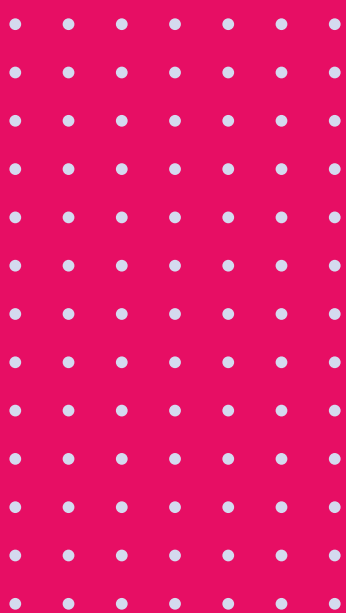




Next-Generation Deliverable Tracker

Michael Byrne
Veramed

19-MAR-2025



Spreadsheet Trackers

	A	B	C	D	E	F	G	H	J	K
1	ADaM									
2	ID	Program	Running Order	Specification Notes	Status	Active Role	Active Person	# Open QC Comments	# Open Client Comments	
3	ADSL	adsl	1		Passed QC	Reviewer	Reviewer	0		
4	ADEX	adex	2		QC ready	QP	QP	0		
5	ADAE	adae	2		Issues	PP	PP	0		
6	ADMH	admh	2		QC ready	QP	QP	0		
7	ADVS	adv	2		QC ready	QP	QP	0		
8	ADCM	adcm	2		Passed high level review	Client	Client	0		
9	ADLB	adlb	2		QC ready	QP	QP	0		
10	ADQS	adqs	2		Withdrawn	(no one)	(no one)	0		
11	ADTTE	adtte	3		Do not start	(no one)	(no one)	0		
12										
13										

< >
Reference
Study Team
Sign Off
SDTM Spec
SDTM
ADaM Spec
ADaM
Displays
Utilities
QC Comment

Uses:

- Resource Tracking
- Project Management
- QC Tracking



- Manual Entry Effort
- Quality Issues



- Multiple Systems
- Duplication of Effort



- Delay between work being done and status being recorded

Solution Design



R Shiny Dashboard

veramed

See to Live Biomedics

Deliverable Tracker

Setup

Resourcing

Timelines

SDTM

ADaM

TFLs

Metrics

MByrne[Admin]

Specification

QC Tracker

Issues

Audit History

Show 10 entries

Search:

ID	Program	Program.Last.Run	Order	Status	Update	Active.Role	Active.Person	Issues	PP	QP	QC.Program	QC.Program.Last.Run	Branch	Issue	Merge	
1	ADSL	adsl	15/01/2025 08:15	1	Passed QC		PP	JJ	0	JG, JJ	HK	q_adsl	16/01/2025 11:25			
2	ADEX	adex	15/01/2025 10:29	2	QC ready		QP	HK	0	JG	HK	q_adex				
3	ADAE	adae	15/01/2025 10:36	2	Issues		PP	JG	3	JG	HK	q_adae	16/01/2025 11:29			
4	ADMH	admh	15/01/2025 10:46	2	QC ready		QP	HK	0	JG	HK	q_admh				
5	ADVS	advs	15/01/2025 10:13	2	QC ready		Reviewer	Reviewer	0	JG	HK	q_advs				
6	ADCM	adcm	15/01/2025 10:15	2	Passed high level review		Client	Client	0	JG	HK	q_adcm	16/01/2025 11:35			
7	ADLB	adlb	15/01/2025 10:49	2	QC ready		QP	HK	0	JG	HK	q_adlb				
8	ADQS	adqs	10/01/2025 09:45	2	Withdrawn				0			q_adqs				
9	ADTTE	adtte		3	Do not start				0			q_adtte				

