

# REDCap YES3 Exporter External Module

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YALE UNIVERSITY  
SCHOOL OF  
MEDICINE

# Learning Objectives

In today's session, you will learn:

- What is the Yale Study Support Suite (YES3)
- What is the YES3 Exporter
  - What enhancements & features does it have
- How does the YES3 Exporter work
  - What export layouts are available
- How you can get the YES3 Exporter

# What is YES3?

- The Yale Study Support Suite (YES3) are software tools released to the REDCap consortium for worldwide use
- External Modules work within REDCap to expand its functionality
- Based on systems designed, deployed, and perfected over several decades to support research operations
- Available to you at no cost - developed through grant awards

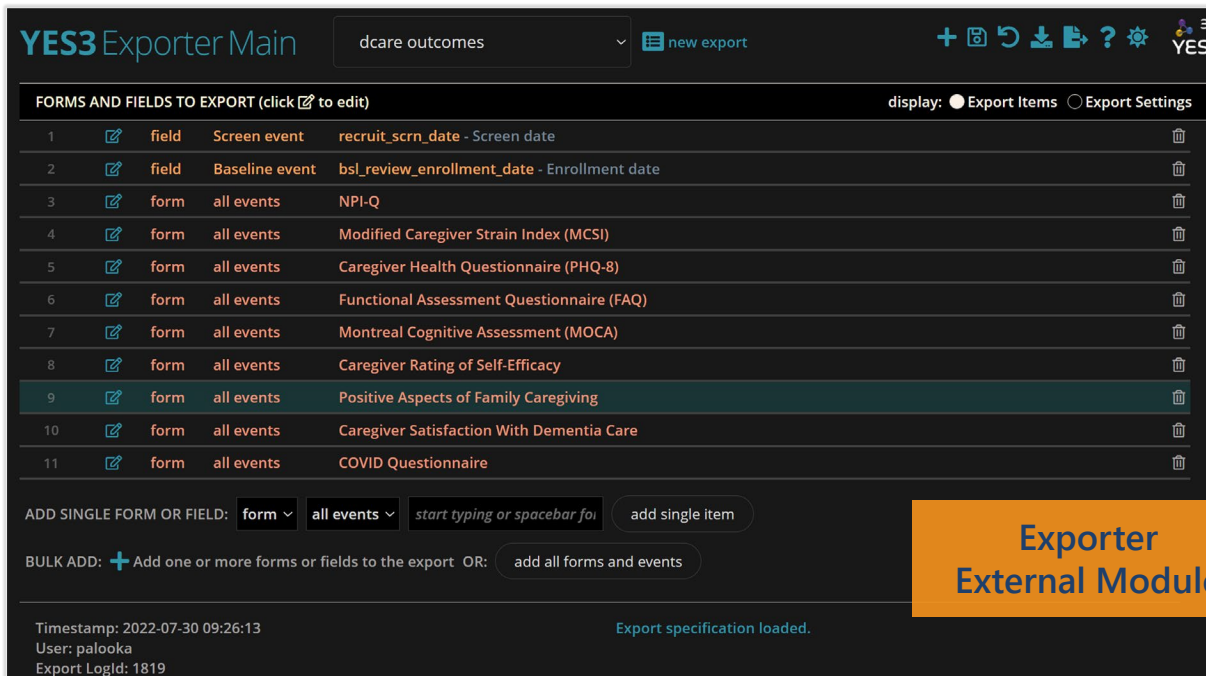


*Peter Charpentier presents YES3 at the International REDCap Conference 2022*

# What External Modules are part of the Suite?

- YES3 Exporter
- YES3 Dashboard
- YES3 Study Portal

Today's training will focus on the YES3 Exporter.



The screenshot displays the YES3 Exporter Main interface. At the top, there is a header with the title "YES3 Exporter Main", a dropdown menu set to "dcare outcomes", and a "new export" button. The main area is titled "FORMS AND FIELDS TO EXPORT (click [edit icon] to edit)" and includes a "display:" section with radio buttons for "Export Items" (selected) and "Export Settings". Below this is a table with 11 rows, each representing a different form or field. The table columns are: an edit icon, a type (field or form), an event type (all events), a name, and a delete icon. The 9th row, "Positive Aspects of Family Caregiving", is highlighted. At the bottom of the interface, there are buttons for "ADD SINGLE FORM OR FIELD:" and "BULK ADD:". The "ADD SINGLE FORM OR FIELD:" button has dropdowns for "form" and "all events", a text input field with the placeholder "start typing or spacebar for", and an "add single item" button. The "BULK ADD:" button has a plus icon and the text "Add one or more forms or fields to the export OR: add all forms and events". At the very bottom, there is a timestamp "2022-07-30 09:26:13", the user "palooka", the export log ID "1819", and a status message "Export specification loaded."

|    | field | Screen event   | recruit_scrn_date - Screen date              |  |
|----|-------|----------------|--|--|
| 1  | field | Baseline event | bsl_review_enrollment_date - Enrollment date |  |
| 2  | form  | all events     | NPI-Q  |  |
| 3  | form  | all events     | Modified Caregiver Strain Index (MCSI)       |  |
| 4  | form  | all events     | Caregiver Health Questionnaire (PHQ-8)       |  |
| 5  | form  | all events     | Functional Assessment Questionnaire (FAQ)    |  |
| 6  | form  | all events     | Montreal Cognitive Assessment (MOCA)         |  |
| 7  | form  | all events     | Caregiver Rating of Self-Efficacy            |  |
| 8  | form  | all events     | Positive Aspects of Family Caregiving        |  |
| 9  | form  | all events     | Caregiver Satisfaction With Dementia Care    |  |
| 10 | form  | all events     | COVID Questionnaire                          |  |
| 11 |       |                |  |  |

