Cap Tables, Dilution & Term sheets

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Personal Background

- Faculty member at Univ of California Berkeley (College of Engineering, Center of Entrepreneurship & Technology & Fung Institute)
- Professor of the Practice, Brown University
- Taught Stanford Continuing Education classes on Product Management & starting online businesses
- Founder www.Startup-Advior.com – advisory to entrepreneurs
- Served as the CEO of five startup companies – currently TeleSense.com
- Experience at one large multinational & **7 startups**
- One IPO (Initial Public Offering)
- Sold Bitzer Mobile (co-founder & CEO) to Oracle in 2013
- Raised over $70M in multiple ways (VC, asset sale, debt, angel)
- Brown University engineering 1981, Univ of Minnesota
- Charter member of TiE Silicon Valley, Chairman of OPEN SV
- Advised or mentored over 1,000 entrepreneurs

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Questions

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Portrait of an Entrepreneur



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Portrait of an Entrepreneur

1. Has a strong vision
2. Has convictions
3. Resilient
4. Hard working
5. Curious
6. Not afraid to ask questions
7. OK with ambiguity
8. Resourceful
9. Get people to do things



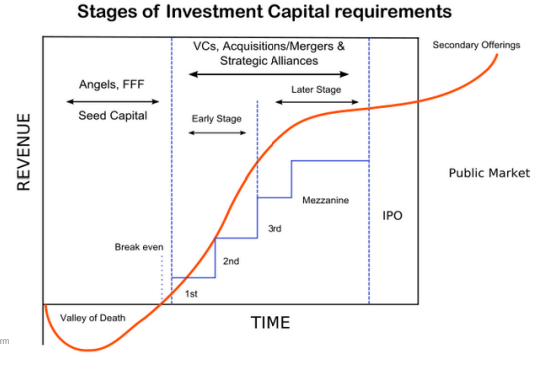
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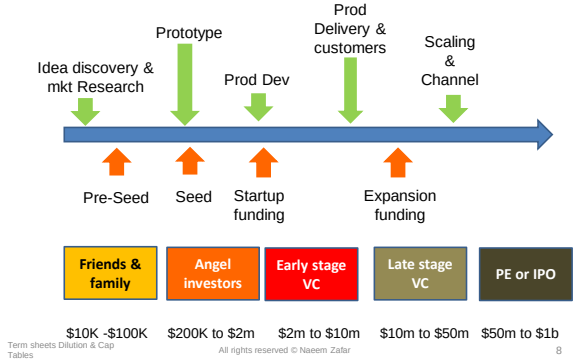


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When & Whom to Seek Capital From



Timing of Capital



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How Angels Invest

- What is the fair price?



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Convertible Note

- Convertible note is loan to company that will convert to stock once value is determined by VC
  - Until then it is a loan, accruing interest, secured by the IP of the company
- Avoids valuation discussion
- Simple 1-2 page note, minimal legal fees

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Issue #1 with Convertible Note

- Why should I invest before VCs? Do I get any incentive?

Discount on Series A

- Yes you will get a better price once we compute the share price
  - Typically 20% discount but … negotiable

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Issue #2 with Convertible Note

- What is you become too successful?
  - Will I get anything significant for all my initial risk?

Cap on valuation

  - If the value of the company rises a lot [& share price becomes too high] you will still get a not-to-exceed price
  - Typical cap can be $3m to $5m

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https://www.ycombinator.com/documents/

- SAFE [Simple Agreement for Future Equity]
  - Replacement for convertible notes
  - Not a debt → no interest accrued, no maturity date
  - Simple document
  - Negotiate "cap" & "discount"

- Series AA Board Consent
- Series AA Certificate of Incorporation
- Series AA Investors' Rights Agreement
- Series AA Stock Purchase Agreement
- Series AA Stockholder Consent

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Issue Puzzling Founders

- What if one founder fizzle out?
- What happens to his equity?
- What about death or disability?

