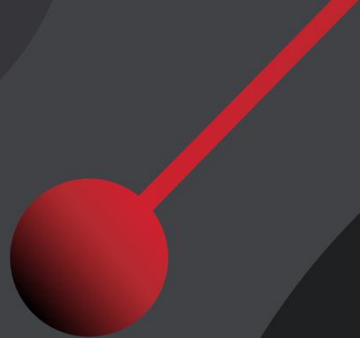




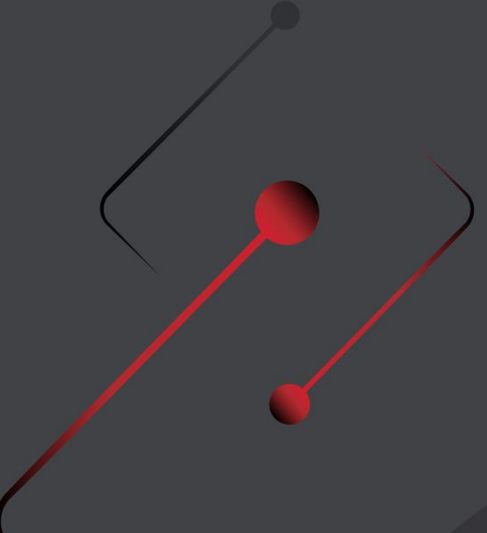
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 RED OAK PRESENTS

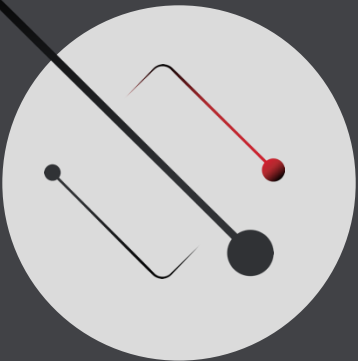
The background is a dark grey gradient. In the top left, there is a white circle containing a red sphere and a black line with a dot. In the top right, there are several red and black geometric shapes, including lines and spheres. A large red circle is partially visible on the far right edge. At the bottom, a large dark grey arc frames the text.

Writing Rules — Basic

Red Oak Implementations Team

Michael Davis, Ryan Reynolds

ACCELERATE 2026

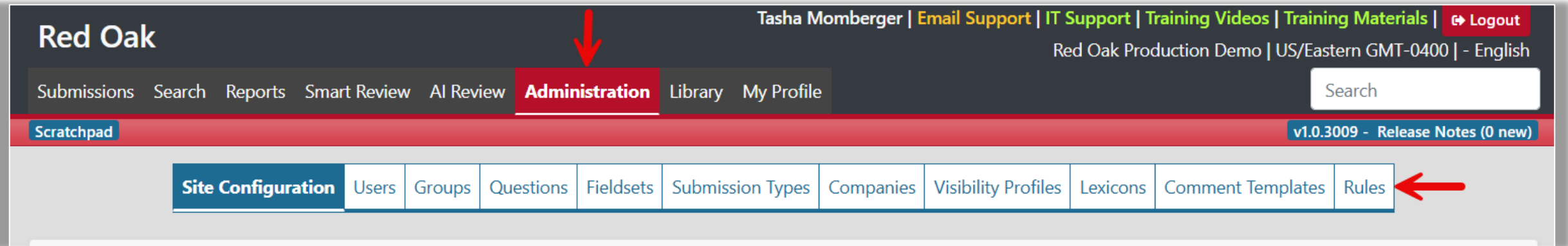


Agenda

- What are rules and how are they used?
- Steps for writing a rule
- Help button
- Rule formatting
- Demo & Exercises

What are rules and how are they used?

- Rules are a feature in Red Oak that allows for unique scenarios in the workflow that are not possible with Yes/No Behavior Settings
 - Rules are written in simple JavaScript format
 - There are several Rule Types available in the system
- Rules sub-tab can be found under the Administration tab



The screenshot shows the Red Oak user interface. At the top left, the logo "Red Oak" is displayed. To the right, the user's name "Tasha Momberger" is shown along with links for "Email Support", "IT Support", "Training Videos", and "Training Materials", and a "Logout" button. Below this, the current session information "Red Oak Production Demo | US/Eastern GMT-0400 | - English" is visible. The main navigation bar includes "Submissions", "Search", "Reports", "Smart Review", "AI Review", "Administration" (highlighted with a red arrow), "Library", and "My Profile". A search box is located on the right side of this bar. Below the navigation bar, there is a "Scratchpad" button on the left and a "v1.0.3009 - Release Notes (0 new)" button on the right. The bottom navigation bar contains several sub-tabs: "Site Configuration", "Users", "Groups", "Questions", "Fieldsets", "Submission Types", "Companies", "Visibility Profiles", "Lexicons", "Comment Templates", and "Rules" (highlighted with a red arrow).

