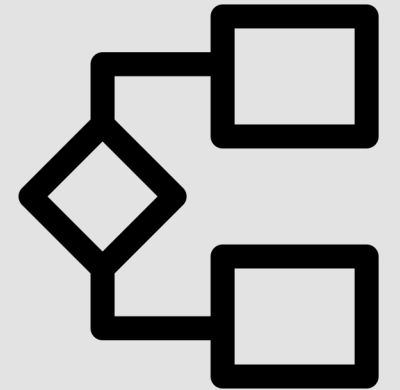


Flows for APEX v22.2

An Oracle APEX extension for building and running BPMN-based apps



ABOUT ME

Niels de Bruijn

- Twitter: @nielsdb
- Personal Blog: <https://nielsdebr.blogspot.com>
- Initiator of Flows for APEX

Business Unit Manager Low-Code @ MT AG

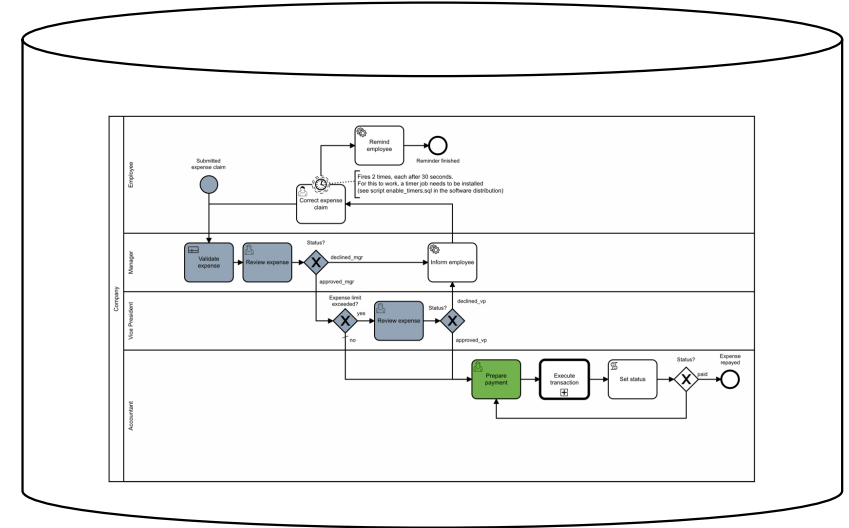
- Leading a group of APEX experts
- We share our passion for Oracle APEX through <https://apex.mt-ag.com>
- Performing low-code evaluations, see <https://www.mt-ag.com/lowcode>

Director Development Community @ DOAG e.V.

- Leading a group of volunteers
- Initiator and conference chair for the conference APEX Connect



What is Flows for APEX 22.2?



An open-source BPMN 2.0 based process flow engine that runs in Oracle DB 19c+

- Ships with an APEX app to model and manage business processes (Oracle APEX 20.1+)
- Lets you integrate processes with your own custom APEX apps using plug-ins
- Main website: flowsforapex.org

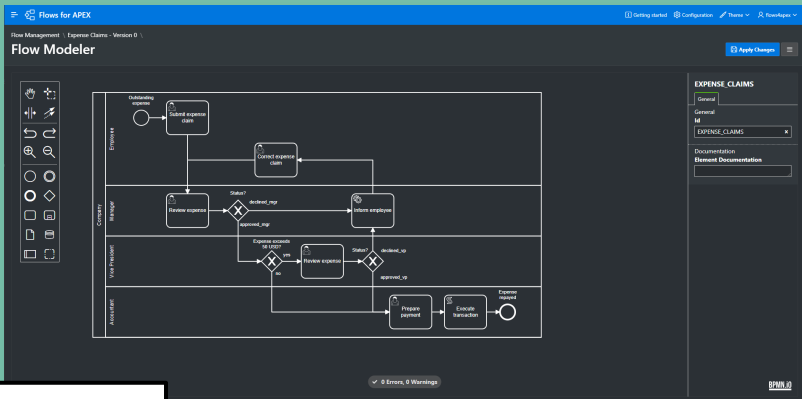


Some stats:

