R5 Level 1 Asset
Inventory Tool V2
Instructions
What is the Level 1 Asset/PM Audit Tool?

- Developed in R5 to help assess/analyze accuracy and completeness of Equipment Inventories (EIs) and PM Plans/Schedules in NCMMS.
- Building specific desk audit of contract required asset information within NCMMS.
- Queries building level reports generated from NCMMS and looks for missing data and other discrepancies and calculates a score.
- Identifies potential omissions of equipment types/categories.
- Provides a building level summary highlighting opportunities for improvement as well as recommended corrective actions.
- Includes raw data for reference and more in depth analysis.
● Snapshot of asset/PM information entered into NCMMS at time of audit.
● Specific reports generated in NCMMS and imported to the tool.
● Automatically identifies and counts discrepancies, such as omissions, duplications, or conflicting data using a series of formulas and calculations.
● Calculates separate scores for the asset inventory and for the PM Plan/Schedule.
● The Asset List score is an average of the minimally required fields and asset type review scores and rounded to the nearest whole number. For the purposes of this audit, each minimally required data point is weighted the same.
● The PM Schedule/Plan score is a sum of four values that reflects whether an Asset needs a PM or not, and if it is being generated and completed.
What is the tool looking for?

- Is a PM currently being generated and completed for assets?
- Further refine Asset lists and PM plans/schedules
- Continue to add missing information
- Does an Asset need a PM?
- No PM = Run to Fail
- Is there a current PM Or Route?
Why are we doing this?

- Poor track record when it comes to maintaining EIs and PM Schedules.
- Increased Central Office focus & future metrics plan.
- Compliance with GSA policy.
- Strategic 5 Year Plan initiative.
- Provide a tool for the field to use for tracking building level contractor performance and compliance. Contract Section C.10 - Contractor should review/update inventory in NCMMS at least annually.
- Provide a means for Regional and SCOD level monitoring/tracking improvement.
When are audits performed in R5?

- Performs audits semi-annually (October & April)

- Recommend that an audit be generated by the field offices:
  - At the start of a new contract (to get a baseline)
  - Contract anniversaries (measure progress)
  - End of the contract period (capture progress over performance period)

AUDIT TOOL TEMPLATE
## Instructions tab

### Audit Summary Tab

<table>
<thead>
<tr>
<th>Audit Data Fields</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset &amp; PM</td>
<td>Count of all asset records.</td>
</tr>
<tr>
<td>Unique Asset Types</td>
<td>Count of unique asset types included in building inventory.</td>
</tr>
<tr>
<td>Latest Update</td>
<td>Date any asset record was modified as of the date of the report.</td>
</tr>
<tr>
<td>Assets in “Operating” Status</td>
<td>Count of asset records in Operating status.</td>
</tr>
<tr>
<td>Assets in “Out of Service” Status</td>
<td>Count of asset records in Out of Service (OOS) status.</td>
</tr>
<tr>
<td>Assets in “Missing” Status</td>
<td>Count of asset records in Missing status.</td>
</tr>
<tr>
<td>Others</td>
<td>Count of asset records in all other statuses combined.</td>
</tr>
<tr>
<td>% Not in Operating Status</td>
<td>Percentage of asset records in NCIMMS not in Operating status.</td>
</tr>
<tr>
<td>Quantity Field is Zero</td>
<td>Count of asset records with a quantity of zero. Listed assets must have a value greater than 1.</td>
</tr>
<tr>
<td>Manufacturer Field Blank</td>
<td>Count of asset records without Manufacturer data provided. Manufacturer data is listed as minimally required. If not available at contract start contractors must collect and update during the period of performance.</td>
</tr>
<tr>
<td>Model No. Field Blank</td>
<td>Count of asset records without Model Number data provided. Model Number data is listed as minimally required. If not available at contract start contractors must collect and update during the period of performance.</td>
</tr>
<tr>
<td>Serial No. Field Blank</td>
<td>Count of asset records without Serial Number data provided. Serial Number data is listed as minimally required. If not available at contract start contractors must collect and update during the period of performance.</td>
</tr>
<tr>
<td>Serial No. Not Unique</td>
<td>Count of assets with duplicate serial numbers. Serial numbers should be unique.</td>
</tr>
<tr>
<td>Minimally Required Asset Types Listed</td>
<td>Count of typical equipment found in commercial real estate buildings by asset type.</td>
</tr>
<tr>
<td>Asset Year Field Blank</td>
<td>Count of asset records with no Asset Year data provided. The asset year is the year the asset was manufactured.</td>
</tr>
<tr>
<td>Manufacturer Year Field Blank</td>
<td>Count of asset records with no Manufacturer Year data provided. The Manufacturer Year is the year the asset was manufactured. Required by GSA Usage Policy.</td>
</tr>
<tr>
<td>Installation Date Field Blank</td>
<td>Count of assets with no Installation Date data provided. Required by GSA Usage Policy.</td>
</tr>
<tr>
<td>Warranty Expiration Date Field Blank</td>
<td>Count of assets with no Warranty Expiration data provided. Required in R5 for new construction assets. Required by GSA Usage Policy.</td>
</tr>
<tr>
<td>Estimated End of Life Field Blank</td>
<td>Count of assets with no Estimated End of Life date provided. Required in R5 for new construction assets. Required by GSA Usage Policy.</td>
</tr>
</tbody>
</table>

