

Gylling Data Management, Inc.

Providing Research Software Solutions Since 1982!

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Staying Current Newsletter Tips to keep in the Top Quartile

Inaugural Newsletter

Thank you for taking the time to read through our inaugural newsletter. We will send newsletters every quarter with current topics and tips.

Your feedback is important to us. We will cover several different subjects in the next few newsletters, and would appreciate your ideas on subjects that you would like to read about.

Please contact us at GDM.ARM.Support@gdmdata.com with questions and suggestions.



Other topics in this newsletter:

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ARM 2015 release

ARM 2015 has been released. Use 'Check for updates' to upgrade if you have already purchased an ARM 2015 license.

Please visit our website for the latest information on updates made to ARM 2015 [here](#). Check back often for more updates.

Upgrade now

If you have not yet upgraded to ARM 2015, please review the information below about new features and benefits of ARM 2015. Upgrading ARM version 9 costs substantially less in 2015 than it will in 2016.

- Use the ["Write To Us"](#) link to request a current price list.

- [Frequently Asked Questions](#) (FAQs) about ARM 2015 can be viewed on our website.
- The [ARM 2015 Overview](#) explains many of the new features in ARM 2015.
- The [Feature Comparison](#) chart illustrates the differences between the new ARM 2015 and older versions.

ARM8 End of Support

ARM8 support has ended. View our currently supported software versions and products policy [here](#).

Protocol Basics for 2015 field season

When writing a protocol for someone else who will conduct the trial, the protocols needs to include more than just the treatment list. Both the **Sponsor** and the **Contractor** have important jobs. An extra hour spent on the protocol saves an estimated 10 hours at the end of the season collating data.

To help ensure desired results, a **Sponsor** should provide details for the **Contractor** to appropriately conduct and document the trial:

- Clear objectives
- Appropriate experimental design
- Description of Applications
- Key information describing the crops and/or pests
- Application details to collect
- Assessment Header information
 - Rating timings
 - Plant part rated for pest or crop
 - Rating type/unit
 - Sample size/unit
 - Number of subsamples
 - Other...

Sponsors can achieve this by utilizing the following features in ARM:

Power and Efficiency Planner assists with planning experiments.

- Help plan experiments that successfully detect expected treatment differences
- Calculates “power” based on:
 - Estimated CV of key assessments
 - Number of replicates
 - Power = level of certainty to detect “real” treatment effects
 - Observed Significance Level
 - % Mean Diff = estimated treatment effect

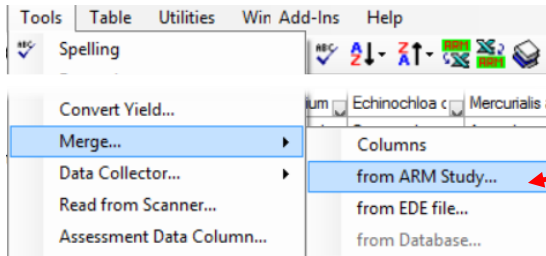
The screenshot shows the 'Protocol Settings' window with the 'Power and Efficiency' section highlighted. The input fields are: CV 10.0, Reps 4, Power 80, OSL 5%, and % Mean Diff 10.0. Below these fields is a table showing the results of the power calculation for different numbers of replicates.

CV	Reps	Power	OSL	% Mean Diff	Error DF	'Plot' EUs
3.83	3				8	15
4.63	4				12	20
5.3	5				16	25
5.9	6				20	30
6	7				24	35

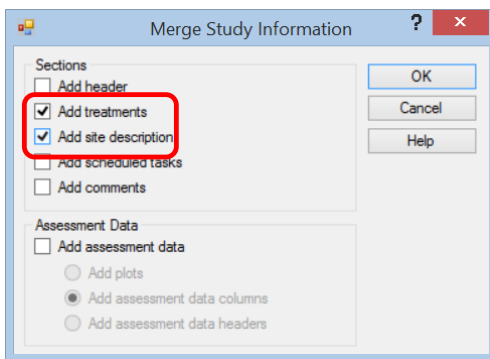
Is the protocol that you are writing similar to one from last year? If so, then use the **Merge** feature in ARM to decrease copy/paste errors.

Example 1: A protocol writer wants to use the same treatments and protocol description in a protocol from last year.

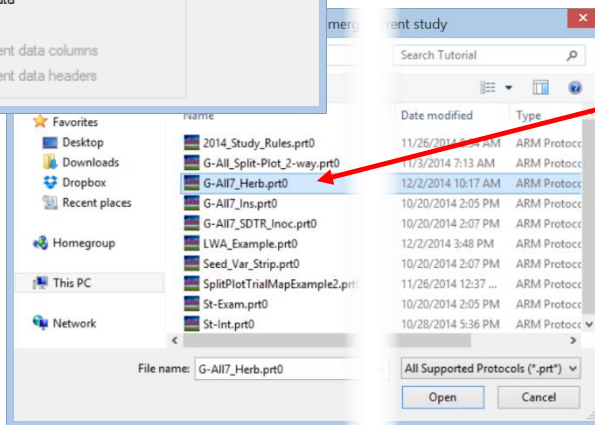
Steps:



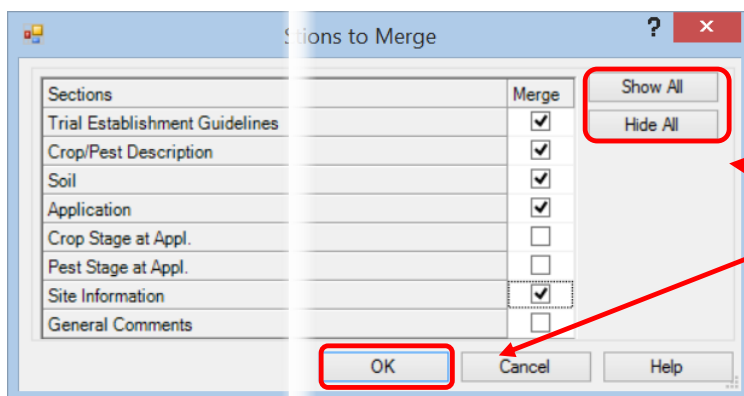
1. Create a new protocol
2. Select Tools - Merge - From ARM study...



3. Check sections to merge from existing protocol (in this example we only want Treatments and Protocol Description).
4. Click OK



5. Select the protocol to merge information from
6. Click 'Open'



7. Select sections from Protocol Description to **merge**.
 - Select individual sections
 - OR
 - 'Show All' to select all sections
 - OR
 - 'Hide all' to remove selection
8. Click 'OK'
9. New protocol now contains treatments and site description

Note: look over treatment list carefully and edit accordingly.

Use **Standard Evaluation (SE)** files in Assessment Data Header (this is an alternative to **Merge** in previous example).

- Keeps Assessment Data Headers consistent across trials created from same protocol
- Pre-fill key fields in Assessment Data Header
 - Pest/Crop
 - Plant part rated
 - Rating timing
 - Rating type/unit
 - Sample size/unit
 - Number of Subsamples
 - Transformations

Column Number	1	2	3	4	5	6	7	8	9	10
Crop Code	SEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr	Zea mays indr
Crop Name	Dent com	Dent com	Dent com	Dent com	Dent com	Dent com	Dent com	Dent com	Dent com	Dent com
Part Rated	PLANT	PLANT	PLANT	PLANT	PLANT	PLANT	PLANT	PLANT	PLANT	PLANT
Rating Date										
Rating Time										
Rating Type	COUPLA	GERMIN	VIGOR	COUPLA	GERMIN	VIGOR	LODGIN	YIELD	MOICON	YIELD
Rating Unit	NUMBER	%	1-9	NUMBER	%	1-9	%	lb/plot	%	bu/ac
Sample Size, Unit										
Collection Basis, Unit										
Number of Subsamples	1	1	1	1	1	1	1	1	1	1
Assessed By										
SE Name	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_	G-All_SDTR_
Rating Timing	A1	A1	A1	A2	A2	A2	A3	A3	A3	A3
ARM Action Codes		P	BB		P	B	P		P	

Use **Schedule Tasks** editor to:

- Indicate planting dates
- Application timings
- Rating timings
- Assign a task length

Schedule Tasks

Type: Treatment application - for Appl Code: Assessment - for Rating Timing: Other:

Description:

Assigned to:

Duration Length: 1.00 Hours per day

Timing: Date: Nov/14/2014 Completed Multiple days

Interval: Days

Application Date:

Timing deviation allowed: +

Completed	Type	Description	Timing	Planned	Co
<input type="checkbox"/>	Treatment application - for A	Apply Early Post Treatment	May/01/2014	7 May/01/2014	7
<input type="checkbox"/>	Treatment application - for B	Apply 3-LF Treatments	5 Days After A	7 May/06/2014	7
<input type="checkbox"/>	Assessment - for A1	Assess 7 Days After EAPOCR	7 Days After A	3 May/08/2014	3
<input type="checkbox"/>	Assessment - for A3	Assess 7 Days After 3-LF	7 Days After B	3 May/13/2014	3
<input type="checkbox"/>	Assessment - for A2	Assess 14 Day After EAPOCR	14 Days After A	3 May/15/2014	3
<input type="checkbox"/>	Assessment - for A4	Assess 14 Days After 3-LF	14 Days After B	3 May/20/2014	3
<input type="checkbox"/>	Assessment - for A5	Assess 28 Day After EAPOCR	28 Days After A	3 May/29/2014	3
<input type="checkbox"/>	Assessment - for A6	Assess 28 Days After 3-LF	28 Days After B	3 Jun/03/2014	3
<input type="checkbox"/>	Other - Maintenance Treatment	Side Dress N Fertilizer	Jul/15/2014	14 Jul/15/2014	14
<input type="checkbox"/>	Other - Harvest Date	Pre-Harvest Assessment	Oct/01/2014	14 Oct/01/2014	14

Use Study Rules

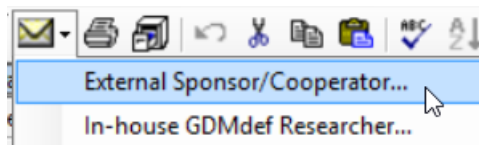
- Identify important data entry fields that should be completed by **Contractor**
- Define additional requirements for trials conducted from the protocol
- Can be saved into rule sets for easy portability of rules between protocols.

