



# Putting Data into Action

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# Objectives

- Explore the Model for Improvement
- Develop a goal statement
- Discuss outcome, process, and balancing measures
- Discuss the Plan-Do-Study-Act (PDSA) cycle.



# Three Fundamental Questions From the Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Langley, et al. 2009. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance.*

# Setting the Stage... Developing SMART Goals

**S**pecific  
**M**easurable  
**A**ttainable  
**R**elevant  
**T**ime- bound



# A Balanced Set of Measures Shows if You are Improving?



# Outcome Measures...Where are We Ultimately Trying to Go?

1

- Outcome measures tell you whether changes you are making are actually leading to improvement.

2

- These are the measures you ultimately want to move.

3

- They tell you how the system is performing—what is the ultimate result?

# Process Measures.. Are we Doing the Right Things to get There?

1

- To affect the outcome measure, you have to improve your processes.

2

- Measuring the results of these process changes will tell you if they're leading to improvement.

3

- Are the parts/steps in the system performing as planned?

# Balancing Measures...

Are the changes we are making to one part of the system causing problems in other parts of the system?

Process Changes

Monitor the impact on other measures

Removing Physical Restraint

Removing Physical Restraint

Increase prevalence of falls

Increased incidence of new fractures

Satisfaction surveys report residents are happier





# Dissecting Your Data to Get to the Root Cause



Date	# Residents with new PU		Monthly Census	% of Residents with Pressure Ulcers		# of Newly acquired PU by Stage						
	Admitted	Acquired		Admitted	Acquired	# stage I	# stage II	# stage III	# stage IV	# unstageable	# sDTI	Total # PU
Jan-12	2	4	248	0.81%	1.61%	0	4	0	0	0	0	4
Feb-12	3	6	245	1.22%	2.45%	1	5	0	0	0	0	6
Mar-12	2	4	243	0.82%	1.65%	0	3	1	0	0	0	4
Apr-12	2	2	245	0.82%	0.82%	1	3	0	0	0	1	5
May-12	2	6	245	0.82%	2.45%	0	6	1	0	0	1	8
Jun-12	4	5	246	1.63%	2.03%	0	4	1	0	0	0	5
Jul-12	5	8	245	2.04%	3.26%	2	5	0	0	1	0	8
Aug-12	4	4	243	1.65%	1.65%	0	3	0	0	0	1	4
Sep-12	5	5	245	2.04%	2.04%	1	4	0	0	0	0	5
Oct-12	4	4	243	1.65%	1.65%	0	5	0	0	0	0	5
Nov-12	3	4	246	1.22%	1.63%	1	3	0	0	0	0	4
Dec-12	4	5	248	1.61%	2.02%	0	3	2	0	0	0	5
Jan-13	2	4	245	0.82%	1.63%	0	3	1	0	0	0	4
Feb-13	1	6	243	0.41%	2.47%	0	4	2	0	0	0	6
Mar-13												

# Example Measure for: Falls

## Outcome Measure

- **Percent of residents who experience a fall.**

## Process Measure

- **100% of residents will receive a fall risk screening upon admission.**

## Balancing Measure

- **Resident satisfaction surveys that report increased sense of caring of staff due to individual needs being addressed proactively.**



# Example Measure for Reducing Inappropriate Use of Antipsychotic Medications

## Outcome Measure

- Percent of psychoactive medication use in the absence of a psychotic or related condition.

## Process Measure

- 100% residents prescribed antipsychotic medication will have prescribed dose assessed monthly for gradual dose reduction.

## Balancing Measure

- Documented increase in disruptive behavior issues.
- Increase in prescription of sedatives or hypnotics.

