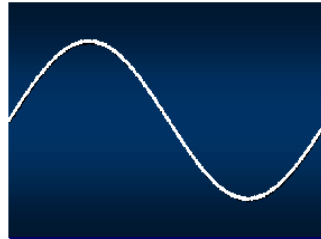


Title : Provided by the Workshop

Programmability

C++

Object-Oriented
Programming
Language



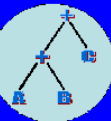
Array.h

```
template<class T> inline
class Array
{
...
public:
    Array(const T& val, int N): m_val(val), m_size(N) {}
    Array(const T& val, int N, const T& val2): m_val(val), m_size(N), m_val2(val2) {}
    Array(const T& val, int N, const T& val2, const T& val3): m_val(val), m_size(N), m_val2(val2), m_val3(val3) {}
    ...
private:
    T* m_val;
    T* m_val2;
    T* m_val3;
    int m_size;
};
```

Mechanization

<PETE>

Portable
Expression
Template
Engine



Reduction
Semantics

Psi - Calculus

Generalized
Array Indexing

Memory Mapping

Loop Unrolling

Array.h

integrates
with
<PETE>

Psi-Calculus
platform

N - dimensional capability

(required for processor /
memory mapping)

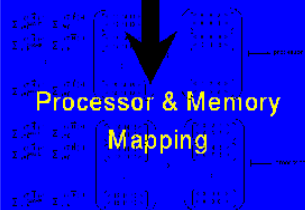
Performance

Efficient Loops

Compile Time
Loop
Translation

Processor & Memory

Mapping



Operations

shift
take
rotate

Array.h

