

INTEGRATED CIRCUITS EXPLORATION

CHIPJUICE EXTRACTION

Is a

SOFTWARE

Which allows

IN-DEPTH EXPLORATION

Of

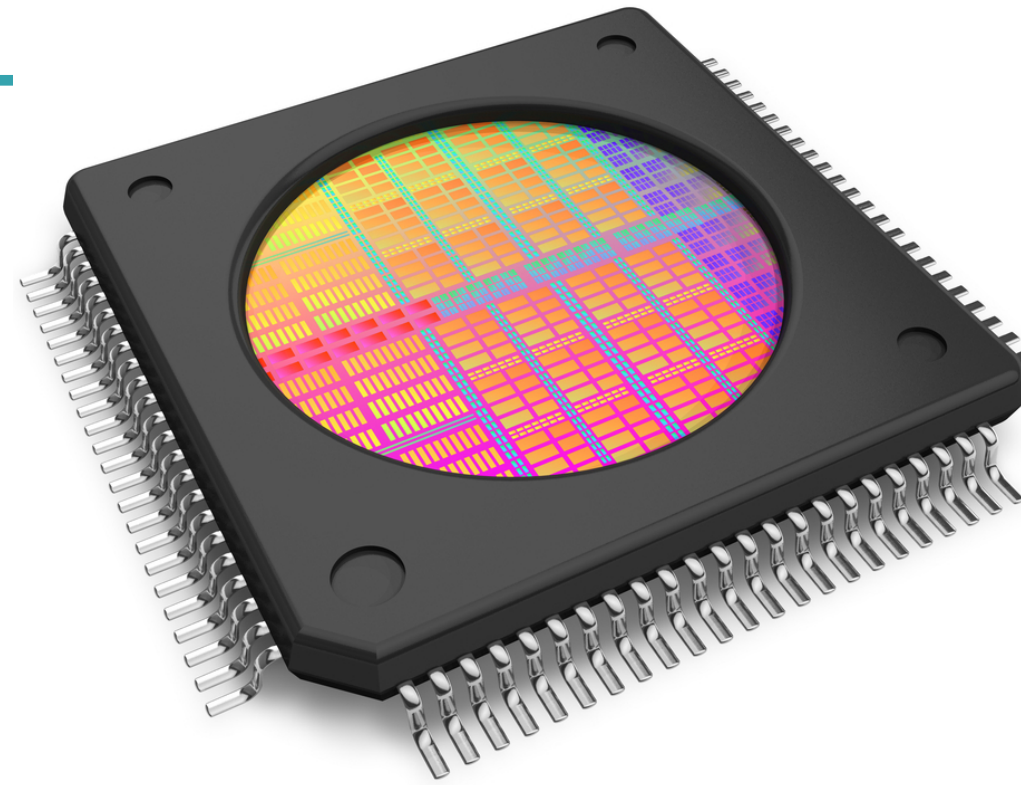
INTEGRATED CIRCUITS

Mainly for

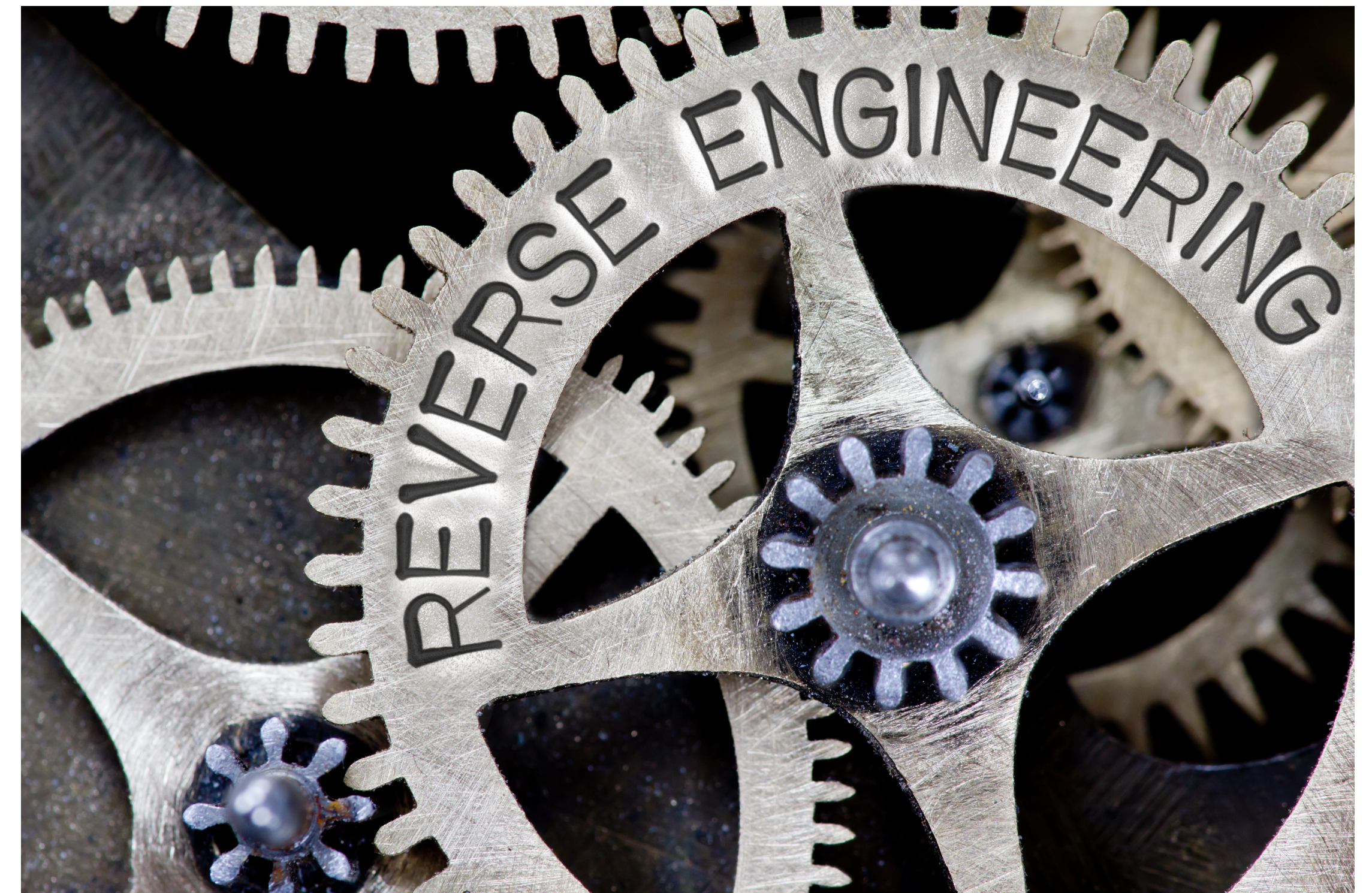
HARDWARE AND SOFTWARE