

## Previous topic

[gnuradio.gr](#)

## Next topic

[gnuradio.audio](#)

## This Page

[Show Source](#)

## Quick search

Enter search terms or a module, class or function name.

## gnuradio.pmt

`pmt.acons(swig_int_ptr x, swig_int_ptr y, swig_int_ptr a) → swig_int_ptr`  
 (acons x y a) == (cons (cons x y) a)

`pmt.any_ref(swig_int_ptr obj) → boost::any`  
 Return underlying boost::any.

`pmt.any_set(swig_int_ptr obj, boost::any const & any)`  
 Store in .

`pmt.assoc(swig_int_ptr obj, swig_int_ptr alist) → swig_int_ptr`  
 Find the first pair in whose car field is and return that pair.

(for “association list”) must be a list of pairs. If no pair in has as its car then #f is returned. Uses pmt::equal to compare with car fields of the pairs in .

`pmt.assq(swig_int_ptr obj, swig_int_ptr alist) → swig_int_ptr`  
 Find the first pair in whose car field is and return that pair.

(for “association list”) must be a list of pairs. If no pair in has as its car then #f is returned. Uses pmt::eq to compare with car fields of the pairs in .

`pmt.assv(swig_int_ptr obj, swig_int_ptr alist) → swig_int_ptr`  
 Find the first pair in whose car field is and return that pair.

(for “association list”) must be a list of pairs. If no pair in has as its car then #f is returned. Uses pmt::eqv to compare with car fields of the pairs in .

`pmt.blob_data(swig_int_ptr blob) → void const *`  
 Return a pointer to the blob’s data.

`pmt.blob_length(swig_int_ptr blob) → size_t`  
 Return the blob’s length in bytes.

`pmt.c32vector_elements(swig_int_ptr v) → pmt_vector_cfloat`

`pmt.c32vector_ref(swig_int_ptr v, size_t k) → std::complex< float >`

`pmt.c32vector_set(swig_int_ptr v, size_t k, std::complex< float > x)`

`pmt.c64vector_elements(swig_int_ptr v) → pmt_vector_cdoube`

`pmt.c64vector_ref(swig_int_ptr v, size_t k) → std::complex< double >`

`pmt.c64vector_set(swig_int_ptr v, size_t k, std::complex< double > x)`

`pmt.caar(swig_int_ptr pair) → swig_int_ptr`

`pmt.caddr(swig_int_ptr pair) → swig_int_ptr`

`pmt.caddr(swig_int_ptr pair) → swig_int_ptr`

`pmt.cadr(swig_int_ptr pair) → swig_int_ptr`

`pmt.car(swig_int_ptr pair) → swig_int_ptr`  
 If is a pair, return the car of the , otherwise raise wrong\_type.

`pmt.cdar(swig_int_ptr pair) → swig_int_ptr`

`pmt.cddr(swig_int_ptr pair) → swig_int_ptr`

`pmt.cdr(swig_int_ptr pair) → swig_int_ptr`  
 If is a pair, return the cdr of the , otherwise raise wrong\_type.

`pmt.cons(swig_int_ptr x, swig_int_ptr y) → swig_int_ptr`  
 Return a newly allocated pair whose car is and whose cdr is .

`pmt.deserialize(std::streambuf & source) → swig_int_ptr`  
 Create obj from portable byte-serial representation.

`pmt.deserialize_str(std::string str) → swig_int_ptr`  
 Provide a simple string generating interface to pmt's deserialize function.

`pmt.dict_add(swig_int_ptr dict, swig_int_ptr key, swig_int_ptr value) → swig_int_ptr`  
 Return a new dictionary with associated with .

`pmt.dict_delete(swig_int_ptr dict, swig_int_ptr key) → swig_int_ptr`  
 Return a new dictionary with removed.

`pmt.dict_has_key(swig_int_ptr dict, swig_int_ptr key) → bool`  
 Return true if exists in .