# Example Measure for: Reduction of Pressure Ulcers

## Outcome Measure

- **Number of days between new nosocomial stage II –IV pressure ulcers.**

## Process Measure

- **Percent of newly admitted residents that have a pressure ulcer risk assessment within one calendar day of admission.**

## Balancing Measure

- **Percent of staff who are satisfied or highly satisfied working in facility striving to reduce pressure ulcers.**



## Changes That Will Lead to Improvement?

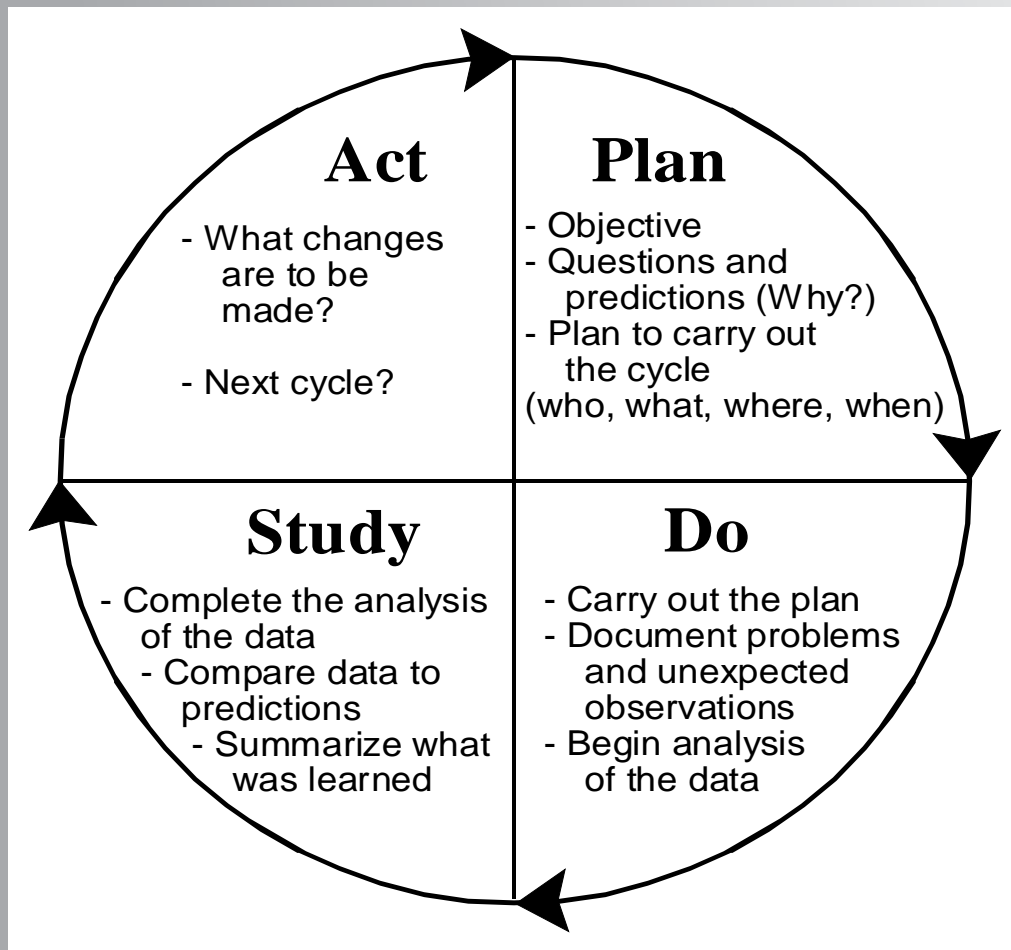
- Seek input from staff about what might improve the process
- Attributes of a good system
  - Finding the right level of specificity
  - Move from concept to actionable idea
  - Customize based on the topic



