

# A Comprehensive Model for Specific Learning Disability Evaluations



**Using the *Building Blocks Brain Model of  
Development to Understand and Assess Learning  
Disabilities***

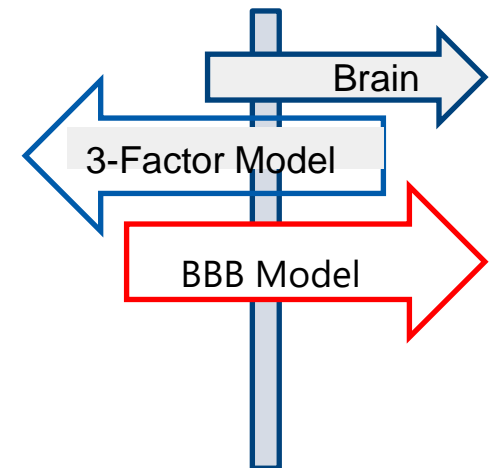
Peter Thompson, Ed.S., Ph.D.





## Module 1.4 Guidepost 3

### **The Building Blocks Brain Model of Development The Engine for SLD Evaluations**



# Important Note

The information, concepts, and models provided in this presentation are intended to give practitioners a framework when conducting special education evaluations. It is emphasized that nothing in this presentation is meant to be directive or prescriptive. Professionals are free to use some, or all of the information presented, but they are not required to do so in their practice. **Always consult with your special education director for clarity around district policies and expectations for special education evaluations.**



**IMPORTANT** 

# Learning Objectives

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- Understand the *Building Blocks Brain Model* (BBBM)
- The importance of the BBBM in SLD evaluations
- Why we combine the 3-Factor and BBBM models in evaluations



# Important BBBM Considerations

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- Does not replace RTI, but rather supplements RTI
- RTI interventions and data incorporated within BBBM
- Like RTI data, cognitive measures are deemed necessary, but not sufficient in SLD evaluations
- Model does not use the IQ discrepancy model  
Cognitive assessment is NOT synonymous with IQ testing



# Important BBBM Considerations

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- Cognitive assessments used to analyze specific components of brain functions that significantly contribute to SLD
- BBBM uses Cognitive Hypothesis Testing (CHT) and neuropsychological principals (Hale, 2013)
- Targeted cognitive assessment, not full test batteries
- Assess to confirm, better understand, and to intervene



# Modern SLD Evaluations Using Neuro-Science and the BBBM

- Building Blocks Brain Model of Development (BBBM)
  - BBBM based on a neuro-science model of brain functioning
  - Offers a modern approach that goes beyond “scores”
- Integrated with the 3-Factor model (see Module 1.3)
  - 3 Factor Model is the steering wheel, the BBBM is the engine
  - 3 Factor Model is the broad approach (How), BBBM guides the specific (what) assessments we use
- Will be using **both** models for SLD Evals







# Consideration of Terms

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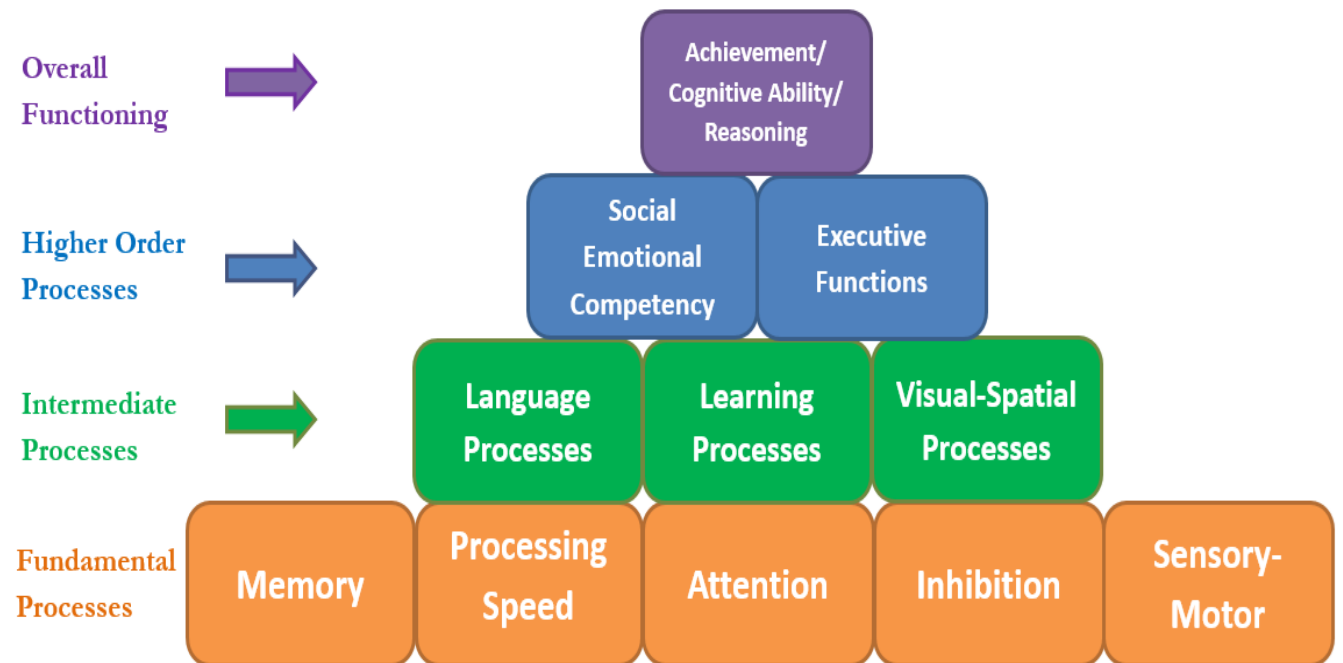
- The full term is the *Building Blocks Brain Model of Development*©
- For this presentation, referred to as the BBBM
- For this presentation, the BBBM is used to describe brain function more than development



