>Uses index.   Avoid for now.

To Save and Apply Changes

- Click **Save**
- Click **Clear Cache**
    - **IMPORTANT:** Must click Clear Cache for users to see changes. Users will not see changes until you clear cache.
- For another admin to see updates, he will click **Load** to load the latest

Joins & Join Groups

Description
> Description

Join Type
> LEFT JOIN

Join SQL
> Tellus.dbo.TellusTestCaseResults $self ON $self.groupId = $base.groupId AND $self.chunkId = $base.chunkId

$self
> table alias is always $self
> $t0 refers to the alias of the first join table

XSLT

1. Click **Entity Details** tab
2. Click **Advanced**
3. In **Default Remote XSL**: put URL of XSL
    Note: XSLT applies to columns. It is not possible to apply to rows.

Here is a basic example of adding an anchor to your column:

```
<xsl:template match="Row/YOUR_COLUMN_ENUM" mode="col">
  <a href="http://is.factset.com/hr?e={.}" target="_blank">
    <xsl:value-of select="."/>
  </a>
</xsl:template>
```

The "Row" is literal word, "Row". Substitute *YOUR_COLUMN_ENUM* by your own Enum name (note: that is Enum name above, corresponding to your column, not your column name directly).

For example:

```
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
version="1.0" encoding="UTF-8">
    <xsl:template match="Row/QATester" mode="col">
      <a href="http://is.factset.com/hr?e={.}" target="_blank">
        <xsl:value-of select="."/>
      </a>
    </xsl:template>
</xsl:stylesheet>
```

HR Employee entity's XSL

http://is.factset.com/hr/utilities/employeelistbuilder.xsl

Note: After changes to XSL file, you need to click Save and Clear Cache in admin for it to take effect.

Value Masks Tab

SQL example:

`SELECT SuperFamilyId val,name txt FROM usage.dbo.superfamily order by name`

It must have val and txt aliases, and table name must be fully qualified.

Currently there is no means of setting this in production however I am currently adding it and would expect it to be available this afternoon, RPD:11938286 . When it ready you will have to modify your value mask(s) and include a "database connection id". Yours is 9 and you can find this under the "Advanced" section on the "Entity Details" tab.

Listbuilder now supports value mask with non-IS database

You will have to modify your value mask(s) and include a "database connection id".

Note: For bit (boolean) column, you don't need value mask for value selection under user's Parameters tab. It will automatically provide True/False radio button selection.

Performance Tips
- 30,000 row cache limit. Above that, it gets slower.
- Avoid subqueries

Limitations:
1. Any markup added affects the contents *within* the table's column and not the column itself
2. It isn't possible through Xsl to affect anything outside of the column

Reference

http://is.factset.com/Docs/listbuilder/index.html

Listbuilder join group setup

1. Click **Joins & Join Groups** tab
2. Enter **Description**
3. Select **LEFT JOIN** for Join Type
4. Enter **Join SQL**:
   `Tellus.dbo.TellusTestCaseResults $self ON $self.groupId = $base.groupId AND $self.chunkId = $base.chunkId`
5. Select Columns & Params tab
6. Enter in **enum**: the foreign table column to be displayed, for example, TestCaseName
7. Enter Display Name
8. Enter Description
9. Select Data Type: Text/String
10. Select Join Group: Tellus Test Case Results (created above)
11. Check Column Options
12. Enter SQL Under Column Options: $t0.testCaseName
13. Check Attributes: Sortable, Filterable, Groupable
14. Check Parameter Options
15. Enter SQL under Parameter Options: $t0.testCaseName
16. Check Requires User Input
17. Select Operators: is, isen't contains, doesn't contain, is empty, is not empty

ListBuilder global WHERE clause

Friday, March 07, 2014   5:21 PM

To filter out deleted rows

1. In admin, Select Entity Details tab
2. Enter Default Param SQL:

    $base.IsDeleted = 0

Note: You must use $base prefix.