

Varflix: A Flexible Approach for Variability Mining

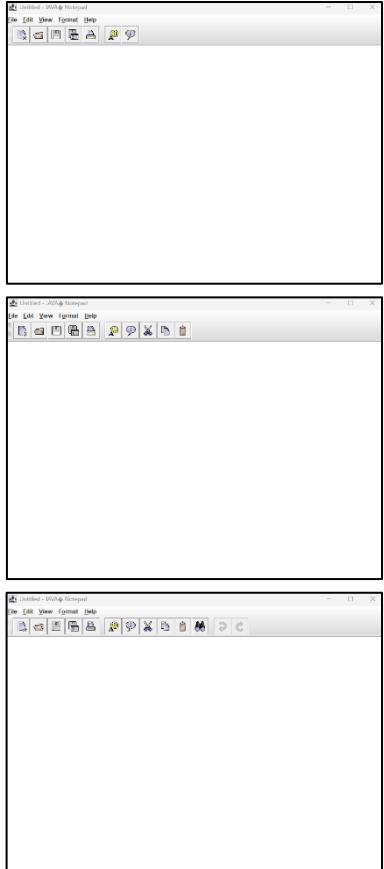


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Variability Mining

Cloned Variants



Extracted Variabilities

```
private String findword;
//for searching & finding the word
//this is a method for searching the input text from the text area
public void find(){
    try{
        /*this is an input dialog which return a string (findword)
        findword = JOptionPane.showInputDialog("Type the word to find");
        //If the JTextField in the input dialog is empty (null), then return a message dialog
        while(n.getTextArea().getText().indexOf(findword) == -1){
            /**
             *this is a message dialog which is warning the user,
             *because he didn't or forgot to enter the word
            */
            JOptionPane.showMessageDialog(null,"Word not found","No match",JOptionPane.WARNING_MESSAGE);
            findword = JOptionPane.showInputDialog("Type the word to find");
        }
        //for selecting the word which the user search for it
        n.getTextArea().select(n.getTextArea().getText().indexOf(findword),
        n.getTextArea().getText().indexOf(findword) + findword.length());
    }
    catch(Exception ex){
        JOptionPane.showMessageDialog(null,"Search canceled","Aborted",JOptionPane.WARNING_MESSAGE);
    }
}

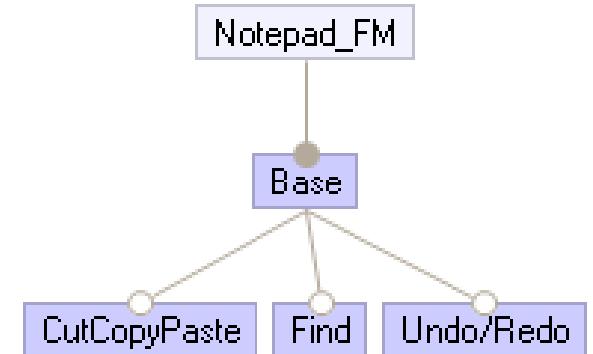
public void findNextT(){
    n.getTextArea().select(n.getTextArea().getText().indexOf(findword),(int)n.getTextArea().getText().indexOf(findword)+1),
    n.getTextArea().getText().indexOf(findword),(int)n.getTextArea().getText().indexOf(findword)+1);
}

//to cut the selected text
public void cut(){
    n.getTextArea().cut();
}

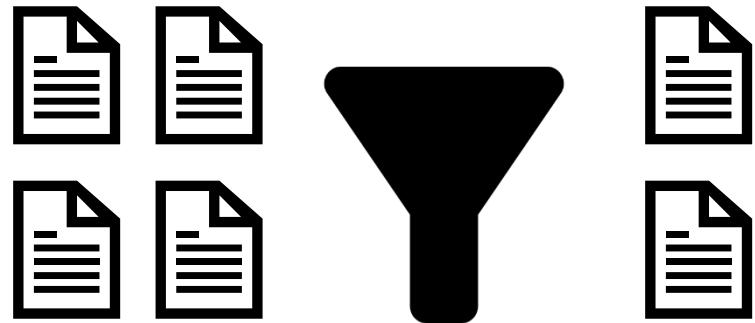
//to copy the selected text
public void copy(){
    n.getTextArea().copy();
}

//to paste the selected text
public void paste(){
    n.getTextArea().paste();
}
```