# Key Points

- Describes both *organization* and *function* of the brain
- One of many models, oversimplifies brain functioning, but extremely practical to use in SLD evaluations
- The lower the level, the more specialized the brain function, the higher the function, the more integrated

## Building Blocks of Brain Development ©



The Hierarchy of Neurocognitive Functioning © - created by Peter Thompson, Ph.D. 2013, adapted from the works of Miller 2007; Reitan and Wolfson 2004; Hale and Fiorello 2004.

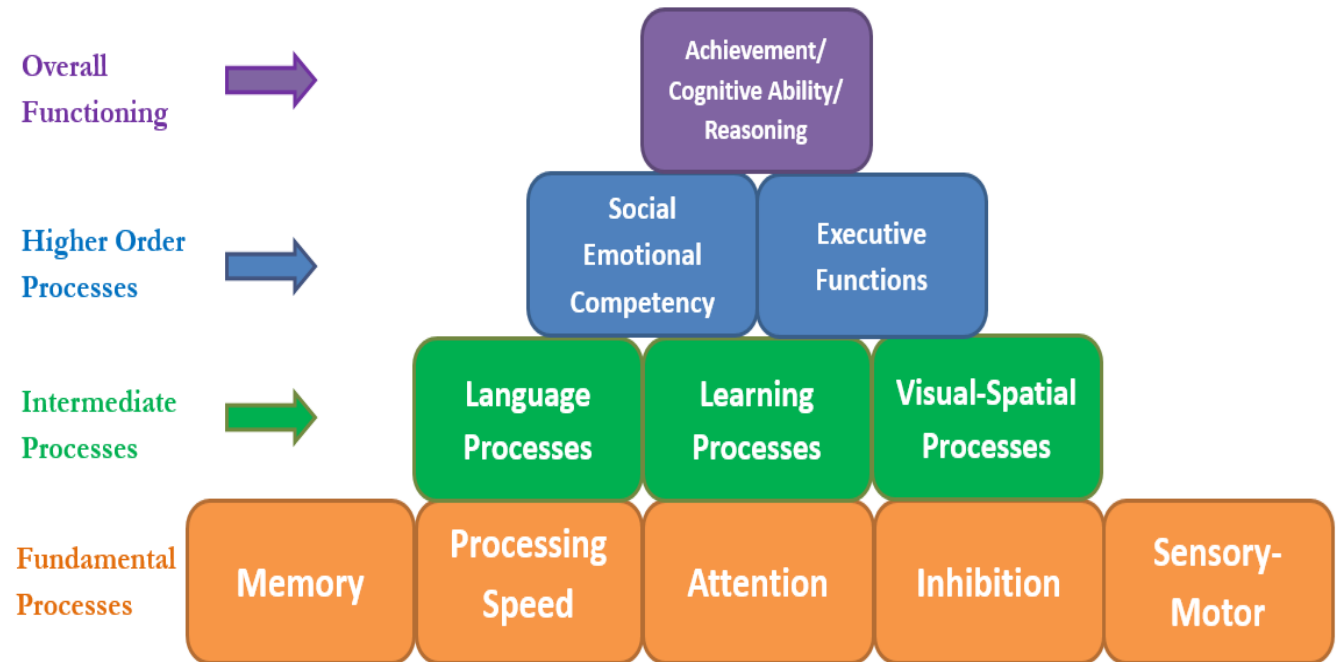
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# SLD: Key Points