### Asset List Score

The Asset List score is an average of the minimally required fields and asset type review scores and rounded to the nearest whole number. Fractions more than 0.5 are rounded up; fractions less than 0.5 are rounded down. For the purposes of this audit, each minimally required data point is weighted the same.

### PM Schedule/Plan Score

The PM Schedule/Plan score is a sum of four values that represent a count of Operating Assets either linked to a Route, set as Run to Fail, or linked to at least one Active PM Record with a current Estimated Next Due Date, or Extended Date relative to audit date. Fractions more than 0.5 are rounded up; fractions less than 0.5 are rounded down. For the purposes of this audit, each minimally required data point is weighted the same.

### Asset Type Review Tab

The Asset Type Review compares the asset inventory against an established listing of asset types typically found in GSA properties. This review is intended to highlight omissions of entire asset types or categories. The asset type review score (C24) is the percentage of asset types listed out of the ~40 asset types identified as typically found in GSA Properties.

Field Offices may review and update column C in the Asset Type Review tab to indicate whether any of the 40 asset types do not apply for a given building. Removing asset types that don't apply improves Asset Score.
Route table is pulled from NCMMS; Data is used in PM report tab. Tab is for information purposes only. You will need to run a routes report in the Asset application in NCMMS.
### Asset List Score

- **58%**

#### Basic Asset Inventory Info
- **Audit Date:** 10/24/19
- **Unique Asset Lines:** 2,574
- **Unique Asset Types:** 109
- **Latest Update:** 10/18/2019
- **Auditor Name:** Dan Snavely

#### Assets by Status
- **Assets in "Operating" Status:** 2,509
- **Assets in Non Operating Status:** 66
- **Excluded Assets:** 0

#### Minimally Required Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Count</th>
<th>Score</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity Field = Zero</td>
<td>16</td>
<td>99%</td>
<td>a.</td>
</tr>
<tr>
<td>Manufacturer Field Blank</td>
<td>1,374</td>
<td>45%</td>
<td>b. f.</td>
</tr>
<tr>
<td>Model No. Field Blank</td>
<td>2,014</td>
<td>20%</td>
<td>c. f.</td>
</tr>
<tr>
<td>Serial No. Field Blank</td>
<td>2,412</td>
<td>4%</td>
<td>d. f.</td>
</tr>
<tr>
<td>Serial No. Not Unique</td>
<td>25</td>
<td>95%</td>
<td>a.</td>
</tr>
<tr>
<td>Required Asset Types Listed</td>
<td>31</td>
<td>82%</td>
<td>g.</td>
</tr>
</tbody>
</table>

#### Asset Corrective Action
- a. Update asset records within NCMMS to reflect accurate Quantities.
- b. Select Manufacturer from directory in NCMMS. If not listed, submit request to add manufacturer.
- c. Enter Model number within NCMMS.
- d. Enter Serial number within NCMMS.
- e. Ensure asset serial numbers are unique for similarly typed assets.
- f. Enter either "No Data Field", "Not Accessible", "Not Legible" as appropriate.
- g. Review Asset Type Review Tab, update Column C to No if an asset does not apply to building.

