

What's New in ARM?

Features & improvements in ARM during 2023

GDM Solutions, Inc.

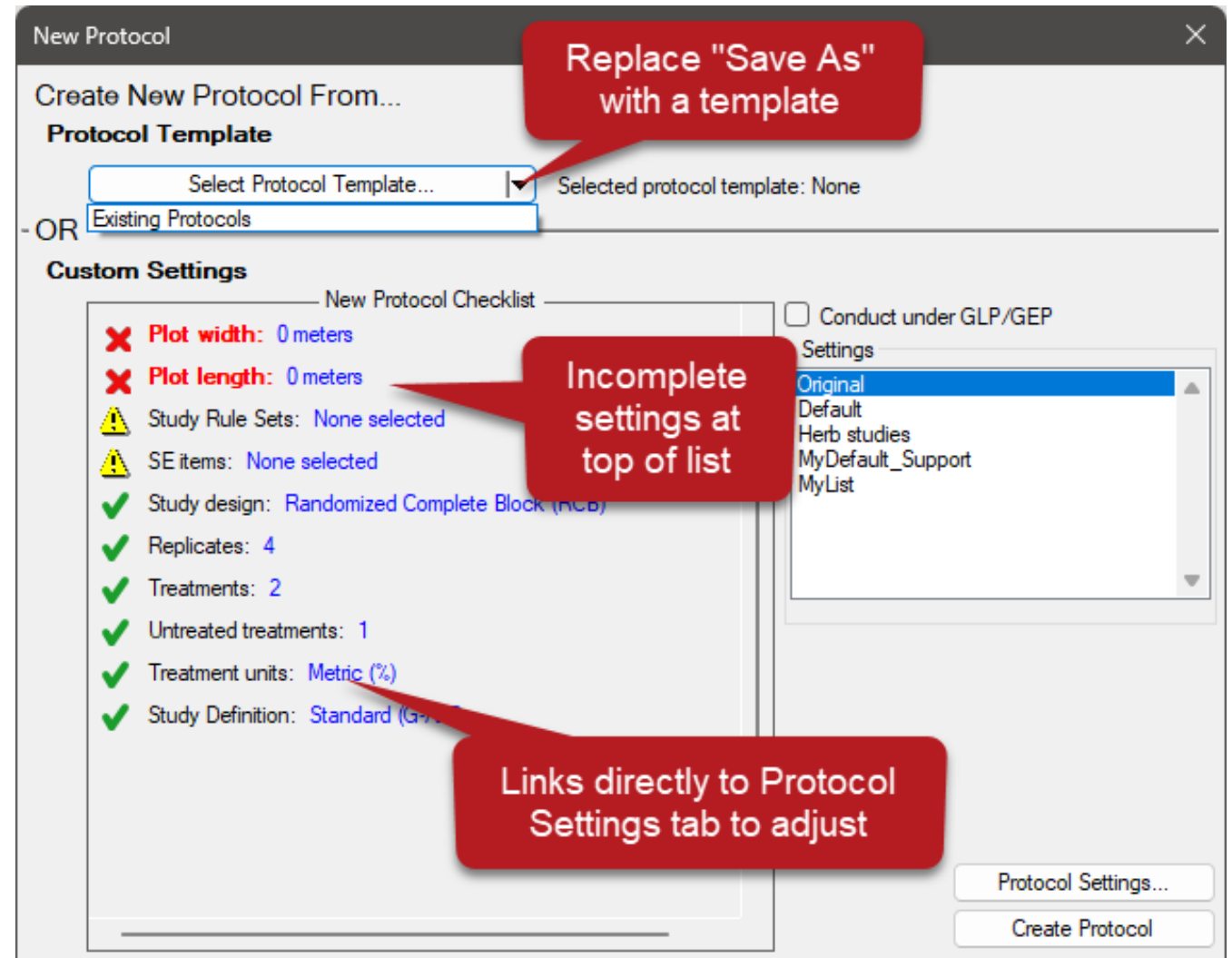
Presented by: Matt Elsinger

New Protocol Wizard

Streamlined process for creating new protocols

Protocol Template: copy sections from existing protocol

New Protocol Checklist: interactive overview of Settings



Updated Assessment View

- Re-organized header fields into logical groups
- Added ability to collapse and expand groups

Column Number	1	
Rating Date	10-Jun-21	
[-] Standard Evaluation (SE)		
[-] SE Description	Count rating for Colby Interaction	
[-] Part Rated	PLANT	P
[-] Rating Type		
[-] Rating Unit/Min/Max		
[-] Sample Size	1	PLOT
[-] Number of Subsamples	1	
[+] Crop	TRZAS	
[+] Pest	1KCHG	
[-] Timing		
[-] Days After First/Last Applic.	9	9
[-] Trit-Eval Interval	9 DA-A	
[-] Plant-Eval Interval		
[+] Miscellaneous		