- The upper level is the **“What”** is wrong (reason for referral) and the lower blocks provides the **“Why”**
- Typically, staff / parent sees that a child’s achievement or ability is off- **“Top”** of model, creates referral question
- Bottom of pyramid, find cracks in neurocognitive foundation to understand the **“why”**

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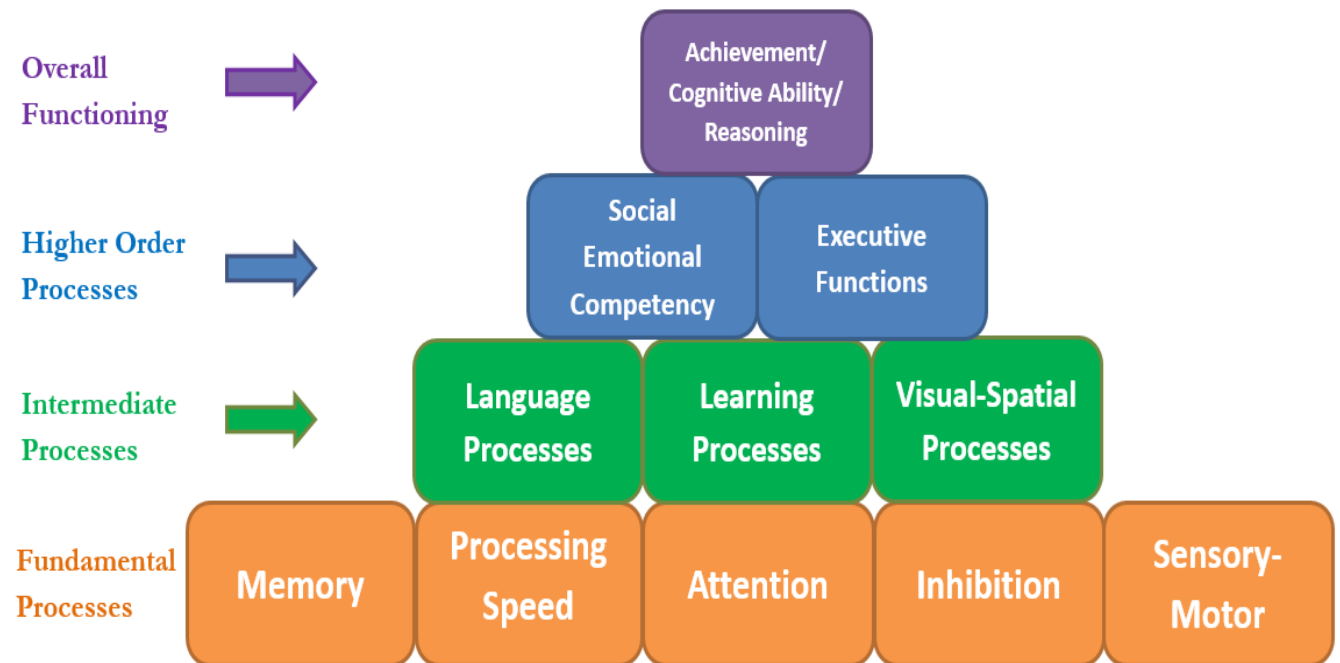
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## SLD: Key Points

- **All learning disabilities are brain-based disorders and the BBBM captures this fact.**
- **Each level and block are largely dependent on each other**
- **Evaluations should account for all Fundamental Processes as these functions are common to most SLD**