Variability Model



Novelties



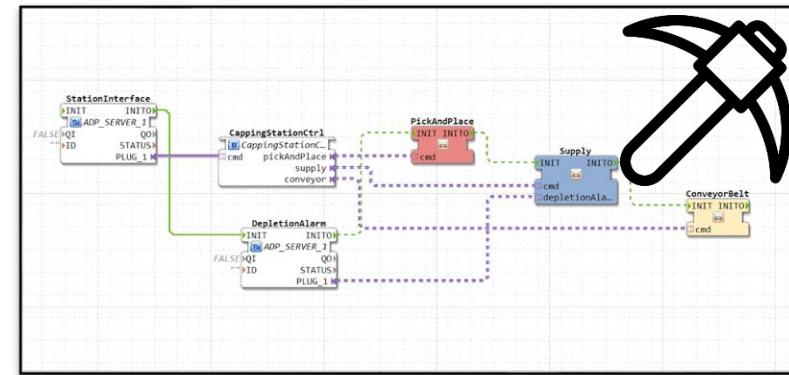
Continuous Filtering



User Involvement

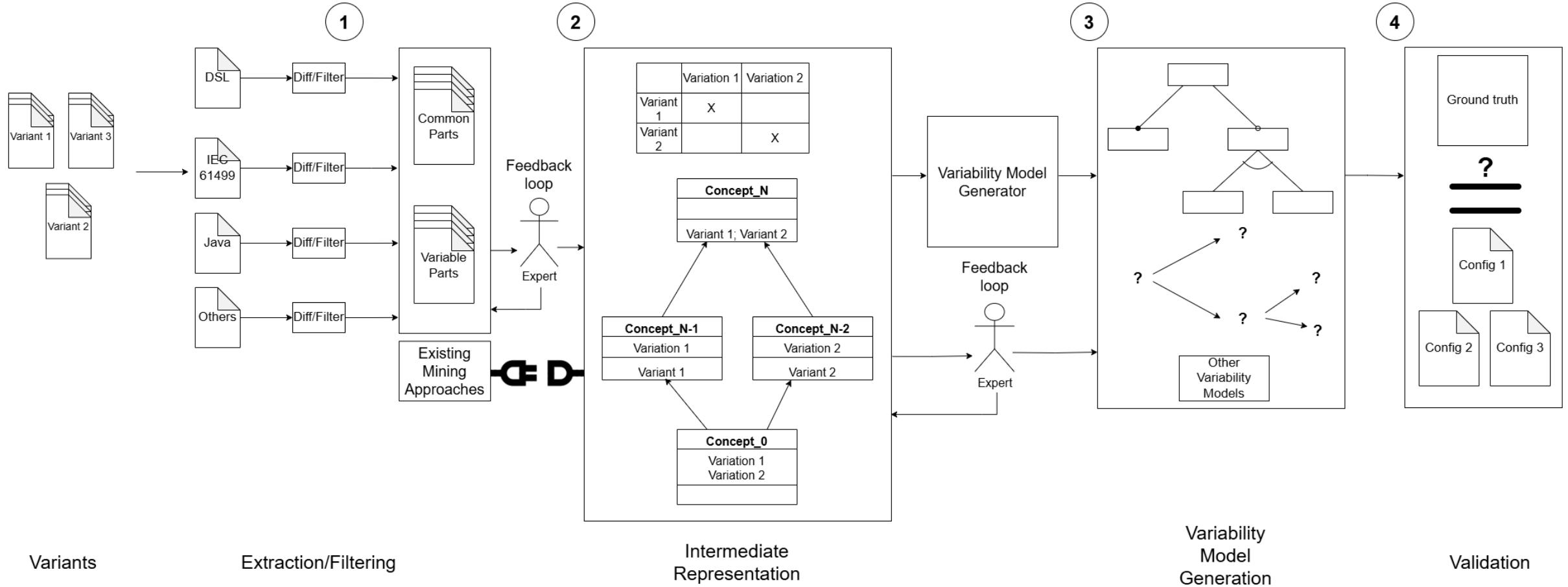


Validation

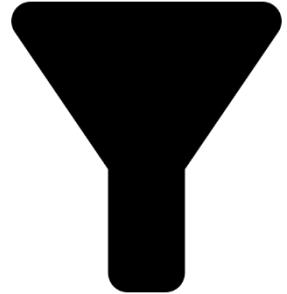


Support for mining
graphical languages