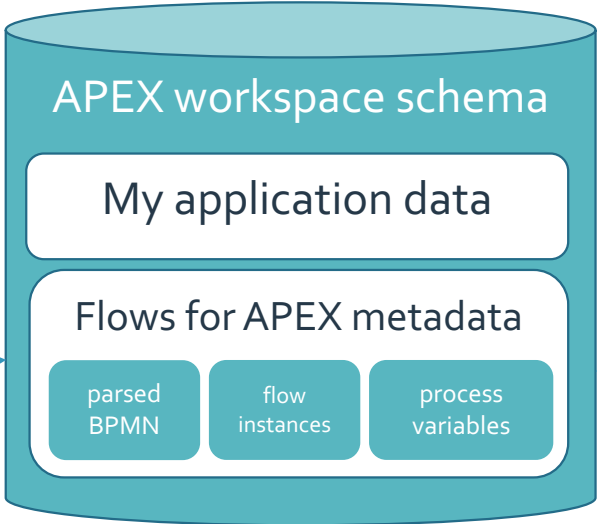
- Introduced in 2020
- > 3.700 downloads
- > 500 subscribers for the newsletter

How it all works together

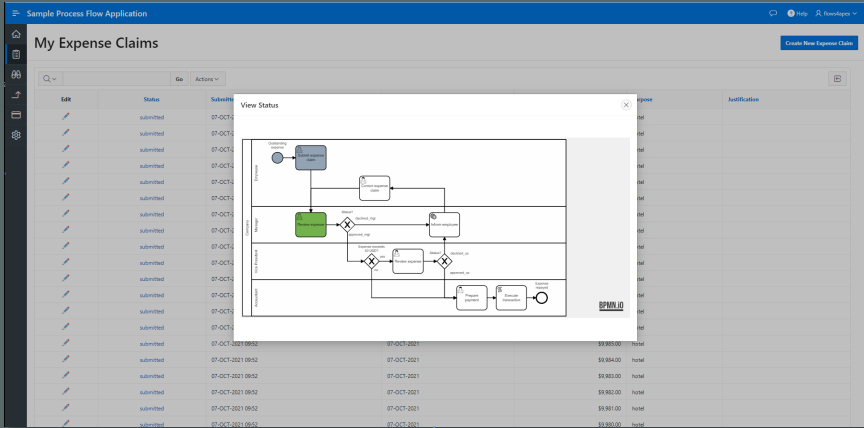
Flows for APEX app



BPMN
(XML)



My custom APEX app



Name: Create/Start flow instance
Type: Flows for APEX - Manage Flow Instance [Plug-In]
Settings:
Action: Create and Start
Flow Instance Name: Expense Claim - &APP_USER - &P2_EXPE_AMOUNT. USD
Select Flow using: Component Setting
Flow (Diagram) selection based on: Name
Set Business Reference: P2_EXPE_ID
Return Instance ID into: PROCESS_ID

```
declare
  l_prcs_id flow_processes.prcs_id%type;
begin
  l_prcs_id := flow_api_pkg.flow_create(
    pi_dgrm_name => 'My Model'
    , pi_dgrm_version => '0'
    , pi_prcs_name => 'My Instance Name'
  );

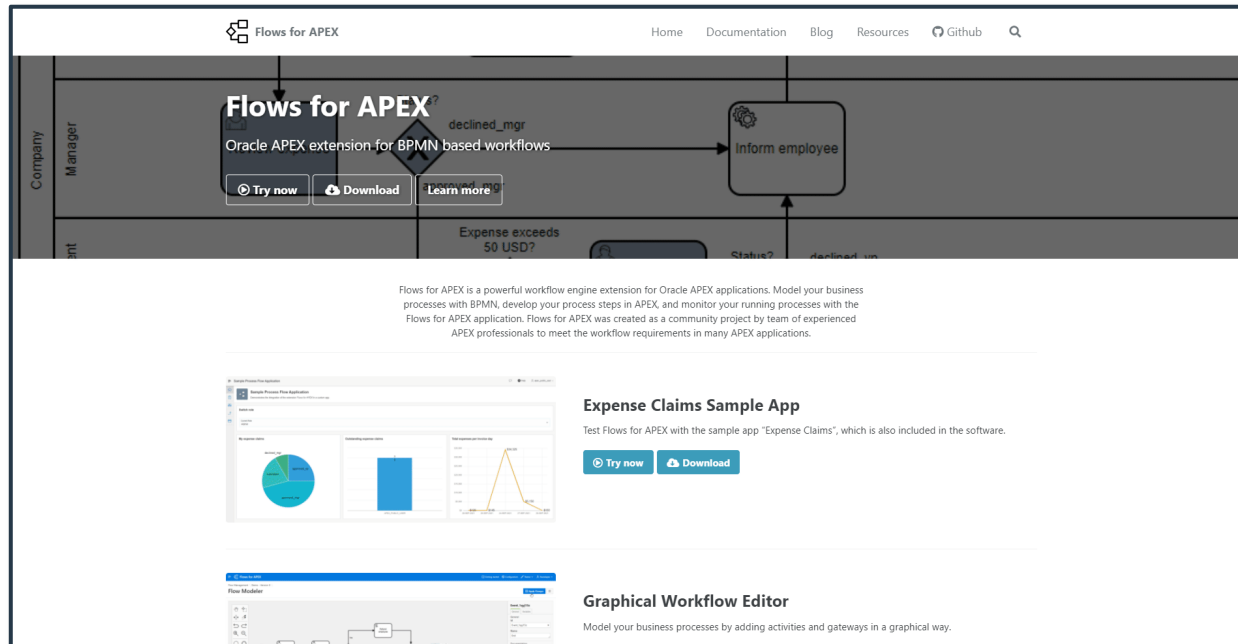
  flow_api_pkg.flow_start(
    p_process_id => l_prcs_id
  );
end;
```