## Building Blocks of Brain Development ©



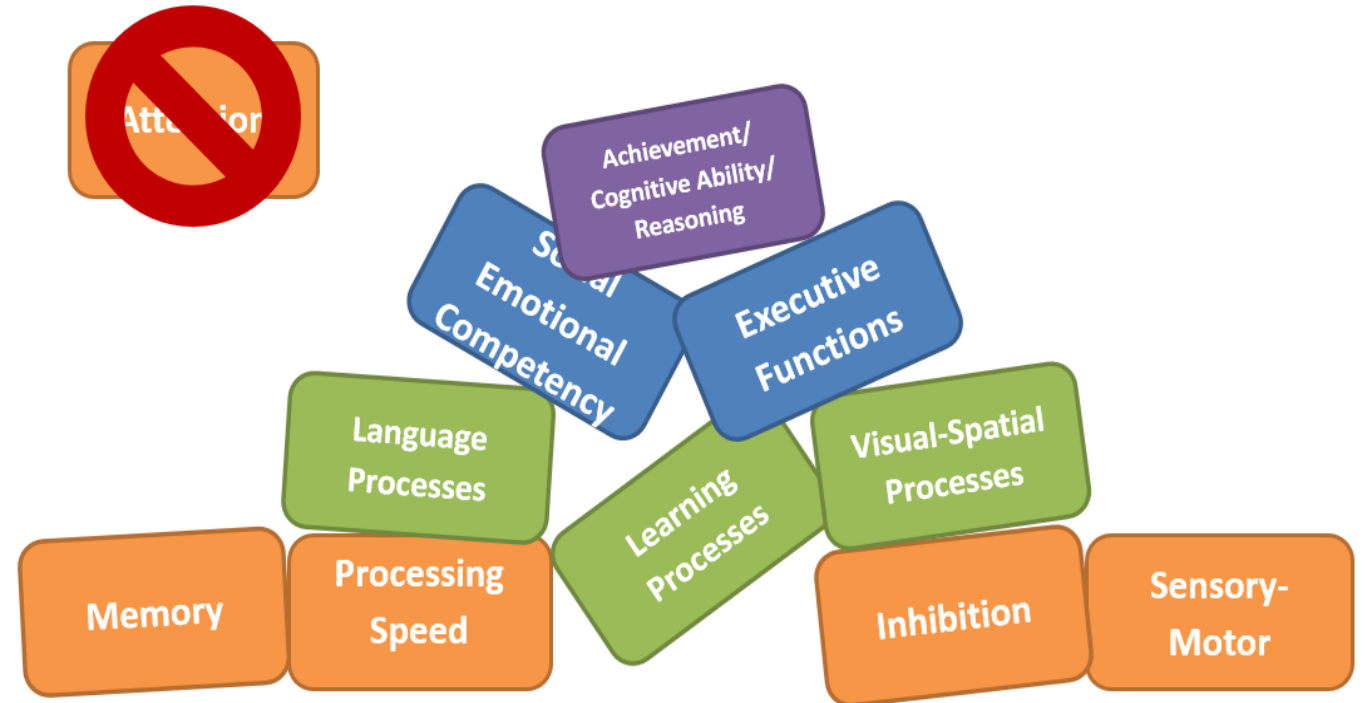
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# SLD: Key Points

Most learning disabilities have critical links to the lower level. A break in any brain function (block) gives you the “why” a student struggles or has stunted progress