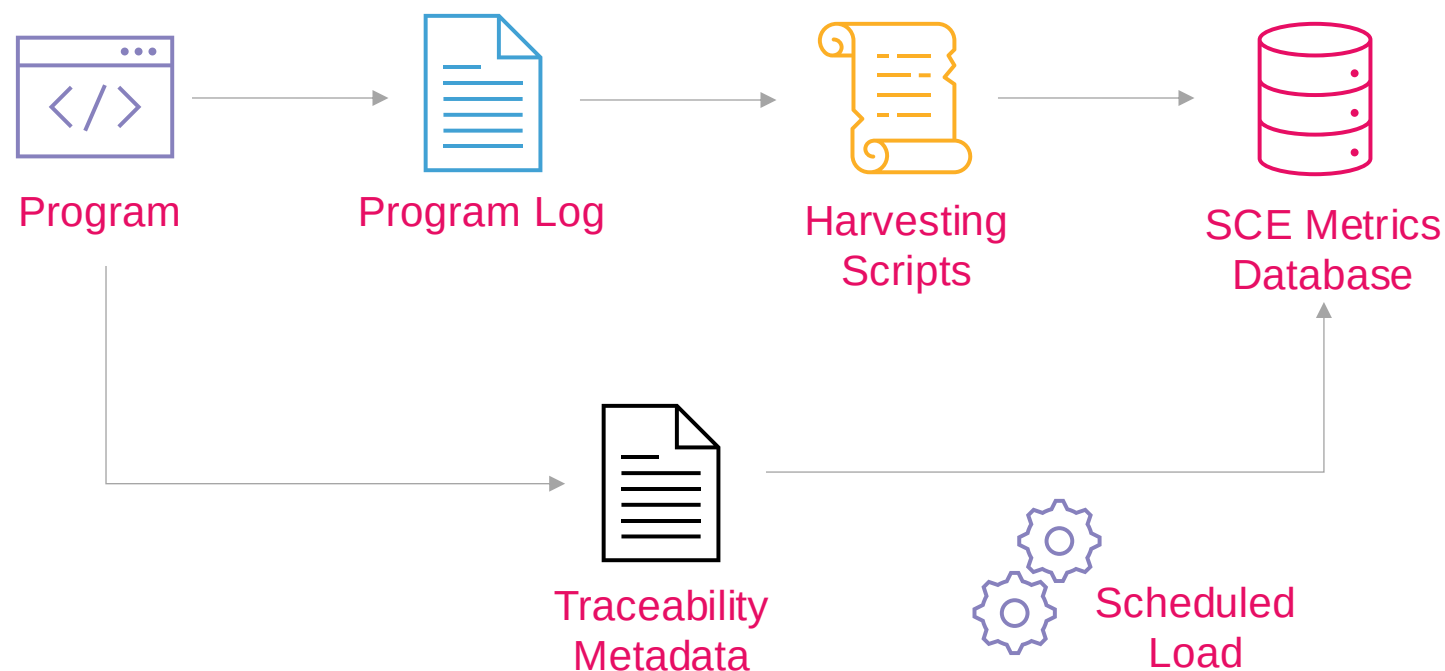
Showing 1 to 9 of 9 entries

Previous

1

Next

SCE Metrics Collection



- Collect some metrics retrospectively and explicitly write out other metrics during execution
- Decouple traceability metadata creation from database insert

Program Log

```
"trace": [
{
  "USER": "michael.byrne",
  "START": "15JAN2025:09:14:57",
  "STOP": "15JAN2025:09:15:15",
  "MODE": "interactive",
  "HOST": "VERPRSA01",
  "STATUS": "0",
  "PROGRAM": "<program_path>\ads1.sas",
  "STAT1": "",
  "STAT2": "",
  "STAT3": "",
  "STAT4": "",
  "STAT5": "",
  "UID_HEX": "CFFBF4E8343E2010113631922CB14722"
}
]
```