`pmt.dict_items(swig_int_ptr dict) → swig_int_ptr`  
 Return list of (key . value) pairs.

`pmt.dict_keys(swig_int_ptr dict) → swig_int_ptr`  
 Return list of keys.

`pmt.dict_ref(swig_int_ptr dict, swig_int_ptr key, swig_int_ptr not_found) → swig_int_ptr`  
 If exists in , return associated value; otherwise return .

`pmt.dict_update(swig_int_ptr dict1, swig_int_ptr dict2) → swig_int_ptr`  
 Return a new dictionary with k=>v pairs from added.

`pmt.dict_values(swig_int_ptr dict) → swig_int_ptr`  
 Return list of values.

`pmt.dump_sizeof()`

`pmt.eq(swig_int_ptr x, swig_int_ptr y) → bool`  
 Return true if x and y are the same object; otherwise return false.

`pmt.equal(swig_int_ptr x, swig_int_ptr y) → bool`  
 pmt::equal recursively compares the contents of pairs and vectors, applying pmt::eqv on other objects such as numbers and symbols. pmt::equal may fail to terminate if its arguments are circular data structures.

`pmt.eqv(swig_int_ptr x, swig_int_ptr y) → bool`  
 Return true if x and y should normally be regarded as the same object, else false.

`pmt.f32vector_elements(swig_int_ptr v) → pmt_vector_float`

`pmt.f32vector_ref(swig_int_ptr v, size_t k) → float`

`pmt.f32vector_set(swig_int_ptr v, size_t k, float x)`

`pmt.f64vector_elements(swig_int_ptr v) → pmt_vector_double`

`pmt.f64vector_ref(swig_int_ptr v, size_t k) → double`

`pmt.f64vector_set(swig_int_ptr v, size_t k, double x)`

`pmt.from_bool(bool val) → swig_int_ptr`  
 Return #f is val is false, else return #t.

`pmt.from_complex(std::complex< double > const & z) → swig_int_ptr`  
Return a complex number constructed of the given real and imaginary parts.

`pmt.from_double(double x) → swig_int_ptr`  
Return the pmt value that represents double .

`pmt.from_float(double x) → swig_int_ptr`

`pmt.from_long(long x) → swig_int_ptr`  
Return the pmt value that represents the integer .

`pmt.from_uint64(uint64_t x) → swig_int_ptr`  
Return the pmt value that represents the uint64 .

`pmt.get_PMT_EOF() → swig_int_ptr`

`pmt.get_PMT_F() → swig_int_ptr`

`pmt.get_PMT_NIL() → swig_int_ptr`

`pmt.get_PMT_T() → swig_int_ptr`

`pmt.init_c32vector(size_t k, pmt_vector_cfloat data) → swig_int_ptr`

`pmt.init_c64vector(size_t k, pmt_vector_cdoube data) → swig_int_ptr`

`pmt.init_f32vector(size_t k, pmt_vector_float data) → swig_int_ptr`

`pmt.init_f64vector(size_t k, pmt_vector_double data) → swig_int_ptr`

`pmt.init_s16vector(size_t k, pmt_vector_int16 data) → swig_int_ptr`

`pmt.init_s32vector(size_t k, pmt_vector_int32 data) → swig_int_ptr`

`pmt.init_s8vector(size_t k, pmt_vector_int8 data) → swig_int_ptr`

`pmt.init_u16vector(size_t k, pmt_vector_uint16 data) → swig_int_ptr`

`pmt.init_u32vector(size_t k, pmt_vector_uint32 data) → swig_int_ptr`

`pmt.init_u8vector(size_t k, pmt_vector_uint8 data) → swig_int_ptr`

`pmt.intern(std::string const & s) → swig_int_ptr`  
Alias for `pmt_string_to_symbol`.

`pmt.is_any(swig_int_ptr obj) → bool`  
Return true if is an any.

`pmt.is_blob(swig_int_ptr x) → bool`  
Return true if is a blob, otherwise false.