Rule	Rule ID	Editor	Field	Condition	Columns	Permissions	Owner ID
1	Required	Site Description	General Trial - Latitude of LL Corner *	established		Everyone in my company	GYSTRE
2	Required	Site Description	General Trial - Longitude of LL Corner *	establish			GYSTRE
3	Recommended	Site Description	Soil - Soil Texture	setup			GYSTRE
4	Required	Assessment Data	Rating Type	Lock field			GYSTRE
5	Required	Site Description	Soil - Soil Texture	establish			GYSTRE

Latitude of LL Corner °:	<input type="text"/>	<input type="text"/>
Longitude of LL Corner °:	<input type="text"/>	<input type="text"/>
Altitude of LL Corner, Unit:	<input type="text"/>	<input type="text"/>
Angle y-axis to North °:	<input type="text"/>	

The use of Power and Efficiency Planner, Merge, SE files, Schedule Tasks, and Study Rules by the **Sponsor** can all help to make a complete protocol. Then the **Contractor** can execute that protocol correctly.

Sponsor: Use **Send To – External Sponsor/Cooperator...** to send protocol to **Contractor**



- Ensures that the protocol is valid.
- Creates an email to send **Contractor** with files attached.
- **Contractor** saves all files to their computer.

Send To ? x

External Sponsor/Cooperator

Sending a protocol

Files to attach:

Attachments

EDP

Reports as RTF

Report set:

Mail subject:

Zip file options

Zip attachments

Save folder information

Encrypt and password protect files

Password:

Verify Password:

Destination

MAPI Mail

Login name:

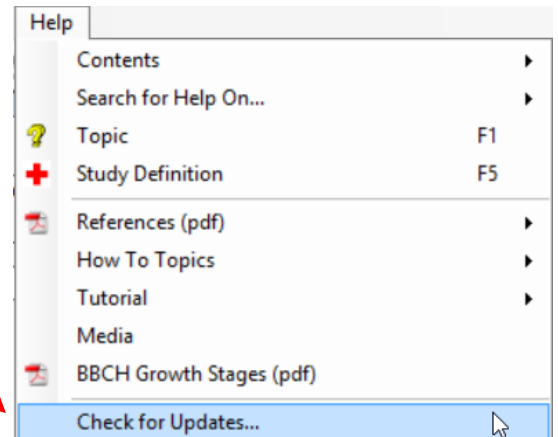
Login password:

Web-based Mail

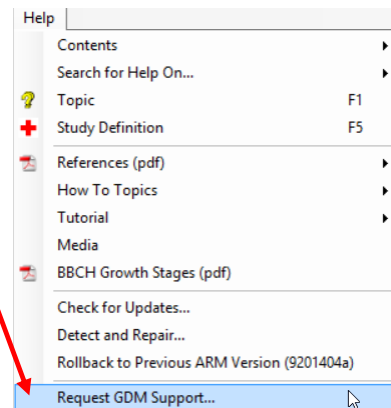
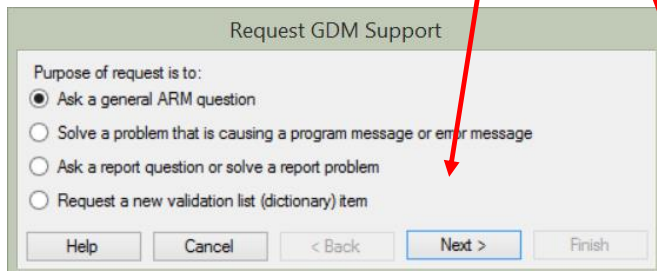
File

Did you know?

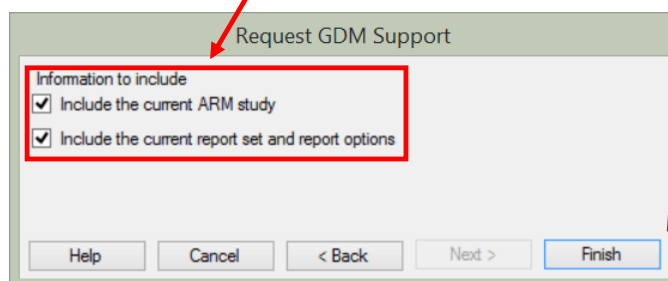
- Click Help – Check for Updates often to make sure ARM is the most recent version.



- Questions – click Help – Request GDM Support
 - Select a purpose, then click Next



- Check to include current ARM study and report set options, then click Finish



- ARM will prepare an email with zip file attached.
- Write an informative sentence or two about the issue you are having, what you expected to see, what you see and the steps you used to create.
- Send the email.
- Our support staff will get back to you with follow-up questions if necessary to answer your issue.