Integrate using plug-ins

or by using the PL/SQL API

How to get started?

Visit our website flowsforapex.org



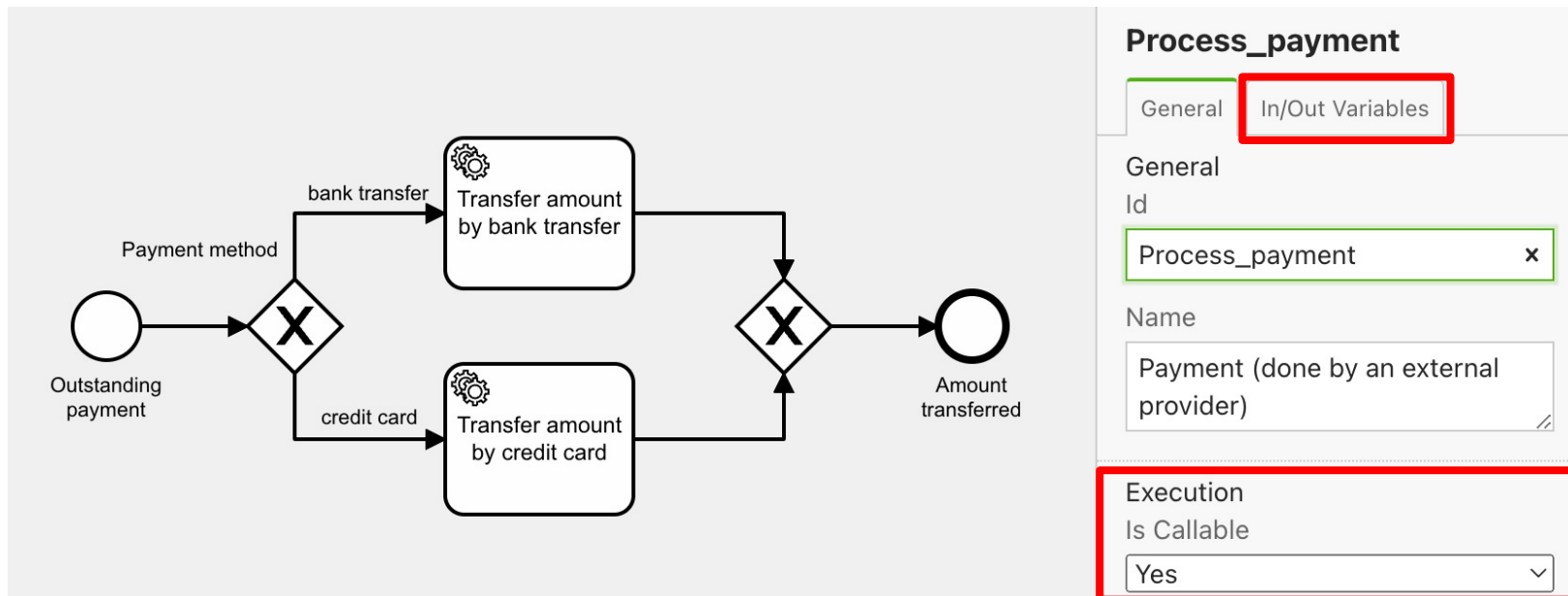
- Subscribe our newsletter
- Download and install the software
 - For a start, analyze our sample app "Expense Claims"
- Walk through the tutorials
 - See tutorial on start page of flowsforapex.org
 - See tutorials that get preinstalled
- Watch our videos: youtube.com/flowsforapex
- Read the documentation
 - incl. BPMN, concepts and PL/SQL API