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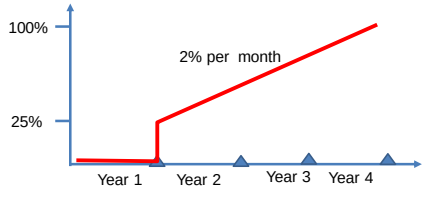
How To Protect Equity

- Vesting
  - It is your stock/shares but you have to be here working hard to "get" them
  - Typically 2% per month vesting → 48 months to get it all

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Vesting

- Ownership established over time
  - One has to stay and work hard to get all her stocks
  - If people don't work out within a year you are not out with too many small shareholders



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Demystifying Equity Dilution

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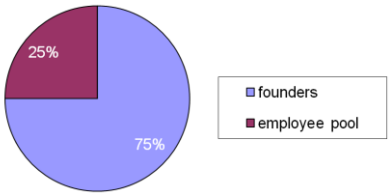
Example



- 3 people start a company
  - 10M shares issued
  - Each founder has 25%, reserve 25% for employees & advisors
  - Price $0.01 (resulting in company valuation of $100K)

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Equity Ownership



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Example: Initial Money

- 1st round investment (product development)
  - **Pre-money** valuation ~ $2M
  - Per share price = $2M/10M shares = $0.20
  - Investors put in $3M (buy shares at $0.20) → 15 M new shares will be issued

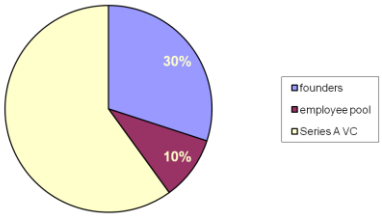
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Example: Initial Money

- 1st round investment (product development)
  - **Pre-money** valuation ~ $2M
  - Per share price = $2M/10M shares = $0.20
  - Investors put in $3M (buy shares at $0.20) → 15 M new shares will be issued
  - **Post money** is $5M ($2M pre plus $3M new money)
    - Investors own 60% of the company now
  - Total number of shares = 10M + 15M new = 25M

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Equity Ownership Post Round A



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Example: Prod Dev Money Raised

- 2nd round investment (Series B)
- Series B =Product deployment
  - Pre-money valuation ~ $10M
  - New share price = $10M/25M shares = $0.40
  - Investors put in $8M (buy shares at $0.40)
    - New 20M shares issued ($8M / $0.40 per share)
    - Total 45M shares (existing 25M + new 20M)

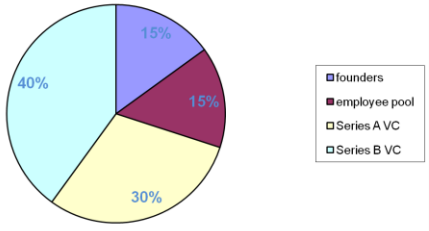
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Example: Prod Dev Money Raised

- Post money is $18M– everyone get diluted
  - But gets smaller share of a bigger pie
- Added 5M to ESOP (Employee pool)
- Total shares = 50M

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Equity Ownership Post B Round



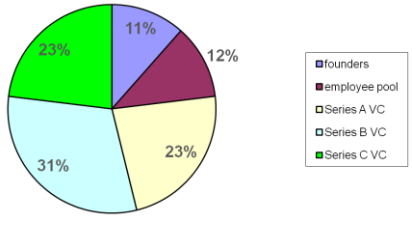
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Example: Expansion Money Raised

- 3rd round investment (Series C)
- Series C = channel expansion
  - Pre-money valuation ~ $50M
  - New share price $50M/50 shares = $1.00/share
  - Investors put in $15M
  - Post money is $65M– everyone get diluted
    - But gets smaller share of a bigger pie
  - 15M new shares issued (total 65M)

