

## Workflow Orchestration Comparison: PointyLang vs Airflow, Prefect, and Apache Beam

Feature / System	PointyLang	Airflow	Prefect	Apache Beam
Type	DSL + Python	Python DAG	Python decorators	Unified data model
Syntax Style	.pty + Python	Pure Python	Pure Python	Functional
Visual Editor	Planned	Web UI	Orion UI	Dataflow UI
Parallelism	Yes (  ,  ->)	Yes	Yes	Yes
Retries / Policies	Yes (*3 style)	Yes	Yes	Yes
Conditional Logic	Yes (branching)	Partial (custom logic)	Yes	Limited
Data Passing	Implicit via fields	XCom	Args	PCollections
Remote Task Support	Yes (gRPC/XML-RPC/etc)	Partial (Celery/K8s)	Yes	Yes
Scheduling	Yes (built-in)	Yes	Yes	Partial
Batch Support	Yes (BatchPipeline)	No	Yes	Yes
Streaming Support	Planned	No	Experimental	Yes
Observability	Prometheus, Elastic	UI, logs	Orion UI	Stackdriver
Comment Support	Yes (# syntax)	Yes	Yes	Yes
Deployment Flexibility	CLI + agents	Requires infra	Agents	Highly portable
Learning Curve	Easy	Moderate	Easy	Steep