**Reference for std::iostream Library**

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CSE687 – Object Oriented Design

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**istreams <iostream>**

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| **istream** | **ios** | **streambuf** |
| Istream(streambuf\*) | ios(streambuf\*) | streambuf( ) |
| ~istream( ) | ~ios( ) | streambuf(char\*, int) |
| istream& seekg(streampos); | streambuf\* rdbuf( ) | ~streambuf( ) |
| istream& seekg(streamoff, seek\_dir) | long flags( ) | streambuf\* setbuf(char\*, int) |
| streampos tellg() | long flags(long) | int sgetc( ) |
| istream& get(char\*, int, char) | long setf(long, long) | void stossc( ) |
| istream& read(char\*, int) | long unsetf(long) | int sbumpc( ) |
| istream& getline(char\*, int, char) | int width(int) | int sputc(int) |
| istream& get(streambuf&, char) | char fill(char) | int out\_waiting( ) |
| istream& get(char&) | int precision(int) | streampos seekpos(streampos, int) |
| int get( ) | istream\* tie(istream\*) | streampos seekoff(streamoff, ios::seek\_dir, int) |
| int peek( ) | int eof( ) |  |
| int gcount( ) | int good( ) |  |
| istream& putback(char) | void clear( ) |  |
| istream& ignore(int, int) | int operator!( ) |  |
| istream& operator>>(xxx) | static void sync\_with\_stdio( ) |  |
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| Formatting flags <iostream> | | | | | |
| skipws | left | right | Internal | dec | oct |
| hex | showbase | showpoint | Uppercase | showpos | scientific |
| fixed | unitbuf | stdio |  |  |  |
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| io\_state <iostream> | | | | | |
|  | goodbit | eofbit | Failbit | badbit |  |
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| open\_mode <iostream> | | | | | |
| in | out | ate | App | trunc | nocreate |
| noreplace | binary |  |  |  |  |
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| seek\_dir <iostream> | | | | | |
|  | beg | cur | End |  |  |
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| Manipulators <iostream> or <iomanip> | | | | | |
| dec | oct | hex | endl | ends | flush |
| ws | (re)setiosflags | setbase | Setfill | setprecision | setw |
| (no)boolalpha | (no)showbase | (no)showpoint | (no)showpos | (no)skipws | (no)uppercase |
| internal | left | right | fixed | scientific |  |
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**ostreams <iostream>**



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| **ostream** | **ios** | **streambuf** |
| ostream(streambuf\*) | ios(streambuf\*) | streambuf( ) |
| ~ostream( ) | ~ios( ) | streambuf(char\*, int) |
| ostream& seekp(streampos); | streambuf\* rdbuf( ) | ~streambuf( ) |
| ostream& seekp(streamoff, seek\_dir) | long flags( ) | streambuf\* setbuf(char\*, int) |
| streampos tellp() | long flags(long) | int sgetc( ) |
| ostream& put(char) | long setf(long, long) | void stossc( ) |
| ostream& write(char\*, int) | long unsetf(long) | int sbumpc( ) |
| ostream& flush( ) | int width(int) | int sputc(int) |
| ostream& operator<<(xxx) | char fill(char) | int out\_waiting( ) |
|  | int precision(int) | streampos seekpos(streampos, int) |
|  | ostream\* tie(ostream\*) | streampos seekoff(streamoff, ios::seek\_dir, int) |
|  | int eof( ) |  |
|  | int good( ) |  |
|  | void clear( ) |  |
|  | int operator!( ) |  |
|  | static void sync\_with\_stdio( ) |  |
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**ifstreams <fstream> and <iostream>**



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| **ifstream** |  | **filebuf** |
| ifstream( ) |  | filebuf( ) |
| ifstream(char\*, int, int) |  | filebuf(int) |
| ifstream(int) |  | filebuf(int, char\* int) |
| ifstream(int, char\*, int) |  | ~filebuf( ) |
| ~ifstream( ) |  | int is\_open( ) |
| filebuf\* rdbuf( ) |  | int fd( ) |
| void open(char\*, int, int) |  | filebuf\* open(char\*, int, int) |
| void attach(int) |  | filebuf\* close( ) |
| void close( ) |  | filebuf\* attach(int) |
| int fd( ) |  | streambuf\* setbuf(char\*, int) |
| int is\_open( ) |  | streampos seekoff(streamoff, ios::seek\_dir, int) |
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**ofstreams <fstream> and <iostream>**



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| **ofstream** |  | **filebuf** |
| ofstream( ) |  | filebuf( ) |
| ofstream(char\*, int, int) |  | filebuf(int) |
| ofstream(int) |  | filebuf(int, char\* int) |
| ofstream(int, char\*, int) |  | ~filebuf( ) |
| ~ofstream( ) |  | int is\_open( ) |
| filebuf\* rdbuf( ) |  | int fd( ) |
| void open(const char\*, int, int) |  | filebuf\* open(char\*, int, int) |
| void close( ) |  | filebuf\* close( ) |
| streambuf\* setbuf(char\*, int) |  | filebuf\* attach(int) |
| int setmode(int) |  | streambuf\* setbuf(char\*, int) |
| void attach(int) |  | streampos seekoff(streamoff, ios::seek\_dir, int) |
| int fd( ) |  |  |
| int is\_open( ) |  |  |
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**istringstreams <sstream>**



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| **istringstream** |  | **stringbuf** |
| istringstream(ios::openmode mode = ios::in) |  | stringbuf(ios::openmode mode=ios::in | ios::out) |
| istringstream(const string &s, ios::openmode mode = ios::in) |  | stringbuf(const string &s, ios::openmode mode =  ios::in | ios::out) |
| ~istringstream( ) |  | ~stringbuf() |
| stringbuf \*rdbuf() |  | string str() |
| string str() |  | void str(const string &s) |
| Void str(const string& s) |  |  |
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**ostringstreams <sstream>**

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| **ostringstream** |  | **stringbuf** |
| ostringstream(ios::openmode mode=ios::out) |  | stringbuf(ios::openmode mode=ios::in | ios::out) |
| ostringstream(const string &s, ios::openmode mode=ios::out) |  | stringbuf(const string &s, ios::openmode mode =  ios::in | ios::out) |
| ~ostringstream( ) |  | ~stringbuf() |
| stringbuf\* rdbuf() |  | void str(const string &s) |
| string str() |  | string str() |
| Void str(const string& s); |  |  |
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