

```
// echo_struct.rs (B1)
```

```
pub type Symbol = u8;    // Values 0x00–0xFF
```

```
pub type State = u16;    // 2-byte state index
```

```
#[derive(Debug, Clone)]
```

```
pub struct SymbolPath {
```

```
    pub symbols: Vec<Symbol>,
```

```
}
```

```
pub struct EchoGraph {
```

```
    pub transitions: [[State; 16]; 256], //  $\delta: \text{State} \times \text{SymbolGroup} \rightarrow \text{State}$ 
```

```
}
```

```
impl EchoGraph {
```

```
    pub fn resolve(&self, start: State, path: &SymbolPath) -> State {
```

```
        let mut state = start;
```

```
        for sym in path.symbols.iter() {
```

```
            let idx = (sym % 16) as usize;
```

```
            state = self.transitions[state as usize][idx];
```

```
        }
```

```
        state
```

```
    }
```

```
}
```

```
pub struct Mutator {
```

```
    pub seed: [u8; 32],
```

```
    pub session_index: u32,  
}
```

```
impl Mutator {  
    pub fn generate_graph(&self) -> EchoGraph {  
        // Placeholder: fill with pseudorandom transition graph generation later  
        EchoGraph {  
            transitions: [[0; 16]; 256],  
        }  
    }  
}
```