What are rules and how are they used?

How are rules used?

- Display an Error or Warning Message within a submission
- Capture a specific status change date
- Route the workflow differently depending on certain answers
- Generate different Expiration Dates based on materials
- Display certain set of questions based on answers to previous questions

Rule Types

Red Oak currently has 13 different rule types



What are the steps for writing a rule?

1. Collecting data to write the rule

- Submission Type tab: Statuses
- Questions tab: External IDs and Answers

2. Creating a rule

- Click "Create New" to write the rule

3. Configure/Attach the rule

- Based on the rule, where should it be configured/attached?
 - Submission Type, Activity, Transition, Fieldset levels

1. Collecting Data to Write the Rule

Collecting data to write the rule

- Submission Type tab: Statuses
- Questions tab: External IDs and Answers

Administration
Questions

Entries Per Page: 50 << Prev Next >> Displaying 1 to 45 of 45 entries filtered from 55 total entries

Question Text	Input Type	External Identifier
Name of Person or Group providing the performance information	TEXTFIELD	WhoProvidingPerInfo
Will/may these materials be presented by a US Marketer?	RADIO	USMarketer
Was this material provided in response to an unsolicited request?	RADIO	UnsolReq
Type of Material	CHECKBOX	TypeOfMaterial
Type of Approval you are requesting	RADIO	TypeOfApproval
Submitter Group	DROPDOWN	SubmitterGroup
Which social media sites is this being posted to?	CHECKBOX	SocialMediaSites
Rush	RADIO	Rush
Has this product been reviewed by the Product Strategy Committee?	RADIO	ReviewedByCommittee

Red Oak
Administration

Team B Marketing Material

Activity Transitions From Create/Update Submission

NOTE: Drag and drop rows up/down to reorder how they appear to users on submission activity screens.

Transition Link Text	Resulting Status	Target Activity
Submit to Compliance	Pending Compliance	Compliance Review
Send to Proofreading	Pending Proofreading Review	Proof-Reading
Withdraw	Withdrawn	End

Navigating to the Rules Tab

Rules tab

- Last sub-tab listed under the Administration tab

Administration

Rules Create New View Audit Log Export Rules 111 Active 9 Inactive

Entries Per Page: 50 << Prev Next >> Displaying 1 to 50 of 111 entries filtered from 120 total entries Filter: [] [X] [A] [T]

Name	Type	Description	Active?	Action
ACP Corrective Actions	FORM_DISPLAY	Displays Corrective Action Questions	Yes	View Usage
Activity Warning - Must Select Upload Final Transition to Complete	ACTIVITY_OR_TRANSITION_WARNING	Reminds user to select transition to complete submission	Yes	View Usage
Assign Client Visits to Rita Review	ACTIVITY_ASSIGNMENT	If the "Is this for a client visit" question is answered "yes", assign the submission to Rita Review.	Yes	View Usage
Assign Verifiers	ACTIVITY_OR_TRANSITION_WARNING	Must assign Legal Verifier before Transition	Yes	View Usage
BR Demo - Auto Approve	TRANSITION_DISPLAY	If the TMdemo_updateReason has any of the answers: Numbers update or Proofreading change, then show Auto approve transition.	Yes	View Usage

2. Creating a Rule

Rule fields

- The Rule Type help bubble provides a description of each rule type

Create New Rule Definition Help

General Rule Definition Information

Active Inactive

Add Rule Definition Cancel

* Rule Type: ?
Activity Or Transition Warning

* Name:
Test Rule

* Description:
This is an example of a rule.

Message:
This is the message that will be displayed to end users.

