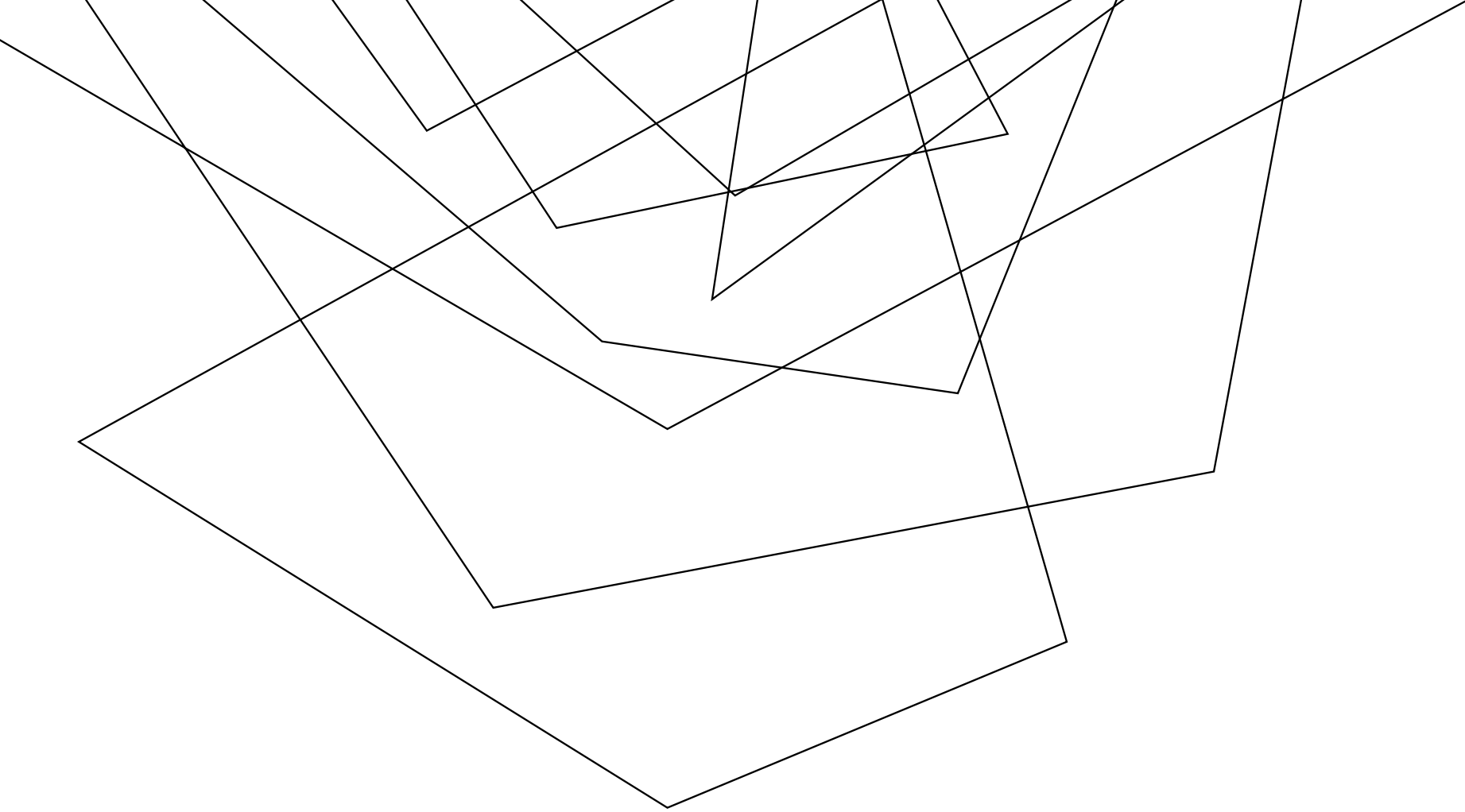