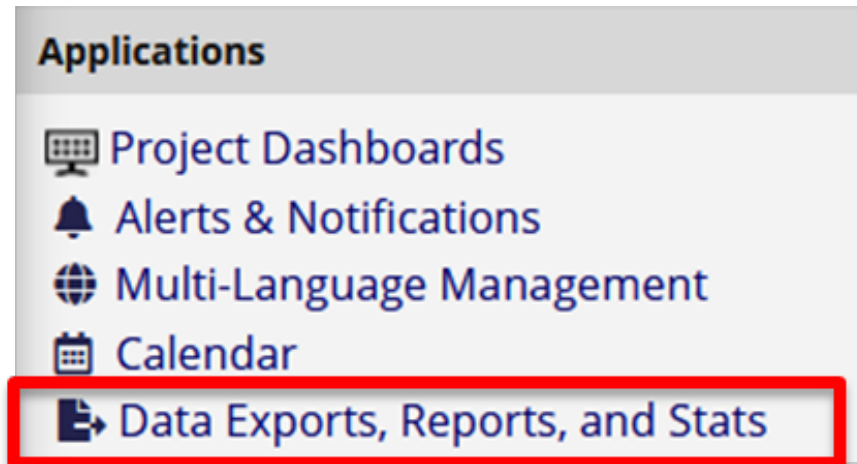
ADD SINGLE FORM OR FIELD: **form** **all events** *start typing or spacebar for* **add single item**

BULK ADD: **+** Add one or more forms or fields to the export OR: **add all forms and events**

Timestamp: 2022-07-30 09:26:13  
User: palooka  
Export LogId: 1819  
Export specification loaded.

Exporter  
External Module

# How many of you have used the built-in data export feature in REDCap?



The standard export option in REDCap has many useful features (*filters, de-identifying, exporting to statistical packages*).

# REDCap Export Limitation

- Longitudinal projects are exported as one row per event resulting in multiple rows per record.
  - Those new or inexperienced with statistical software find it difficult to analyze longitudinal data.
  - Those familiar with statistical software often subset longitudinal data by events and combine them to one row per subject.




*Is there a way to export the longitudinal data in a format that will make things easier?*

# What are the enhancements in the YES3 Exporter?

# YES3 Exporter Enhancements & Features

- Flexible output spreadsheet layouts (*horizontal, vertical, repeating form*)
  - Longitudinal: One row per record all events!
  - Simplifies analysis with statistical software
- Improved performance
  - Faster: can handle large exports
- Enhanced data dictionary
  - Export-specific data dictionary: simplifies data sharing
  - Metadata and distributions: quick reporting and validation
- Can export directly to a host file system
- Light and dark themes



*There is a way!*



# YES3 Exporter Enhancements & Features

- Security and Compliance
  - Conforms to REDCap v12 or above - form-specific access and export rights
  - Audit trails and tracking
    - Detailed export history log
    - Automated email summary of export activities (optional)
- Export templates and specifications
  - Templates can be saved and re-used
  - Specifications can be rolled back and restored


# Enhanced Feature: Export-Specific Data Dictionary

- YES3 Data Dictionary is specific to the data in your export
  - Includes metadata and data distribution summaries
  - Summary data includes count, range, #nonblank, and either a frequency table or mean & variance, as appropriate to field type