New in Flows for APEX 22.2

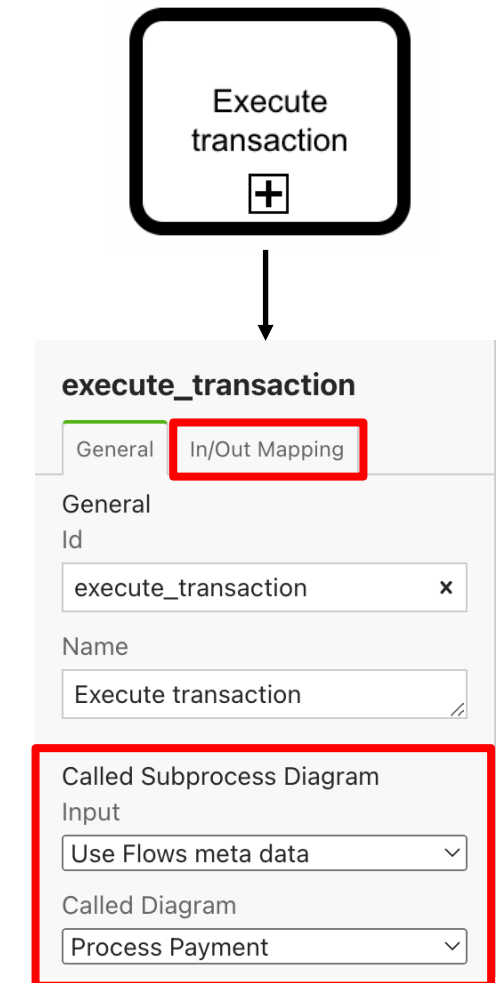
BPMN Call Activities

- Allows a process defined in one process to call another process defined in another diagram (n-level nesting)
- Allows reusability and decomposition of diagrams

Step 1: Make a flow diagram callable and define its in/out vars



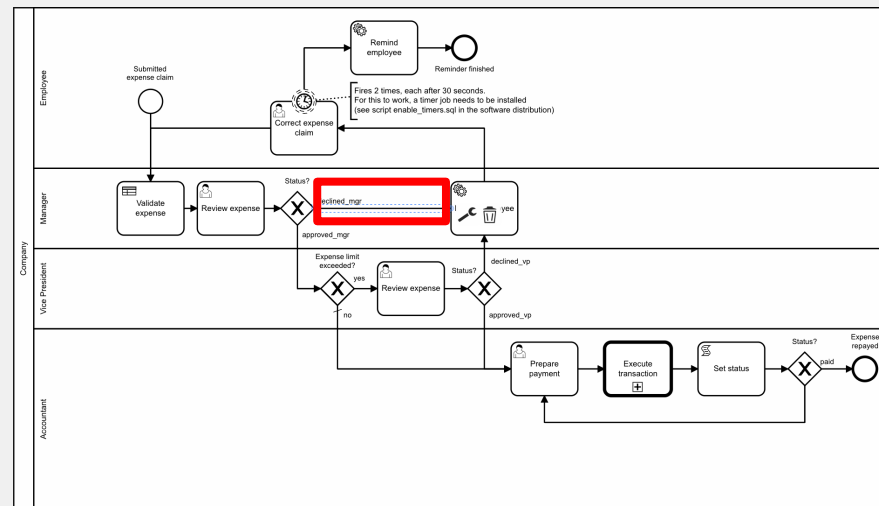
Step 2: Use Call Activity Element to call the diagram



New in Flows for APEX 22.2

Gateway Routing Expressions

- Determine for each path after a gateway if it is to be taken or not
- Use either a PL/SQL expression or a function body (reference variables using :F4A\$myvar)
- Using a process variable "<gateway_id>:route" stays supported (takes precedence if available)



declined_mgr

General

General

Id

declined_mgr x

Name

declined_mgr

Documentation

Element Documentation

Condition

Sequence

10 x

Condition Type

Function Body

Condition

```
return expe_flow_expenseclaims.check_status(p_expe_id => flow_globals.business_ref, p_path => 'declined_mgr');
```

PL/SQL Function Body returning a boolean value

[Open Editor](#)