Rule Definition Script

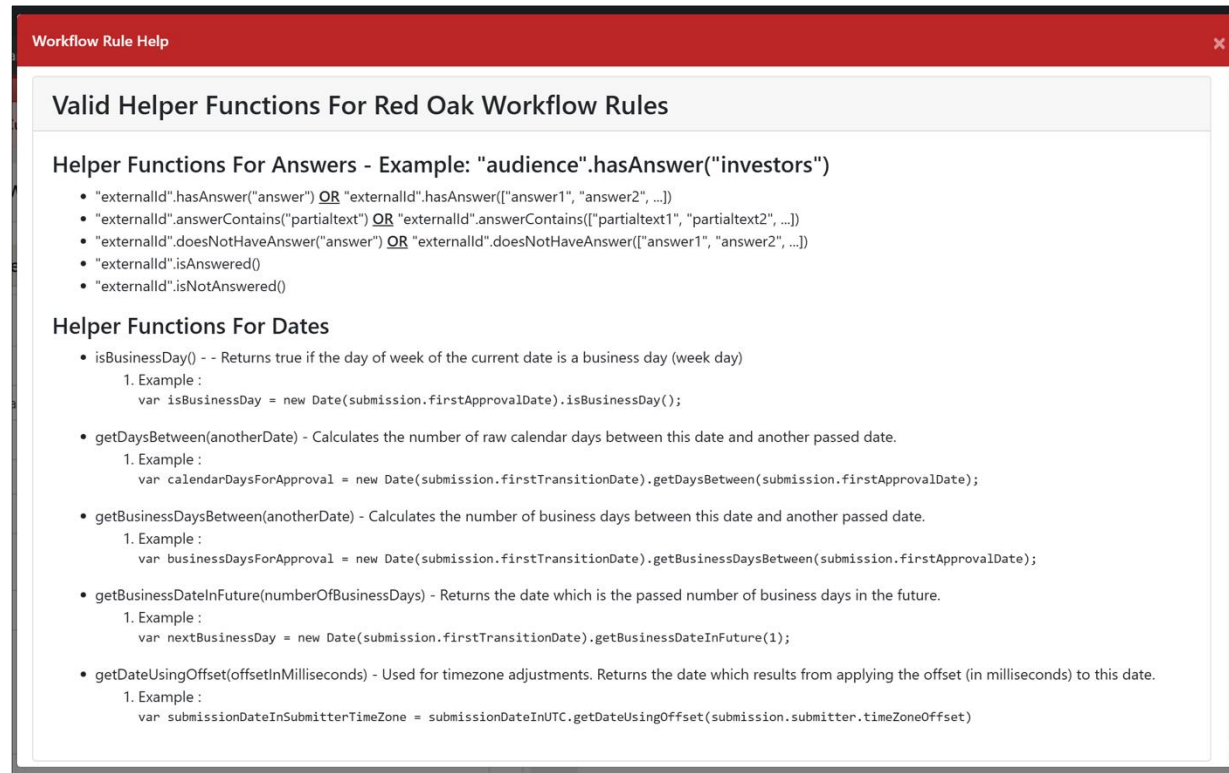
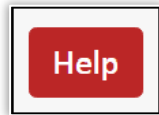
Test Submission ID: Test Script View Data Structure

```
1 return "Rush".hasAnswer("Yes");
```

Help button

Do not underestimate the value of the Help button

- Copy/Pasting from the Help screen is the best way to begin writing a rule



Workflow Rule Help

Valid Helper Functions For Red Oak Workflow Rules

Helper Functions For Answers - Example: "audience".hasAnswer("investors")

- "externalId".hasAnswer("answer") **OR** "externalId".hasAnswer(["answer1", "answer2", ...])
- "externalId".answerContains("partialtext") **OR** "externalId".answerContains(["partialtext1", "partialtext2", ...])
- "externalId".doesNotHaveAnswer("answer") **OR** "externalId".doesNotHaveAnswer(["answer1", "answer2", ...])
- "externalId".isAnswered()
- "externalId".isNotAnswered()

Helper Functions For Dates

- isBusinessDay() - Returns true if the day of week of the current date is a business day (week day)
1. Example :

```
var isBusinessDay = new Date(submission.firstApprovalDate).isBusinessDay();
```
- getDaysBetween(anotherDate) - Calculates the number of raw calendar days between this date and another passed date.
1. Example :

```
var calendarDaysForApproval = new Date(submission.firstTransitionDate).getDaysBetween(submission.firstApprovalDate);
```
- getBusinessDaysBetween(anotherDate) - Calculates the number of business days between this date and another passed date.
1. Example :

```
var businessDaysForApproval = new Date(submission.firstTransitionDate).getBusinessDaysBetween(submission.firstApprovalDate);
```
- getBusinessDateInFuture(numberOfBusinessDays) - Returns the date which is the passed number of business days in the future.
1. Example :

```
var nextBusinessDay = new Date(submission.firstTransitionDate).getBusinessDateInFuture(1);
```
- getDateUsingOffset(offsetInMilliseconds) - Used for timezone adjustments. Returns the date which results from applying the offset (in milliseconds) to this date.
1. Example :

```
var submissionDateInSubmitterTimeZone = submissionDateInUTC.getDateUsingOffset(submission.submitter.timeZoneOffset)
```