| var_name                 | var_label        | var_type | valueset   | origin | redcap_field_name | redcap_form_name | redcap_event_id | redcap_event_name | non_missing_count | min_length | max_length | min_value | max_value | sum_of_values | sum_of_squared_values | mean    | standard_deviation | formatted_min_value | formatted_max_value | formatted_mean | frequency_table  |
|--------------------------|------------------|----------|------------|--------|-------------------|------------------|-----------------|-------------------|-------------------|------------|------------|-----------|-----------|---------------|-----------------------|---------|--------------------|---------------------|---------------------|----------------|--|
| study_id                 | Study ID         | TEXT     |            | redcap | study_id          | prescreen        | 0               | baseline          | 0                 |            |            |           |           |               |                       |         |                    |                     |                     |                |  |
| redcap_data_access_group | REDCap Data      | INTEGER  |            | other  |                   |                  |                 |                   | 0                 |            |            |           |           |               |                       |         |                    |                     |                     |                |  |
| redcap_data_access_group | REDCap Data      | TEXT     |            | other  |                   |                  |                 |                   | 0                 |            |            |           |           |               |                       |         |                    |                     |                     |                |  |
| base_isi_date            | Date of Insn     | DATE     |            | redcap | isi_date          | insomnia         | 9817            | baseline          | 81                | 10         | 10         | 1.614E+09 | 1.647E+09 | 1.32E+11      | 2.16E+20              | 1.6E+09 | 8331665            | 2/23/2021           | 3/14/2022           | 9/29/2021      |  |
| base_isi1                | 1. Difficulty fi | NOMINAL  | {{"value": | redcap | isi1              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":28},{"value":1,"count":18},{"value":2,"count":19},{" |
| base_isi2                | 2. Difficulty si | NOMINAL  | {{"value": | redcap | isi2              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":27},{"value":1,"count":17},{"value":2,"count":20},{" |
| base_isi3                | 3. Problems v    | NOMINAL  | {{"value": | redcap | isi3              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":43},{"value":1,"count":13},{"value":2,"count":9},{"v |
| base_isi4                | 4. How SATIS     | NOMINAL  | {{"value": | redcap | isi4              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":11},{"value":1,"count":16},{"value":2,"count":21},{" |
| base_isi5                | 5. How NOTIC     | NOMINAL  | {{"value": | redcap | isi5              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":39},{"value":1,"count":18},{"value":2,"count":13},{" |
| base_isi6                | 6. How WORR      | NOMINAL  | {{"value": | redcap | isi6              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":33},{"value":1,"count":25},{"value":2,"count":10},{" |
| base_isi7                | 7. To what ex    | NOMINAL  | {{"value": | redcap | isi7              | insomnia         | 9817            | baseline          | 81                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":27},{"value":1,"count":19},{"value":2,"count":17},{" |
| base_isi_symptom_score   | Insomnia sym     | FLOAT    |            | redcap | isi_symptom       | insomnia         | 9817            | baseline          | 81                | 1          | 2          | 0         | 12        | 310           | 1952                  | 3.82716 | 3.093502           |                     |                     |                |  |
| base_isi_impact_score    | Insomnia imp     | FLOAT    |            | redcap | isi_impact        | insomnia         | 9817            | baseline          | 81                | 1          | 2          | 0         | 16        | 468           | 4446                  | 5.77778 | 4.666369           |                     |                     |                |  |
| base_isi_score           | Total Score      | FLOAT    |            | redcap | isi_score         | insomnia         | 9817            | baseline          | 81                | 1          | 2          | 0         | 28        | 778           | 11684                 | 9.60494 | 7.255479           |                     |                     |                |  |
| base_isi_score_category  | Total Score C    | FLOAT    |            | redcap | isi_score_ca      | insomnia         | 9817            | baseline          | 81                | 1          | 1          | 1         | 4         | 153           | 365                   | 1.88889 | 0.974679           |                     |                     |                |  |
| base_insomnia_severity   | ir Complete?     | NOMINAL  | {{"value": | redcap | insomnia_si       | insomnia         | 9817            | baseline          | 82                | 1          | 1          |           |           |               |                       |         |                    |                     |                     |                | {{"value":0,"count":1},{"value":2,"count":81}}                           |

*For date/time field type, summaries of both date values and formatted values are included in the data dictionary*

# Enhanced Feature: YES3 Exporter Log

- Audit trails – logs all data exports activity
- Detailed information using the inspect  icon

## YES3 Exporter Logs










test horizontal

all users

from mm / dd / yyyy

to mm / dd / yyyy

6 log records

|    | log id | timestamp           | user | message               | destination |
|---|--------|---------------------|------|-----------------------|-------------|
|    | 2035   | 2022-08-22 13:00:04 |      | export files written  | download    |
|    | 2036   | 2022-08-22 13:00:04 |      | export zip downloaded | download    |
|    | 2038   | 2022-08-22 13:02:10 |      | export files written  | download    |
|  | 2039   | 2022-08-22 13:02:10 |      | export zip downloaded | download    |
|  | 2041   | 2022-08-22 13:03:43 |      | export files written  | download    |
|  | 2042   | 2022-08-22 13:03:43 |      | export zip downloaded | download    |

# YES3 Export Log Record

|                          |  |
|--------------------------|--|
| Log ID                   | 2041                                   |
| Project ID               | 588                                    |
| Export Name              | test horizontal                        |
| Export UUID              | 423f24aa-b76a-4601-8ebf-fb612743a324   |
| Time Stamp               | 2022-08-22 13:03:43                    |
| User                     | [REDACTED]                             |
| Message                  | export files written                   |
| Destination              | download                               |
| Log Entry Type           | yes3-export-log                        |
| Export filename          | /tmp/ys3a1pLLu                         |
| Data Dictionary filename | /tmp/ys3snhIAt                         |
| Bytes written            | 3673                                   |
| Cells written            | 1054                                   |
| Rows                     | 82                                     |
| Columns                  | 16                                     |
| Export specification     | <input type="button" value="inspect"/> |

# YES3 Export Specification

|                          |  |
|--------------------------|--|
| log_id                   | 2040                                   |
| message                  | yes3-export-specification              |
| timestamp                | 2022-08-22 13:03:35                    |
| removed                  | 0                                      |
| export_uuid              | 423f24aa-b76a-4601-8ebf-fb612743a324   |
| export_name              | test horizontal                        |
| export_username          | [REDACTED]                             |
| export_layout            | h                                      |
| export_selection         | 2                                      |
| export_criterion_field   | enroll                                 |
| export_criterion_event   | 9817                                   |
| export_criterion_value   | 1                                      |
| export_target            |  |
| export_max_label_length  |  |
| export_max_text_length   |  |
| export_inoffensive_text  | 0                                      |
| export_remove_phi        | 0                                      |
| export_remove_freetext   | 0                                      |
| export_remove_targettext | 0                                      |
| export_remove_dates      | 0                                      |
| export_shift_dates       | 0                                      |
| export_hash_recordid     | 0                                      |
| export_target_folder     | /mnt/validation/clouds                 |
| export_items             | form insomnia_severity_index all event |

INSPECT ICON



# Questions?

Next: *How do I get it?*

# How do I install the YES3 Exporter so I can use it on my REDCap project?

Email your REDCap Administrator.

