

NIST CYBERSECURITY FRAMEWORK (1.0) TRACKING EVALUATIONS USING AN EXCEL WORKBOOK

User Guide | 1.0 | April 19, 2017

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SUMMARY

This is a companion user guide for the Excel workbook created by Watkins Consulting to automate tracking and scoring of evaluation activities related to the NIST Cybersecurity Framework (CSF) [1]. This user guide assumes that NIST CSF documentation is used to determine your firm's appropriate cybersecurity risk management approach. This user guide only describes how to use the Watkins Excel workbook.

If you need help with using the workbook or interpreting the results, Watkins Consulting can help your firm with the workbook and more: cybersecurity governance issues, audits, and assessments.

OBTAIN

The Excel workbook is available from the Watkins Consulting website, <http://www.watkinsconsulting.com/NIST-CSF.html>.

REGISTER

We recommend that you send us an email using the registration link ("Information" worksheet, cells A7:B8). We will not share your information outside of our organization and after confirming your registration we will notify you of any updates or potentially helpful information related to the workbook. These emails should be infrequent.

ORGANIZATION

The workbook has three worksheets.

- **Information:** describes the workbook and has some formatting controls.
- **Rollup:** summarizes the status value by category.
- **CSF Core:** Contains the functions, categories, sub-categories, and informative references.

HOW TO USE THE WORKBOOK

Although there is no standardized way to evaluate your firm's approach to applying the framework to your cybersecurity strategy, there is an implied approach if this workbook is used. It is designed to review each one of the 98 sub-categories found on the "CSF Core" worksheet. For each sub-category you can input the status of your firm's cybersecurity practice, perhaps as informed by the informative references for each sub-category. This workbook allows for one of four "Status" values.

- Yes
- No
- N/A
- Blank

The worksheet should start off with all answers marked as “blank.” This will indicate that the sub-category has not been reviewed. For sub-categories that do not apply to your firm answer “N/A.” If, in your evaluation, your firm has adequate risk controls in place or accepts the level of risk for the sub-category then answer “Yes”. If not then answer “No.” Figure 1 depicts a screen capture of the worksheet for the ID.AM-1 sub-category.

In addition to setting the “Status” field (column D), specific details may be added to the “Notes” field (column F). *Warning, please do not use the paste functionality to fill in the “Status” value; it could work in an unpredictable manner.*

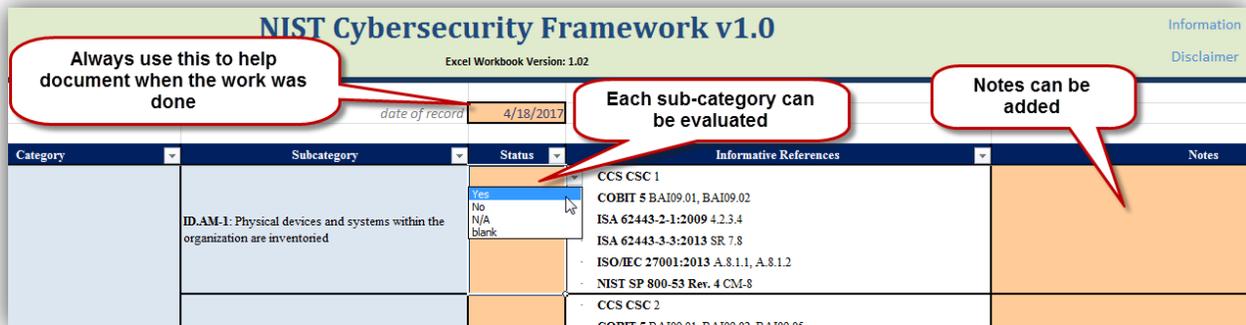


Figure 1 A partial view of the CSF Core worksheet. The first sub-category in the Identify (ID) function’s Asset Management (AM) category is shown. The drop-down for the “Status” field shows the allowed answers: yes, no, N/A, and blank. A note may be added for each sub-category. It is also recommended that the date for the overall evaluation be recorded.

The Rollup worksheet summarizes the sub-category status responses by category and function. *It is a very good summary of which sub-categories have been evaluated.* The scoring is only intended to help measure the scoring with respect to the “yes” values. It displays a percentage of the status values that have been set to “yes” without including the not-applicable sub-categories. The formula used is:

$$\text{Score} = N_{\text{yes}} / (N_{\text{yes}} + N_{\text{no}} + N_{\text{blank}}) \quad [1]$$

This is equivalent to:

$$\text{Score} = N_{\text{yes}} / (N_{\text{total}} - N_{\text{N/A}}) \quad [2]$$

There are three possible scoring results.

- A percentage from 0% to 100%
- A “-” which indicates that too few sub-categories have been assigned from the “blank” initial state
- A “--” which indicates an error condition in the calculation

Warning—this score may have little relationship to the actual risk that your firm is exposed to in that category. But it can provide a helpful visual snapshot of the evaluation, especially when compared to evaluations made at different times.

Technical Considerations

Warning—don't use paste functionality

Unfortunately, each of the 98 status boxes must be individually updated. The normal Excel copy or cut and paste functionality may not work as anticipated because of the underlying merged cell construction.

Controls—format the shading

There are three controls which affect how the scoring is displayed. They are located in the “Information” worksheet in cells A31:A33. The controls and there default values are as follows.

1	Minimum number of questions to answer for roll up score to be calculated
33%	All category rollup scores below this value are shaded in <i>red</i>
66%	All category rollup scores above this value are shaded in <i>green</i>

Answers falling between the green and red scores are shaded in yellow. If you want to turn off the conditional shading, set the minimum number to at least 13, which is one more than the maximum number of sub-categories found in any category.

The red, yellow, and green shading is arbitrary and should be adjusted to fit your firm’s level of risk acceptance.

Protection—only the input cells should be changed

The workbook is password protected to maintain formula integrity and textual information. Only cells displayed as input cells (orange background, dark purple text, grey border) are unlocked. If your firm needs a special version of the workbook or has suggestions for improvements, we are open to making those updates. However, we will not unlock the workbook.

The Excel workbook is macro-free, which eliminates any security issues related to VBA macros.

VERSION HISTORY

User Guide Version	Excel Workbook Version	Date	Author	Change
1.0	1.02	4/18/2017	JMJ	Initial Version

WORKS CITED

[1] NIST, "Framework for Improving Critical Infrastructure Cybersecurity," NIST, Gaithersberg, MD, 2014.