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Equity Ownership: Post C



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Example: Going Public

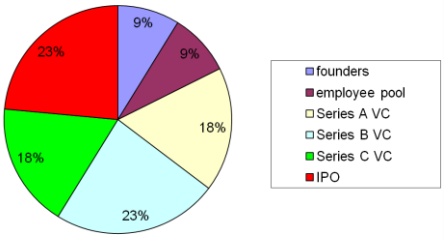
- Initial Public Offering (IPO)
  - Valuation by investment bankers ~ $100M
  - Reverse split shares 5:1 to get decent price at IPO
    - Market needs to see stock price in $6 to $18 range
    - Now 65M outstanding shares become 13M but they are 5x more valuable
    - 13M shares pre IPO

Example: Going Public

- Sell 2M new shares at IPO at $100/13=7.70 per share
- Raise $15.4M for operations (less fees)
- Employee lock up
- Founder lockup

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Term sheets Dilution & Cap Tables

Ownership After Going Public



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Term sheets Dilution & Cap Tables

Founders' Wealth

	shares		Price	ownership		value
Founding	7,500,000	$	0.01	75%	$	75,000
Series A	7,500,000	$	0.20	30%	$	1,500,000
Series B	7,500,000	$	0.40	15%	$	3,000,000
Series C	7,500,000	$	1.00	12%	$	7,500,000
at IPO	1,500,000	$	7.70	10%	$	11,550,000

Term sheets Dilution & Cap Tables
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Your Equity Distribution Options

- Set aside portion of stocks for advisors & consultants & key advisors
- Founders should end up with bulk of shares
- Dilution will happen when money is raised
- Do simple one page agreements & convert to legal agreement when time to incorporate

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Term sheets Dilution & Cap Tables

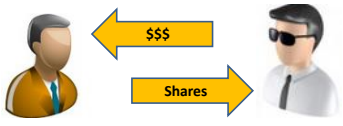
Equity Ownership after Series A

Title	Range (%)
CEO	5 – 10
COO	2 – 5
VP	1 – 2
Independent Board Member	1
Director	0.4 – 1.25
Lead Engineer	0.5 – 1
5+ years experience Engineer	0.33 – 0.66
Manager or Junior Engineer	0.2 – 0.33

Term Sheets

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How VC Fund You?



- VC get shares with special conditions & privileges to protect them → Preferred Shares
  - Board control, veto rights, liquidation preferences, participation rights

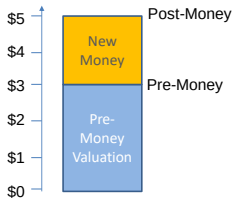
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Company Valuation

- VC value the company
  - Based on what believe company can be sold for & their return
- Example: valuation $3m
  - VC puts in $2m
  - What % does VC own?

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Pre & Post Money Valuation



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Term Sheets

- A non-binding offer to invest in your company with terms & conditions attached
- 4-8 pages
- Given 2-4 days to sign
- 3 buckets to analyze them
- One clause is always binding!

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4 Buckets to Analyze a Term Sheet

1. Valuation (→ ownership)
2. Economics: liquidation preference & anti-dilution
3. Corporate governance & control
4. Founder's treatment (vesting & termination)

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1: Valuation

- Pre-money/Post money valuation
- Employee pool
- Amount to raise

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Types of Securities

- Common stock
- Convertible preferred stock [non-participating]
- Convertible participating preferred

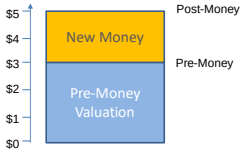
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Company Valuation

- VC compute & put a value on your company
  - Based on what they believe company can be sold for & their returns
- Example: valuation $3m
  - VC puts in $2m
  - What % does VC own?

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Pre & Post Money Valuation



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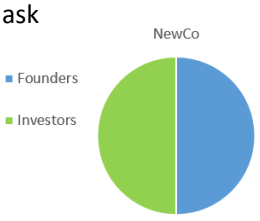
2: Economics

- Protects investor in case the outcome is less than spectacular
  - Liquidation preferences
  - Who gets their money first off the table
  - Normal is 1X but… can be much more

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Take Liquidation or Convert?

