

Residuality Theory

A 3-day workshop with Barry O'Reilly

DATES	VENUE	FORMAT	LANGUAGE
1–3 March 2027	Warsaw, Poland	in-person workshop	English

— Why invest in this workshop?

In technology projects, many architecture decisions are made on the basis of the information available today. **The problem shows up later.**

Business requirements, regulations, the sales model, key customers, technology or the structure of the organisation change. An architecture that was rational when it was designed can become a constraint.

Residuality Theory gives architects a way of thinking and a set of techniques for designing systems that take such changes into account — including those we can't yet predict precisely.

— Learning outcomes

After the workshop, participants will be able to:

- spot architectural risks before they turn into expensive problems,
- analyse how a single change can spread through the system,
- test the architecture against different change scenarios,
- identify changes that could affect the system — technological, business, organisational and legal,
- make decisions about component boundaries based on analysis, not just intuition,
- explain technical decisions and their consequences to people outside the technology team.

— Who is this workshop for?

Software, Solution and System Architects, Tech Leads, Senior Developers moving into architecture, and anyone responsible for decisions about complex systems.

This is an advanced workshop. It doesn't require knowledge of DDD or any particular language or framework, but it assumes hands-on experience designing systems.

— Programme: 3 days, 7.5 hours each

Theory combined with exercises — participants apply each technique straight away to concrete cases.

DAY 1

Foundations

- complexity in software engineering,
- philosophy of architecture,
- representation in architecture,
- Residuality Theory,
- attractor networks.

DAY 2

Modelling change

- modelling stress,
- socio-economic architecture,
- defining residues,
- unknown unknowns,
- producing a real-world architecture.

DAY 3

Decisions and testing

- contagion analysis,
- component decisions,
- adjacency matrix techniques,
- incidence matrix techniques,
- testing the architecture.

The programme matches the Advanced Software Architecture with Residuality Theory workshop that Barry also runs outside Poland.

— Taught by Barry O'Reilly — creator of the method



Software architect and researcher. His past roles include Chief Architect at Microsoft and startup CTO; he currently researches complexity science and software engineering.

Your employee learns the method from its creator, not from a second-hand interpretation.

Barry runs the same programme for DDD Academy and Avanscoperta, among others.

— What's in it for your company?

The real value comes when a new approach helps your employee do their current job better. The workshop is particularly valuable for companies that:

Design long-lived systems

An architecture developed over years has to respond to business and technology change.

Run large or complex projects

The more dependencies and unknowns, the more the way decisions are made matters.

Modernise existing systems

Change without understanding dependencies can create new problems instead of solving them.

Build new products and develop senior engineers

Decisions made with limited knowledge of the future — and for senior engineers, practical tools rather than yet another framework.

— Logistics

DATES	1–3 March 2027
VENUE	Warsaw, Poland
HOURS	09:30–17:00 each day
LANGUAGE	English
FORMAT	lectures + group exercises
SEATS	30

Included: the workshop, training materials, morning coffee, lunch and an afternoon coffee break each day.

Travel and accommodation are not included.

INVESTMENT • EARLY BIRD

PLN 4,990 + VAT

PLN 6,137.70 incl. 23% VAT per person

The company receives a VAT invoice. Payment based on a pro forma invoice is also possible.

Group bookings

For 3 or more people we prepare a tailored team offer and a single pro forma invoice for the company.

— What will your employee bring back to work?

Participants work with concrete techniques they can later use on real problems:

stressor analysis → contagion analysis → matrices → component boundary decisions → testing the architecture

“What happens to our system if this condition changes?”

“Which parts of the system are most vulnerable to this change?”

“How can we test this decision instead of relying on experience alone?”

— Why a public workshop, not in-house training?

The workshop takes place in an international group of experienced professionals. Your employee gets to challenge their thinking with peers from other organisations and technology contexts, not just their own team.

— About Arpeggia.studio

A company founded by senior IT architects who have worked on more than 100 technology projects. We help companies make better technology decisions and run Architectural KATA workshops.

— Want to register an employee?

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PLN 4,990 + VAT / person

Write to us if you need more information or want to register several people:

contact@arpeggia.studio

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