`pmt.is_bool(swig_int_ptr obj) → bool`  
Return true if obj is #t or #f, else return false.

`pmt.is_c32vector(swig_int_ptr x) → bool`

`pmt.is_c64vector(swig_int_ptr x) → bool`

`pmt.is_complex(swig_int_ptr obj) → bool`  
return true if is a complex number, false otherwise.

`pmt.is_dict(swig_int_ptr obj) → bool`  
Return true if is a dictionary (warning: also returns true for a pair)

`pmt.is_eof_object(swig_int_ptr obj) → bool`

return true if obj is the EOF object, otherwise return false.

`pmt.is_f32vector(swig_int_ptr x) → bool`

`pmt.is_f64vector(swig_int_ptr x) → bool`

`pmt.is_false(swig_int_ptr obj) → bool`

Return true if obj is #f, else return true.

`pmt.is_integer(swig_int_ptr x) → bool`

Return true if is an integer number, else false.

`pmt.is_msg_accepter(swig_int_ptr obj) → bool`

Return true if is a msg\_accepter.

`pmt.is_null(swig_int_ptr x) → bool`

Return true if is the empty list, otherwise return false.

`pmt.is_number(swig_int_ptr obj) → bool`

Return true if obj is any kind of number, else false.

`pmt.is_pair(swig_int_ptr obj) → bool`

Return true if is a pair, else false (warning: also returns true for a dict)

`pmt.is_real(swig_int_ptr obj) → bool`

`pmt.is_s16vector(swig_int_ptr x) → bool`

`pmt.is_s32vector(swig_int_ptr x) → bool`

`pmt.is_s64vector(swig_int_ptr x) → bool`

`pmt.is_s8vector(swig_int_ptr x) → bool`

`pmt.is_symbol(swig_int_ptr obj) → bool`

Return true if obj is a symbol, else false.

`pmt.is_true(swig_int_ptr obj) → bool`

Return false if obj is #f, else return true.

`pmt.is_tuple(swig_int_ptr x) → bool`

Return true if is a tuple, otherwise false.

`pmt.is_u16vector(swig_int_ptr x) → bool`

`pmt.is_u32vector(swig_int_ptr x) → bool`

`pmt.is_u64vector(swig_int_ptr x) → bool`

`pmt.is_u8vector(swig_int_ptr x) → bool`

`pmt.is_uint64(swig_int_ptr x) → bool`

Return true if is an uint64 number, else false.

`pmt.is_uniform_vector(swig_int_ptr x) → bool`

true if is any kind of uniform numeric vector

`pmt.is_vector(swig_int_ptr x) → bool`

Return true if is a vector, otherwise false.

`pmt.length(swig_int_ptr v) → size_t`

Return the number of elements in v.

`pmt.list1(swig_int_ptr x1) → swig_int_ptr`

Return a list of length 1 containing .

`pmt.list2(swig_int_ptr x1, swig_int_ptr x2) → swig_int_ptr`

Return a list of length 2 containing , .

`pmt.list3(swig_int_ptr x1, swig_int_ptr x2, swig_int_ptr x3) → swig_int_ptr`

Return a list of length 3 containing , , .

`pmt.list4(swig_int_ptr x1, swig_int_ptr x2, swig_int_ptr x3, swig_int_ptr x4) → swig_int_ptr`

Return a list of length 4 containing , , , .

`pmt.list5(swig_int_ptr x1, swig_int_ptr x2, swig_int_ptr x3, swig_int_ptr x4, swig_int_ptr x5) → swig_int_ptr`

Return a list of length 5 containing , , , , .

`pmt.list6(swig_int_ptr x1, swig_int_ptr x2, swig_int_ptr x3, swig_int_ptr x4, swig_int_ptr x5, swig_int_ptr x6) → swig_int_ptr`

Return a list of length 6 containing , , , , , .

`pmt.list_add(swig_int_ptr list, swig_int_ptr item) → swig_int_ptr`

Return with added to it.