- A questions all investors ask themselves
- Example:
  - Investors put in $10m
  - Have 50% ownership
  - Have 3X liquidation preferences



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Exit at $40m: Who Gets What?

- Investors can convert to common & make $20m
- Or take their liquidation preferences
  - At 3X → it will be $30m
  - Founders will get $10m remaining
  - *If Liq Pref was 1X they rather convert & get $20m rather than $10m*

This is if you sold them "non-participating convertible preferred shares!

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If Purchased Participating Preferred

- Investors can convert to common & make $20m
- Or take their liquidation preferences
  - At 3X → it will be $30m
  - Founders will get $10m remaining
  - *If Liq Pref was 1X they rather convert & get $20m*

- Investors first collect their liquidation Preferences
- *Then come back to table & participate again!*
  - At 3X → it will be $35m
  - Founders will get 50% of $10m remaining → $5m
  - *If Liq Pref was 1X they will collect $10m + 50% of remaining → $25m (founder will get $15m)*

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Anti Dilution

- What happens if the next round pre-money is less than this round's post-money?
- Early investors want to protect themselves …get additional shares
  - Full ratchet
  - Weighted average

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Anti Dilution

Example: Series A Post was $12m
Board decides to take Series B at $6m pre
Raising $3m at $0.50 a share now

Scenario 1	down-round	
Series B priced at $0.50 a share, will raise $3M		
Common stock	7,000,000	38.9%
Series A	5,000,000	27.8%
Series B	6,000,000	33.3%
	18,000,000	100.0%

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Full Ratchet

Scenario 1	down-round	
Series B priced at $0.50 a share, will raise $3M		
Common stock	7,000,000	38.9%
Series A	5,000,000	27.8%
Series B	6,000,000	33.3%
	18,000,000	100.0%

Scenario 2: Full Ratchet Protection for Series A

Common stock	7,000,000 shares	30.4%
Series A	10,000,000 share	43.5%
Series B	6,000,000 shares	26.1%
	---	---
total	23,000,000 shares	100%

at $0.50 per share new price Series A will get additional shares "as if" this was the price when they invested – this is Full Ratchet – at $5M/$0.50 = 10M shares means they get additional 5M shares.

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Weighted-Average

Scenario 3: Weighted-Average Protection for Series A

New conversion Price = OCP* (OB+ (NM/OCP))/(OB + SI)

OCB = Old Conversion Price; OB = number of shares outstanding before the round ; NM = New Money being invested in this round; SI = number of shares issued in this round

NCP = $1/share * (12M shares + ($3M /$1 per share)) / (12M share + 6 M shares)
= $0.83

Common stock	7,000,000 shares	36.8%
Series A	6,000,000 share	31.6%
Series B	6,000,000 shares	31.6%
	---	---
total	19,000,000 shares	100%

Scenario 1	down-round	
Series B priced at $0.50 a share, will raise $3M		
Common stock	7,000,000	38.9%
Series A	5,000,000	27.8%
Series B	6,000,000	33.3%
	18,000,000	100.0%

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2: Control

- Board control
- Protective provisions
- Shareholder votes
- Preemptive rights

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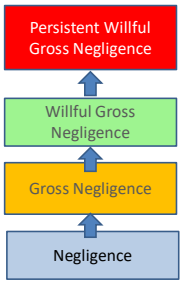
4: Founder's Treatment

- Vesting acceleration
  - Founder's termination
  - Change of control?
    - Single trigger or double trigger
- Death or disability
- Options or buy-back clause
  - Repurchase of vested at FMV, Rights of first refusal & co-sale

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4: Founder's Treatment

- Founder termination
  - With cause
    - Definition of the cause
  - Without cause
  - Constructive termination



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Other Considerations

- No shop agreement
- Information rights

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Negotiating Term Sheet

- Work with an experienced lawyer
- Work out a list of top ½ a dozen things you want to negotiate
- Agree on the rest and work on bigger issues
- Valuation is NOT the most important
  - You ownership at exit will vary only a "little"

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Should You Take Investor Money?