## The Benefits of Testing the Changes?

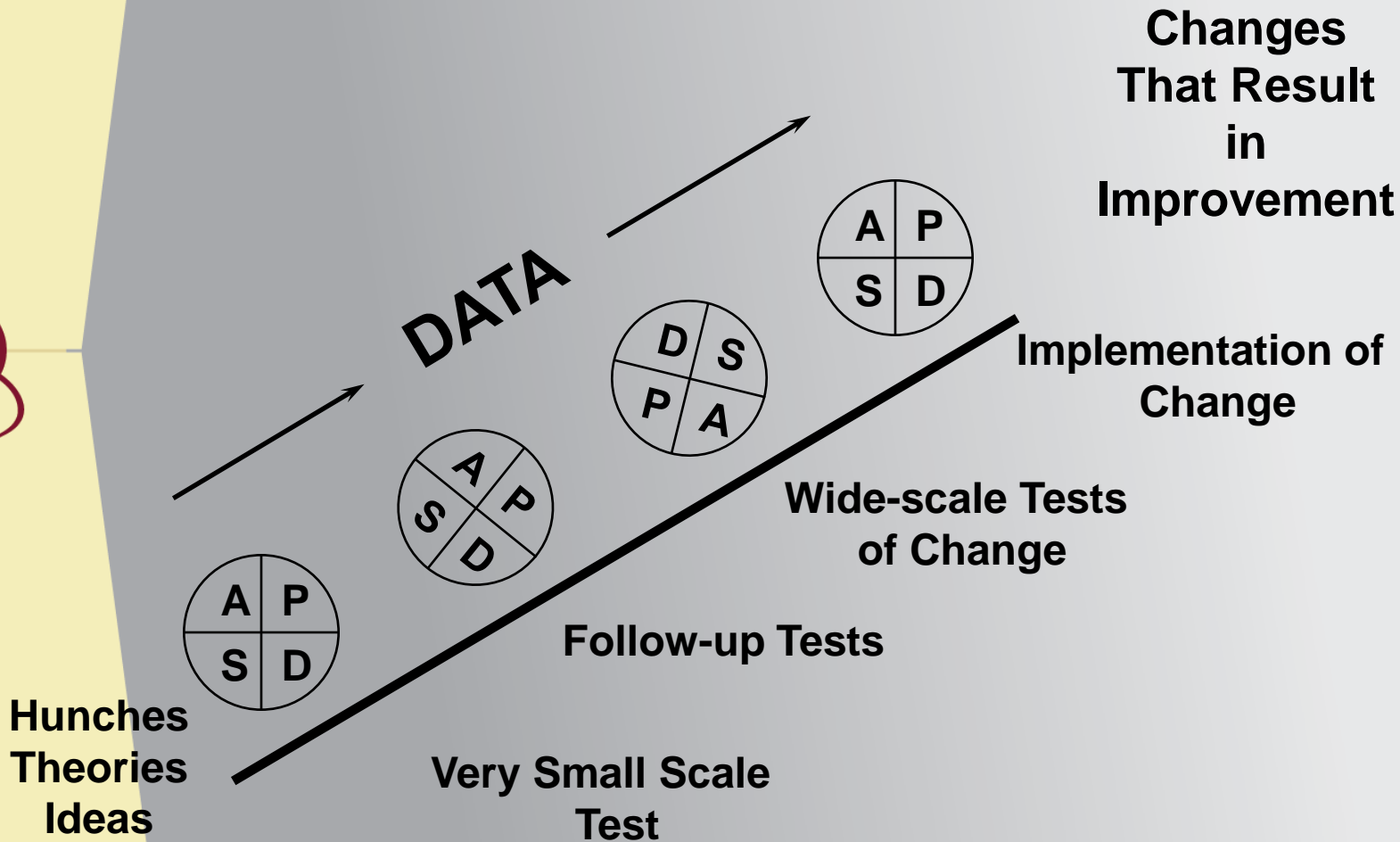
- Increase your belief that the change will result in improvement
- Document how much improvement can be expected from the change
- Learn how to adapt the change to conditions in the local environment
- Evaluate costs, side-effects of the change
- Minimize resistance upon implementation