`pmt.list_has(swig_int_ptr list, swig_int_ptr item) → bool`

Return bool of contains .

`pmt.list_rm(swig_int_ptr list, swig_int_ptr item) → swig_int_ptr`

Return with removed from it.

`pmt.make_any(boost::any const & any) → swig_int_ptr`

make an any

`pmt.make_blob(void const * buf, size_t len) → swig_int_ptr`

Make a blob given a pointer and length in bytes.

The data is copied into the blob.

`pmt.make_c32vector(size_t k, std::complex< float > fill) → swig_int_ptr`

`pmt.make_c64vector(size_t k, std::complex< double > fill) → swig_int_ptr`

`pmt.make_dict() → swig_int_ptr`

Make an empty dictionary.

`pmt.make_f32vector(size_t k, float fill) → swig_int_ptr`

`pmt.make_f64vector(size_t k, double fill) → swig_int_ptr`

`pmt.make_msg_accepter(boost::shared_ptr< gr::messages::msg_accepter > ma) → swig_int_ptr`

make a msg\_accepter

`pmt.make_rectangular(double re, double im) → swig_int_ptr`

Return a complex number constructed of the given real and imaginary parts.

`pmt.make_s16vector(size_t k, int16_t fill) → swig_int_ptr`

`pmt.make_s32vector(size_t k, int32_t fill) → swig_int_ptr`

`pmt.make_s64vector(size_t k, int64_t fill) → swig_int_ptr`

`pmt.make_s8vector(size_t k, int8_t fill) → swig_int_ptr`

`pmt.make_tuple() → swig_int_ptr`

make\_tuple(swig\_int\_ptr e0) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4, swig\_int\_ptr e5) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4, swig\_int\_ptr e5, swig\_int\_ptr e6) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4, swig\_int\_ptr e5, swig\_int\_ptr e6, swig\_int\_ptr e7) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4, swig\_int\_ptr e5, swig\_int\_ptr e6, swig\_int\_ptr e7, swig\_int\_ptr e8) -> swig\_int\_ptr  
 make\_tuple(swig\_int\_ptr e0, swig\_int\_ptr e1, swig\_int\_ptr e2, swig\_int\_ptr e3, swig\_int\_ptr e4, swig\_int\_ptr e5, swig\_int\_ptr e6, swig\_int\_ptr e7, swig\_int\_ptr e8, swig\_int\_ptr e9) -> swig\_int\_ptr

**pmt.make\_u16vector**(size\_t k, uint16\_t fill) → swig\_int\_ptr

**pmt.make\_u32vector**(size\_t k, uint32\_t fill) → swig\_int\_ptr

**pmt.make\_u64vector**(size\_t k, uint64\_t fill) → swig\_int\_ptr

**pmt.make\_u8vector**(size\_t k, uint8\_t fill) → swig\_int\_ptr

**pmt.make\_vector**(size\_t k, swig\_int\_ptr fill) → swig\_int\_ptr

Make a vector of length , with initial values set to .

**pmt.map**(pmt::pmt\_t (\*)(pmt::pmt\_t const &) proc, swig\_int\_ptr list) → swig\_int\_ptr

Apply element-wise to the elements of list and returns a list of the results, in order.

must be a list. The dynamic order in which is applied to the elements of is unspecified.

**pmt.member**(swig\_int\_ptr obj, swig\_int\_ptr list) → swig\_int\_ptr

Return the first sublist of whose car is . If does not occur in , then #f is returned.  
 pmt::member use pmt::equal to compare with the elements of .

**pmt.memq**(swig\_int\_ptr obj, swig\_int\_ptr list) → swig\_int\_ptr

Return the first sublist of whose car is . If does not occur in , then #f is returned.  
 pmt::memq use pmt::eq to compare with the elements of .