Varflix Architecture



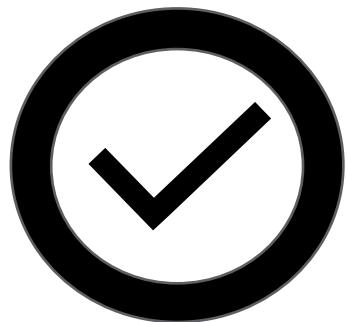
Challenges



What should be
filtered?



How to involve the
user?



Correctness



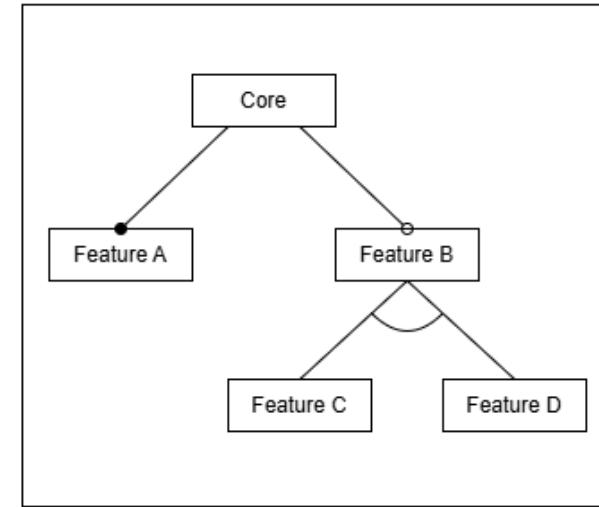
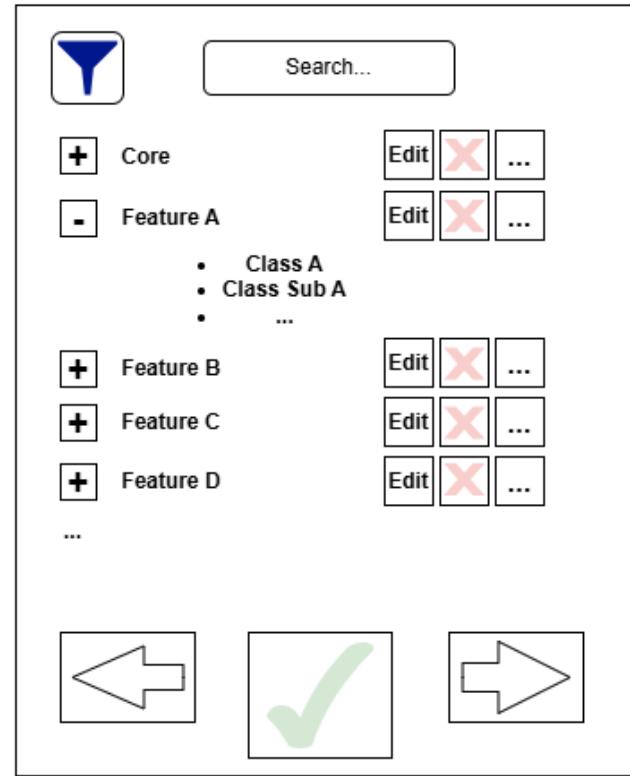
Scalability