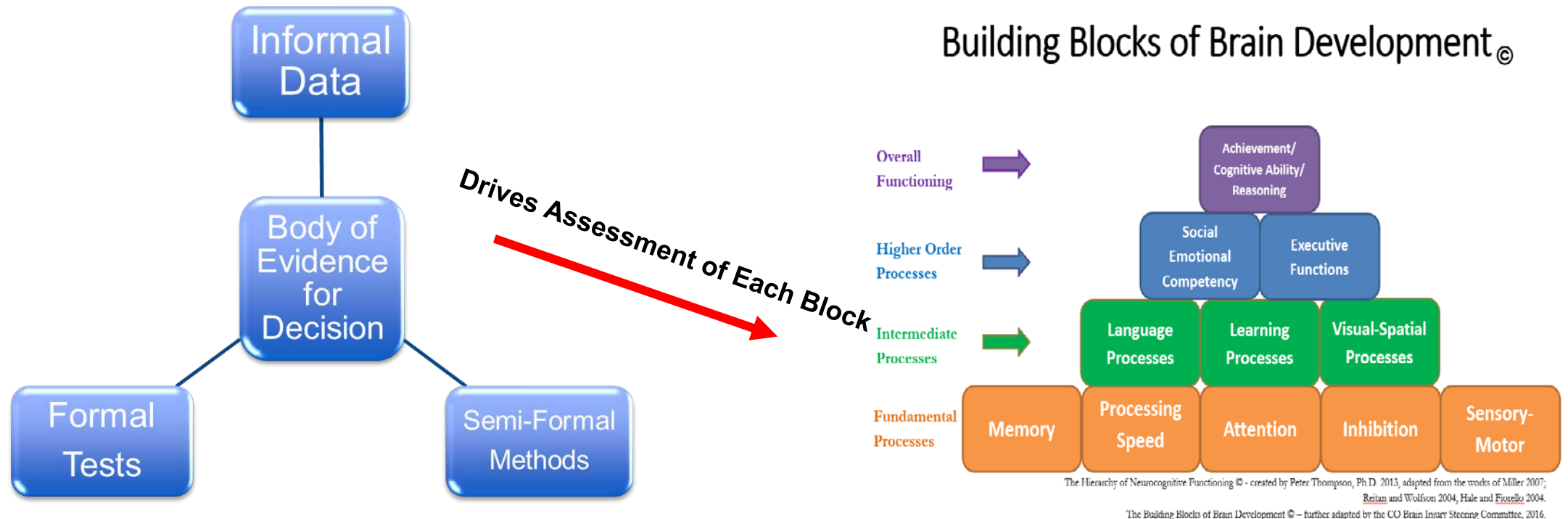


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# All Blocks Examined with the 3-Factor Model



**Important Note: Suggested to use BOTH models in SLD evaluations**



# Models in Action

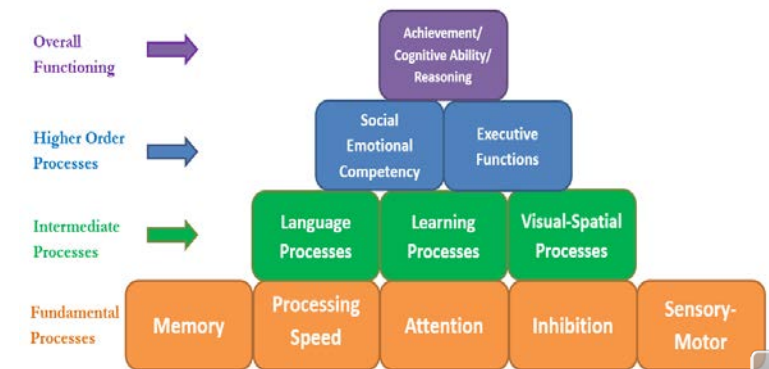
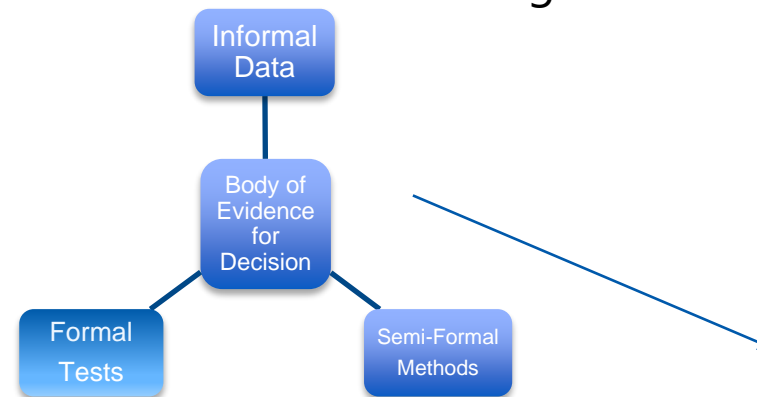
## Example

**Referral Question:** Student has difficulty paying attention in class.

- A. Attention is a “Fundamental Function” of the BBBM**  
**B. 3-levels to assess attention**  
**C. All fundamental blocks will be examined, but start with “attention”**

- I. Formal** –Standardized Attention Test (CAS-2 Attention Subtest)  
**II. Informal**—Student observation, Family History  
**III. Semi-Formal**-Rating Scales of Att

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# Summary

## Complete and Full Evaluation

- 1. The 3-Factor Model provides a broad approach for how you will evaluate a student. This model ensures a full and comprehensive evaluation.**
- 2. The 3-Factor model overlays on the Building Blocks Brain Model (BBBM) when doing an SLD evaluation. The BBBM is a modern *neuro-educational model* that provides specific guideposts that informs the team *which* brain areas to assess. The BBBM provides the “Why” a student may be struggling. Both Models are used in a SLD evaluation.**
- 3. Many learning disabilities are due to a “crack” in the fundamental block of the BBBM or other blocks. Assessing the fundamental blocks in most SLD evaluations is recommended.**







# End of Module 1.4

## Thanks for Listening



### **Using the *Building Blocks Brain Model* to Understand and Assess Learning Disabilities**

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