<
>

R Shiny Dashboard

 Deliverable Tracker Setup Resourcing Timelines SDTM ADaM TFLs Metrics MByrne[Admin]															
Specification QC Tracker Issues Audit History															
Show 10 entries												Search:			
ID	Program	Program.Last.Run	Order	Status	Update	Active.Role	Active.Person	Issues	PP	QP	QC.Program	QC.Program.Last.Run	Branch	Issue	Merge
1	ADSL	adsl	15/01/2025 08:15	1	Passed QC		PP	JJ	0	JG, JJ	HK	q_adsl	16/01/2025 11:25		
2	ADEX	adex	15/01/2025 10:29	2	QC ready		QP	HK	0	JG	HK	q_adex			
3	ADAE	adae	15/01/2025 10:36	2	Issues		PP	JG	3	JG	HK	q_adae	16/01/2025 11:29		
4	ADMH	admh	15/01/2025 10:46	2	QC ready		QP	HK	0	JG	HK	q_admh			
5	ADVS	advs	15/01/2025 10:13	2	QC ready		Reviewer	Reviewer	0	JG	HK	q_advs			
6	ADCM	adcm	15/01/2025 10:15	2	Passed high level review		Client	Client	0	JG	HK	q_adcm	16/01/2025 11:35		
7	ADLB	adlb	15/01/2025 10:49	2	QC ready		QP	HK	0	JG	HK	q_adlb			
8	ADQS	adqs	10/01/2025 09:45	2	Withdrawn				0			q_adqs			
9	ADTTE	adtte		3	Do not start				0			q_adtte			
Showing 1 to 9 of 9 entries												Previous 1 Next			

GitLab Integration – gitlabr package

Connect to GitLab

```
library(gitlabr)

# connect to GitLab using PAT stored in environment variable
set_gitlab_connection(
  gitlab_url = "https://gitlab.veramed.co.uk/",
  private_token = Sys.getenv("GITLAB_COM_TOKEN")
)
```



- Functions available to interact with GitLab API
- Custom requests using "gitlab" function

Create Branches

```
# create a branch for each program
create_branch<-function(x){
  gl_create_branch(
    project = current_project,
    branch=x,
    ref="main"
  )
}

sapply(prog_list,FUN=create_branch)
```

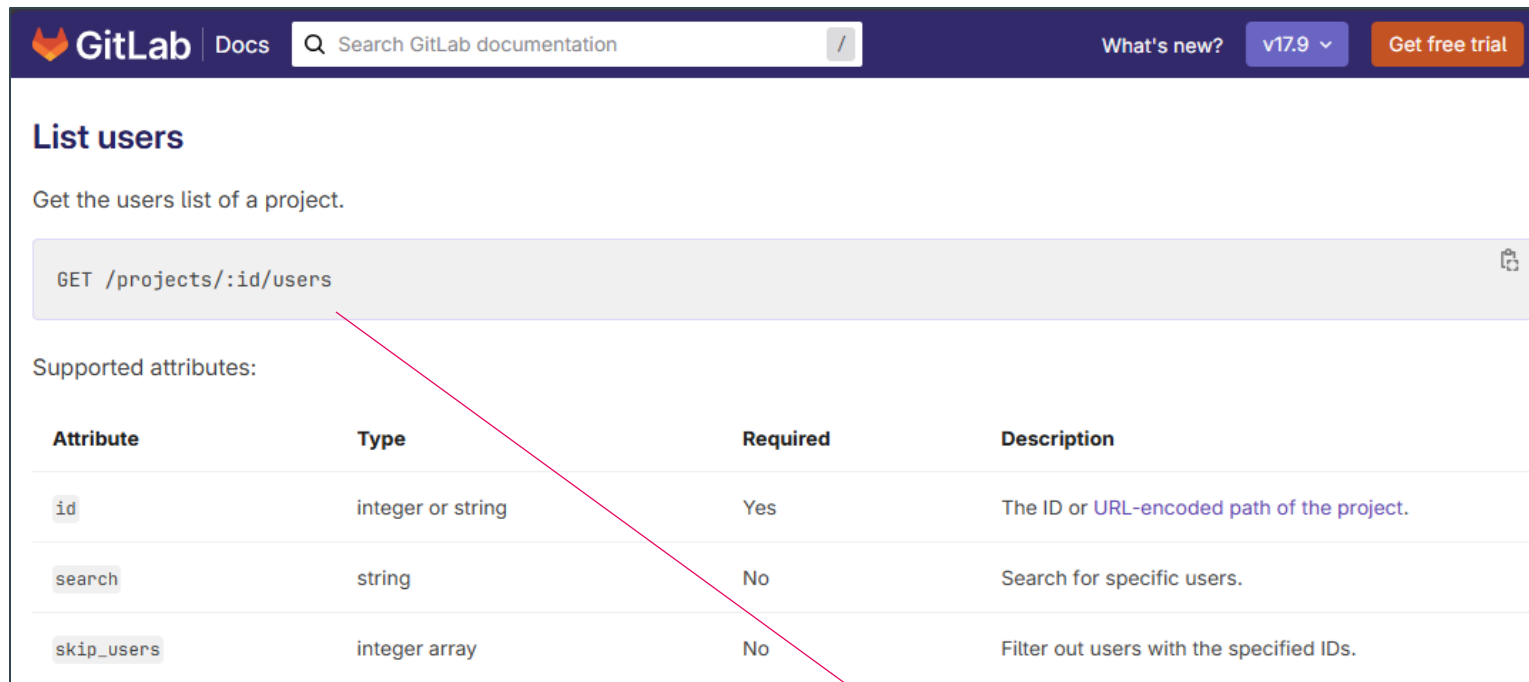
Assign Issues

```
# assign issue to selected user
gl_assign_issue(
  assignee_id = selected_user_id,
  issue_id = selected_issue$id,
  project = current_project
)
```