User Involvement

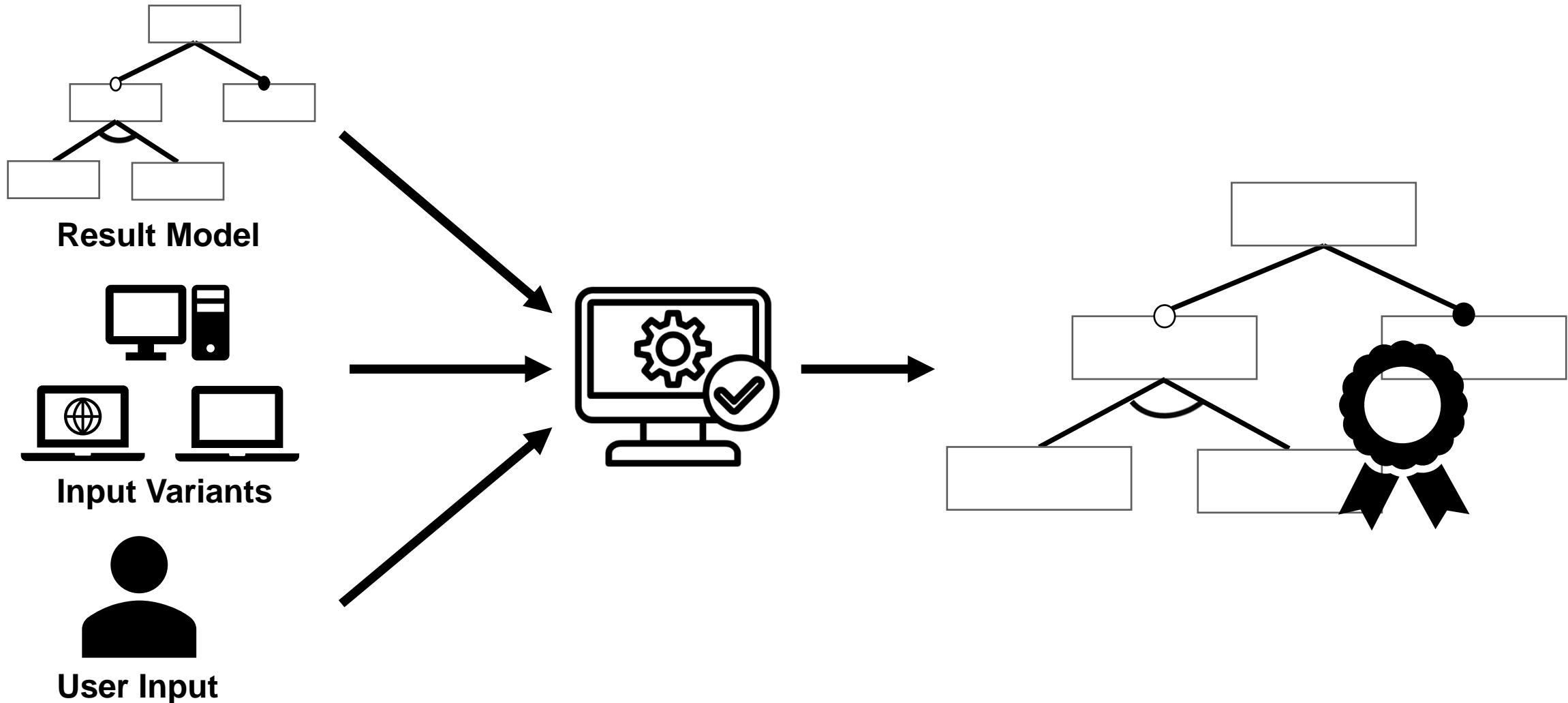


Feedback on:

- Extraction results
- Derived constraints
- Validation



Validation



Future Work

- GUI to improve user involvement
- Provide extraction for more artifact types
- Validation part
- Extensive evaluation with real world applications

Attribution

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Thank you!

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