tasky_create_reminder

Description

Creates a new Tasky reminder with message, time, recurring days, and scheduling options.

Purpose

Set up recurring or one-time notifications to remind users about tasks, deadlines, or important events. Supports flexible time parsing including relative times.

Parameters

Parameter	Type	Required	Description
`message`	string	☑	Reminder message text
`time`	string	☑	Time in HH:MM format or relative ("in 5 minutes", "in 2 hours")
`days`	string[]	☑	Array of weekdays: ["monday", "tuesday", "wednesday", "thursday", "friday", "saturday", "sunday"]
`enabled`	boolean	✗	Whether reminder is active (default: true)
`oneTime`	boolean	✗	One-time reminder vs. recurring (default: false, auto-true for relative times)

UI Flow

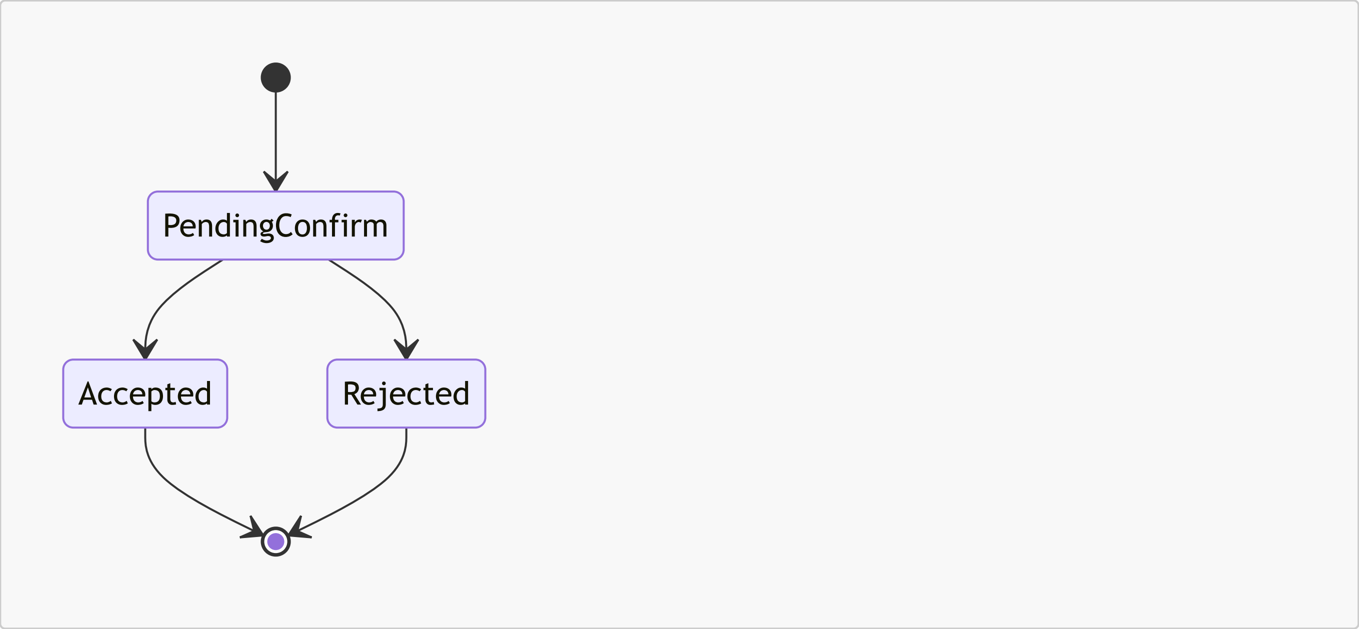
1. **User Input:** "Remind me to check emails at 9 AM on weekdays"
2. **AI Processing:** Parses natural language into structured parameters:
   - Message: "check emails"
   - Time: "09:00"
   - Days: ["monday", "tuesday", "wednesday", "thursday", "friday"]
3. **Tool Call:** `mcpCall` invoked with parsed reminder data
4. **Confirmation:** User sees confirmation overlay with:
   - Parsed schedule visualization
   - Reminder frequency (daily/weekly/one-time)
   - Next occurrence calculation
5. **Execution:** Upon approval, reminder created in database
6. **Result Display:** Success card shows created reminder details