DATA EXTRACTION

Applicable to

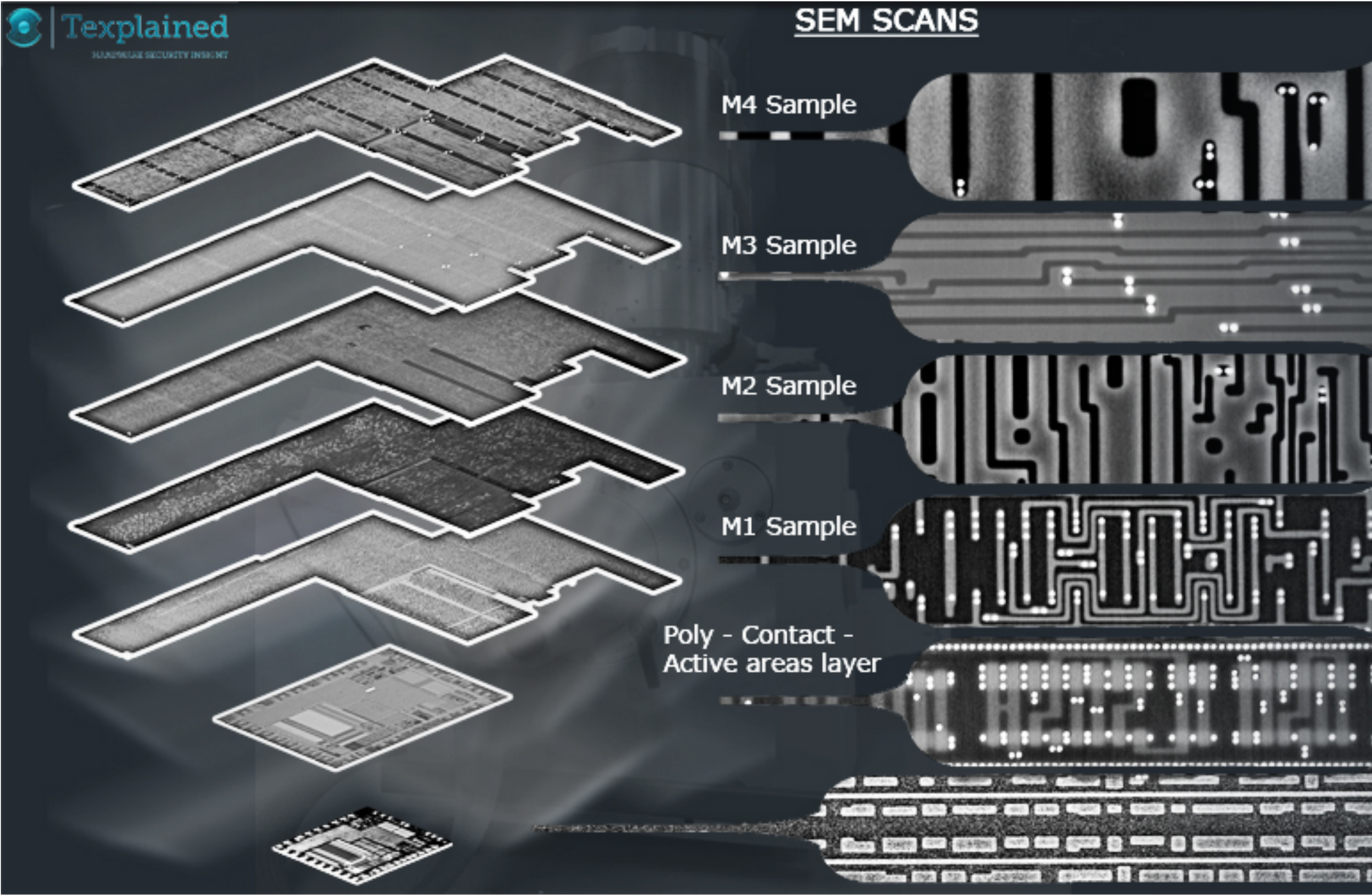
HIGHLY SECURE INTEGRATED CIRCUITS