Primary info still shows when collapsed



Column Number	1	
Rating Date	10-Jun-21	
[-] Standard Evaluation (SE)		
[-] SE Description	Count rating for Colby Interaction	
[-] Part Rated	PLANT	P
[-] Rating Type	COUNT	
[-] Rating Unit/Min/Max	NUMBER	
[-] Sample Size	1	PLOT
[-] Number of Subsamples	1	
[-] Crop		
[-] Crop Type, Code	C	TRZAS
[-] BBCH Scale	BCER	
[-] Crop Scientific Name	Triticum aestivum	
[-] Crop Name	Spring wheat	
[-] Crop Variety		
[-] Crop Stage Scale		
[-] Crop Stage Majority/Min/Max		
[-] Pest		
[-] Pest Type	W	Weed
[-] Pest Code	1KCHG	
[-] Pest Scientific Name	Kochia	
[-] Pest Name	Kochia	
[-] Pest Density		
[-] Pest Density Min/Max		
[-] Timing		
[-] Days After First/Last Applic.	9	9
[-] Trit-Eval Interval	9 DA-A	
[-] Plant-Eval Interval		
[-] Miscellaneous		
[-] Description		
[-] ARM Action Codes		
[-] Number of Decimals		

Planned Comparisons (Contrasts)

Define comparisons of specific treatments for a custom analysis

The screenshot shows the 'Trial Settings' dialog box with the 'Statistics' tab selected. A red callout '1' points to the 'Statistics' tab. Below it is a table of 'Planned Comparisons' with three rows. A red callout '2' points to the 'Comparison' column of the third row. Below the table is a 'Treatment Comparison' dialog box with a red callout '3' pointing to the 'Averaged' radio button. The 'Averaged' dialog shows 'Ho: Trt: 1 = Trt: 2,3,4'.

Comparison	Description
1 3 == 30	3 == 30 (Constant)
2 4 = 5	Ho: M4 - M5
3 1 = 2,3,4	2+M3+M4_mn

Select a treatment comparison type, then define the hypothesis test:

Constant Ho: Trt: = Const: +

Paired Ho: Trt: = Trt: +

Averaged Ho: Trt: = Trt: +

Pairwise Ho: Trt: +

Averaged - compare multiple trt e.g. Trt 1 = Trt 2,3,4

OK Cancel Help

Common uses:

- Compare a treatment to 2+ checks or reference trt
- Avoid excluding data
- Multi-factor designs (e.g. Low vs. Med vs. High)

Planned Comparisons (Contrasts)

Analysis performed on AOV report. For each planned comparison:

- Contrast value and test statistic
- P-value of comparison hypothesis

If significant (< 0.05), reject H_0 and conclude there is a difference between compared treatments

For more examples and statistical details:

gdmdata.com/media/documents/UserContrasts.pdf

Character Rated Rating Type	Cadence	Speed SPEED	Stride Leng LENGTH
Rating Unit/Min/Max		m/s, -, -	m, -, -
Number of Subsamples	14	14	
Trt No.	Treatment Name	*	*
1	Fast 2	89.55 -	3.36 -
6	Zoom Elite	90.03 -	3.36 -
Planned Comparisons			
Traditional vs Fulcrum			
Estimate	-0.151	0.032	0.026
t Value	-0.578	1.072	1.632
Pr > t	0.569	0.297	0.118
Traditional vs Newton			
Estimate	0.136	0.005	0.000
t Value	0.424	0.148	-0.003
Pr > t	0.676	0.884	0.998
Excluding Zoom Elite			
Mean square	0.698	0.004	0.002
F value	1.706	0.735	1.372
Pr > F	0.175	0.575	0.267

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Number of Subsamples	1	1					
⊕ Crop	CIDSI	CIDSI					
⊕ Pest		AONDAU					
⊖ Miscellaneous							
Data Reliability							
ARM Action Codes							
Number of Decimals	1	1					
<i>Sub</i>	<i>Rep</i>	<i>Blk</i>	<i>Col</i>	<i>Plot ^</i>	<i>Trt</i>	1	2
1	1	1	1	101	2	0	108.0
1	1	1	2	102	1	0.0	165.0
1	1	1	3	103	3	0.0	70.0
1	1	1	4	104	4	0.0	55.0
1	1	1	5	105	5	0.0	12.0

<i>Plot ^</i>	<i>Trt</i>	1
101	3	100
102	1	100
103	4	50
104	2	100
105	5	100

Animal damage to plot

Trial Location

Insert row with Shift+F7, Delete current row with Shift+F8

Protocol Author

Country	State	Region	Trial Year	Trial ID	Responsible	GDM ID	Company ID	Company Name	Investigator	Number of Trials
				CreateTrial	Name		12	Comp1		1
				EditTrialMap	Trialist2		345	2Cmpy		2
				MakeAnApplication	Trialist3		32	C3		1
				RecordSiteInfo	Trialist4		1357	Fourth		1
				EnterData	Trialist5		12	Comp1		1