

Beyond Developer



Dan North

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The Old Testament

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In the beginning...

Diagram for the computation by the Engine of the Numbers of Bernoulli. See Note G, (page 722 *et seq.*)

Number of Operation	Nature of Operation	Variables used upon	Variables receiving results	Indication of change in the value of any Variable	Statement of Results	Data												Working Variables												Result Variables			
						V_1	V_2	V_3	V_4	V_5	V_6	V_7	V_8	V_9	V_{10}	V_{11}	V_{12}	V_{13}	V_{14}	V_{15}	V_{16}	V_{17}	V_{18}	V_{19}	V_{20}	V_{21}	V_{22}	V_{23}	V_{24}	V_{25}	V_{26}		
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
1	X	$V_2 \times V_2$	V_4, V_6, V_8	$V_4 = V_2^2$	$-2n$	...	2	...	2n	2n	2n	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	-	$V_4 - V_2$	V_6	$V_6 = V_4 - V_2$	$-2n-1$	1	...	...	2n-1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	+	$V_6 + V_2$	V_8	$V_8 = V_6 + V_2$	$-2n+1$	1	...	...	...	2n+1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	+	$V_8 - V_4$	V_{10}	$V_{10} = V_8 - V_4$	$-2n-1$	...	2	...	...	0	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	+	$V_{10} + V_2$	V_{12}	$V_{12} = V_{10} + V_2$	$-2n+1$	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	-	$V_{12} - V_{10}$	V_{14}	$V_{14} = V_{12} - V_{10}$	$-2n-1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	-	$V_{14} - V_{12}$	V_{16}	$V_{16} = V_{14} - V_{12}$	$-2n+1$	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	+	$V_{16} + V_2$	V_{18}	$V_{18} = V_{16} + V_2$	$-2n-1$	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	+	$V_{18} - V_{16}$	V_{20}	$V_{20} = V_{18} - V_{16}$	$-2n+1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	X	$V_{20} \times V_{12}$	V_{22}	$V_{22} = V_{20} \times V_{12}$	$-2n-1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	+	$V_{22} + V_{10}$	V_{24}	$V_{24} = V_{22} + V_{10}$	$-2n+1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	-	$V_{24} - V_{22}$	V_{26}	$V_{26} = V_{24} - V_{22}$	$-2n-1$	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	-	$V_{26} - V_{24}$	V_{28}	$V_{28} = V_{26} - V_{24}$	$-2n+1$	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	+	$V_{28} + V_2$	V_{30}	$V_{30} = V_{28} + V_2$	$-2n-1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	+	$V_{30} - V_{28}$	V_{32}	$V_{32} = V_{30} - V_{28}$	$-2n+1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	X	$V_{32} \times V_{24}$	V_{34}	$V_{34} = V_{32} \times V_{24}$	$-2n-1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	-	$V_{34} - V_{32}$	V_{36}	$V_{36} = V_{34} - V_{32}$	$-2n+1$	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	+	$V_{36} + V_2$	V_{38}	$V_{38} = V_{36} + V_2$	$-2n-1$	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	+	$V_{38} - V_{36}$	V_{40}	$V_{40} = V_{38} - V_{36}$	$-2n+1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	X	$V_{40} \times V_{32}$	V_{42}	$V_{42} = V_{40} \times V_{32}$	$-2n-1$	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

1844: All the code in the world

In the beginning...



1844: All the programmers in the world

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100 years later...

You wait. Time passes...
Thorin waits.