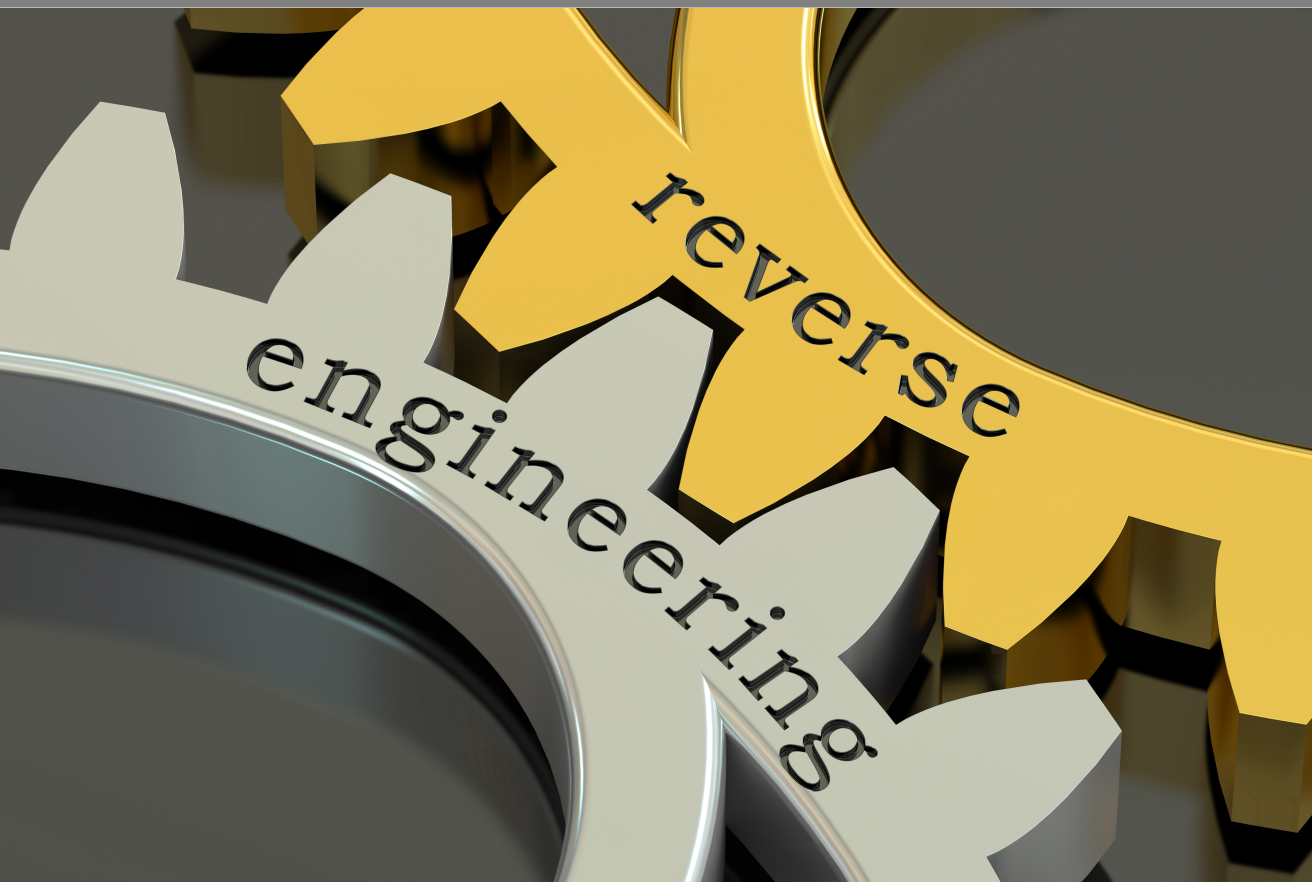
ChipJuice Extraction automates the Reverse Engineering of any type of Integrated Circuits