3. Configure/Attach the rule

Submission Type

- Entire workflow as a whole, i.e. Checkpoint or Expiration Date rules

Transition

- Certain Transition button, while possibly not occurring when a different Transition button is selected

Activity

- Stage of the workflow before attempting to click any Transition button. The rule applies to ALL Transitions.

Fieldset

- Specific fieldset and used to determine if those questions should be displayed or suppressed on the intake form

Edit Activity Transition Definition
Submit to Compliance - Transition From Create/Update Submission

General Settings

* Transition Link Text:

Description (shows on help text):

External ID:

Resulting Submission Status:

* Source Activity Definition:

Behavior Settings

Require Need By Date Populated Before Transition?
Allow Transition Without All Required Questions Answered?
Allow Designation Of Recipient At Transition Time?
Allow Assignment Of Target Activity Due Date?
Require At Least One Verifier Assigned Before Allowing Transition?
Require At Least One Verification Given Before Allowing Transition?
Require At Least One CC User Assigned Before Allowing Transition?
Require At Least One Document Attached To Submission?
Available through API only? ⓘ

Rule Definitions

Where Do Rules Display Messages?

Which rules display messages within the submissions?

1. Activity or Transition Warning
2. Checkpoint

The screenshot shows the Red Oak interface for submission 4397028. At the top, a yellow warning message is displayed: "This is one example of how a Warning Message can be displayed at the Activity level." This message is highlighted with a red circle labeled '1'. Below the warning is a red button labeled "<< Back To Submission Listing".

The submission details are shown in a table format:

Overview	Details	Comments (0)	Documents (1)	Status History (4)	Activity Log (7)	Workflow Diagram	Emails (6)	Rules (10)
Submission ID:	4397028	Clone						
Submission Type:	Marketing Material							
Current Activity:	FINRA Filing Review							
Current Owner:	Monica Reviewer Demo Compliance Reviewer	Claim Assign						
Last Status Date/Time:	Apr 9, 2025, 5:50:51 PM							
Created:	Apr 9, 2025, 5:49:32 PM							
Submitted By:	Michael Davis Marketing Submitter	Assign Submitter Delegate						
On Behalf Of:	Michael Davis							
Company(s)/ Department(s):	Test Company / Department B							
Need By Date:	Apr 11, 2025, 11:59:00 PM	Edit						
Expiration Date:	None	Edit						
First Transition Date/Time:	Apr 9, 2025, 5:50:34 PM							
CC Users:	None	Add/Remove						
Assigned Verifiers: (Compliance)	None							
Assigned Verifiers: (Legal)	None							
Assigned Checkpoints:	Submissions is Pending FINRA Filing - Michael Davis - Apr 9, 2025, 5:50:51 PM							
Involved Users:	Michael Davis Monica Reviewer							

The "Assigned Checkpoints" row is highlighted with a red box and a red circle labeled '2'.

Rule Formatting

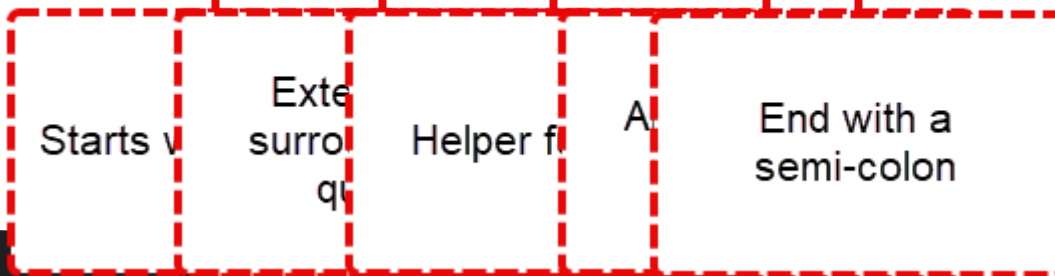
Syntax - The set of rules that define the structure and format of code. It dictates how code should be written and organized so that the computer can understand it.