Create Merge Requests

```
gl_create_merge_request(
  project = current_project,
  source_branch = "adsl/main",
  title = "fixes date format issue",
  description = "closes #2"
)
```

GitLab Integration – gitlabr package



List users

Get the users list of a project.

GET /projects/:id/users

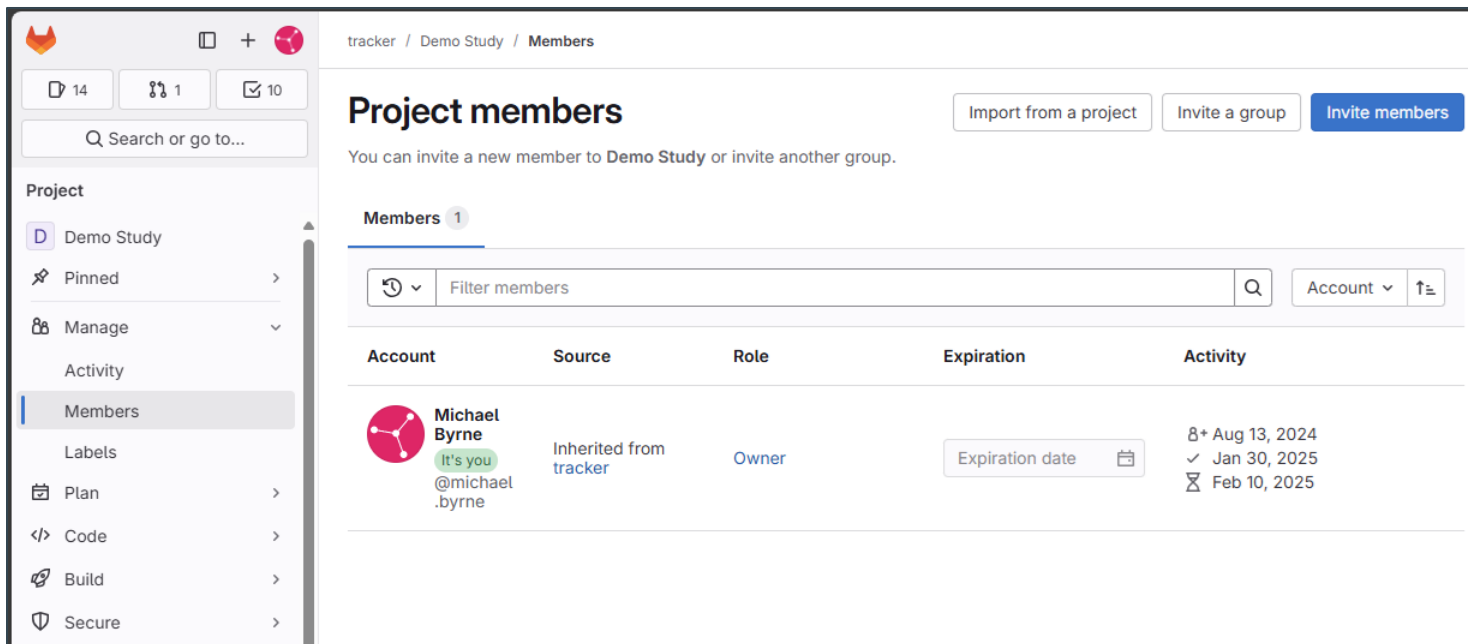
Supported attributes:

Attribute	Type	Required	Description
id	integer or string	Yes	The ID or URL-encoded path of the project.
search	string	No	Search for specific users.
skip_users	integer array	No	Filter out users with the specified IDs.