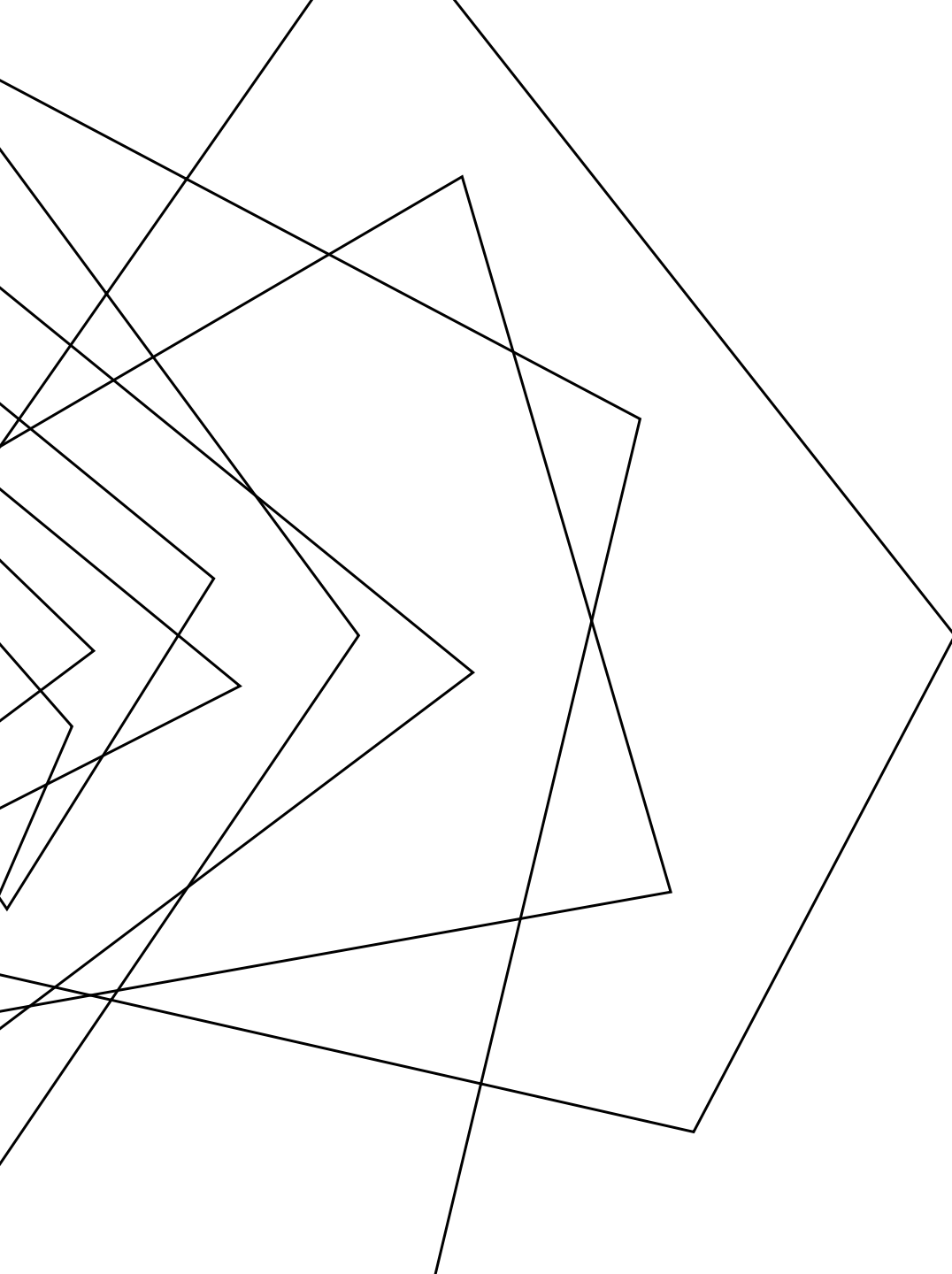