Time Processing Logic

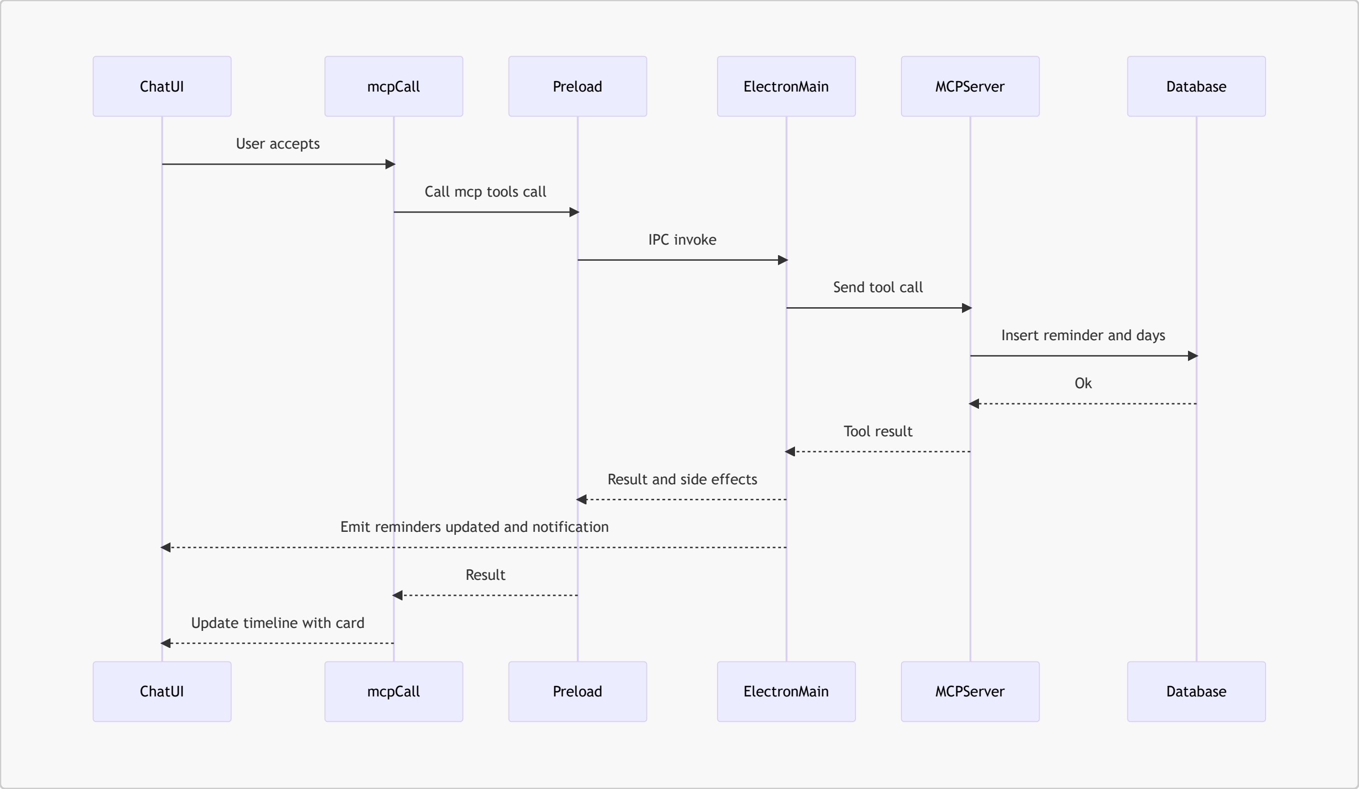
Confirmation Outcomes

This tool requires user confirmation. Auto accept is not used for creation.

