

I have been looking into the [Plasma MVP](#) with a specific interest in the fraud proofs of this initial system. It appears to me that the following is occurring (if I am wrong please let me know and I will update the topic):

1. User makes deposit on mainnet. This somehow triggers a UTXO being generated on the plasma chain (the mechanics of this are unclear to me from the code)
2. User starts a withdrawal on the mainnet of a specific plasma UTXO belonging to him. For the MVP [it looks like](#) this must be the initial UTXO generated from the deposit in step 1.
3. If the user has spent this TXO (in a plasma block which has been checkpointed), someone can provide that signed plasma transaction as a challenge and block the withdrawal.

A few questions arise:

1. Am I interpreting this UTXO fraud proof correctly? i.e. a user may only withdraw based on the original UTXO and anyone may prove that a malicious deposit with a signed transaction spending that UTXO?
2. How would a user withdraw a split UTXO? i.e. if I deposit 5 ETH into a plasma chain and spend 2, how could I withdraw the remaining 3? Would I include a new UTXO and similarly allow anyone to prove that I had spent that particular UTXO?
3. How does this fraud proof extend to an account-based deposit/withdrawal? i.e. is there an example of a reasonably compact fraud proof for an EVM plasma chain?