EXTRACTION OF INTEGRATED CIRCUITS' ARCHITECTURE



CHIPJUICE
AUTOMATED REVERSE ENGINEERING SOFTWARE



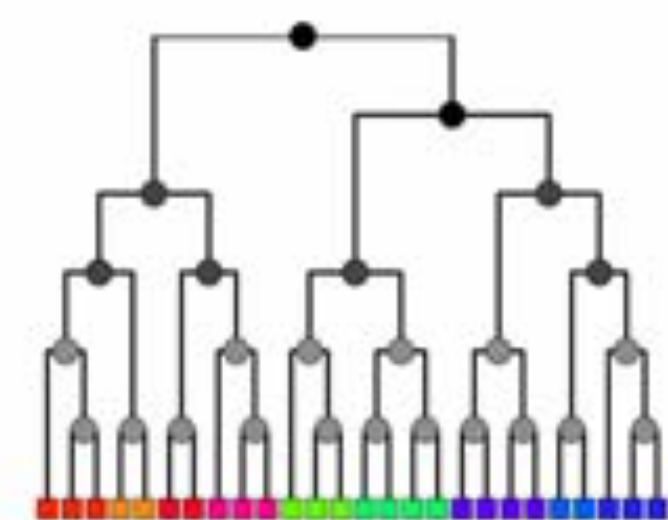
CIRCUITS INTERNAL STRUCTURE RECOVERY



Usable formats

Physical Netlist

- For:
- Navigation inside the IC
 - In-depth exploration



VHDL File

- For:
- Simulation of the design
- On a dedicated tool (Quartus, NC-Sim, etc.)



ASSETS

EASY TO USE:

- Guided process
- Flexibility and fluidity
- Manual correction possible at every step
- Usable on a standard computer

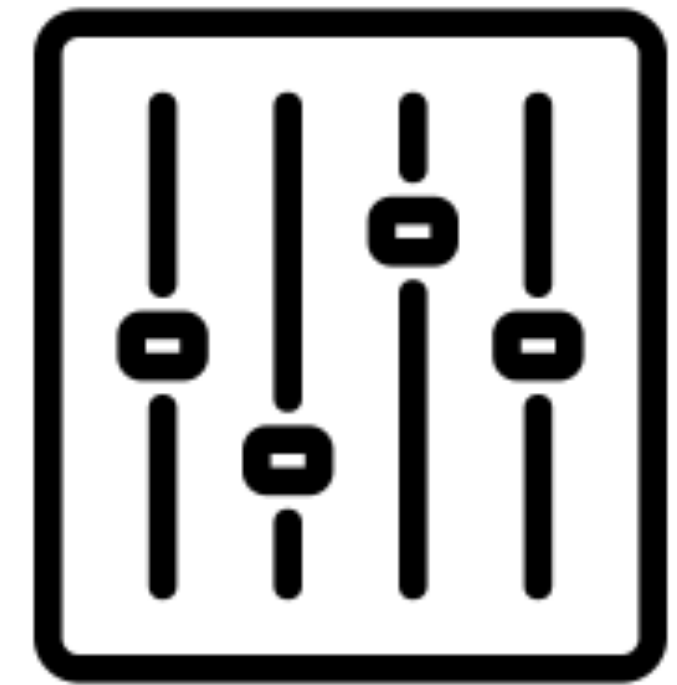


=> IC Reverse Engineering is intuitive and accessible to experts as well as insiders

ASSETS

USABLE FOR ANY TYPE OF IC:

- Any architecture : Smart Cards, Microcontrollers, FPGAs, SoCs, etc.
- Any Tech Node: down to a nm
- Any type of process: Aluminium and Copper



=> All kinds of Circuits can be analysed

ASSETS

SMART:

- High performances
- Results reusable from a project to another:
 - From your own
 - Using Texplained Libraries
- Scalability: new features for faster analyses

=> Analyses become faster and faster



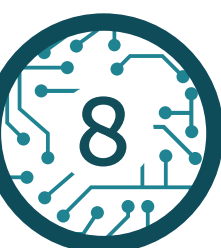
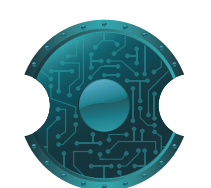
PERFORMANCES

=> For a chip constituted of 200 k Standard Cells, with images at Specifications, ChipJuice operates*:

- Via Detection in a few minutes
- Track Detection in a few minutes
- SCL instances detection in a few hours
- Layer stitching in up to 2 days
- Layer alignment / Stack creation in a few minutes
- Netlist Generation in around an hour

