The XIM Transport Specification

Revision 0.1

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The XIM Transport Specification: Revision 0.1

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Abstract

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List of Tables

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Chapter 1. X Transport Specification

Introduction

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Initialization

Registering structure to initialize

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```
typedef struct {
      char *transport_name;
      Bool (*config);
} TransportSW;
```

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```
TransportSW _XimTransportRec[] = {
/*     char *:
 *     transport_name,     Bool (*config)()
 */
      "X",              _XimXConf,
```

```
        "tcp",          _XimTransConf,
        "local",        _XimTransConf,
        "decnet",       _XimTransConf,
        "streams",      _XimTransConf,
        (char *)NULL,    (Bool (*)())NULL,
};
```

Initialization function

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```
Bool (*config)( im,  *transport_data);
```

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```
Bool (*connect)();                /* Open connection */
Bool (*shutdown)();               /* Close connection */
Bool (*write)();                  /* Write data */
Bool (*read)();                   /* Read data */
Bool (*flush)();                  /* Flush data buffer */
Bool (*register_dispatcher)();    /* Register asynchronous data handler */
Bool (*call_dispatcher)();        /* Call dispatcher */
```

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The interface/transport layer functions

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Opening connection

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```
Bool (*connect)( im);
```

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```
Bool _XimConnect( im);
```

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Closing connection

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```
Bool (*shutdown)( im);
```

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```
Bool _XimShutdown( im);
```

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Writing data

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```
Bool  _XimWrite( im,  len,  data);
```

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```
Bool _XimWrite( im,  len,  data);
```

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& +, -

Reading data

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```
Bool  _XimRead( im,  read_buf,  buf_len,  *ret_len);
```

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```
Bool  _XimRead( im,  *ret_len,  buf,  buf_len,  (*predicate)(),
predicate_arg);
```

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```
void (*predicate)( im, len, data, predicate_arg);
```

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Flushing buffer

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```
void (*flush)( im);
```

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```
void _XimFlush( im);
```

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Registering asynchronous data handler

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, / - , + , - + _XimCallDispatcher

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```
Bool (*register_dispatcher)( im, (*dispatcher)(), call_data);
```

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```
Bool (*dispatcher)( im, len, data, call_data);
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```
Bool _XimRegisterDispatcher( im, (*dispatcher)(), call_data);
```

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Calling dispatcher

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```
Bool (*call_dispatcher)( im, len, data);
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```
Bool _XimCallDispatcher( im, len, call_data);
```

Sample implementations for the Transport Layer

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```
only-CM            :    data is sent via a ClientMessage
multi-CM           :    data is sent via multiple ClientMessages
Property-with-CM   :    data is written in Property, and its Atom
                         is send via ClientMessage
PropertyNotify     :    data is written in Property, and its Atom
                         is send via PropertyNotify
```

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read/write

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Format for the data from the Client to the IM Server

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Format for the data from the IM Server to the Client

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Closing Connection

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References

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