

# ERLANG QUICK REFERENCE

By Karl Voelker

DATA	
Chars	<code>\$A, \$\n</code>
Binary	<code>2#101</code>
Atom	<code>foo, 'Bar_'</code>
Ref (unique)	<code>make_ref()</code>
Anon. fun.	<code>fun (X)-&gt;X; ... end</code>
Tuple	<code>{foo,42}, {}</code>
List	<code>[], [a,b], [a []]</code>
Decl. record	<code>record(tag,{a,b}).</code>
New record	<code>#tag{a=1,b=2}</code>
Get rec. field	<code>expr#tag.field</code>
Get field index	<code>#tag.field</code>
Update record	<code>expr#tag{field=term}</code>
Bool atoms	<code>true, false</code>
List comp.	<code>[X    X&lt;-[1,2], X &gt; 1]</code>

MISCELLANEOUS	
Comparison	<code>/= == =&lt; &lt; &gt;= &gt;</code>
Exact equality	<code>==/= ==:=</code>
Arithmetic	<code>+ - * / div rem abs</code>
Boolean	<code>not and or xor</code>
Short-circuit	<code>orelse andalso</code>
Lists	<code>++ --</code>
Tuple accessor	<code>element(n,tup)</code>
Tuple mutator	<code>setelement(n,tup,term)</code>
Tuple size	<code>tuple_size(tup)</code>
Atom->String	<code>atom_to_list(atom)</code>
String->Atom	<code>list_to_atom(string)</code>
Integer->String	<code>integer_to_list(int)</code>
String->Integer	<code>list_to_integer(string)</code>
Tuple->List	<code>tuple_to_list(tuple)</code>
List->Tuple	<code>list_to_tuple(list)</code>
Type tests	<code>is_TYPE(term)</code>
Record type test	<code>is_record(term,tag)</code>
List length	<code>length(list)</code>

RUNNING ERLANG	
REPL	<code>erl</code>
Quit Erlang	<code>halt()</code>
Compiler	<code>erlc foo.erl bar.erl</code>
Make	<code>erl -make</code>

MANUAL PAGES	
File I/O	<code>man 3erl file</code>

MODULES and TOP-LEVEL FUNCTIONS	
Decl. module	<code>module(name).</code>
Export	<code>export([f/2,g/3]).</code>
Import	<code>import(module,[h/4]).</code>
Fun. decl.	<code>FunClause; ... .</code>
Fun. clause	<code>Name(Pat,...) -&gt; Body</code>
Clause w/ guard	<code>f(X) when Cond -&gt; Body</code>
Seq. in clause	<code>f(X) -&gt; X + Y, Z;</code>

PROCESSES	
New process	<code>spawn(Module,Fn,ArgList)</code>
Name a process	<code>register(Name, PID)</code>
List names	<code>registered()</code>
Get PID by name	<code>whereis(Name)</code>
Send	<code>PID ! Msg</code>
Receive	<code>receive P-&gt;B; ... end</code>
Timeout	<code>... after n -&gt; Body end</code>
Watch other proc.	<code>link(P), spawn_link(P)</code>
Stop watching	<code>unlink(P)</code>
Send exit signal	<code>exit(PID,Reason)</code>
Catch exit signals	<code>process_flag(trap_exit, true)</code>

SPECIAL EXPRESSIONS	
If	<code>if G -&gt; Body; ... end</code>
Case	<code>case E of     Pat -&gt; Body; ... end</code>
Case guard	<code>Pat when G -&gt; Body;</code>
Expr. Block	<code>begin e1, ... end</code>

VARIABLES and PATTERN MATCHING	
Variable	<code>Foo, Bar, _X, X@Y</code>
Bind pattern	<code>[X Y] = foo()</code>
Anonymous	<code>_</code>
String prefix	<code>"foo" ++ Str</code>

PER-PROCESS DICTIONARY	
Accessors	<code>get(K), get_keys(V) get()</code>
Mutators	<code>put(K,V) erase(K), erase()</code>