**pmt.memv**(swig\_int\_ptr obj, swig\_int\_ptr list) → swig\_int\_ptr

Return the first sublist of whose car is . If does not occur in , then #f is returned.  
 pmt::memv use pmt::eqv to compare with the elements of .

**pmt.msg\_accepter\_ref**(swig\_int\_ptr obj) → boost::shared\_ptr<gr::messages::msg\_accepter >

Return underlying msg\_accepter.

**pmt.nth**(size\_t n, swig\_int\_ptr list) → swig\_int\_ptr

locates element of list where the car is the 'zeroth' element.

**pmt.nthcdr**(size\_t n, swig\_int\_ptr list) → swig\_int\_ptr

returns the tail of that would be obtained by calling cdr times in succession.

**pmt.pmt\_vector\_cdouble**(\*args)

Proxy of C++ std::vector<std::complex<(double)>> class.

**pmt.pmt\_vector\_cfloat**(\*args)

Proxy of C++ std::vector<std::complex<(float)>> class.

**pmt.pmt\_vector\_double**(\*args)

Proxy of C++ std::vector<(double)> class.

**pmt.pmt\_vector\_float**(\*args)

Proxy of C++ `std::vector<float>` class.

`pmt.pmt_vector_int16(*args)`

Proxy of C++ `std::vector<int16_t>` class.

`pmt.pmt_vector_int32(*args)`

Proxy of C++ `std::vector<int32_t>` class.

`pmt.pmt_vector_int8(*args)`

Proxy of C++ `std::vector<int8_t>` class.

`pmt.pmt_vector_uint16(*args)`

Proxy of C++ `std::vector<uint16_t>` class.

`pmt.pmt_vector_uint32(*args)`

Proxy of C++ `std::vector<uint32_t>` class.

`pmt.pmt_vector_uint8(*args)`

Proxy of C++ `std::vector<uint8_t>` class.

`pmt.read(std::istream & port) → swig_int_ptr`

`read` converts external representations of pmt objects into the objects themselves. `Read` returns the next object parsable from the given input port, updating port to point to the first character past the end of the external representation of the object.

If an end of file is encountered in the input before any characters are found that can begin an object, then an end of file object is returned. The port remains open, and further attempts to read will also return an end of file object. If an end of file is encountered after the beginning of an object's external representation, but the external representation is incomplete and therefore not parsable, an error is signaled.

`pmt.reverse(swig_int_ptr list) → swig_int_ptr`

`reverse` .

must be a proper list.

`pmt.reverse_x(swig_int_ptr list) → swig_int_ptr`

`destructively reverse` .

must be a proper list.

`pmt.s16vector_elements(swig_int_ptr v) → pmt_vector_int16`

`pmt.s16vector_ref(swig_int_ptr v, size_t k) → int16_t`

`pmt.s16vector_set(swig_int_ptr v, size_t k, int16_t x)`

`pmt.s32vector_elements(swig_int_ptr v) → pmt_vector_int32`

`pmt.s32vector_ref(swig_int_ptr v, size_t k) → int32_t`

`pmt.s32vector_set(swig_int_ptr v, size_t k, int32_t x)`

`pmt.s64vector_ref(swig_int_ptr v, size_t k) → int64_t`

`pmt.s64vector_set(swig_int_ptr v, size_t k, int64_t x)`

`pmt.s8vector_elements(swig_int_ptr v) → pmt_vector_int8`

`pmt.s8vector_ref(swig_int_ptr v, size_t k) → int8_t`

`pmt.s8vector_set(swig_int_ptr v, size_t k, int8_t x)`

`pmt.serialize(swig_int_ptr obj, std::streambuf & sink) → bool`

Write portable byte-serial representation of to .

`pmt.serialize_str(swig_int_ptr obj) → std::string`  
 Provide a simple string generating interface to pmt's serialize function.

`pmt.set_car(swig_int_ptr pair, swig_int_ptr value)`  
 Stores in the car field of .

`pmt.set_cdr(swig_int_ptr pair, swig_int_ptr value)`  
 Stores in the cdr field of .