Rule Definition Script

Test Submission ID:

[Test Script](#) [View Data Structure](#)

```
1 return "rush".hasAnswer("Yes");
```



Logical Operators

Rule Definition Script

Test Submission ID:

Test Script

View Data Structure

```
1 return "grossfigures".hasAnswer("Yes") && ("netfigures".isNotAnswered() || "netfigures".hasAnswer("No"));
```

This is the AND operator. It is used to combine multiple conditions that must all be true

This is the OR operator. It is used to combine multiple conditions where at least one is true

Testing

```
1 return "audience".isAnswered();  
2 return "country".isAnswered();
```

Unreachable 'return' after 'return'.

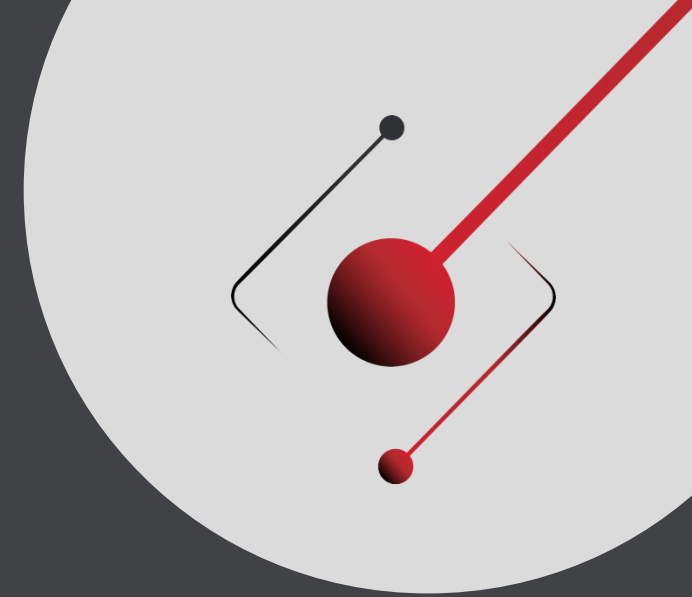
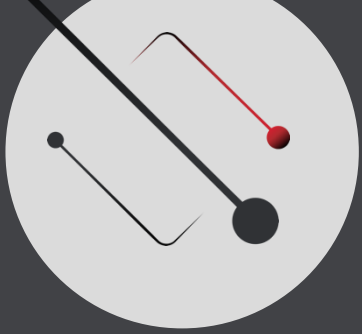
Test Script View Data Structure

Result of script is => true

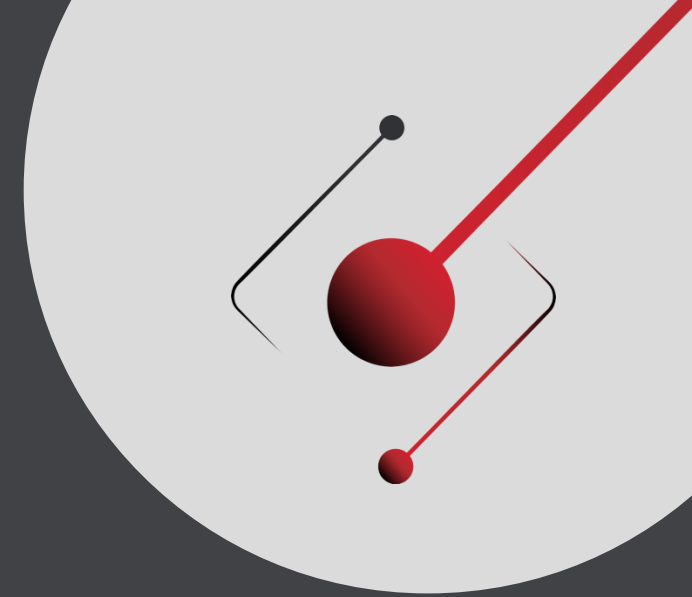
The following errors occurred:

- The referenced external ID (audience) is not valid or does not exist.





Demo: Creating a Rule



Lab Exercise

Problem #1

Users are tired of typing in “N/A” to a set of questions.