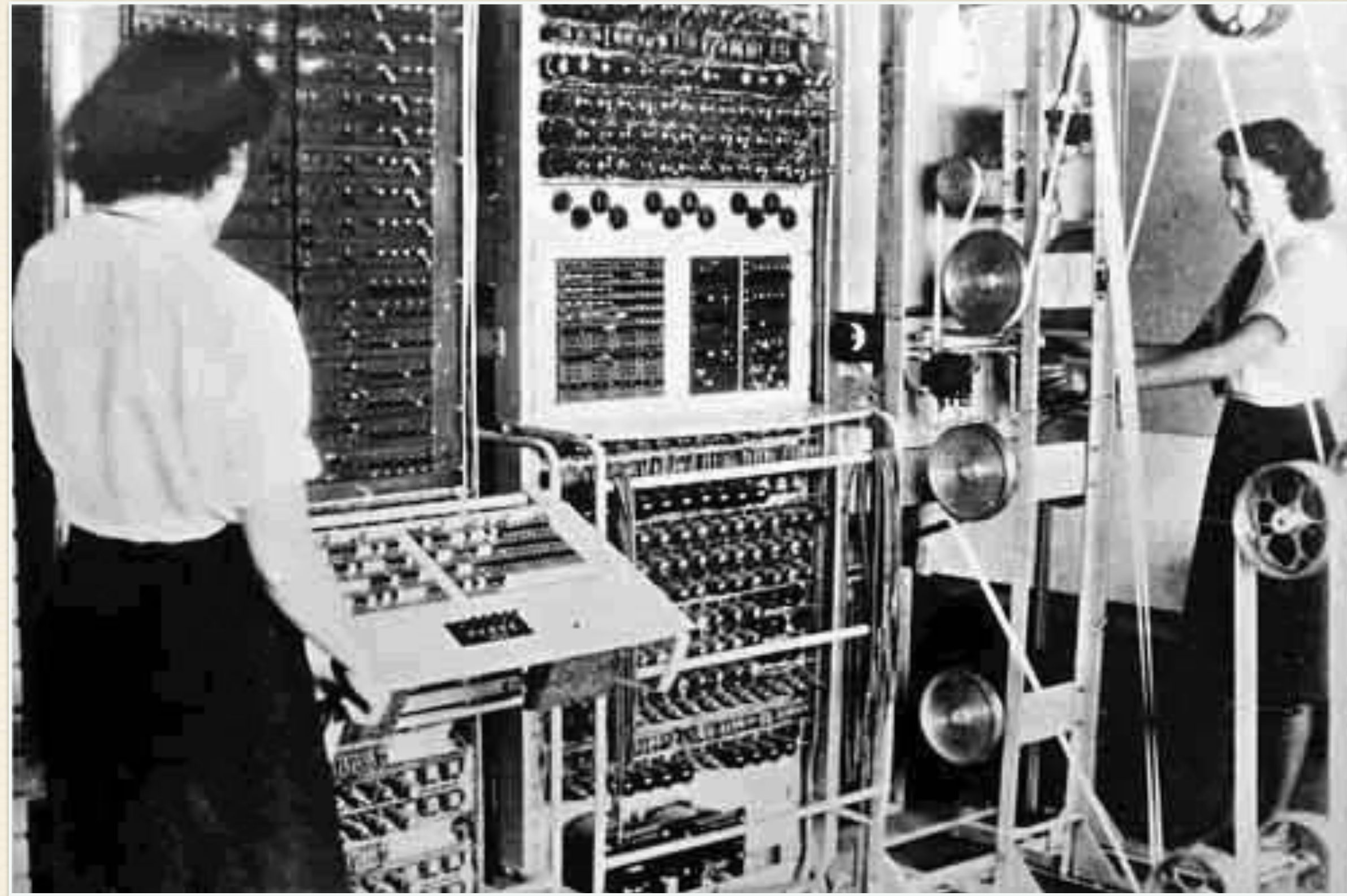
You wait. Time passes...
Thorin waits.

You wait. Time passes...

You wait. Time passes...

You wait. Time passes...

Necessity is the mother of invention...