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### PM Plan/Schedule Score

- **35%**

#### Operating Assets w/ Active & Current Plts, Routes, or Run to Fail

<table>
<thead>
<tr>
<th>Operating Assets w/ Current Next Due Dates</th>
<th>Count</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PM/Asset Record Lines</td>
<td>2,955</td>
<td></td>
</tr>
</tbody>
</table>

#### PM Corrective Action

- a. Review stand alone PM records and routes and verify if both are needed.
- b. Link Assets to Active PM records. Add to a Route, or identify as Run to Failure.
- c. Ensure PM Record has a current Estimated Next Due Date or Extended Date.
Asset/PM Audit Tool V2 - Asset Score

Basic asset list audit information.

Asset - Each individual asset score represents the number of assets in correct condition over the total number of assets in “Operating” status.

List - The required asset types listed is compared against asset types identified as “Typically found in GSA buildings” in the Asset Type Review Tab.

Asset status break down. A high percentage of assets in statuses other than “Operating” require attention.

Specific corrective action recommendations are provided to help locations improve their score.
Focuses on Operating Assets having a current PM/Route or set as Run to Fail (not requiring a PM).

Operating Assets linked to Routes and with Active PM’s are scored unfavorably, and need attention.

Only use Route or PM, not both. PM’s/Routes will sit idle in the system.

Specific corrective action recommendations are provided to help locations improve their score.

The PM Plan/Schedule score is the sum of equally weighted scores - “Operating Assets Linked to Active PMs w/ Current Next Due Dates”, “Operating Assets Identified as Run to Fail”, “Operating Assets Linked to Routes”, “Operating Assets Linked to Routes and with Active PMs”. These combinations are indicative of a well set up PM plan/schedule that is up to date (ie PM’s are being generated/closed out as necessary).

High percentage of Operating Assets Not Linked to Active and Current PM, Route or RTF requires attention.

Every asset should have a PM/Route or be marked Run To Fail. (does it need preventive maintenance or not...?)
The Asset Type Review assesses the overall completeness of a given list by comparing the unique asset types listed against a list of assets identified as “Typically Found in GSA Properties. This Level 1 Audit identifies ~40 asset types as “Typically Found in GSA Properties”. The intent is for persons more familiar with each location to review and update this information to create a more accurate and customized listing.
## Asset Report Tab

**Level 1 Asset Report generated from NCMMS**

<table>
<thead>
<tr>
<th>Asset Number</th>
<th>Asset Description</th>
<th>Equipment ID</th>
<th>Quantity</th>
<th>Asset Tag</th>
<th>Asset Type</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial #</th>
<th>Asset Age</th>
<th>Manufacture Year</th>
<th>Installation Date</th>
<th>Warranty Expiration Date</th>
<th>Expected Life</th>
<th>ESPCD</th>
<th>Service Centre</th>
<th>Service Address</th>
<th>Status</th>
<th>Unit Charged</th>
<th>Charged To</th>
<th>Part No.</th>
<th>Part Description</th>
<th>Fault Code</th>
<th>Duplicated Serial #</th>
<th>Count of “No” to the Data Field</th>
<th>Fault Location</th>
</tr>
</thead>
</table>
# PM Report Tab