REDCap at Yale University

Send us an email at [REDCap@yale.edu](mailto:REDCap@yale.edu).

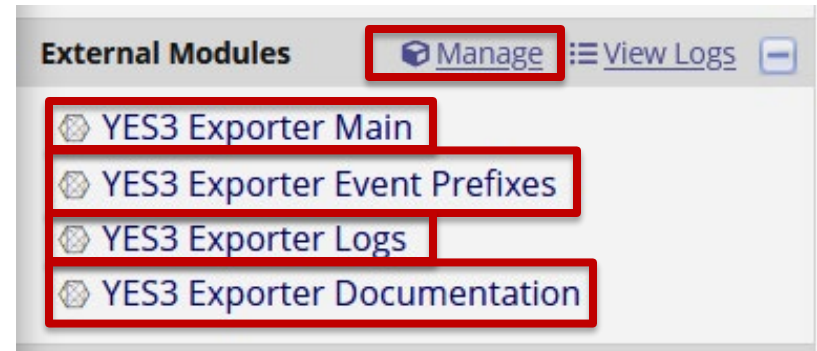
We will enable the module in your project.

There are resources to help you.

*How does it work?*

# YES3 Exporter Components

- Manage Configurations
- YES3 Exporter Main
  - Set up data export configurations
- YES3 Exporter Event Prefixes
  - Modify auto-generated prefixes to distinguish different events
- YES3 Exporter Logs
  - Audit trail of each export that has been created and downloaded
- YES3 Exporter Documentation
  - README, User Guide, Technical Guide, Change Log

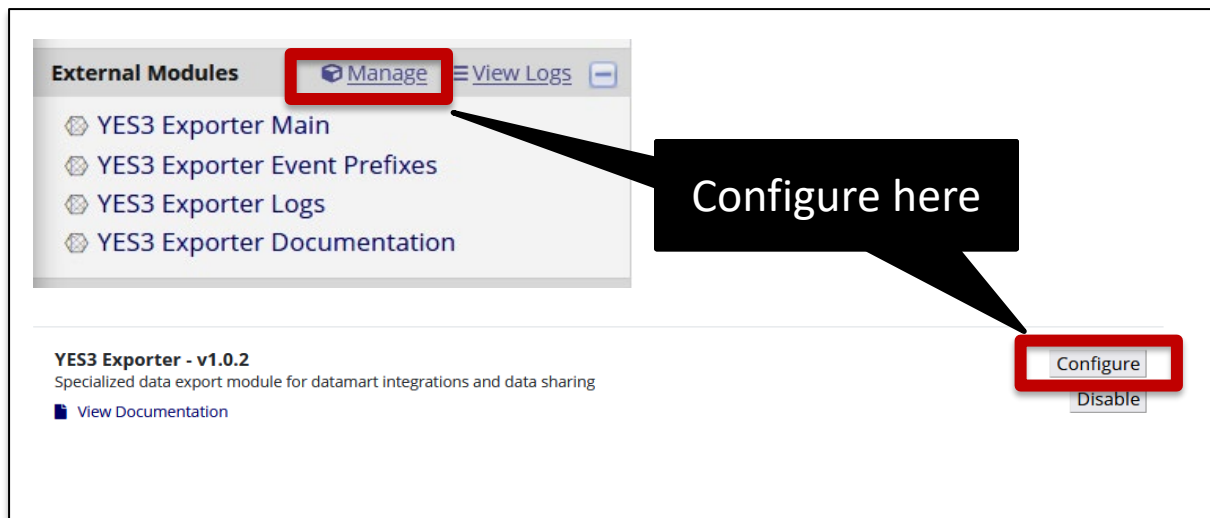




# YES3 Exporter Components

## Manage: Configuration of Module

- **Set Up: Step #1**
  - Ask an Administrator to install the Exporter on your project
- **Set Up: Step #2**
  - Configure the Exporter
    - Must have project design and setup rights

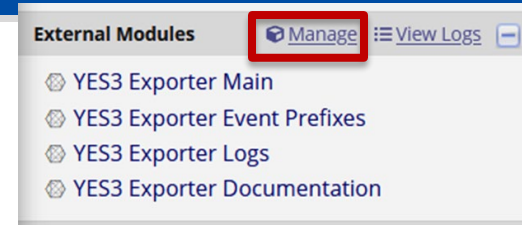


The screenshot shows the 'External Modules' section of the YES3 Exporter interface. The 'Manage' button is highlighted with a red box. A callout box labeled 'Configure here' points to the 'Configure' button in the 'YES3 Exporter - v1.0.2' section, which is also highlighted with a red box. The 'Disable' button is visible below the 'Configure' button.

# YES3 Exporter Components

## Manage: Export Configurations

- Manage configurations allows you to:
  - Enable daily email notifications
  - Permit exports to be saved to a host file system\*
  - Set retention for backups



### DAILY EMAIL NOTIFICATIONS

You may elect to receive daily summaries of YES3 Exporter actions by email.

Enable email notifications:  No  Yes

### HOST FILE SYSTEM EXPORTS

YES3 Exporter can export to the host file system, n.b. to automounts pointing to secure institutional file shares. This will require services from your REDCap host system administrator, and the blessing of your Information Security Officer.

