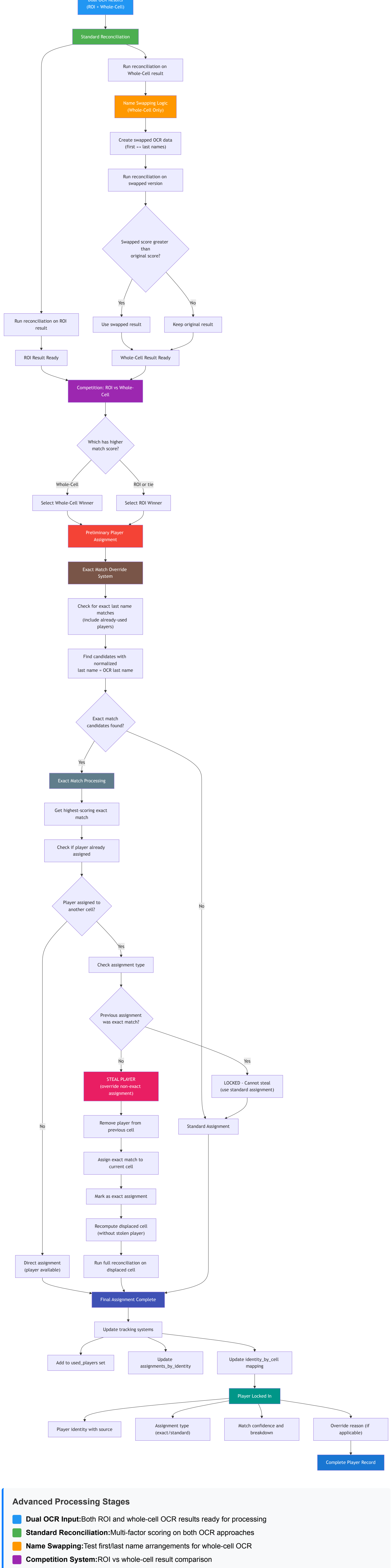


Advanced Player Prediction: Name Swapping & Exact Match Override



Advanced Processing Stages

- Dual OCR Input:**Both ROI and whole-cell OCR results ready for processing
- Standard Reconciliation:**Multi-factor scoring on both OCR approaches
- Name Swapping:**Test first/last name arrangements for whole-cell OCR
- Competition System:**ROI vs whole-cell result comparison
- Preliminary Assignment:**Initial best match selection
- Exact Match System:**Perfect last name match detection and processing
- Match Processing:**Candidate evaluation and availability checking
- Player Stealing:**Override non-exact assignments with exact matches
- Final Assignment:**Player locked to cell with full tracking
- System Tracking:**Update all tracking and identity systems
- Complete Record:**Final player data with metadata

Name Swapping Logic

- Automatic Testing:** Swaps first/last names on whole-cell OCR
- Score Comparison:** Tests both arrangements
- Best Selection:** Uses higher-scoring arrangement
- OCR Error Handling:** Compensates for name field confusion

Competition System

- Head-to-Head:** ROI vs whole-cell (possibly swapped)
- Score-Based:** Highest match score wins
- Tie-Breaking:** ROI preferred on equal scores
- Best Result:** Optimal OCR approach selected

Exact Match Detection

- Normalized Comparison:** Handles case/spacing variations
- Include Used Players:** Searches ALL players
- Override Confidence:** Bypasses normal thresholds
- Perfect Matching:** Zero tolerance for name differences

Advanced Tracking

- Assignment Types:** Exact vs standard matching
- Player Locking:** Prevents unwanted reassignments
- Cell Mapping:** Bidirectional player-cell tracking
- Audit Trail:** Complete decision history

Player Stealing Rules

The system can intelligently reassign players when exact matches are found:

**✓ CAN STEAL:**Player assigned via standard (fuzzy) matching can be stolen by exact match

**✗ CANNOT STEAL:**Player assigned via exact matching is locked and cannot be stolen

Reassignment Process:

- Remove** player from previous cell assignment
- Assign** exact match to current cell with 'exact' flag
- Recompute** displaced cell without the stolen player
- Full reconciliation** on displaced cell to find new best match

**Why This Matters:** Ensures that perfect name matches (exact OCR reads) always take priority over fuzzy matches, leading to higher overall accuracy across the entire draft board.

System Intelligence Highlights:

- Name Confusion Recovery:** Automatically handles first/last name OCR errors
- Exact Match Priority:** Perfect matches override fuzzy matches system-wide
- Smart Reassignment:** Displaced cells get full re-reconciliation
- Player Locking:** Prevents cascading reassignments
- Zero Data Loss:** Every cell gets optimal available match
- Audit Transparency:** Complete tracking of all decisions and overrides
- Graceful Degradation:** Falls back gracefully when stealing isn't possible

Real-World Impact:

This system handles complex scenarios like:

- "MAHOMES" vs "MAHOMES, PATRICK":** Exact match steals from fuzzy match
- "PATRICK MAHOMES" vs "MAHOMES PATRICK":** Name swapping finds correct arrangement
- Multiple "SMITH" players:** Exact matches prevent misassignments
- OCR reading "FIRST LAST" as "LAST, FIRST":** Automatic correction via swapping

**Result:** Industry-leading accuracy on real-world draft boards with complex layouts and OCR challenges.