`pmt.string_to_symbol(std::string const & s) → swig_int_ptr`  
 Return the symbol whose name is .

`pmt.subsetp(swig_int_ptr list1, swig_int_ptr list2) → bool`  
 Return true if every element of appears in , and false otherwise. Comparisons are done with `pmt::eqv`.

`pmt.symbol_to_string(swig_int_ptr sym) → std::string const`  
 If a symbol, return the name of the symbol as a string. Otherwise, raise the `wrong_type` exception.

`pmt.to_bool(swig_int_ptr val) → bool`  
 Return true if val is `pmt::True`, return false when val is `pmt::PMT_F`.

`pmt.to_complex(swig_int_ptr z) → std::complex< double >`  
 If is complex, real or integer, return the closest `complex<double>`. Otherwise, raise the `wrong_type` exception.

`pmt.to_double(swig_int_ptr x) → double`  
 Convert pmt to double if possible.

Returns the number closest to that is representable as a double. The argument must be a real or integer, otherwise a `wrong_type` exception is raised.

`pmt.to_float(swig_int_ptr x) → double`  
 Convert pmt to float if possible.

This basically is `to_double()` with a type-cast; the PMT stores the value as a double in any case. Use this when strict typing is required.

`pmt.to_long(swig_int_ptr x) → long`  
 Convert pmt to long if possible.

When represents an exact integer that fits in a long, return that integer. Else raise an exception, either `wrong_type` when x is not an exact integer, or `out_of_range` when it doesn't fit.

`pmt.to_pmt(p)`

`pmt.to_python(p)`

`pmt.to_tuple(swig_int_ptr x) → swig_int_ptr`  
 If is a vector or proper list, return a tuple containing the elements of x

`pmt.to_uint64(swig_int_ptr x) → uint64_t`  
 Convert pmt to uint64 if possible.

When represents an exact integer that fits in a uint64, return that uint64. Else raise an exception, either `wrong_type` when x is not an exact uint64, or `out_of_range` when it doesn't fit.

`pmt.tuple_ref(swig_int_ptr tuple, size_t k) → swig_int_ptr`  
 Return the contents of position of . must be a valid index of .

`pmt.u16vector_elements(swig_int_ptr v) → pmt_vector_uint16`



```

pmt.u16vector_ref(swig_int_ptr v, size_t k) → uint16_t

pmt.u16vector_set(swig_int_ptr v, size_t k, uint16_t x)

pmt.u32vector_elements(swig_int_ptr v) → pmt_vector_uint32

pmt.u32vector_ref(swig_int_ptr v, size_t k) → uint32_t

pmt.u32vector_set(swig_int_ptr v, size_t k, uint32_t x)

pmt.u64vector_ref(swig_int_ptr v, size_t k) → uint64_t

pmt.u64vector_set(swig_int_ptr v, size_t k, uint64_t x)

pmt.u8vector_elements(swig_int_ptr v) → pmt_vector_uint8

pmt.u8vector_ref(swig_int_ptr v, size_t k) → uint8_t

pmt.u8vector_set(swig_int_ptr v, size_t k, uint8_t x)

pmt.uniform_vector_elements(swig_int_ptr v, size_t & len) → void const *

pmt.uniform_vector_itemsize(swig_int_ptr x) → size_t
    item size in bytes if is any kind of uniform numeric vector

pmt.vector_fill(swig_int_ptr vector, swig_int_ptr fill)
    Store in every position of .

pmt.vector_ref(swig_int_ptr vector, size_t k) → swig_int_ptr
    Return the contents of position of . must be a valid index of .

pmt.vector_set(swig_int_ptr vector, size_t k, swig_int_ptr obj)
    Store in position .

pmt.write(swig_int_ptr obj, std::ostream & port)
    Write a written representation of to the given .

pmt.write_string(swig_int_ptr obj) → std::string
    Return a string representation of . This is the same output as would be generated by
    pmt::write.

```