Enable export to host file system:  No  Yes

### BACKUP RETENTION

By default, 20 generations of each export specification are retained, and can be restored using the 'undo' feature. You may change this number, or elect to retain all generations.

Specification backups to retain (default is 20):

\* Additional approvals required

# YES3 Exporter Components

## Event Prefixes

- **Set up: Step #3,**
  - If you are using a horizontal layout, review and edit the auto-generated prefixes

### Exporter Event Prefixes

All event prefix settings loaded.

Event prefixes

For horizontal export layouts the YES3 Exporter attaches event prefixes to column names. Keep the prefixes as short as you can manage. ?

Click [here](#) to restore your event prefixes to their default values.

| Event          | Prefix                          |
|----------------|---------------------------------|
| baseline_arm_1 | <input type="text" value="e1"/> |
| fu_arm_1       | <input type="text" value="e2"/> |
| baseline_arm_2 | <input type="text" value="e3"/> |
| fu_arm_2       | <input type="text" value="e4"/> |

# YES3 Exporter Components

## Main: Create Exports

### 1. Name your export and pick a layout format

### New Export ✕

Please provide a name and and layout for the export to be added.

Note that while you can change the name later, you cannot change the layout once the export has been created.

Export NAME





Export LAYOUT  Horizontal (longitudinal projects: one row per record)  
 Vertical (one row per record+event)  
 Repeating Form (one row per record+event+instance)

# Export Layout #1 - Horizontal

- Longitudinal projects: one row per record

## Example

Monthly follow up form for m1, m2 and m3 events:

| Instrument: <b>Monthly Follow Up Status</b> (monthly_follow_up_status)              |                     |                             |  |   |     |   |    |
|---|---------------------|-----------------------------|--|---|-----|---|----|
|  176 | [mthly_fu_date]     | Date                        | text (date_mdy), Required  |   |     |   |    |
|      |                     |                             |  |   |     |   |    |
|  177 | [mthly_fu_complete] | Monthly Follow Up Completed | radio, Required  |   |     |   |    |
|      |                     |                             | <table border="1"> <tr> <td>1</td> <td>Yes</td> </tr> <tr> <td>0</td> <td>No</td> </tr> </table> | 1 | Yes | 0 | No |
| 1   | Yes                 |                             |  |   |     |   |    |
| 0   | No                  |                             |  |   |     |   |    |

Event prefixes added to field names:

| study_id | m1_mthly_fu_date | m1_mthly_fu_complete | m2_mthly_fu_date | m2_mthly_fu_complete | m3_mthly_fu_date | m3_mthly_fu_complete |
|----------|------------------|----------------------|------------------|----------------------|------------------|----------------------|
| 17       | 5/14/2021        | 1                    | 6/9/2021         | 1                    | 7/7/2021         | 1                    |
| 18       | 3/30/2021        | 1                    | 4/22/2021        | 1                    | 5/20/2021        | 0                    |
| 21       | 3/31/2021        | 1                    | 4/28/2021        | 1                    | 5/26/2021        | 1                    |
| 23       | 4/16/2021        | 1                    | 5/14/2021        | 1                    | 6/9/2021         | 1                    |
| 27       | 5/17/2021        | 1                    | 5/14/2021        | 0                    | 7/13/2021        | 0                    |
| 28       | 4/29/2021        | 1                    | 5/27/2021        | 1                    |                  |                      |
| 35       | 6/15/2021        | 1                    | 7/13/2021        | 1                    | 8/10/2021        | 1                    |

# Export Layout #2 - Vertical

- One row per record + event
- The REDCap event id is included in the data export file

## Example

| 1  | study_id | redcap_event_id | redcap_event_name | mthly_fu_date | mthly_fu_complete |
|----|----------|-----------------|-------------------|---------------|-------------------|
| 2  | 17       | 9821            | m1_arm_1          | 5/14/2021     | 1                 |
| 3  | 17       | 9825            | m2_arm_1          | 6/9/2021      | 1                 |
| 4  | 17       | 9829            | m3_arm_1          | 7/7/2021      | 1                 |
| 5  | 17       | 9833            | m4_arm_1          | 8/4/2021      | 1                 |
| 6  | 17       | 9837            | m5_arm_1          | 9/1/2021      | 1                 |
| 7  | 17       | 9841            | m6_arm_1          | 9/29/2021     | 1                 |
| 8  | 18       | 9821            | m1_arm_1          | 3/30/2021     | 1                 |
| 9  | 18       | 9825            | m2_arm_1          | 4/22/2021     | 1                 |
| 10 | 18       | 9829            | m3_arm_1          | 5/20/2021     | 0                 |
| 11 | 18       | 9833            | m4_arm_1          | 6/17/2021     | 0                 |
| 12 | 18       | 9837            | m5_arm_1          |               |                   |
| 13 | 18       | 9841            | m6_arm_1          |               |                   |
| 14 | 21       | 9821            | m1_arm_1          | 3/31/2021     | 1                 |
| 15 | 21       | 9825            | m2_arm_1          | 4/28/2021     | 1                 |
| 16 | 21       | 9829            | m3_arm_1          | 5/26/2021     | 1                 |
| 17 | 21       | 9833            | m4_arm_1          | 6/23/2021     | 0                 |
| 18 | 21       | 9837            | m5_arm_1          | 7/21/2021     | 1                 |
| 19 | 21       | 9841            | m6_arm_1          | 10/1/2021     | 1                 |