=> Functions of signal tracing, hierarchization, filtering, etc. will complete the suite in the near future

=> Functions of signal tracing, hierarchization, filtering, etc. will be available for each new ChipJuice Customer



APPLICATIONS

A lot of different possible uses

From Vulnerability or Backdoor Research, to Embedded Data Extraction

Technological Intelligence

Extraction of all embedded data
(hardware => software)



IC Security Analysis

Hardware vulnerabilities research



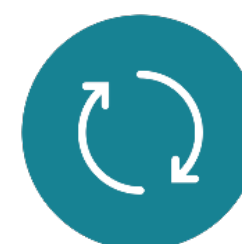
Counterfeit analysis

Reverse Engineering of counterfeits
ICs => fight against piracy and legal
+ illegal copies



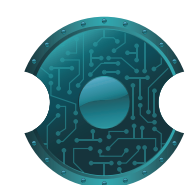
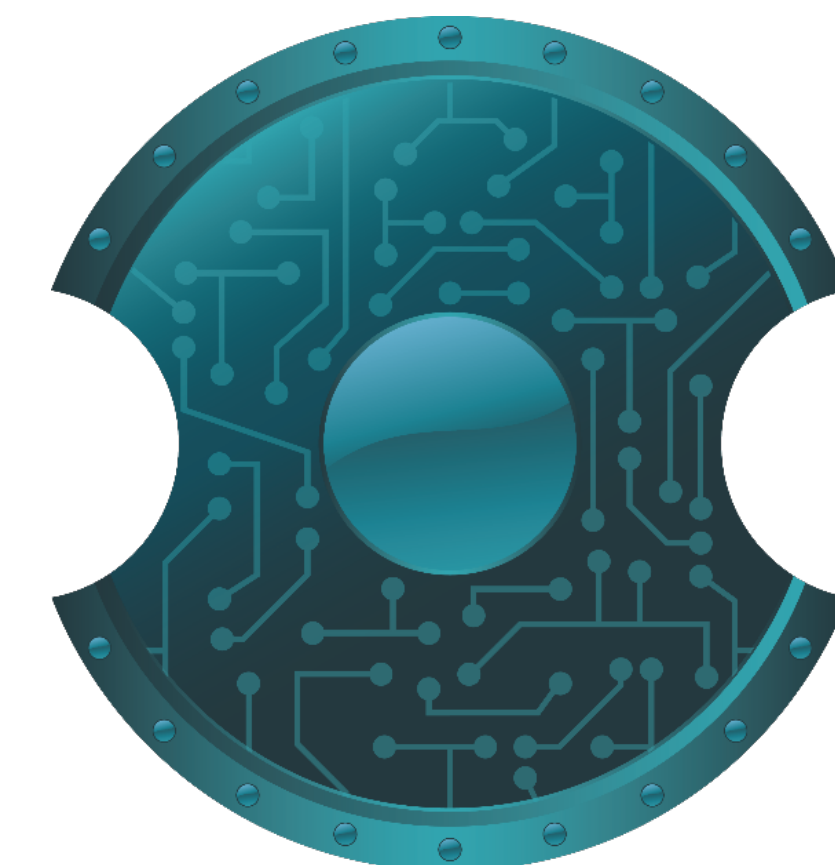
IC Obsolescence Management

