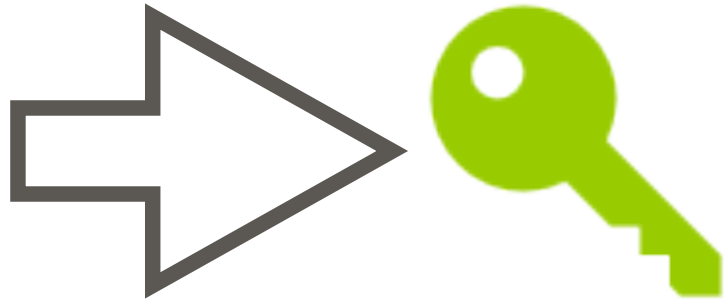
JENS NEUHALFEN

****

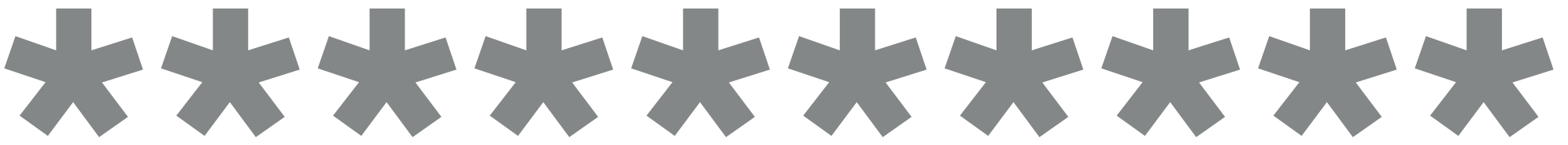


FROM PASSWORD TO KEY

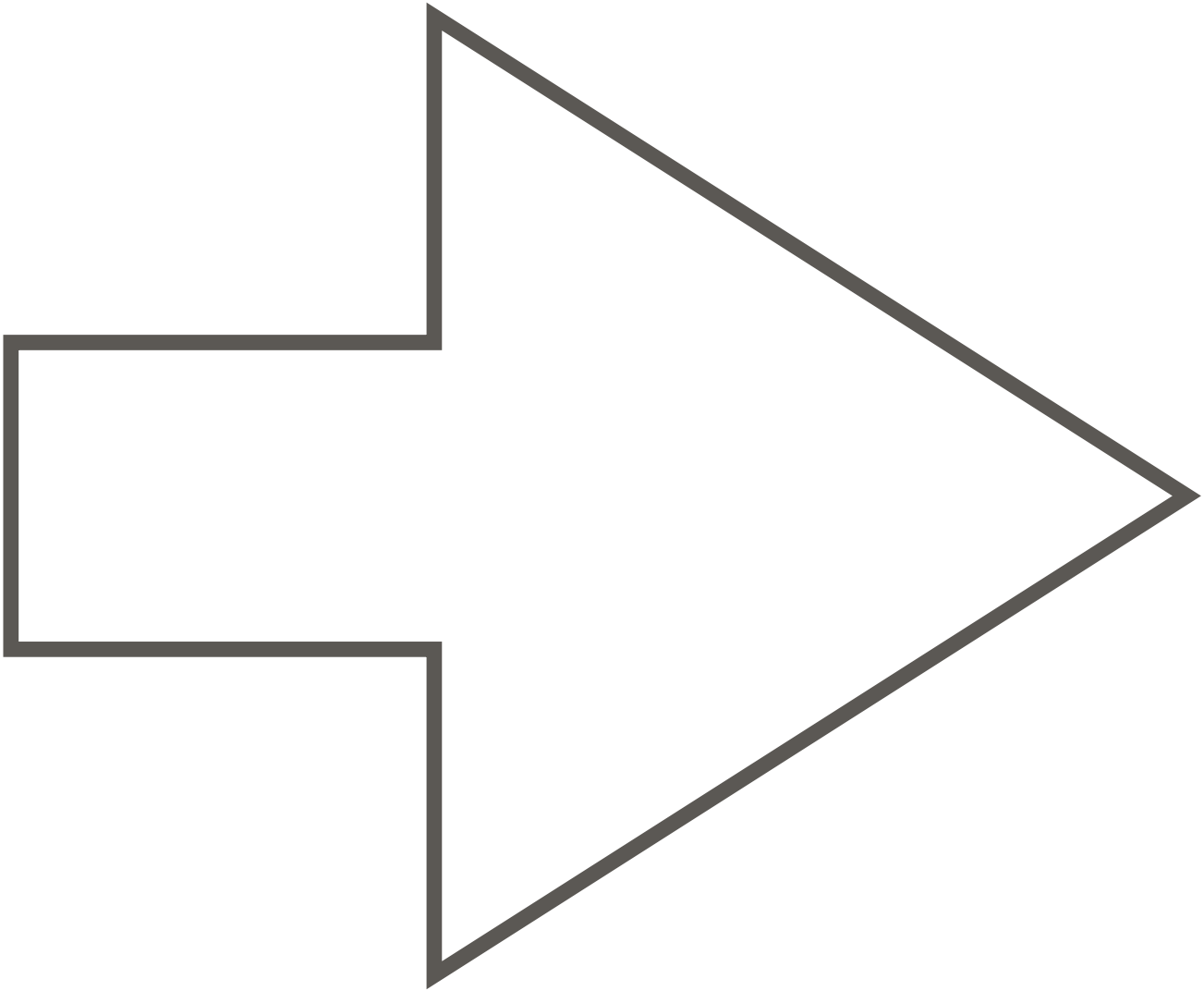
SLEEP BETTER WITH CONTENT ENCRYPTION

67

128 bit key



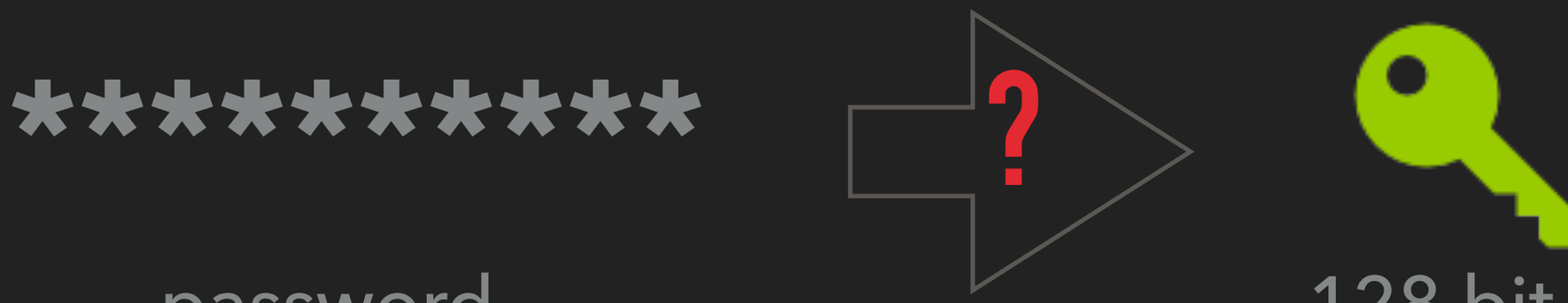
password



- `aw92SDAVglkqusabvgw38`
  - 128 bit
- `3o8uGsdA`
  - 8 chars, 48 bit (cracked in hours to days)
  -

CREATE YOU PERSONAL PASSWORDS USING A PASSWORD MANAGER!

FROM PASSWORD TO KEY



password

128 bit key

- Key derivation functions (KDF) convert passwords to keys
- For good (21+ chars) passwords use HKDF (RFC5869)
- Else: use a KDF with brute force protection (*)
  - SCRYPT (RFC7914)
  - PBKDF2 (RFC2898)

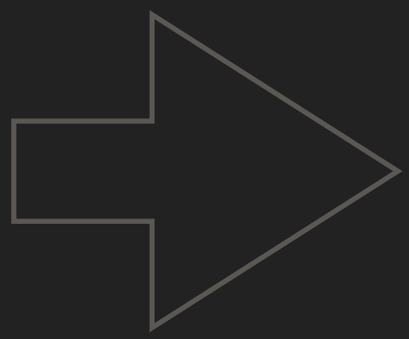
(*) *Brute force protection*: The function is designed to be very slow (up to seconds). This prevents enumeration attacks.

FROM PASSWORD TO KEY

********** 

****

password



128 bit key

- `aw92SDAVglkqusabvgw38` ✓
  - 128 bit
- `3o8uGsdA` ✗
  - 8 chars, 48 bit (cracked in hours to days)

CREATE YOU PERSONAL PASSWORDS USING A PASSWORD MANAGER!