1944: Programmers hack on a Colossus Mk 2

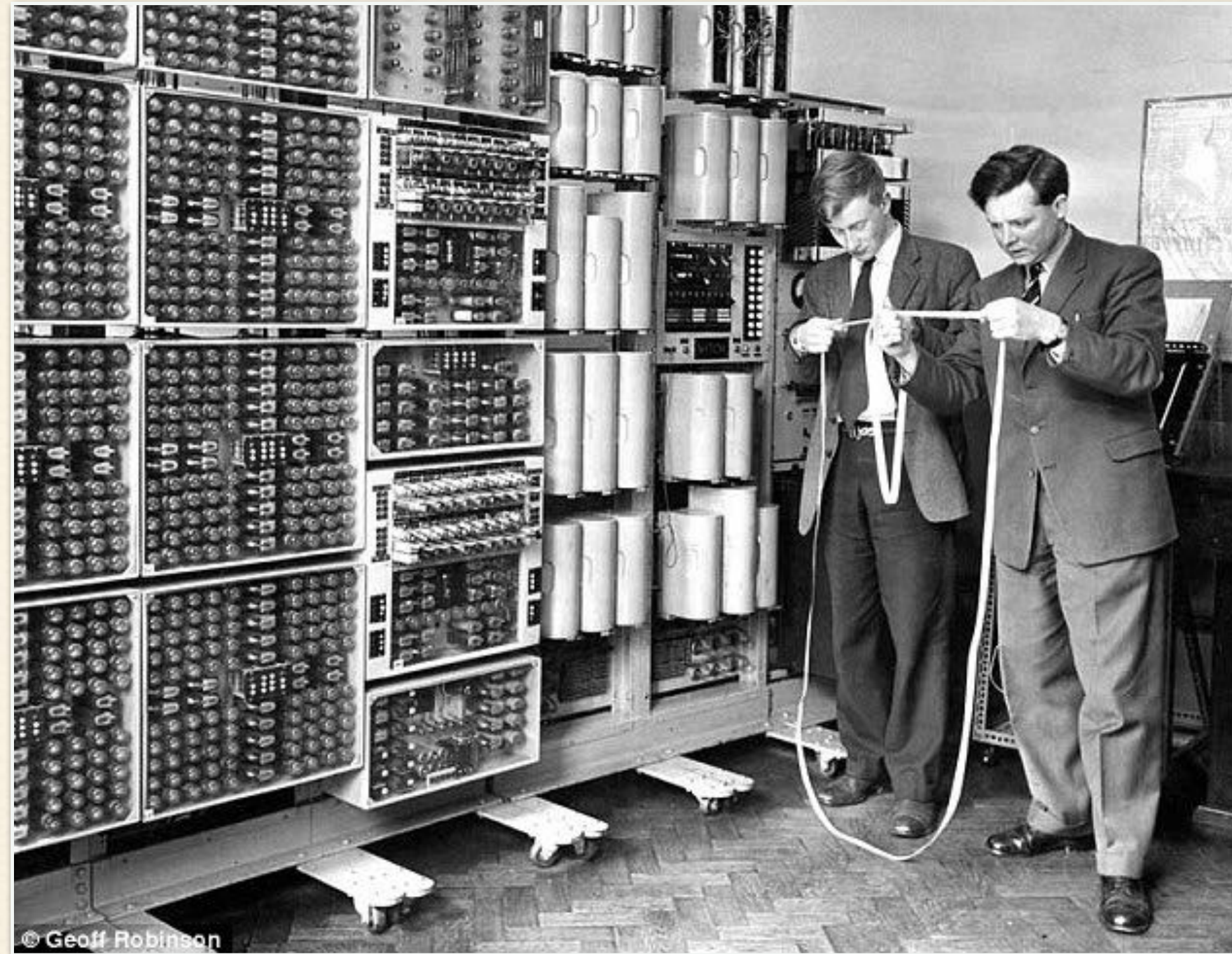
We invent tools...



*Admiral Grace Hopper, invents the compiler.
And the nanosecond.*

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People begin to specialise...



1960s: Debugging a “WITCH” mainframe in academia

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There are Commandments...

- ❖ You shall have a Business Requirements Document
- ❖ You shall have a Functional Specification
- ❖ You shall program in the manner of the Specification
- ❖ You shall have no other Specification before me
- ❖ Analysts shall analyse, Architects shall architect
- ❖ Programmers shall program, Testers shall test

And more Commandments...

- ❖ You shall complete a Formal Change Request
- ❖ You shall provide Release Documentation
- ❖ You shall not release to Production yourself, lest you incur the wrath of the Release Manager
- ❖ You shall not hack on that which is in Production*

* more of a guideline really

The New Testament

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Then comes a new Covenant...



The Agile Manifesto

We are uncovering better ways...

Individuals and interactions *over* processes and tools

Working software *over* comprehensive documentation

Customer collaboration *over* contract negotiation

Responding to change *over* following a plan

2001: Programmers drafting the Agile Manifesto, Utah

Revelation

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Beyond Developer

I am

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...a developer

- ❖ learns the language
- ❖ learns the libraries
- ❖ monitors the alternatives
- ❖ learns the toolchain
- ❖ engages with the community

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...in a team

- ❖ understands the process
- ❖ understands the roles
- ❖ collaborates with others

...all the others!

- ❖ attends to the team's health

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...building a product

- ❖ understands the business objective
- ❖ studies the domain
- ❖ knows the stakeholders

...all the stakeholders!

- ❖ contributes to the product

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...on a platform

- ❖ understands the technical landscape
- ❖ understands the path to production
- ❖ cares about runtime concerns
- ❖ values automation

...*not* all the automation!

- ❖ contributes to the platform

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...in a department

- ❖ understands the wider context
- ❖ makes local trade-offs
- ❖ shares their knowledge across teams

...all their knowledge!

- ❖ contributes to the department
- ❖ influences across the organisation

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

...in an organisation.

- ❖ projects the organisation's values
- ❖ cares about organisation's reputation
- ❖ shares their knowledge externally

...*not* all their knowledge!

- ❖ contributes to the organisation

Beyond Developer

You are

...a developer

...in a team

...building a product

...on a platform

...in a department

...in an organisation.

You are Beyond Developer

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*“If you want to go fast, go alone.
If you want to go far, go together”*

—African proverb

Thank you

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