- Custom Requests using "gitlab" function to perform requests that are not available as package functions in gitlabr

```
users<-gitlab(
  req = paste0("projects/", as.character(current_project), "/users"),
  verb = httr::GET
)
```

GitLab Integration – Project Users



tracker / Demo Study / Members

Project members

You can invite a new member to **Demo Study** or invite another group.

Import from a project Invite a group **Invite members**

Members 1

Filter members

Account	Source	Role	Expiration	Activity
 Michael Byrne It's you @michael.byrne	Inherited from tracker	Owner	Expiration date  8+ Aug 13, 2024 ✓ Jan 30, 2025 ⌘ Feb 10, 2025	

Create Branch

Branch Name:

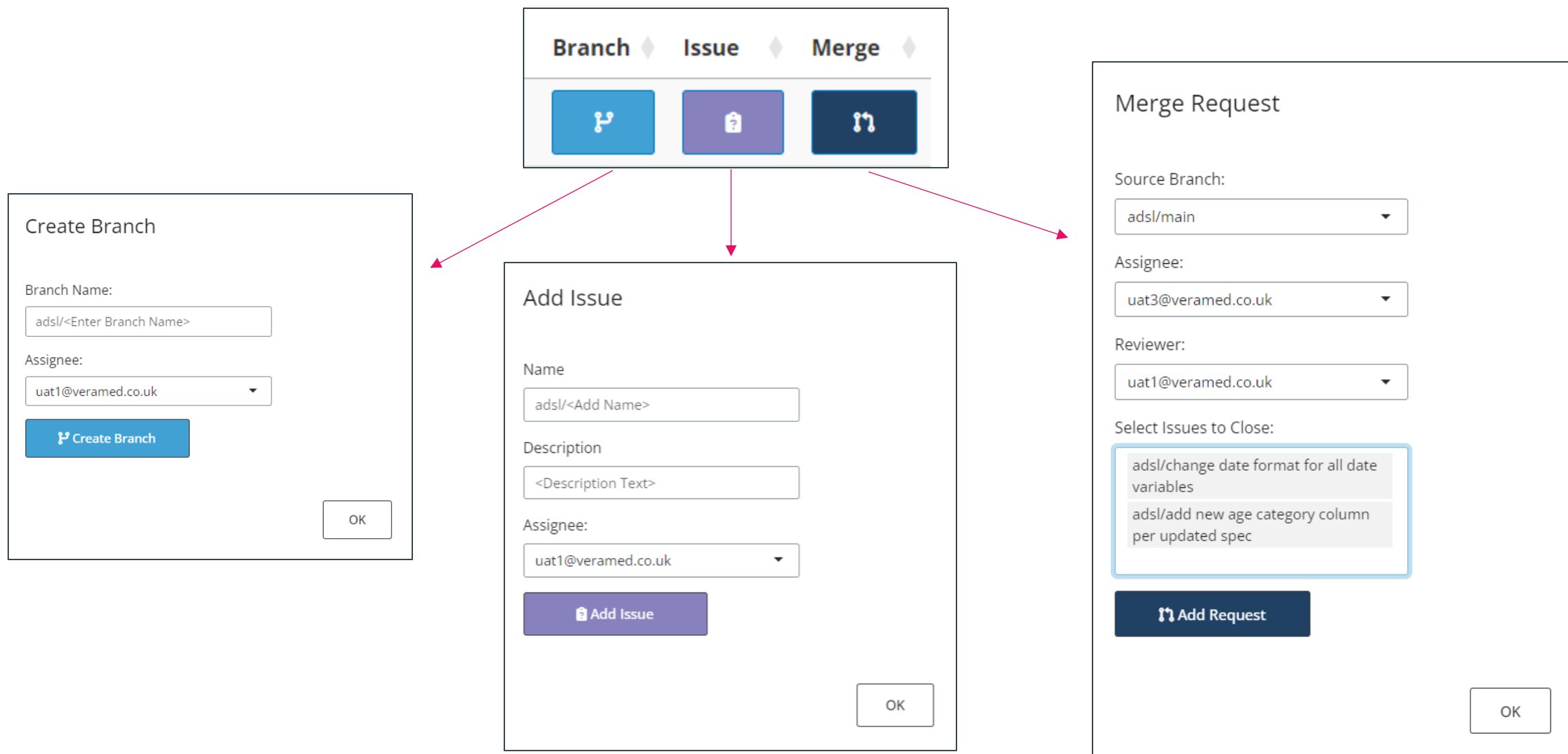
Assignee:

Create Branch

OK

```
users<-gitlab(
  req = paste0("projects/", as.character(current_project), "/users"),
  verb = http::GET
)
```

Dialog Menus



GitLab Integration - Branches

Create Branch

Branch Name:

adsl/<Enter Branch Name>

Assignee:

uat1@veramed.co.uk

Create Branch

OK

```
gl_create_branch(
  project = current_project,
  branch=x,
  ref="main"
)
```

14

1

10

Search or go to...

Project

Demo Study

Pinned

Manage

Plan

Code

Merge requests

Repository

Branches

Commits

Tags

Repository graph

Compare revisions

Snippets

Build

Secure

Deploy

Operate

tracker / Demo Study / Branches

Overview

Active

Stale

All

Filter by branch name

Updated date

View branch rules

New branch

adae/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
adcm/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
adex/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
adlb/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
admh/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
adqs/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
adsl/main	cb96c876 · Initial commit · 1 week ago	0 0	New	1	
adtte/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
advb/main	cb96c876 · Initial commit · 1 week ago	0 0	New		
main	cb96c876 · Initial commit · 1 week ago				

Audit History

Status

Update

Passed QC



Update Status

Status:

Passed QC

Comment:

ready for high level review

Update Status

OK

veramed

Deliverable Tracker

Setup

Resourcing

Timelines

SDTM

ADaM

TFLs

Metrics

MByrne[Admin]

Specification

QC Tracker

Issues

Audit History

Show 10 entries

Search:

ID	Program	Status	Comment	Date	User
1	ADSL adsl	Passed QC	ready for high level review	15/01/2025 10:52	uat3@veramed.co.uk
2	ADSL adsl	QC ready	updates made for issue #3	15/01/2025 08:15	uat1@veramed.co.uk
3	ADSL adsl	Issues	Round AVGDD, BMIBL, HEIGHTBL, WEIGHTBL to 1 decimal place	13/01/2025 09:26	uat3@veramed.co.uk
4	ADSL adsl	QC ready	initial programming complete	10/01/2025 14:05	uat1@veramed.co.uk
5	ADCM adex	QC ready	updates made for issue #7 and issue #4	15/01/2025 10:29	uat2@veramed.co.uk
6	ADCM adex	Issues	adex/issue #4 : remove variables no longer required as per spec	10/01/2025 08:39	uat3@veramed.co.uk
7	ADCM adex	QC ready	updates made for issue # 8	09/01/2025 14:54	uat1@veramed.co.uk
8	ADAE adae	Issues	adae/issue #8: updated ADURU, TRTEMFL	15/01/2025 16:35	uat2@veramed.co.uk
9	ADAE adae	Issues	adae/issue #5: add occurrence flags and AREL ARELN AESEVN	10/01/2025 07:12	uat1@veramed.co.uk
10	ADAE adae	QC ready	updates made for issue #2	09/01/2025 10:36	uat1@veramed.co.uk