# The PDSA Cycle for Learning and Improvement





# Repeated Use of the Cycle

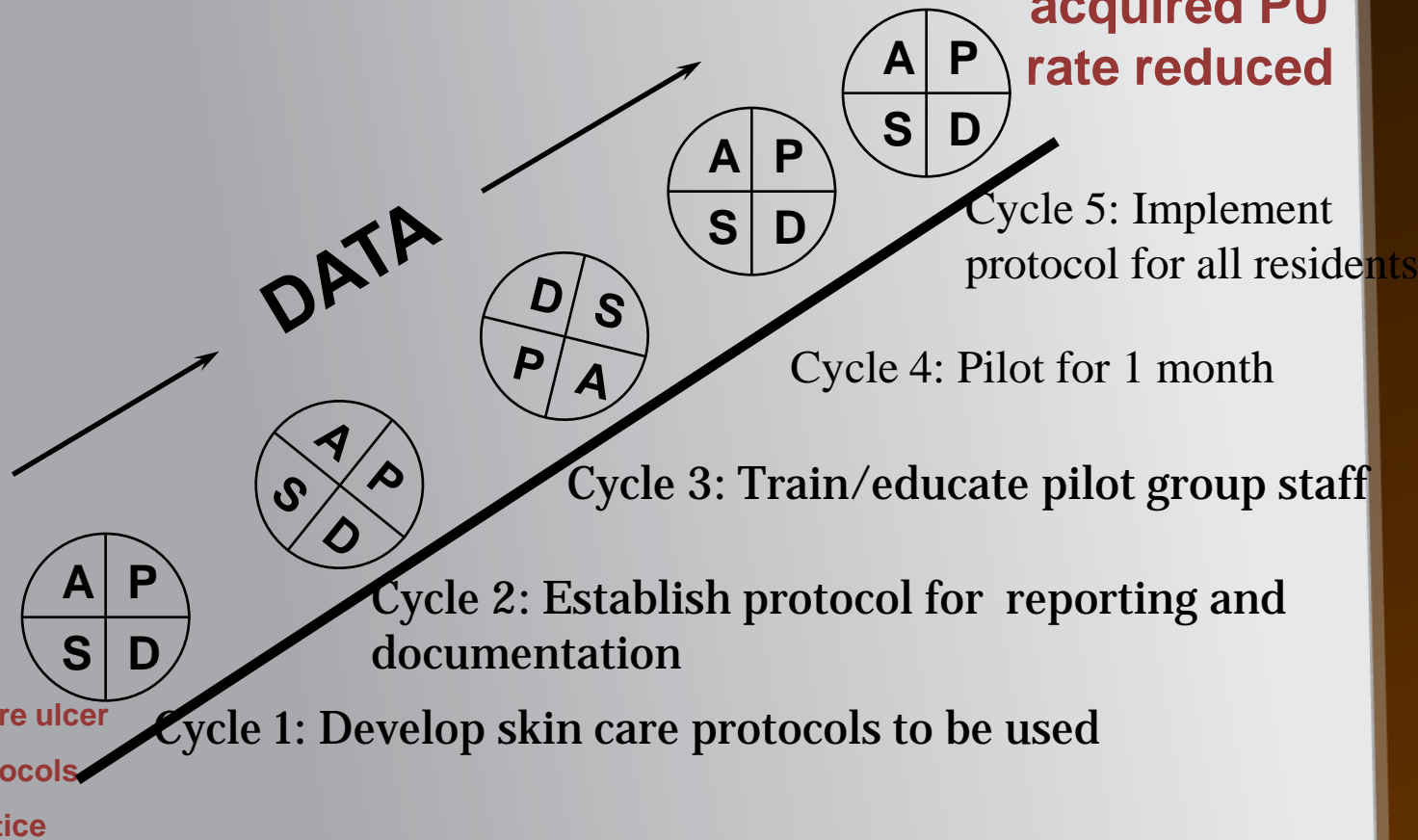




# Goal:

Reduce the number of residents developing in-house acquired pressure ulcers by 20% in 3 months.