These questions are not relevant unless the submitter indicates that the submission is a "Rush"

Submitter Questions

* 1. Is this a Rush? Yes No
> If "Yes", please specify:

* 2. Audience
Who will see this material Prospective Investors Existing Clients
 Internal Only

3. Methods of Distribution E Mail In Person
 Website Social Media
 Other
If "Other", please specify:

4. Comments
Enter additional information for questions above.

Rush Requests

* 5. If this is a "Rush" - Provide a Reason for the Rush Request
If "Other Reason", please specify:

* 6. If "Rush" - Please attest that your manager has signed off on this request for expedited approval Yes - I attest N/A - This is not a rush

Problem #2

Submitters are confused if they should submit to Compliance or Proofreaders

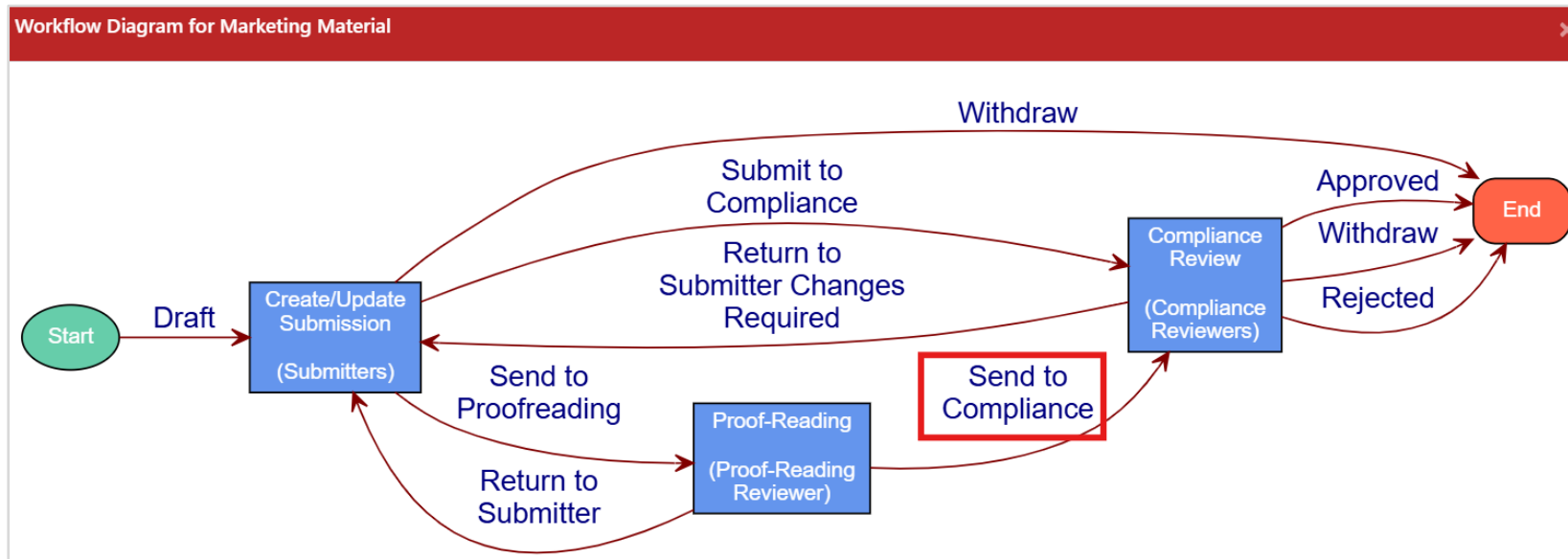
Submitters are sending to Proofreaders to review when it is not needed, and that is slowing down the submission and approval process

The screenshot shows the Red Oak user interface. At the top left is the Red Oak logo and navigation menu (Submissions, Search, Reports, Administration, Library, My Profile). The top right shows the user 'Timmy Rules' with a Logout button and system information: 'Accelerate 2026 | US/Central GMT-0500 | - English'. A search bar is also present. Below the navigation is a red banner with 'Scratchpad' and 'v2026.0404.3 - Release Notes (19 new)'. The main content area features a submission card for '5368481 - Demo 1' with an 'Edit' link. The submission is in 'Draft' status and has a red warning icon and text 'Not Approved For Use'. Below the submission card is a tabbed interface with 'Overview' selected, and other tabs for 'Details', 'Comments (0)', 'Documents (0)', 'Status History (1)', 'Activity Log (1)', 'Workflow Diagram', 'Emails (0)', and 'Rules (0)'. The 'Overview' tab shows 'Submission ID: 5368481' with a 'Clone' link and 'Submission Type: Team B(basic) Marketing Material'.

Problem #3

Submitters want to be notified when their submissions have been reviewed by the Proofreading team and have gone to compliance.

They don't want to have to keep logging into Red Oak to check the status of their submissions.



Questions

ACCELERATE 2026

We're here to help!
Support@Redoak.com

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Thank You

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