## Level 1 PM Report generated from NCMMS

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Asset Tag</th>
<th>Asset Type</th>
<th>Service Center</th>
<th>Service Address</th>
<th>Job Start</th>
<th>PM</th>
<th>Changed By</th>
<th>Changed Date</th>
<th>PM Description</th>
<th>Extended Date</th>
<th>Last Completion Date</th>
<th>Estimated Next Due Date</th>
<th>Asset Status</th>
<th>PM Status</th>
<th>Result Code</th>
<th>Operating Assets Listed to OCMR</th>
<th>Operating Assets Needed to Full</th>
<th>Assets w/ Active PM w/ OCMR</th>
<th>Journals with active PM w/ OCMR</th>
<th>Journals with PM w/ OCMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>103111121R3</td>
<td>A01-111210</td>
<td>R01-10121</td>
<td>AC1-10121</td>
<td>123 ABC St, Anytown</td>
<td>1/2/16</td>
<td>PM</td>
<td>ABC123</td>
<td>1/2/16</td>
<td>Air Conditioner</td>
<td>2/28/2016</td>
<td>1/2/16</td>
<td>OPERATING</td>
<td>PASSTIVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103111121R4</td>
<td>A01-111211</td>
<td>R01-10121</td>
<td>AC1-10121</td>
<td>123 ABC St, Anytown</td>
<td>1/2/16</td>
<td>PM</td>
<td>ABC123</td>
<td>1/2/16</td>
<td>Air Conditioner</td>
<td>2/28/2016</td>
<td>1/2/16</td>
<td>OPERATING</td>
<td>PASSTIVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103111121R5</td>
<td>A01-111212</td>
<td>R01-10121</td>
<td>AC1-10121</td>
<td>123 ABC St, Anytown</td>
<td>1/2/16</td>
<td>PM</td>
<td>ABC123</td>
<td>1/2/16</td>
<td>Air Conditioner</td>
<td>2/28/2016</td>
<td>1/2/16</td>
<td>OPERATING</td>
<td>PASSTIVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103111121R6</td>
<td>A01-111213</td>
<td>R01-10121</td>
<td>AC1-10121</td>
<td>123 ABC St, Anytown</td>
<td>1/2/16</td>
<td>PM</td>
<td>ABC123</td>
<td>1/2/16</td>
<td>Air Conditioner</td>
<td>2/28/2016</td>
<td>1/2/16</td>
<td>OPERATING</td>
<td>PASSTIVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- PM Report generated from NCMMS
- Level 1 PM Report
- Operating Assets Listed to OCMR
- Operating Assets Needed to Full
- Assets w/ Active PM w/ OCMR
- Journals with active PM w/ OCMR
- Journals with PM w/ OCMR
How to Complete an Asset/PM Audit
1) Log in to NCMMS
2) Click on the Reports icon
3) Click Assets
4) Within the Reports and Schedules Window use the Description filter to search for Level 1 Audit Reports.

5) Click on the GSA Level 1 Asset Inventory Audit 3-3-20 bdh
6) Enter building number in the Service Address field.

7) Click Submit.
8) A BIRT Report Viewer should open in a separate tab. Ensure pop up blocker settings do not block this action.
9) Click on the Export icon.
10) Use the Export Format drop down menu to select XLS Microsoft Spreadsheet then click OK.
11) Open the Excel file.
12) Highlight the first row of data, and use Shift+Control+Down Arrow Hot Keys to highlight all rows.
13) Paste contents in cell A2 in the Asset Report Tab.
14) Select cell AB2 and AC2 and drag to the bottom of the list. (If Columns AB and AC do not automatically populate)
15) Select the row directly below the last record and use Control+Shift+Down Arrow to highlight all rows.

16) Right click; Select Delete Rows “## - ##”. 

<table>
<thead>
<tr>
<th>Equipment ID</th>
<th>Quantity</th>
<th>Asset Tag</th>
<th>Asset Type</th>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial #</th>
<th>Asset Year</th>
<th>Manufacture Year</th>
<th>Installation Date</th>
<th>Warranty Expiration Date</th>
<th>Expected Life</th>
<th>ESRC?</th>
<th>Service Center</th>
<th>Service Address</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>C01230099L-R04-L02</td>
<td>1</td>
<td>R01</td>
<td>P00</td>
<td>123456789</td>
<td>A01-0001</td>
<td>123456789</td>
<td>2023</td>
<td>2010-01-01</td>
<td>2015-01-01</td>
<td>2018-01-01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
17) Repeat steps 2 through 12 to generate the GSA Level 1 PM Audit BDH 3-3-20.

18) Paste contents into cell A2 within the PM Reports Tab.
19) This copies the required formula for those columns.
20) In the Reports application, go to ‘Assets’, then select ‘Assets’.

21) Run the “GSA Assets in Routes bdh” report. You can run a report for a Specific Building or the entire Region.

Time-saving tip: Run report for entire region and paste into a master copy of the audit tool if you plan to run audits for multiple buildings.
22) Click on the Export icon.

23) Select XLS Microsoft Spreadsheet, then click OK
24) Open the Excel file.
25) Copy and paste Route table into cell A2.

26) Ensure that it is pasted as Plain Text format.
27) Enter the audit date in cell B5 within the Audit Summary Tab.

28) Type name in Auditor Name field.