Abstract geometric lines in the top-left corner of the slide, consisting of several overlapping, irregular polygons and lines in black.

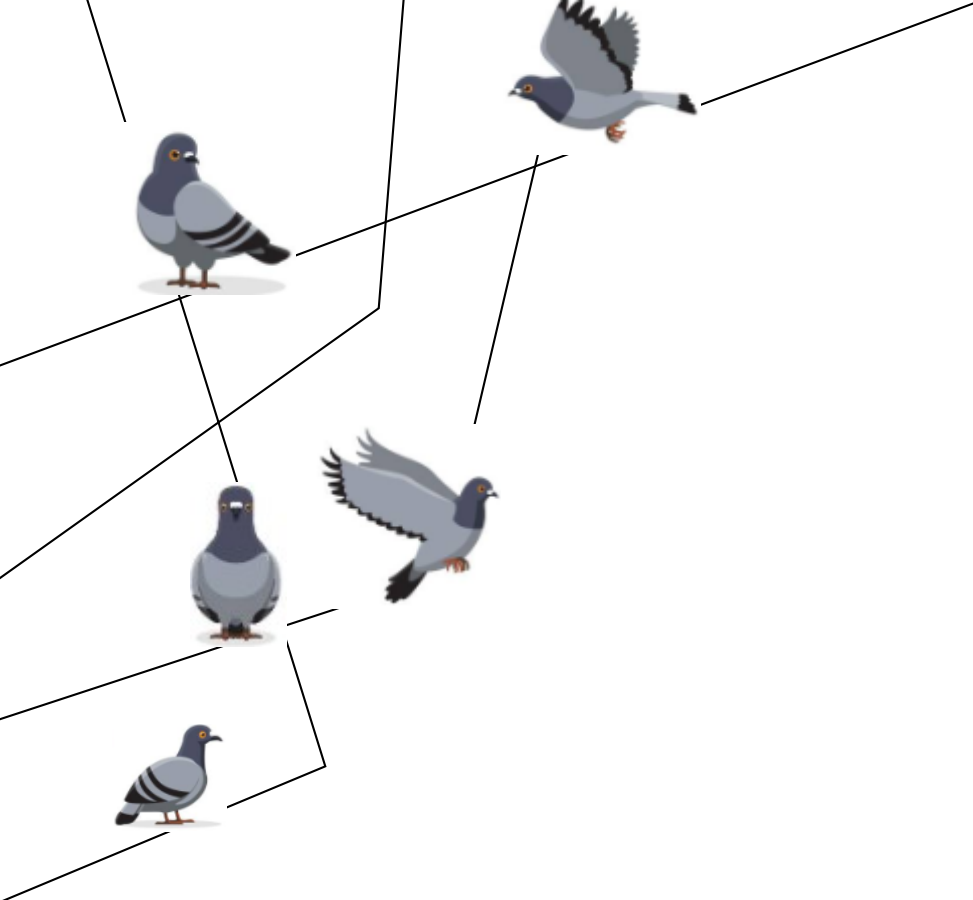
ADO RECORDSETS

Presented by Chris Arnold (aka CJ_London)



ABOUT ME

- **Qualified Accountant**
- **Previously FD/FC of a number of companies**
- **Worked with Access for 30 years**
- **Contracting/developing for last 25 years**
- **Primary focus has been**
 - **financial management**
 - **resolving discontinuity between corporate systems**
- **Regular contributor to AWF and AF**



OVERVIEW

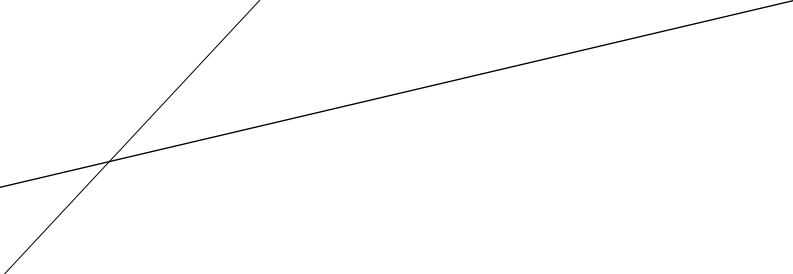
What ADO Recordsets are and where they fit in Access