**In-house acquired PU rate reduced**



# Keys to Successful Cycles to Test Changes



**Plan multiple cycles for testing a change**

- Think a couple of cycles ahead



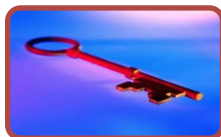
**Scale down size of test (# of patients, sites)**



**Do not try to get consensus or ownership at this time**

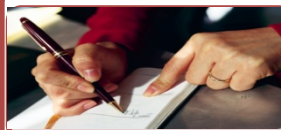


**Collect useful data during each test**

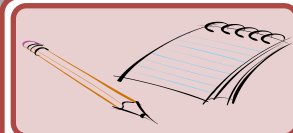


**Test over a wide range of conditions**

# Keys to Successful Data Collection During PDSA Cycles



Collect useful, not perfect data. The purpose is learning, not evaluation



Use a pencil and paper until the information system is ready



Use sampling as part of the plan to collect the data

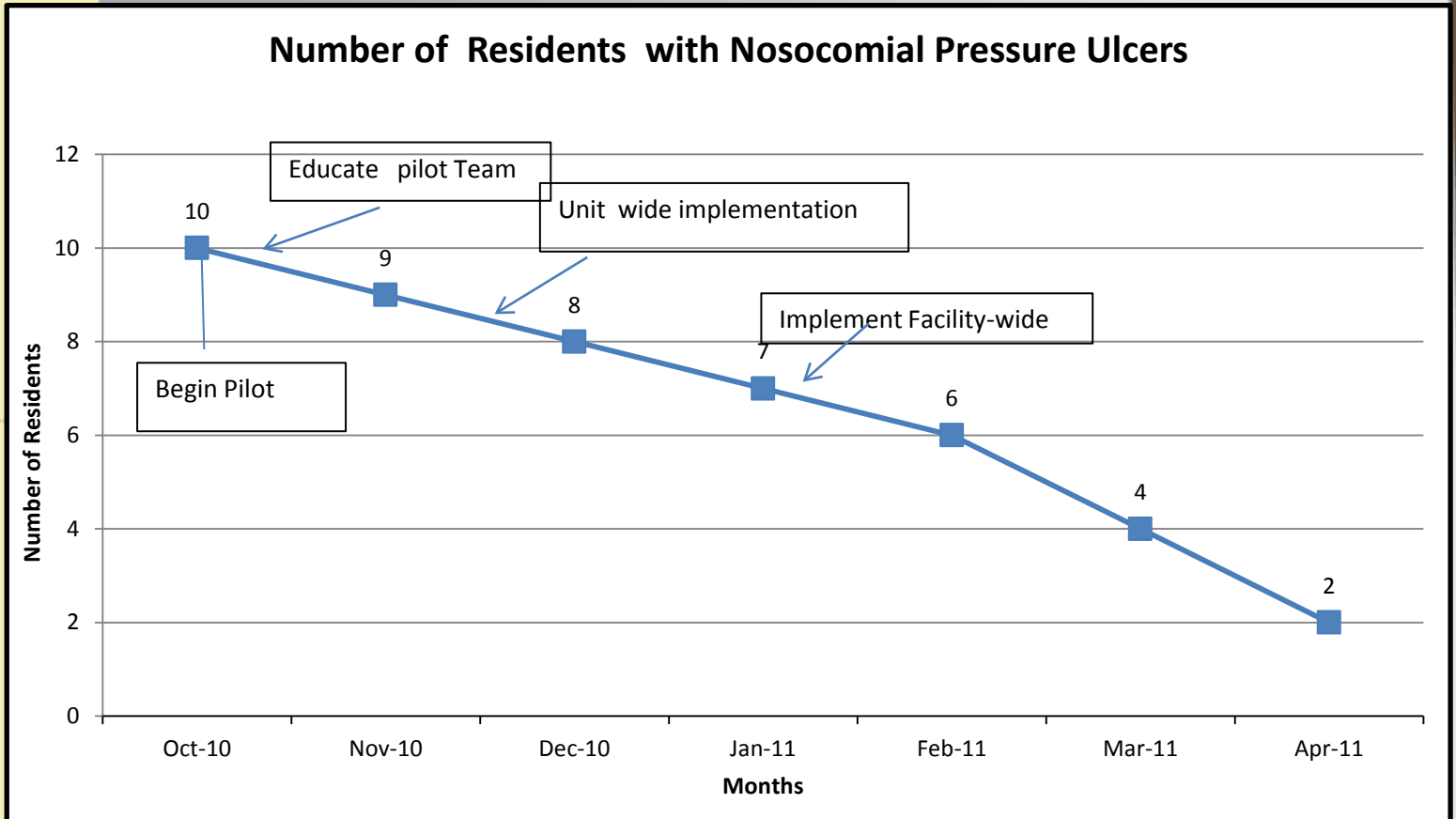


Use qualitative data rather than wait for quantitative

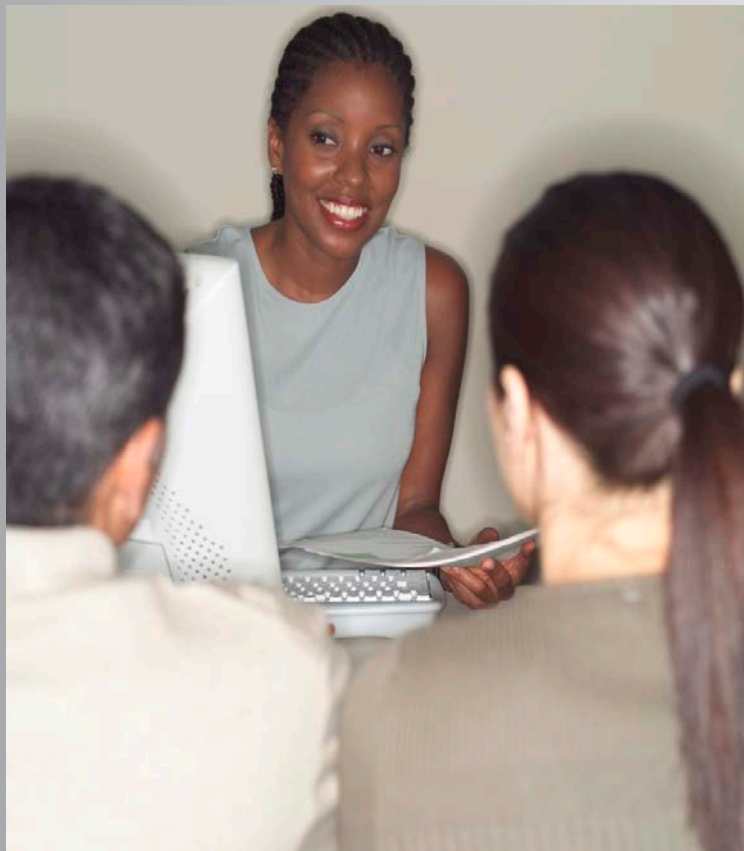


Record what went wrong during the data collection

# Use Your Graphs to Tell Your QI Story



# Get Set...Ready...Go



# Implementation of Change Requires...

- A plan for “roll out” of the successful change
- Identifying where implementation will take place within the Unit/Hall/Floor, Department or Service, or Facility-wide
- Engagement of management structures to make the change a permanent change in the system (ex: policies, procedures, job descriptions, strategic and health care plans).
- The change must be "turnover proof”





# Homework

- Talk with your team look at the topic(s) you have selected.
- Examine your goal statement...does it follow the SMART rules.
- Submit copy of your goal statement to

Keaonia Shaw at:

[shawk@dfmc.org](mailto:shawk@dfmc.org) OR fax to: 443-285-0968

Your goals will be discussed on your next monthly team call with Keaonia, Pam or Jackie.





# QUESTIONS??

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