- Don't, unless you are in a race
- You can still get there but *it is hard on the engine!*





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Cap Tables

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Founding Captable

Investor	# of shares	%
Amy	2,000,000	37.59%
Holly	2,000,000	37.59%
David	800,000	15.04%
Sanjay	-	0.00%
Employee pool	520,000	9.77%
Angel Investor 1		
Angel Investor 2		
Lead VC (sets the price)		
VC 1		
Amount Raised		
new shares issued		
Outstanding Shares	5,320,000	100.00%

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Angel Round

	Founding		Angel round		
Pre-money valuation			$5,000,000		
Discount(convertabile note)	20%		$0.7519		
Price per share			$0.9398		
Investor	# of shares	%	**Amount**	**Shares**	**%**
Amy [convertible note]	2,000,000	37.59%	$100,000	133,000	33.62%
Holly	2,000,000	37.59%			31.53%
David	800,000	15.04%			12.61%
Sanjay	-	0.00%			0.00%
Employee pool	520,000	9.77%			8.20%
Angel Investor 1 [Convertible note]			$100,000	133,000	2.10%
Angel Investor 2			$250,000	332,500	5.24%
Lead Angel (sets the price)			$400,000	425,600	6.71%
Amount Raised			$750,000		
new shares issued				1,024,100	
Outstanding Shares	5,320,000	100.00%		6,344,100	100.00%

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Series A

	Founding		Angel round			Series A		
Pre-money valuation			$5,000,000			$10,000,000		
Discount(convertabile note)	20%		$0.7519					
Price per share			$0.9398			$ 1.3616		
Investor	# of shares	%	**Amount**	**Shares**	**%**	**Amount**	**Shares**	**%**
Amy	2,000,000	37.59%	$100,000	133,000	33.62%			22.34%
Holly	2,000,000	37.59%			31.53%			20.95%
David	800,000	15.04%			12.61%			8.38%
Sanjay	-	0.00%			0.00%			0.00%
Employee pool	520,000	9.77%			8.20%		1,000,000	15.92%
Angel Investor 1			$100,000	133,000	2.10%			1.39%
Angel Investor 2			$250,000	332,500	5.24%			3.48%
Lead VC (sets the price)			$400,000	425,600	6.71%			4.46%
VC 1						$3,000,000	2,203,230	23.08%
Amount Raised			$750,000			$3,750,000		
new shares issued				1,024,100			3,203,230	
Outstanding Shares	5,320,000	100.00%		6,344,100	100.00%		9,547,330	100.00%

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Exits

	Series A		Exit			
Pre-money valuation						
Discount(convertabile note)						
Price per share			$ 1.5763	$ 1.5711	$ 3.6659	$ 13.0927
Investor	**%**		**Early pre-VC**	**Early**	**Mid**	**Late**
			$10,000,000	$15,000,000	$35,000,000	$125,000,000
Amy	22.34%		$3,362,179	$3,351,199	$7,819,464	$27,926,656
Holly	20.95%		$3,152,535	$3,142,240	$7,331,893	$26,185,331
David	8.38%		$1,261,014	$1,256,896	$2,932,757	$10,474,133
Sanjay	0.00%		$0	$0	$0	$0
Employee pool	15.92%		$819,659	$2,388,102	$5,572,239	$19,900,852
Angel Investor 1	1.39%		$209,644	$208,959	$487,571	$1,741,325
Angel Investor 2	3.48%		$524,109	$522,397	$1,218,927	$4,353,311
Lead VC (sets the price)	4.46%		$670,860	$668,669	$1,560,227	$5,572,239
VC 1	23.08%			$3,461,538	$8,076,923	$28,846,154

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Common Mistakes

- Not addressing vesting right
- No founder's agreement
- Too many board members or shareholders
- Raising money by issuing common shares
- Getting too high a valuation
  - And then doing a down-round later
- Not filing 83b

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Take-Aways

- Don't sweat dilution issues – make a bigger pie
- Exit often, do it again
- Think through the issues of designing the right comp plan

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