# Export Layout #3 – Repeating Form

- One row per record + event + instance
- Only **one repeating form** can be defined in the export. You cannot export repeating events.
- **Example**

| 1  | study_id | redcap_event_id | redcap_event_name | redcap_repeat_instance | call_date  | wks_frm_mat_start |
|----|----------|-----------------|-------------------|------------------------|------------|-------------------|
| 2  | 28       | 9817            | baseline_arm_1    | 1                      | 10/22/2021 | 31.6              |
| 3  | 35       | 9817            | baseline_arm_1    | 1                      | 4/7/2021   | 3.3               |
| 4  | 35       | 9817            | baseline_arm_1    | 2                      | 4/13/2021  | 4.1               |
| 5  | 35       | 9817            | baseline_arm_1    | 3                      | 4/14/2021  | 4.3               |
| 6  | 35       | 9817            | baseline_arm_1    | 4                      | 4/27/2021  | 6.1               |
| 7  | 35       | 9817            | baseline_arm_1    | 5                      | 4/27/2021  | 6.1               |
| 8  | 35       | 9817            | baseline_arm_1    | 6                      | 5/17/2021  | 9                 |
| 9  | 36       | 9817            | baseline_arm_1    | 1                      | 4/7/2021   | 1.1               |
| 10 | 36       | 9817            | baseline_arm_1    | 2                      | 4/7/2021   | 1.1               |
| 11 | 36       | 9817            | baseline_arm_1    | 3                      | 4/13/2021  | 2                 |
| 12 | 36       | 9817            | baseline_arm_1    | 4                      | 4/27/2021  | 4                 |
| 13 | 36       | 9817            | baseline_arm_1    | 5                      | 5/17/2021  | 6.9               |
| 14 | 36       | 9817            | baseline_arm_1    | 6                      | 5/17/2021  | 6.9               |
| 15 | 36       | 9817            | baseline_arm_1    | 7                      | 5/19/2021  | 7.1               |
| 16 | 36       | 9817            | baseline_arm_1    | 8                      | 5/23/2021  | 7.7               |

# Special Note - Checkbox Field Type

- Data from checkbox fields are exported with the checked-off options combined in a single column
- This prevents innumerable columns in horizontal exports

## Example:

| study_id | base_date Lec | base Lec1 |
|----------|---------------|-----------|
| 41       | 4/26/2021     | 2,3       |
| 46       | 4/30/2021     | 1,2,3     |
| 61       | 6/10/2021     | 1,2,3     |
| 70       | 6/22/2021     | 3         |
| 80       | 7/7/2021      | 1,2,3     |
| 88       | 10/5/2021     | 6         |
| 91       | 10/4/2021     | 1         |
| 96       | 7/12/2021     | 2         |
| 107      | 7/19/2021     | 1,3       |
| 109      | 7/30/2021     | 1,2,3     |

[lec1]

| checkbox, Required |         |                  |
|--------------------|---------|------------------|
| 1                  | lec1__1 | Happened to me   |
| 2                  | lec1__2 | Witnessed it     |
| 3                  | lec1__3 | Learned about it |
| 4                  | lec1__4 | Part of my job   |
| 5                  | lec1__5 | Not sure         |
| 6                  | lec1__6 | Doesn't apply    |



# YES3 Exporter Main

## Create an Export

### 2. Set your export settings

The screenshot displays the YES3 Exporter Main interface. At the top, the title 'YES3 Exporter Main' is on the left, and a dropdown menu shows 'Monthly FollowUp Status'. To the right is a 'new export' button and a toolbar with icons for adding, saving, undo, redo, download, share, help, and a moon icon. Below the toolbar, a dark green bar contains 'EXPORT SETTINGS' on the left and 'display:  Export Items  Export Settings' on the right.

**EXPORT SETTINGS**

Export name: Monthly FollowUp Status

Export layout: Horizontal

Options for selecting records to export ?

Include:  All records  Selected records

Selection criterion: field: enroll

Selection criterion: event: baseline\_arm\_1

Selection criterion: value(s): 1

Options for data compliance (de-identified and coded datasets)

Remove tagged identifiers  Remove all freetext fields  Coded (shifted) dates

Remove date/time fields  Remove note/paragraph fields  Coded (hashed) record id values

Options for conditioning exported values

Sanitize exported text values by removing unprintable characters and HTML tags.

Maximum field label length: max #characters


Maximum text value length: max #characters



# YES3 Exporter Main

## Create an Export

### 3. Select your export items

YES3 Exporter Main Monthly FollowUp Status new export + 📄 ↺ ⬇️ ➡️ ? 🌙 YES<sup>3</sup>

FORMS AND FIELDS TO EXPORT (click  to edit) display:  Export Items  Export Settings

\*1  form all events Monthly Follow Up Status 

ADD SINGLE FORM OR FIELD: form all events *start typing or spacebar ft* add single item

BULK ADD: + Add one or more forms or fields to the export OR: add all forms and events

# Instructions and Resources: Help Menu

- Click **?** to bring up the Help Menu

**YES3** Exporter Main          YES

**EXPORT SETTINGS** display:  Export Items  Export Settings

Export name:

Export layout: Horizontal

Options for selecting records to export ?