New in Flows for APEX 22.2

Integration with the Approval Task in APEX 22.1+

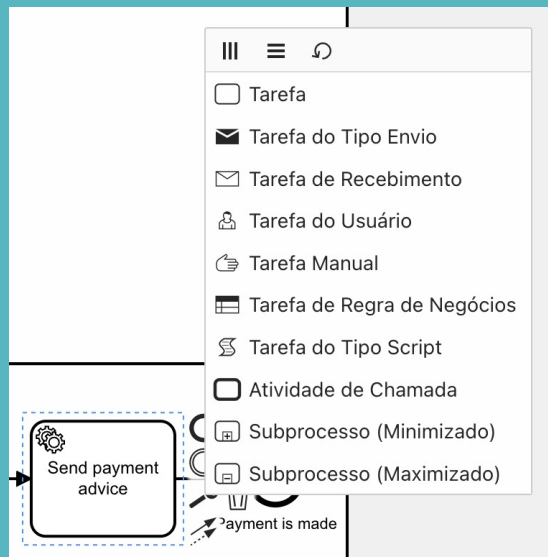
- A user task in Flows for APEX 22.2 will give you the option to use the Approval Task in Oracle APEX 22.1+ for an approval as part of a wider BPMN process
- In your custom app, you can use a new process plug-in "Return to Flows for APEX", no coding required for the integration

The screenshot displays a web application interface for a 'Sample Process Flow Application'. The top navigation bar is blue and contains a hamburger menu icon, the application title 'Sample Process Flow Application', and user information 'ndbruijn'. A dark sidebar on the left features icons for home, tasks, flows, a plus sign, a list, and settings. The main content area has a title 'Review Claims by Vice President' and a section 'Review Claims by VP'. Inside this section, there is a card titled 'Approval outstanding for expense claim 66' with the text 'VP_APPROVAL · Initiated by demo_user'. At the bottom of the card are two buttons: 'Approve' with a green checkmark icon and 'Reject' with a red X icon.

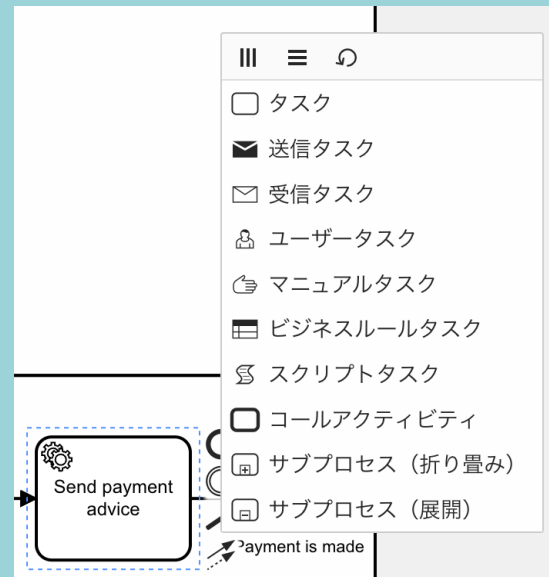
New in Flows for APEX 22.2

Additional Translations

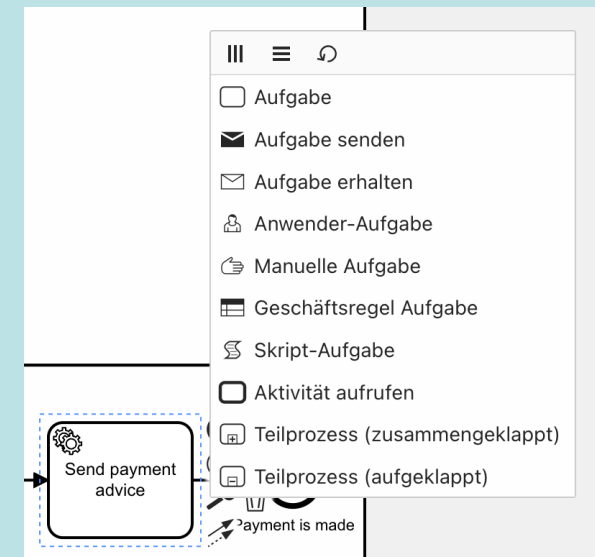
Besides English and French, the app now supports:



PORTUGUESE



JAPANESE



GERMAN

Enhancement in Flows for APEX 22.2

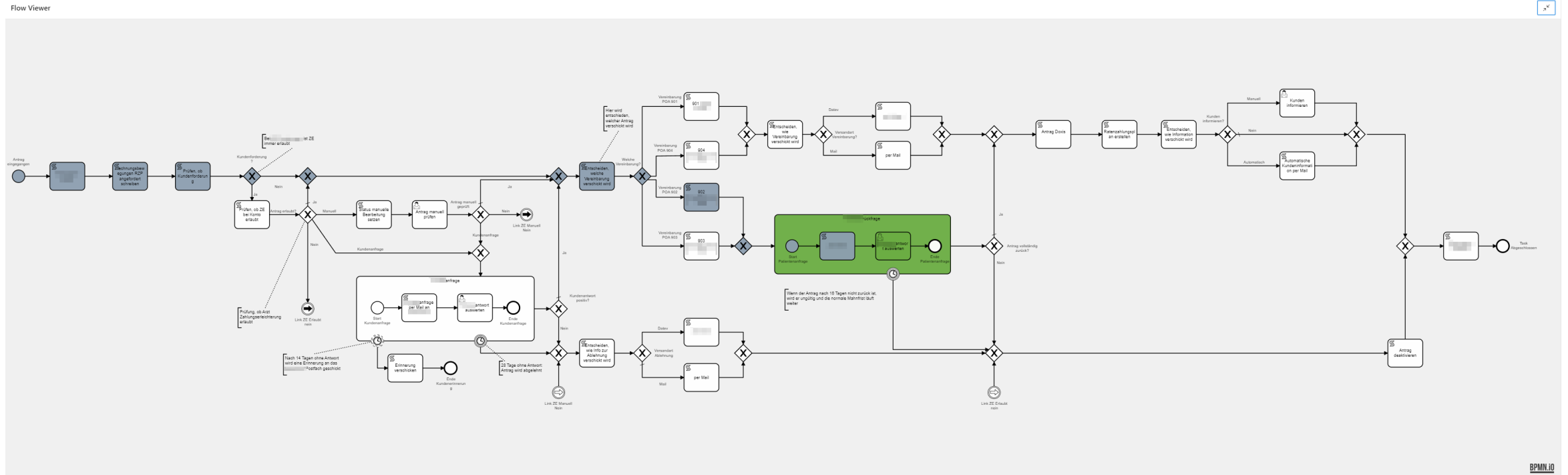
Smaller Features

- APEX session creation for each step
- Process vars are now case-insensitive
- Enhanced sample app "Expense Claims"

Some internal changes:

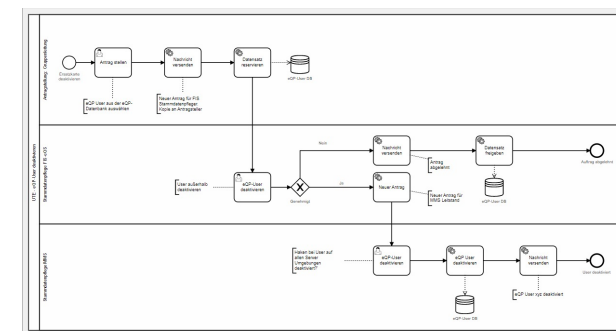
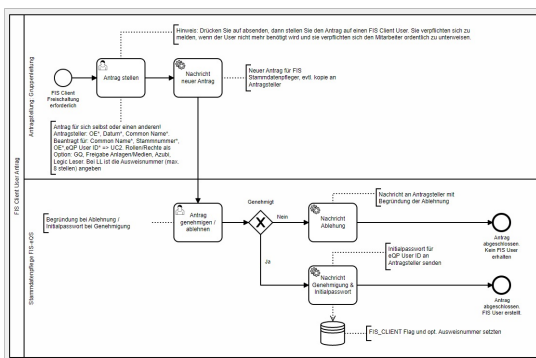
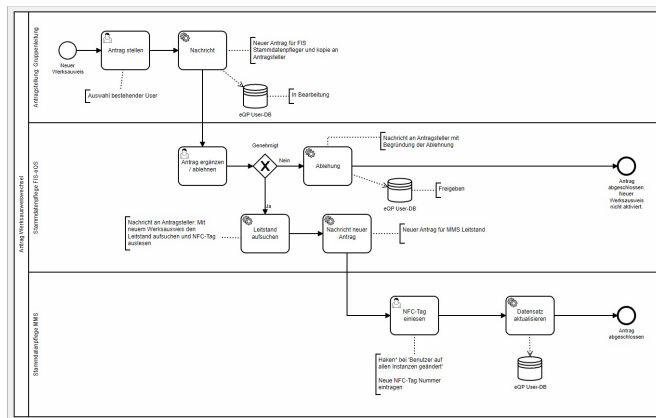
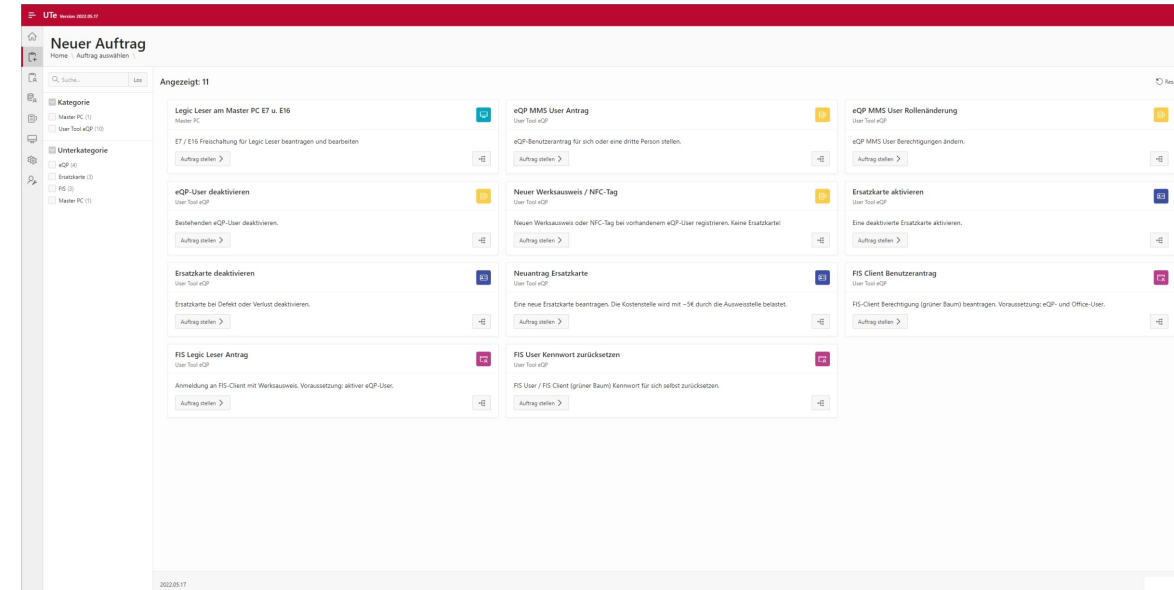
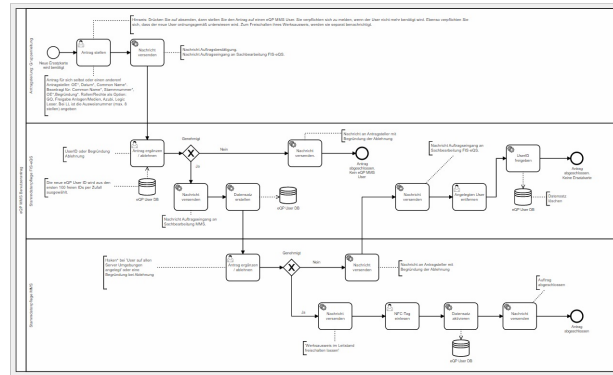
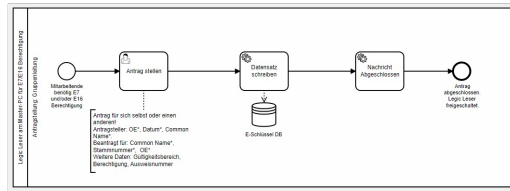
- Translation framework established
- Diagram attributes are now stored in JSON
- Utilizing utPLSQL for internal testing

