



THE REAL ESTATE POND

User Manual

Version 1.0 — April 2026

Offline.Ltd

"No cloud. No nonsense. Just tools."

Screen edition (dark)

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Introduction

The Real Estate Pond is an offline-first property investment analysis tool. Eleven interconnected tabs model a deal from acquisition through to portfolio management. Change one number — your interest rate, your vacancy assumption, your purchase price — and every downstream calculation updates instantly.

Think of it as throwing a stone into a pond. Your purchase price is the stone. The financing terms, rental rates, and operating costs are the first ripple. Cash Flow is where the ripples converge. Scenarios and Returns are the waves that reach the shore. And the Decision Log closes the loop — informing your next stone.

Everything runs in your browser. No server, no account, no internet connection required. Your data never leaves your machine.

The Ripple Effect

Every tab feeds downstream. Here is how data flows through the system:

Source	Feeds into	What flows
Property	Financing, Costs, Tax, Returns	Purchase price, cost basis
Financing	Cash Flow	Monthly mortgage payment
Rental Income	Cash Flow, Returns, Dashboard	Effective monthly income
Operating Costs	Cash Flow, Returns	Total monthly expenses
Cash Flow	Scenarios, Returns, Dashboard	Net monthly cash flow
Tax Strategy	Returns (effective)	Depreciation, deductions
All tabs	Dashboard, Decision Log	Health metrics, auto-fill

THE POND METAPHOR

The interconnection is the product. Traditional calculators analyse one aspect in isolation. The Pond lets you pull a lever on any tab and see all the dials move at once.

Quick Start

1. **Open** The_Real_Estate_Pond.html in any modern browser.
2. **Property tab** — enter the purchase price, property type, and closing costs. This is the stone.
3. **Financing tab** — set your down payment percentage, interest rate, and loan term. Watch the monthly payment calculate.
4. **Rental Income tab** — enter gross monthly rent and vacancy rate. Add any ancillary income.
5. **Operating Costs tab** — add your recurring monthly expenses: tax, insurance, maintenance, management.
6. **Cash Flow tab** — see your net monthly number. Green is good. Red means the property costs you money each month.
7. **Dashboard tab** — check the health badges. Click the Oracle button for sensitivity analysis.
8. **Scenarios tab** — model best, base, and worst cases. Drag the sliders and compare outcomes.
9. **Decision Log tab** — record your buy/hold/sell decision with rationale. Click Auto-fill to capture current metrics.
10. **Files tab** — export your state as a JSON file. Keep it alongside the HTML file.

The Tabs

Property

The stone you throw in. Enter the property address, purchase price, type, size, year built, and condition. The purchase price is the most important number — it ripples into every other tab. Closing costs (legal fees, transfer taxes, inspection) are tracked separately and added to your total investment basis for return calculations.

The stat cards show purchase price, closing costs, total cost, and price per unit area.

Financing

Structure the deal. Set your down payment as a percentage (the amount auto-calculates from the purchase price), interest rate, and loan term. The calculator produces your monthly payment split into principal and interest, total interest paid over the life of the loan, and a cost-of-debt multiplier showing how much you pay per dollar borrowed.

The 12-month amortisation table shows exactly how each payment is split between principal reduction and interest. Your monthly payment feeds directly into Cash Flow.

Rental Income

Enter gross monthly rent and your vacancy rate assumption. Effective rent is calculated as gross rent multiplied by (1 minus vacancy rate), plus any other income from parking, storage, laundry, or pet fees. The annual rent growth percentage is used in the Scenarios tab for multi-year projections.

THE 1% RULE

A quick screening metric: monthly rent should be at least 1% of the purchase price. Below 0.7% is typically a capital-growth play with weak yield. The Dashboard tracks this.

Operating Costs

Add all recurring monthly costs as categorised line items: property tax, insurance, maintenance reserve, property management fees, HOA or service charges, utilities, and any other expenses. These are subtracted from rental income in the Cash Flow tab.

The expense ratio (total costs as a percentage of effective rent) is shown as a sanity check. The 50% Rule suggests operating expenses typically hover around 50% of rental income — if yours is significantly higher, review each line item.

Cash Flow

The convergence point. $\text{Net Cash Flow} = \text{Effective Rent} - \text{Mortgage Payment} - \text{Operating Costs}$. This is the number that determines whether ownership is a joy or a burden.

The large-format display is colour-coded: green when above \$200/month (healthy), amber from \$0 to \$200 (break-even), red from \$0 to negative \$200 (feeding the property), and pulsing red below negative \$200 (critical).

The 12-month projection applies your rent growth assumption month-by-month and shows both a sparkline chart and a detailed monthly breakdown table with a cumulative column.

Tax Strategy

Property depreciation creates a paper loss that shields rental income from taxation. The annual depreciation is calculated as: $(\text{purchase price} \times (1 - \text{land percentage})) \div \text{depreciation period}$. For US residential property, the standard period is 27.5 years; other jurisdictions vary.

The tab also estimates first-year mortgage interest deductions and allows you to add additional deductions (travel, professional fees, home office). The estimated tax savings figure shows the real-world benefit of these deductions at your marginal rate.

Scenarios

Model three scenarios — Best Case, Base Case, and Worst Case — over your chosen hold period (1 to 40 years). Each scenario has four sliders controlling appreciation rate, rent growth, vacancy, and expense growth.

The comparison table shows projected property value, total cumulative cash flow, total return (cash flow plus appreciation), and annualised return for each scenario side by side. Drag the sliders and watch the numbers update in real time.

SCENARIO DISCIPLINE

Always check the Worst Case first. If you can survive the worst case (positive or near-zero cash flow, modest depreciation), the deal has downside protection. A deal that only works in the best case is a speculation, not an investment.