Recovery of unknown and
undocumented architectures



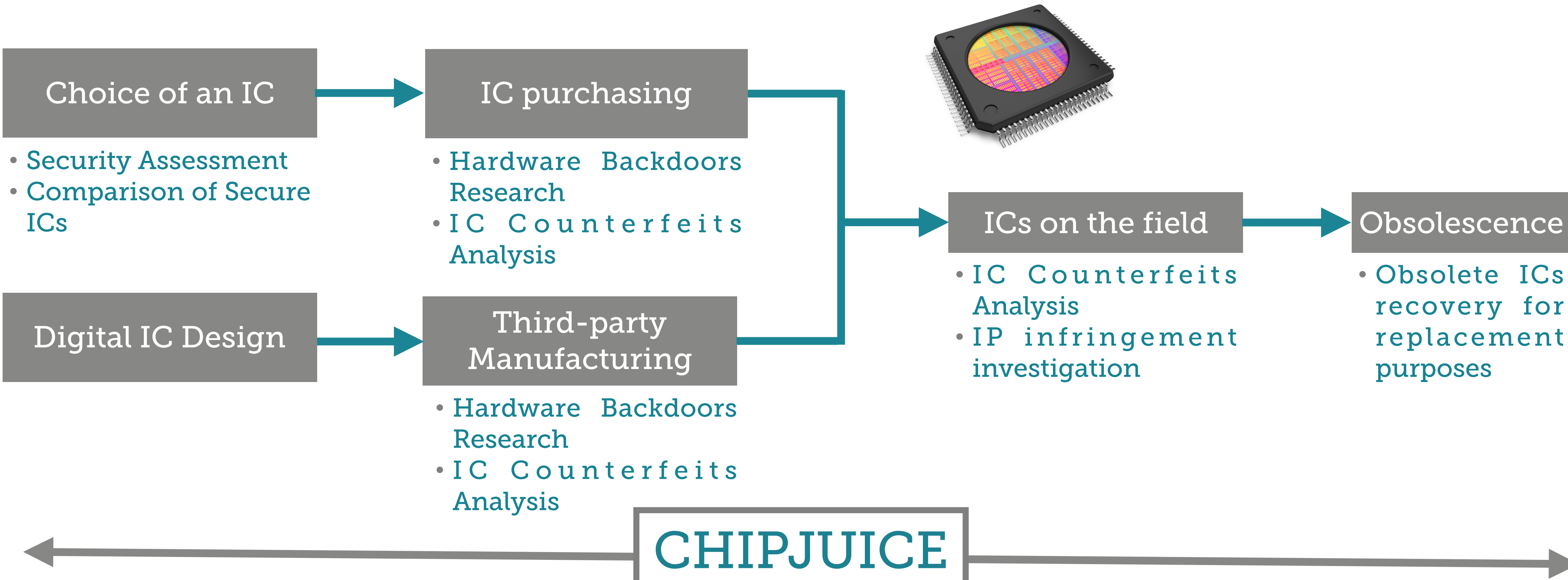
Hardware backdoor research

Comparison original / samples at
the end of production line



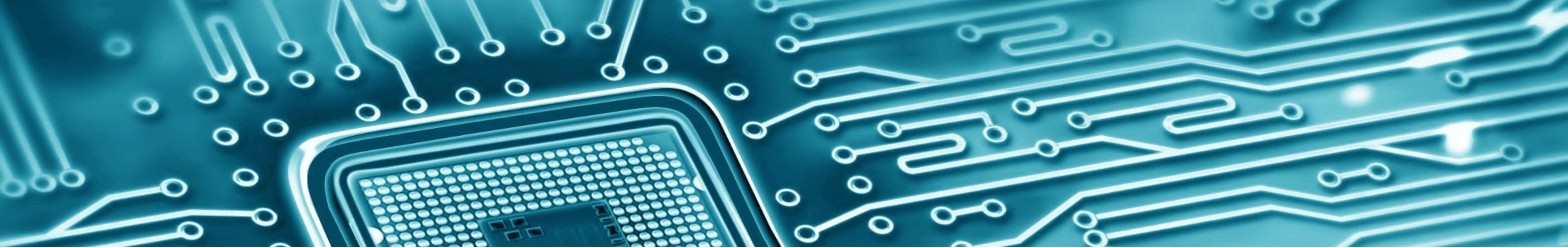
APPLICATIONS

Lifecycle of an Electronic Device



CHIPJUICE
AUTOMATED REVERSE ENGINEERING SOFTWARE

Confidential



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