Showing 1 to 10 of 23 entries

Previous

1

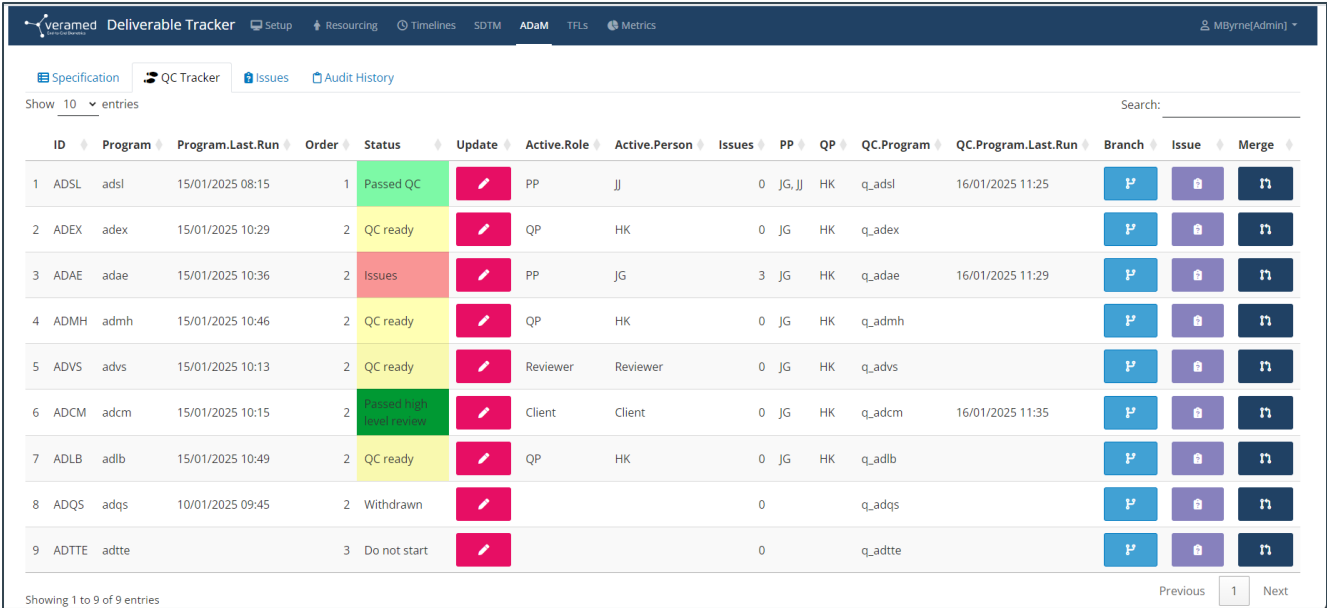
2

3

Next

Conclusion

- Familiar User Experience
- Reduction in Manual Effort
- Quality Improvements
- Integration with Other Systems
- Audit Trail



ID	Program	Program.Last.Run	Order	Status	Update	Active.Role	Active.Person	Issues	PP	QP	QC.Program	QC.Program.Last.Run	Branch	Issue	Merge
1	ADSL	adsl	15/01/2025 08:15	1	Passed QC	PP	JJ	0	JG, JJ	HK	q_adsl	16/01/2025 11:25	P		
2	ADEX	adex	15/01/2025 10:29	2	QC ready	QP	HK	0	JG	HK	q_adex		P		
3	ADAE	adae	15/01/2025 10:36	2	Issues	PP	JG	3	JG	HK	q_adae	16/01/2025 11:29	P		
4	ADMH	admh	15/01/2025 10:46	2	QC ready	QP	HK	0	JG	HK	q_admh		P		
5	ADVS	adv	15/01/2025 10:13	2	QC ready	Reviewer	Reviewer	0	JG	HK	q_adv		P		
6	ADCM	adcm	15/01/2025 10:15	2	Passed high level review	Client	Client	0	JG	HK	q_adcm	16/01/2025 11:35	P		
7	ADLB	adlb	15/01/2025 10:49	2	QC ready	QP	HK	0	JG	HK	q_adlb		P		
8	ADQS	adqs	10/01/2025 09:45	2	Withdrawn			0			q_adqs		P		
9	ADTTE	adtte		3	Do not start			0			q_adtte		P		

Thank You

Questions?

Michael.Byrne@veramed.co.uk