Portfolio

Your primary property (from the Property tab) is always included. Add additional properties with their value, monthly rent, monthly costs, and mortgage payment to see aggregate portfolio metrics: total value, total monthly rent, total monthly cash flow, and annual portfolio cash flow.

This tab is useful for seeing how a new acquisition affects your overall position and for tracking multiple properties in a single view.

Returns

The numbers that matter, all in one place. The Returns tab calculates five key metrics:

Metric	Formula	What it tells you
Cap Rate	NOI / Purchase Price	Market-level yield, ignores financing
Cash-on-Cash	Annual CF / Cash Invested	Your actual return on cash put in
GRM	Price / Annual Gross Rent	Quick comparison (lower = better)
DSCR	NOI / Annual Debt Service	Debt safety (lenders want >1.25)
NOI	Eff. Rent - Costs (annual)	Operating profitability before debt

The equity build-up sparkline shows how your ownership stake grows over the first 12 months as mortgage principal is paid down.

Dashboard

Everything at a glance. Five health-check stat cards with traffic-light badges: Cash Flow, Cap Rate, DSCR, Expense Ratio, and Vacancy. Green means healthy, amber means watch, red means action needed.

Two summary cards show the monthly breakdown (income minus mortgage minus costs equals net) and quick ratios (1% rule, price-to-rent ratio, cash-on-cash return, and break-even occupancy percentage).

Decision Log

Your investment journal. Log buy, hold, and sell decisions with the date, property name, your rationale, and the key numbers at the time of the decision. Each entry is colour-coded by type: green for buy, amber for hold, red for sell.

The Auto-fill button populates the key numbers field with current metrics pulled from across all tabs: cap rate, cash-on-cash return, monthly cash flow, and DSCR. Over time, the Decision Log becomes your investment history — invaluable for learning from past choices and tracking how your thinking evolved.

CLOSE THE LOOP

When you make a buy decision, the next property goes back to the Property tab. The Decision Log is the feedback loop that connects the end of one analysis to the beginning of the next — like a stone thrown from the shore back into the pond.

The Oracle

The Oracle is a sensitivity analysis tool built into the Dashboard. Click the Oracle button to reveal two sections: lever analysis and low-hanging fruit.

Sensitivity Analysis

The Oracle models the monthly cash flow impact of six improvements:

Lever	What it models	Typical impact
Rent +10%	Raising rent by 10%	High — often the biggest lever
Vacancy halved	Cutting vacancy rate in half	Moderate to high
Costs -10%	Reducing operating costs by 10%	Moderate
Rate -1 point	Refinancing to a lower rate	High for large mortgages
Down pmt +10pp	Increasing down payment	Moderate
Price -5%	Negotiating purchase price down	Moderate

The levers are sorted by impact with proportional colour bars, so the biggest opportunity is always at the top. Click any lever to jump directly to the relevant tab.

Low-Hanging Fruit

Below the levers, the Oracle generates contextual, actionable recommendations based on your specific numbers. These are not generic tips — they reference your actual vacancy rate, management fee, interest rate, and expense ratio, and include the exact dollar amount you would gain from each adjustment. Each tip links to the tab where you can make the change.

Files & State Management

Your work is saved automatically in the browser's localStorage. For portability, use the Files tab to export your full state as a JSON file. The file contains all eleven tabs' data and can be imported on any device.

You can also export and import individual tools separately. The session info section shows when your session started, how many tools you have used, and how much localStorage is consumed.

THE TWO-FILE SYSTEM

Keep two files together: the HTML tool and your latest state JSON. Email them to yourself, put them on a USB stick, store them in a cloud folder. Open the HTML anywhere, import your state, and you are exactly where you left off.

Keyboard Shortcuts

Shortcut	Action
Ctrl/Cmd + 1	Property tab
Ctrl/Cmd + 2	Financing tab
Ctrl/Cmd + 3	Rental Income tab
Ctrl/Cmd + 4	Operating Costs tab
Ctrl/Cmd + 5	Cash Flow tab
Ctrl/Cmd + 6	Tax Strategy tab
Ctrl/Cmd + 7	Scenarios tab
Ctrl/Cmd + 8	Portfolio tab
Ctrl/Cmd + 9	Returns tab
Ctrl/Cmd + 0	Dashboard tab
Ctrl/Cmd + S	Export full state
Escape	Close modals

Glossary

Term	Definition
Cap Rate	Net Operating Income divided by purchase price. A market-level yield metric.
Cash-on-Cash	Annual pre-tax cash flow divided by total cash invested. Measures the return on cash invested.
DSCR	Debt Service Coverage Ratio. NOI divided by annual mortgage payments.
GRM	Gross Rent Multiplier. Purchase price divided by annual gross rent. A quick metric for comparing properties.
NOI	Net Operating Income. Annual effective rental income minus annual operating expenses.
Effective Rent	Gross rent adjusted for vacancy, plus ancillary income. The income you can expect to receive.
Vacancy Rate	The percentage of time a property is expected to be unoccupied. Typically 5-10%.
Expense Ratio	Total operating costs as a percentage of effective rent. The 50% Rule suggests a maximum of 50%.
Amortisation	The process of paying off a loan through regular payments that cover both principal and interest.
Depreciation	A tax deduction that accounts for the theoretical wear and tear on a property over its useful life.
Break-even Occupancy	The minimum occupancy rate needed for rental income to cover mortgage payments and operating expenses.

Disclaimer

All calculations, projections, and analyses generated by The Real Estate Pond are estimates for informational and planning purposes only. They do not constitute financial, legal, tax, or investment advice.

Property investment carries inherent risks including but not limited to loss of capital, negative cash flow, market depreciation, vacancy, and regulatory changes. Users should independently verify all outputs and consult qualified professionals before making investment decisions.

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