Ärztliche Verrechnungsstelle Büdingen - Installment Request



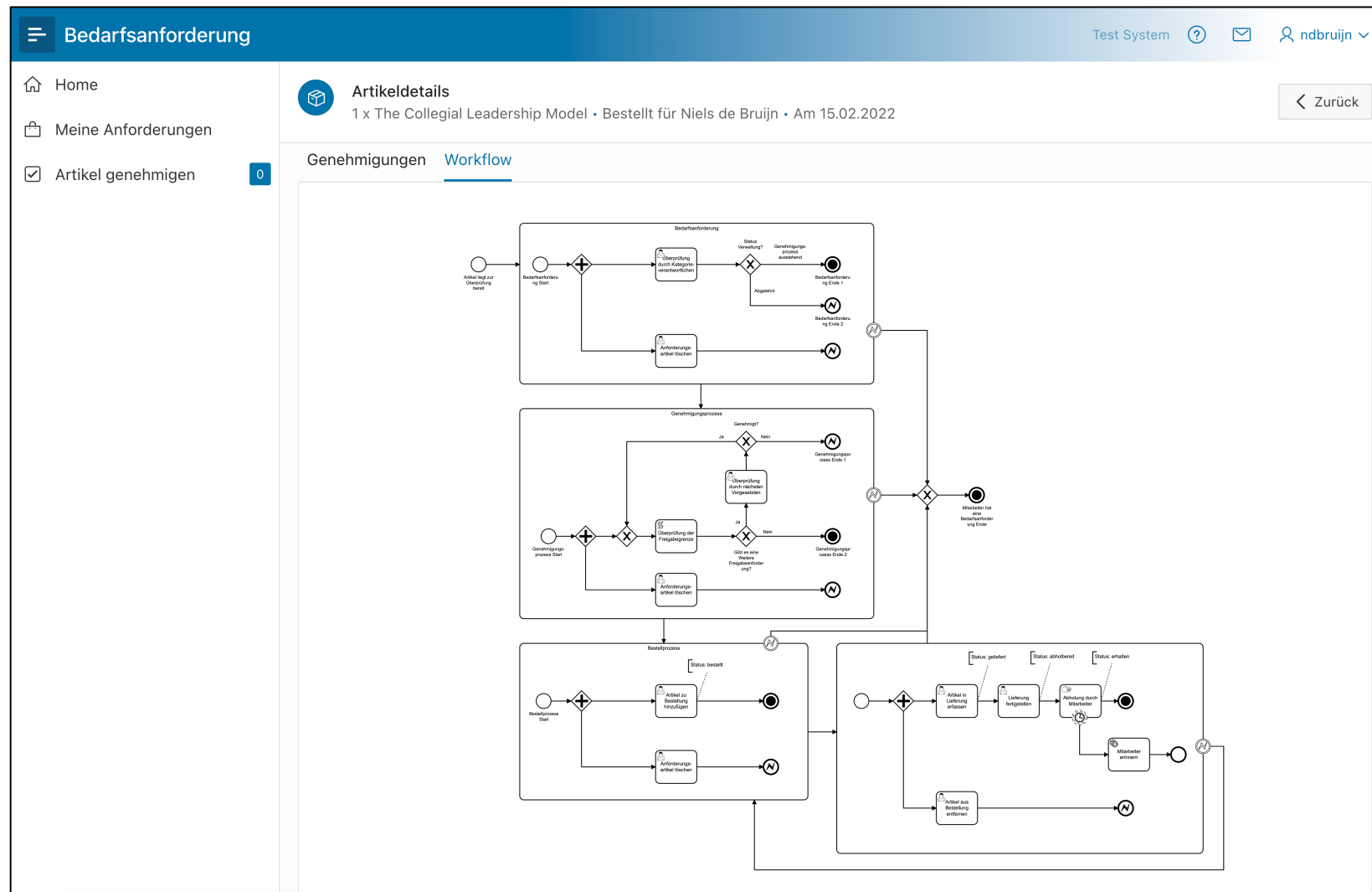
Who is using this?

Automotive - User Management For Production Related Systems



Who is using this?

MT AG - Procurement Process



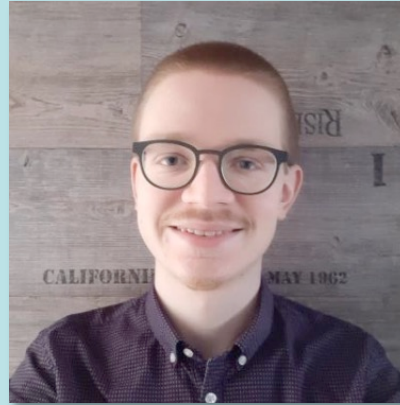
MEET THE CORE TEAM



Richard Allen



Moritz Klein



Dennis Amthor



Louis Moreaux



Niels de Bruijn

A special thanks goes out to Jörg Doppelreiter and Jon Barwell for their contributions

Upcoming sessions & seminars to attend

-  29-SEP 16:00 CET: APEX Office Hours webinar about Flows for APEX 22.2
-  04-OCT 08:00 CET: Flows for APEX 22.2 interactive session with the core team (EU/Asia Pacific region)
-  04-OCT 16:00 CET: Flows for APEX 22.2 interactive session with the core team (EU/America region)
-  See my blog post on <https://nielsdebr.blogspot.com> for all the registration links
-  05/06-OCT CET: 2-day DOAG Expertseminar in Berlin (see doag.org)

This is great!

How can I support?

Help us to **get the word out**

- Become a partner

Spend some spare time to help us out on this project

- We need ie. testers, translators and programmers

Pay us a monthly fee to get your **bugs prioritized**

- Available through GitHub Sponsors: github.com/sponsors/flowsforapex
 - Companies will receive an invoice from MT AG as legal entity

Looking for **specific features** or an **individual maintenance contract**?

- Contact Flows for APEX partners like MT AG & Insum