- **Comparison with:**
 - Arrays
 - Collections
 - Dictionaries
 - DAO Recordsets & Temp Tables
- **Advantages and limitations of each approach**
- **Practical demos:**
 - Connected ADO Recordsets
 - Disconnected ADO Recordsets

Overview Comparison

Feature / Capability	ADO RS	DAO RS	Temp Table	Array	Dictionary	Collection	TempVars
Holds Multiple Records	✓	✓	✓	✓	✓	✓	✗
Multiple Fields per Record	✓	✓	✓	Limited (2D)	Typically 1 value	1 value per item	✗
Bindable to Form	✓	✓	✓	✗	✗	✗	✗
Bindable to Report	✗	✓	✓	✗	✗	✗	✗
Sortable Built-In	✓ (.Sort)	Via SQL	Via SQL	✗	✗	✗	✗
Filterable Built-In	✓ (.Filter)	Via SQL	Via SQL	✗	✗	✗	✗
Uses SQL Engine	Optional	✓	✓	✗	✗	✗	✗
Stored in Memory	✓*	✗	✗	✓	✓	✓	✓
Supports Key Lookup	✓ (.find)	✓ (.find)	✓ (.find)	✗	✓	✓	✓

*With cursor set to client



Considerations

Network latency

Server load

Client memory limits

Scalability concerns

Multi-user contention

Core Question:

Where should processing happen — server, Access data engine, or client memory?

