

Section 2.1 C++11

Default Member Init

```

    bool d_isProduction;
    long d_userId;
    int d_dataCenterId;
    // ... other information about the context being run in

    static Context* defaultContext();
};

```

Each type that needs `Context` information would take an optional argument to specify a local context; otherwise, it would use the default context:

```

#include <string> // std::string

struct ContextualObject
{
    // ...
    ContextualObject(const std::string& name,
                     Context* context = Context::defaultContext());
    // ...
};

```

When combining many objects, all of which might need to access the same context for configuration, it becomes important to pass the context specified at construction to each subobject:

```

struct CompoundObject
{
    // ...
    ContextualObject d_o1;
    ContextualObject d_o2;
    // ...
    CompoundObject(Context* context = Context::defaultContext())
        : d_o1("First", context)
        , d_o2("Second", context)
    { }
    // ...
};

```

This situation might seem well suited for using default member initializers, but the naive approach would have a serious flaw:

```

struct CompoundObject
{
    // ...
    ContextualObject d_o1{"first"}; // Bug, does not use context passed to
    ContextualObject d_o2{"second"}; // CompoundObject constructor
    // ...
    CompoundObject(Context* context = Context::defaultContext());
    // ...
};

```