Include:  All records  Selected records

Selection criterion: field

Selection criterion: event

Selection criterion: value(s)

Options for data compliance (de-identified and coded datasets)

Remove tagged identifiers  Remove all freetext fields  Coded (shifted) dates  
 Remove date/time fields  Remove note/paragraph fields  Coded (hashed) record id values

Options for conditioning exported values

Sanitize exported text values by removing unprintable characters and HTML tags.

Maximum field label length:

External Modules Manage View Logs

- YES3 Exporter Main
- YES3 Exporter Event Prefixes
- YES3 Exporter Logs
- YES3 Exporter Documentation**

# Instructions and Resources: Exporter User Guide

- Purpose: Step-by-step instructions
  - Includes a How-To Guide and Quick Start Tutorial
- Audience: People creating the exports

YES Exporter

- User Guide**
- Technical Guide
- Change Log
- readme

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Wrought by the REDCap@Yale team  
REDCap@yale.edu

## YES3 Exporter User Guide

REDCap External Module  
Version 1.00, July 2022

### Introduction

The YES3 Exporter external module compliments REDCap's reports and data export tool by adding functionality to support data visualization, data sharing, and integration with statistical software and datamarts.

### Features

- **Flexible output spreadsheet layouts**
  - Horizontal, vertical, and repeating form layouts
- **Expediently handles large exports**
  - Large volume exports have minimal impact on performance speed
  - In testing it took 186 seconds to export 3,272 rows and 3,079 columns to a 33MB export csv file
- **Enhanced data dictionary that includes metadata and data distributions**
  - Each export is accompanied by a customized data dictionary to simplify data sharing
- **Detailed audit for every export download**
  - Includes the ability to email daily activity summaries- automatically
- **Incorporates form-specific user access and export rights**
  - Compatible with REDCap v12 user-riqhts and backward compatible with earlier permissions models

External Modules Manage View Logs

- YES3 Exporter Main
- YES3 Exporter Event Prefixes
- YES3 Exporter Logs
- YES3 Exporter Documentation**

# Instructions and Resources: Technical Guide

- Purpose: Explains how the data is processed
- Audience: People writing programs to process files (*statisticians, data managers, programmers*)

**YES Exporter**

- User Guide
- Technical Guide**
- Change Log
- readme

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## YES3 Exporter Technical Guide

YES3 Exporter version 1.0.0 June 2022

### Intended Audience

This guide is intended for individuals who will be writing programs to process files generated by the YES3 Exporter. These include data managers and statistical programmers writing programs to import YES3 Exporter data into statistical systems such as SAS and R, as well as application developers seeking to integrate the YES3 Exporter into datamart generation and validation workflows.

### The YES3 technical team

The following individuals participate in one aspect or another - usually multiple aspects - of YES3 software development.

- Katy Araujo *ninja, testing, documentation*
- Venugopal Bhatia *application developer*
- Peter Charpentier *lead EM developer*
- Kraig Eisenman *IT system engineer*
- Brian Funaro *lead IT system engineer*
- Mary Geda *program manager, documentation lead*
- Kaitlin Maciejewski *testing*
- Janet Miceli *ninja, testing*
- Sui Tsang *lead ninja, testing lead, documentation*
- Maxwell Wibert *EM developer, REDCap@Yale portal website manager*

# Extra Slides

# What is YES3?

- Together, YES3 External Modules (EMs) can be used to help researchers:

- Share information and reports
- Improve data quality
- Build datamarts
- Coordinate workflow and assignments
- Automate tasks
- Track milestones
- Monitor study progress

GEARSSV2 YES3 Dashboard palooka all data access groups

all records n = 14

| record #  | open | mm         | last    | first | ED D/C     | Screen | BSL      | 4Day     | 30Day    | 90Day      | Discontinued |
|-----------|------|------------|---------|-------|------------|--------|----------|----------|----------|------------|--------------|
| TS-000018 | open | MIR1274292 | k       | Susan | 04/07/2022 | 1      | Complete | Complete | Complete | 10/06/2022 | form         |
| TS-000026 | open | atradcdc   | form    | form  |            |        |          |          |          |            | form         |
| TS-000034 | open | 4444444    | Winters |       |            |        |          |          |          |            | form         |
| TS-000042 | open | MIR123456  | form    |       |            |        |          |          |          |            | form         |
| TS-000059 | open | addadad    | form    |       |            |        |          |          |          |            | form         |
| TS-000067 | open | dfadfadf   | form    |       |            |        |          |          |          |            | form         |
| TS-000075 | open | dfadfadf   | form    |       |            |        |          |          |          |            | form         |
| TS-000083 | open | form       | form    |       |            |        |          |          |          |            | form         |
| TS-000091 | open | Mlxxxxx    | Smith   |       |            |        |          |          |          |            | form         |
| TS-000109 | open | Mlxxxxx    | Brown   |       |            |        |          |          |          |            | form         |
| TS-000117 | open | MIR1201909 | Galli   |       |            |        |          |          |          |            | form         |
| TS-000125 | open | 000000     | form    |       |            |        |          |          |          |            | form         |
| TS-000133 | open | form       | form    |       |            |        |          |          |          |            | form         |
| TS-000141 | open | form       | form    |       |            |        |          |          |          |            | form         |

**YES3 INSPECTOR TS-000067**

|   |                                |
|---|--------------------------------|
| Recruit                                 | Screen                         |
| Screening date                          | 04/08/2022                     |
| Screen Eligible                         | 1                              |
| Recruit                                 | Consent Form                   |
| Person providing consent                | Self (participant)             |
| Date of consent                         | 04/08/2022                     |
| Recruit                                 | Post Screen                    |
| ED discharge date                       | 04/08/2022                     |
| ED Disposition                          | Discharged                     |
| Baseline                                | Baseline Interview Call Log #1 |
| Interview contact attempt date and time | 04/08/2022 16:15               |
| Outcome of call                         | Unable to reach                |
| Baseline                                | Fail                           |
| FALL DOMAIN STATUS:                     | Yes                            |

1. Did you (the) call come to the ED today because of a fall? A fall is defined as an unexpected event in which a person comes to the ground, floor, or lower level.