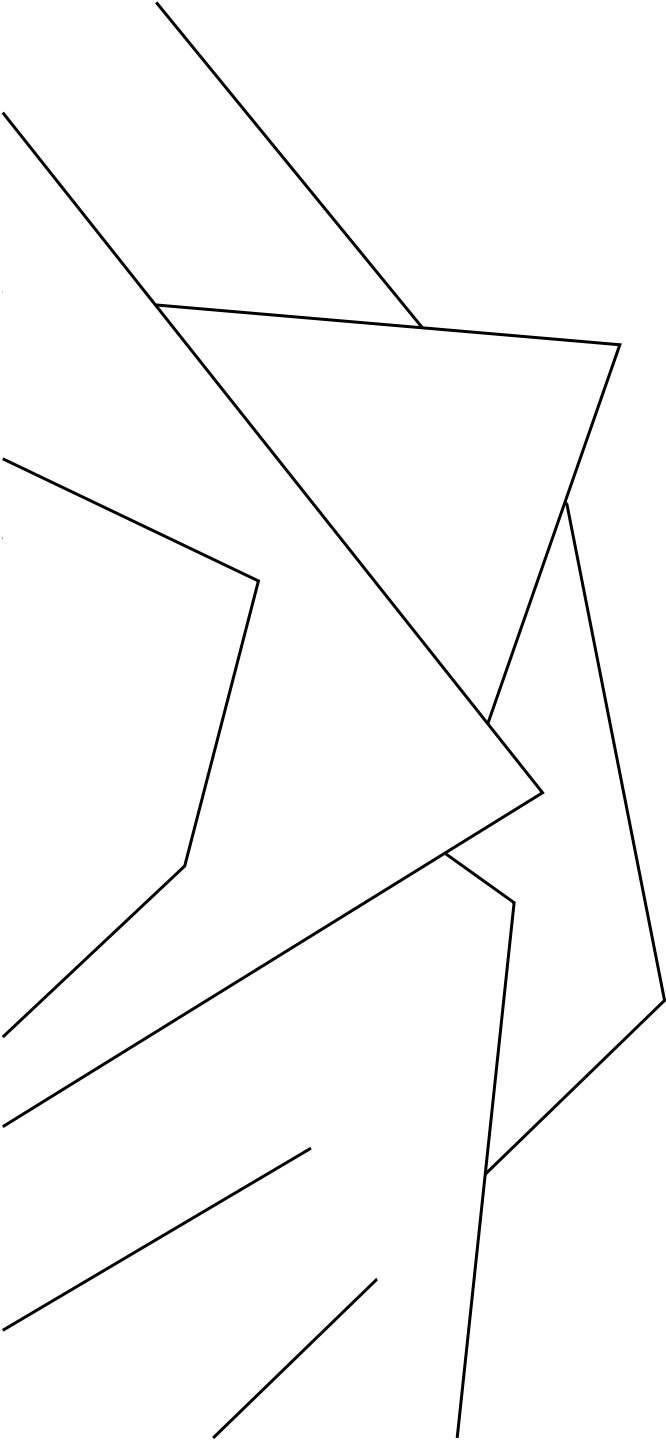
When to Use

Scenario	Best Choice
Interactive temporary dataset	Disconnected ADO
Large server-optimized processing	DAO + SQL
Shared staging across users	Temp Table
Fast indexed lookups	Dictionary
Ordered object storage	Collection
Fast internal numeric processing	Array
Cross-form parameter passing	TempVars
BE Password security	Disconnected ADO
Begin/Commit Trans	Disconnected ADO

Some Examples for using Disconnected ADO

Scenario

- Complex Multi Step Data Entry
e.g. Invoicing/insurance claim
- Interactive Dashboard
- What If Modelling/Simulation
budget projection, pricing
- Batch Import Preview / Validation Layer
- Snapshot-Based Review / Approval Screens
- Cross-Database Data Merge (Heterogeneous Sources)
- Wizard-Style Interfaces (Multi-Page Forms)
Onboarding, complex configuration
- Reducing Server Chatter
- Begin/Commit trans



Examples

Three Examples to show

Simple Treeview

- Yes – you could use a temp table

Begin/Commit Trans

- Overcomes the issue of multi table forms

Hiding Backend Password

- Hides the form recordsource as well

ADVANTAGES & DISADVANTAGES #1

Disconnected ADO Recordset

Advantages

- Bindable to forms
- In-memory (fast for small-medium sets)
- Sort & filter without hitting database
- Can be passed between procedures
- Can be saved to XML
- Begin/Commit trans
- BE Password security

Disadvantages

- Memory heavy
- More complex to set up
- Not as optimized as DAO for large data
- Not native to Access (DAO is)
- Cannot bind to Reports

DAO Recordset

Advantages

- Native to Access
- Optimized for Jet/ACE
- Excellent for large datasets
- Full SQLserver support

Disadvantages

- Requires requery to refresh
- Database-bound
- Slower for repeated in-memory operations

ADVANTAGES & DISADVANTAGES #2

Dictionary

Advantages

- Key/value storage
- Fast lookup
- Flexible

Disadvantages

- Not relational
- Not bindable
- Manual sorting
- No native SQL/filter

Collections

Advantages

- Native to VBA (no reference required)
- Can store objects (forms, class instances, recordsets)
- Maintain insertion order
- Key-based access (optional)
- Lightweight compared to recordsets
- Easier than Dictionary for simple grouping

Disadvantages

- No built-in sorting
- No built-in filtering
- No built-in Exists method
- Cannot modify item directly (must remove & re-add for objects)
- Not bindable to forms
- Not relational

ADVANTAGES & DISADVANTAGES #3

Temp Tables

Advantages

- Persist in database
- Bindable
- SQL support
- Good for complex processing

Disadvantages

- Disk I/O
- Cleanup required
- Multi-user locking considerations

Arrays

Advantages

- Extremely fast
- Very lightweight
- Simple for small datasets

Disadvantages

- Not bindable to forms
- Manual sorting/filtering
- No field names
- Limited structure for record storage

