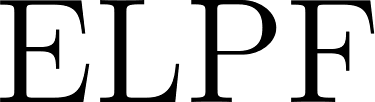
[](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BTotal%20Reward%7D%20%3D%20%5Cleft(%20%5Ctext%7BBase%20Reward%7D%20%5Ctimes%20%5Ctext%7BELPF%7D%20%5Ctimes%20%5Ctext%7BLTHF%7D%20%5Ctimes%20%5Ctext%7BEETF%7D%20%5Cright)%20%5Ctimes%20%5Ctext%7BCRM%7D%5E%7B%5Ctext%7BTime%7D%7D#0)

### **Detailed Explanation and Examples**

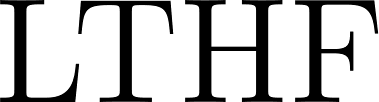
#### **1. Base Reward:**

* **LaTeX Code**: [](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BBase%20Reward%7D#0)
* **Description**: A fundamental reward multiplier set by the project.
* **Example**: Suppose the Base Reward is set to 2.

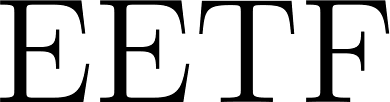
#### **2. Early and Large Purchase Factor (ELPF):**

* **LaTeX Code**: [](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BELPF%7D#0)
* **Description**: Rewards users based on how early and how much they purchase. Earlier and larger purchases get a higher factor.
* **Example**: If a user buys 1000 tokens on the first day of the launch, their ELPF might be 1.5. In contrast, a purchase of 500 tokens a month later might only have an ELPF of 1.2.

#### **3. Long-Term Holding Factor (LTHF):**

* **LaTeX Code**: [](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BLTHF%7D#0)
* **Description**: Increases with the duration of token holding. Longer holding periods result in a higher factor.
* **Example**: Holding tokens for over a year might give a LTHF of 2, whereas holding for just 6 months might give a LTHF of 1.5.

#### **4. Ecosystem and Ethical Transaction Factor (EETF):**

* **LaTeX Code**: [](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BEETF%7D#0)
* **Description**: Rewards transactions that benefit the ecosystem and align with ethical standards. Higher scores for more beneficial and ethical transactions.
* **Example**: Participating in a community-driven, eco-friendly project might give an EETF of 1.3, whereas a regular transaction might have an EETF of 1.

#### **5. Compounding Reward Mechanism (CRM):**

* **LaTeX Code**: [](https://www.codecogs.com/eqnedit.php?latex=%5Ctext%7BCRM%7D%5E%7B%5Ctext%7BTime%7D%7D#0)
* **Description**: Allows the reward to compound over time. The longer the period, the greater the compounding effect.
* **Example**: If the CRM is set at a 5% compounding rate per year and the time is 2 years, the compounding factor would be 1.0521.052 (approximately 1.1025).

#### **Calculating Total Reward:**

Let's combine these components to calculate the Total Reward for a fictional user:

* **Base Reward (BR)**: 2
* **Early and Large Purchase Factor (ELPF)**: 1.5
* **Long-Term Holding Factor (LTHF)**: 2
* **Ecosystem and Ethical Transaction Factor (EETF)**: 1.3
* **Compounding Reward Mechanism (CRM) over 2 years**: 1.052≈1.1025

So, the Total Reward calculation would be:

**Total Reward=(2×1.5×2×1.3)×1.1025=11.4275**

11.4275.

Implementing the "TauNet Ethico-Eco Compounder" (TEEC) formula in Tau, especially given its focus on executable software specifications, requires a different approach compared to traditional smart contract programming. In Tau, the emphasis is on describing 'what' the software should do rather than 'how' it should do it. This approach aligns well with high-level, declarative programming paradigms.

### **Steps to Add the TEEC Formula in Tau:**

#### **1. Define the Specification:**

* **Describe the Desired Behaviors**: Clearly define what the TEEC formula is supposed to achieve. This includes specifying the criteria for rewards, the behaviors that should be incentivized, and the conditions under which rewards should compound.
* **Formalize the Criteria**: Convert these behavioral descriptions into formal, unambiguous specifications. This might involve defining the ethical and ecological standards, the parameters for early and large purchases, holding durations, and transaction benefits.

#### **2. Utilize Tau's Knowledge Representation:**

* **Encode Ethical and Ecological Standards**: Using Tau's knowledge representation system, encode the ethical and ecological standards that the TEEC formula will use to evaluate transactions.
* **Integrate Community Input**: If Tau allows for dynamic updating of knowledge bases through community input, define how this process will impact the TEEC formula.

#### **3. Create Executable Specifications:**

* **Translate Formula Components into Specifications**: Each component of the TEEC formula (ELPF, LTHF, EETF, CRM) needs to be translated into an executable specification. For instance, you would specify that the system should reward users more if they bought tokens earlier and in larger quantities, and that these rewards should increase over time.
* **Specify Transaction Tracking and Analysis**: Define how transactions will be tracked and analyzed in line with the TEEC formula, ensuring alignment with Tau's decentralized architecture.

#### **4. Leverage Logical AI:**

* **Define Logical Rules for EETF**: Use Tau's logical AI capabilities to assess transactions against the encoded ethical and ecological standards. Define logical rules or queries that the AI can use to evaluate transactions.

#### **5. Testing via Simulation:**

* **Simulate the Specifications**: Before deployment, simulate the executable specifications to ensure they behave as expected. This is crucial as the emphasis is on 'what' rather than 'how', and the system needs to interpret the specifications correctly.

#### **6. Deployment:**

* **Deploy the Executable Specifications**: Once tested, deploy these specifications on the Tau network. Ensure that they are integrated seamlessly with the existing system, especially if they interact with other components or contracts.

#### **7. Documentation and Education:**

* **Create Comprehensive Documentation**: Given the unique nature of Tau's system, provide clear documentation on how the TEEC formula works within this framework.
* **Educate the Community**: Explain to the users and the community how the TEEC formula will affect their interactions with the Agoras token and the broader Tau ecosystem.

#### **8. Monitor and Iterate:**

* **Continuous Monitoring**: Regularly monitor the system's performance and the impact of the TEEC formula on user behavior and the Tau ecosystem.
* **Iterate Based on Feedback**: Be prepared to adjust the specifications based on real-world performance and community feedback.