Dashboard External Module

**DCareSite:Home TST**

**SITE ASSIGNMENT**  
Hello Peter! You are currently signed in as change and assigned to site TST. If you like you may change your site assignment to TST, the testing site. Use the drop-down menu below to change your site assignment.

TST

**Other Dashboards**  
Recruitment Dashboard  
Assessments Dashboard  
MOC Dashboard  
CRDC Dashboard

**STUDY DOCUMENTS**

Data Collection Forms

**Data Collection Forms**

Screening Form  
Baseline Patient Interview  
Baseline Caregiver  
Baseline Visit Check Off List  
Baseline Form Packet, V.1.0  
Baseline\_Self\_Admin PDF combined  
Caregiver Contact Information  
Caregiver Rating of Dementia Care Quality\_06.06.19\_V.1.0  
Caregiver Satisfaction with Dementia Care\_05-05-19\_V.1.0  
Caregiver Self-Efficacy\_V.1.0  
Follow Up Telephone Interview  
Follow up 12 Month Self-Admin PDF combined files  
Follow up 3 Month Self-Admin PDF combined files  
Follow up 6 Month Self-Admin PDF combined files  
Functional Assessment Questionnaire\_V.1.0  
Katz Index of Independence in Activities of Daily Living\_V.1.0  
MOC V.1.0  
MOC Instructions  
MOC Telephone  
Mortality Questionnaire  
NPI-CQ Severity & Distress\_V.1.0  
PHQ-9\_V.1.1.5  
Positive Aspects of Family Caregiving\_V.1.0  
QOL\_V.1.0  
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Verification of Eligibility

**STUDY PROGRESS** PCOB Progress Report NOW AVAILABLE! Progress Report Card

|                                  | TST                      | All Sites                  |
|----------------------------------|--------------------------|----------------------------|
| DCARE enrollment day number      | 1095 (112% of period)    | 1095 (112% of period)      |
| Enrollment progress              | 116 / 538 (21.6%)        | 2176 / 2150 (101.2%)       |
| PCP referrals                    | 582                      | 9770                       |
| First PCP referral               | 09-21-2018               | 01-24-2019                 |
| Most recent PCP referral         | 08-23-2021               | 04-21-2022                 |
| Recruitment letters mailed       | 249                      | 2444                       |
| First mailing                    | 09-07-2018               | 06-25-2019                 |
| Most recent mailing              | 10-10-2021               | 01-18-2022                 |
| Off-site persons recruited       | 39 (16% of mailed)       | 1 (0% of mailed)           |
| Pre-screen clinic visits         | 70                       | 540                        |
| First clinic visit               | 09-11-2018               | 03-02-2018                 |
| Most recent clinic visit         | 06-19-2019               | 01-19-2022                 |
| Total pre-screen contacts        | 366                      | 1672                       |
| Pre-screen optouts               | 91 (25% of prescreens)   | 134 (11% of prescreens)    |
| Pre-screen ineligible            | 1 (0% of prescreens)     | 1970 (11% of prescreens)   |
| Eligible for pre-baseline screen | 274 (75% of prescreens)  | 7689 (47% of prescreens)   |
| Telephone screens                | 52                       | 490                        |
| First telephone screen           | 07-22-2019               | 03-11-2019                 |
| Most recent telephone screen     | 09-20-2021               | 03-17-2022                 |
| Clinic screens                   | 189                      | 130                        |
| First clinic screen              | 03-04-2019               | 06-23-2019                 |
| Most recent clinic screen        | 10-18-2021               | 10-19-2020                 |
| Total screens                    | 247                      | 4320                       |
| Eligible for baseline            | 223 (90% of screens)     | 2947 (70% of screens)      |
| Consented to baseline            | 205 (83% of screens)     | 2824 (67% of screens)      |
| Baseline interviews attempted    | 135                      | 2437                       |
| First baseline interview         | 06-18-2019               | 06-28-2019                 |
| Most recent baseline interview   | 08-23-2021               | 01-31-2022                 |
| Consented to study participation | 124 (92% of attempted)   | 2176 (77% of attempted)    |
| Enrolled participants            | 116 (93% of interviewed) | 2176 (100% of interviewed) |

Web Portal External Module

# When should I use the YES3 Exporter?

| Project / Function  | REDCap Export | YES3 Exporter |
|---|---------------|---------------|
| Classic Project   | ✓             | ✓             |
| Longitudinal Project –<br>Vertical export format                            | ✓             | ✓             |
| Longitudinal Project –<br>Horizontal export format                          |               | ✓             |
| Single repeating form   | ✓             | ✓             |
| Multiple repeating forms  | ✓             |               |
| Custom data dictionary with data<br>distributions (Classic or longitudinal) |               | ✓             |
| Filter, sort, delete exports  | ✓             |               |