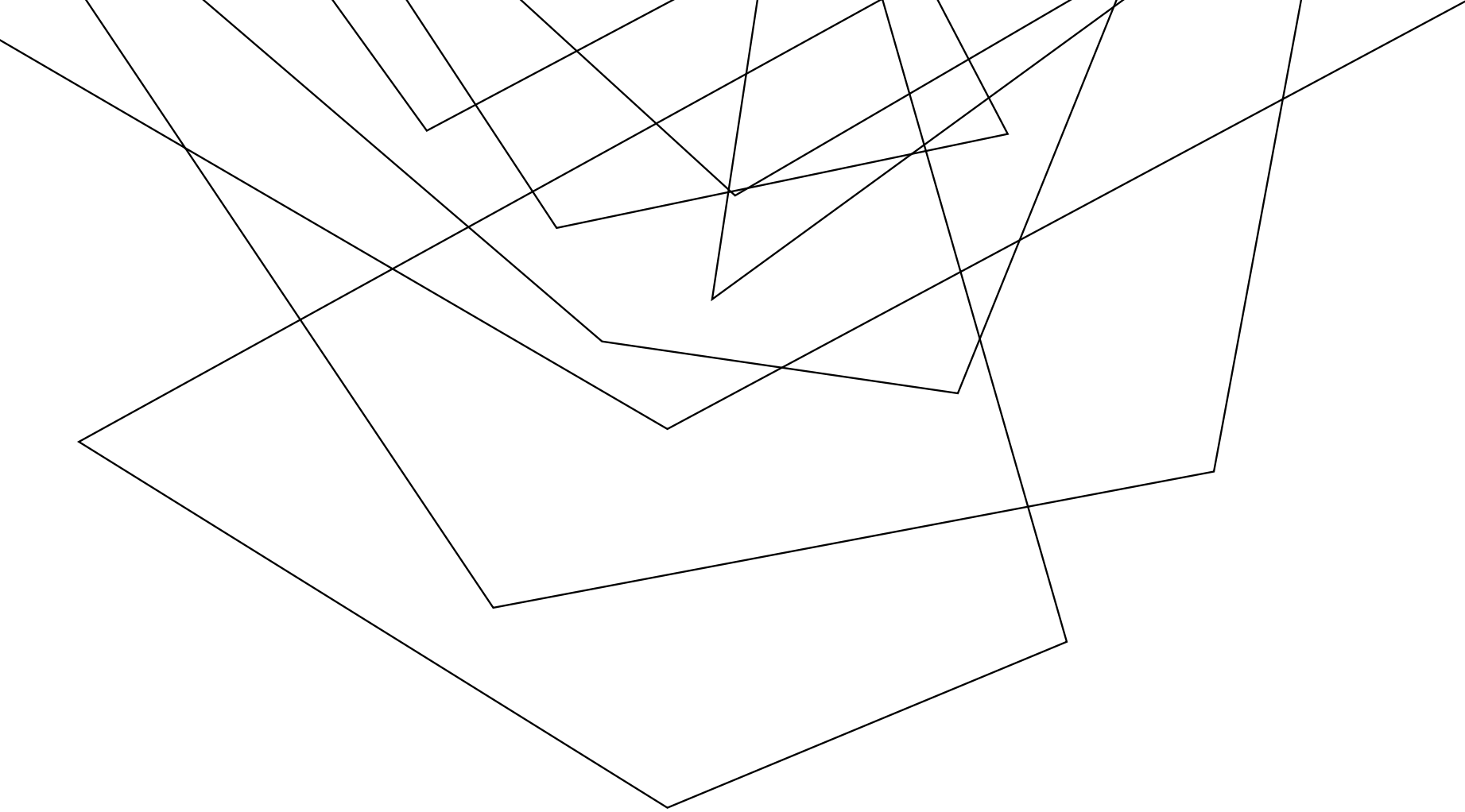
TempVars

Advantages

- Global scope
- Survives code resets
- Very lightweight

Disadvantages

- Only single values
- Not structured
- Not suitable for record storage



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