

# LGPW !' FGPW Wallet Guide

## Finatrades Dual-Wallet Architecture Documentation

### 1. Overview

Finatrades uses a dual-wallet architecture to give users flexibility in how they hold gold:

- LGPW (Live Gold Price Wallet): Gold held at current market price - value fluctuates
- FGPW (Fixed Gold Price Wallet): Gold locked at a specific price - value protected

#### Key Principle: Cash-Backed FGPW

FGPW is NOT backed by physical gold. It is backed by a USD cash reserve. Users see "gold grams" for simplicity, but internally the platform holds the equivalent USD value. This protects users from price drops.

### 2. LGPW !' FGPW (Lock Gold at Fixed Price)

When a user locks gold from LGPW to FGPW, the following happens:

- Gold is removed from LGPW at the current market price
- USD value is calculated and locked ( $\text{goldGrams} \times \text{currentPrice}$ )
- FGPW batch is created recording: grams, locked price, USD value
- Physical Storage Certificate event logged (WALLET\_RECLASSIFICATION)
- New Digital Ownership Certificate created for FGPW

#### Example: Lock 50g @ \$150/g

Action	LGPW	FGPW	USD Value
Before	100g	0g	-
Lock 50g @ \$150	-50g	+50g	\$7,500 locked
After	50g	50g @ \$150	\$7,500 protected

### 3. FGPW !' LGPW (Unlock to Live Price)

When a user unlocks gold from FGPW to LGPW, the critical conversion happens:

- FGPW gold is consumed using FIFO (oldest batches first)

- USD value is calculated from locked price:  $\text{lockedGrams} \times \text{lockedPrice}$
- New LGPW gold calculated:  $\text{USD value} \div \text{currentLivePrice}$
- User receives NEW gold amount based on current price

### The Cash-Backed Formula

$$\text{LGPW Gold} = (\text{FGPW Grams} \times \text{Locked Price}) \div \text{Current Live Price}$$

**Example: Unlock 50g locked @ \$150, Live Price = \$140**

Step	Calculation	Result
1. USD Value	$50\text{g} \times \$150/\text{g}$	\$7,500
2. Buy at Live	$\$7,500 \div \$140/\text{g}$	53.57g
3. LGPW Credit	User receives	53.57g

Because price dropped (\$150 !' \$140), user gets MORE gold (50g !' 53.57g).

## 4. Complete 5-Transaction Example

User starts with 500g in LGPW and makes 5 locks at different prices:

### Transaction 1: Lock 100g @ \$150/g

Wallet	Before	Action	After
LGPW	500g	-100g	400g
FGPW	0g	+100g @ \$150	100g (\$15,000)

### Transaction 2: Lock 100g @ \$160/g (price rose)

Wallet	Before	Action	After
LGPW	400g	-100g	300g
FGPW	100g	+100g @ \$160	200g (\$31,000)

### Transaction 3: Lock 50g @ \$140/ g (price dropped)

Wallet	Before	Action	After
LGPW	300g	-50g	250g
FGPW	200g	+50g @ \$140	250g (\$38,000)

### Transaction 4: Lock 100g @ \$145/g

Wallet	Before	Action	After
LGPW	250g	-100g	150g
FGPW	250g	+100g @ \$145	350g (\$52,500)

### Transaction 5: Lock 50g @ \$155/ g

Wallet	Before	Action	After
LGPW	150g	-50g	100g
FGPW	350g	+50g @ \$155	400g (\$60,250)

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## 5. Final State

After 5  
Transactions

Wallet	Gold Grams	Value	Notes
LGPW	100g	"H \$15,500	At live \$155/g
FGPW	400g	\$60,250 (locked)	Avg \$150.63/g
Total	500g	"H \$75,750	

FGPW Batches  
(Internal Tracking)

Batch	Grams	Locked Price	USD Value
Batch 1	100g	\$150/g	\$15,000
Batch 2	100g	\$160/g	\$16,000
Batch 3	50g	\$140/g	\$7,000
Batch 4	100g	\$145/g	\$14,500
Batch 5	50g	\$155/g	\$7,750
TOTAL	400g	Avg \$150.63/g	\$60,250

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## 6. Certificate Flow Summary

Each LGPW!FGPW transaction creates/updates the following certificates:

### Certificates Created (After 5 Transactions)

Certificate	Type	Wallet	Grams	Status
DOC-001	Digital Ownership	LGPW	500g!100g remain	Active
DOC-002	Digital Ownership	FGPW	100g @ \$150	Active
DOC-003	Digital Ownership	FGPW	100g @ \$160	Active
DOC-004	Digital Ownership	FGPW	50g @ \$140	Active
DOC-005	Digital Ownership	FGPW	100g @ \$145	Active
DOC-006	Digital Ownership	FGPW	50g @ \$155	Active
CONV-001 to 005	Conversion	LGPW!FGPW	Various	Active
PSC-001	Physical Storage	-	500g	5 RECLASS events

## 7. Unlock Scenarios (FGPW ! LGPW)

When user unlocks FGPW, the result depends on current market price:

Scenario	FGPW Unlock	Locked Price	Live Price	LGPW Received
Price dropped	50g	\$150/g	\$140/g	53.57g (+3.57g)
Price same	50g	\$150/g	\$150/g	50g (same)
Price rose	50g	\$150/g	\$160/g	46.88g (-3.12g)

The user's USD value is ALWAYS protected. Only the gold gram amount changes.

## 8. Key Takeaways

• LGPW = Physical gold at market price (value

fluctuates)

- FGPW =

Cash-backed  
reserve displayed  
as gold (value  
protected)

- Lock: LGPW  
gold sold internally,  
USD held in  
reserve

- Unlock: USD  
used to buy gold at  
current live price

- User sees  
gold grams for  
simple UX,  
platform manages  
USD hedge

- All operations  
create certificate  
audit trail

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*For questions, contact: [support@finatrades.com](mailto:support@finatrades.com)*

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