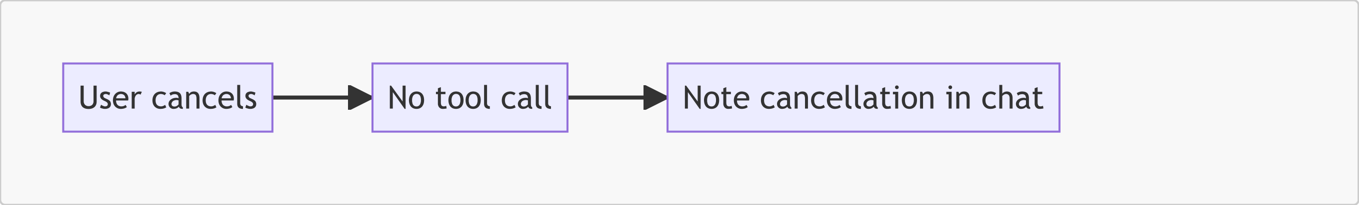
State



Accepted



Rejected



Auto accept

- Not applicable for create

Side effects on accept

- Emits `tasky:reminders-updated` event
- OS notification for created reminder
- Adaptive card snapshot embedded in chat

See also: State Management Diagrams

Adaptive Card Response

Snapshot shape

```
{
  "__taskyCard": {
    "kind": "result",
    "tool": "tasky_create_reminder",
    "status": "success",
    "data": {
      "id": "abc123",
      "message": "Check emails",
      "time": "09:00",
      "days": ["monday","tuesday","wednesday","thursday","friday"],
      "enabled": true,
      "oneTime": false
    },
    "meta": {
      "operation": "create",
      "timestamp": "2025-09-17T16:00:00.000Z"
    }
  }
}
```

Error variant

```
{
  "__taskyCard": {
    "kind": "result",
    "tool": "tasky_create_reminder",
    "status": "error",
    "error": { "message": "Validation failed", "code": "VALIDATION" }
  }
}
```

Renderer notes

- Success: Render created reminder card with schedule chips.
- Error: Inline error card with validation hints.

Standard Time Format

- **Input:** "09:00", "14:30", "23:59"

- **Processing:** Direct HH:MM validation
- **Result:** Recurring reminder at specified time

Relative Time Format

- **Input:** "in 5 minutes", "in 2 hours", "in 30 minutes"
- **Processing:** Parsed by smart time parser utility
- **Result:** One-time reminder calculated from current time

```
// Smart time parsing for relative times
if (args.time.toLowerCase().includes('in ') ||
args.time.toLowerCase().includes('from now')) {
  const { parseRelativeTime } = await import('./utils/time-parser.js');
  const parsed = parseRelativeTime(args.time);
  finalTime = parsed.time;
  isOneTime = true; // Relative times are automatically one-time
}
```

Database Operations

```
-- Main reminder insertion (handled by ReminderBridge)
INSERT INTO reminders (
  id, message, time, enabled, one_time, created_at, updated_at, metadata
) VALUES (
  @id, @message, @time, @enabled, @one_time, @created_at, @updated_at, @metadata
);

-- Days insertion for recurring reminders
INSERT INTO reminder_days (reminder_id, day) VALUES (?, ?);
```

MCP Request Examples

Recurring Weekday Reminder

```
curl -X POST http://localhost:7844/mcp \
  -H "Content-Type: application/json" \
  -d '{
    "jsonrpc": "2.0",
    "id": 6,
    "method": "tools/call",
    "params": {
      "name": "tasky_create_reminder",
      "arguments": {
        "message": "Check emails and respond to urgent items",
        "time": "09:00",
        "days": ["monday", "tuesday", "wednesday", "thursday", "friday"],
        "enabled": true
      }
    }
  }'
```

One-Time Relative Reminder

```
curl -X POST http://localhost:7844/mcp \
  -H "Content-Type: application/json" \
  -d '{
    "jsonrpc": "2.0",
    "id": 7,
    "method": "tools/call",
    "params": {
      "name": "tasky_create_reminder",
      "arguments": {
        "message": "Take a break",
        "time": "in 25 minutes",
        "days": [],
        "oneTime": true
      }
    }
  }'
```

Weekend Reminder

```
curl -X POST http://localhost:7844/mcp \
  -H "Content-Type: application/json" \
  -d '{
    "jsonrpc": "2.0",
    "id": 8,
    "method": "tools/call",
    "params": {
      "name": "tasky_create_reminder",
      "arguments": {
        "message": "Plan next week activities",
        "time": "10:00",
        "days": ["saturday", "sunday"],
        "enabled": true
      }
    }
  }'
```

Response Format

```
{
  "jsonrpc": "2.0",
  "id": 6,
  "result": {
    "content": [
      {
        "type": "text",
        "text": "Reminder created successfully"
      },
      {
        "type": "text",
        "text": "{\"id\":\"reminder_20250907_164500_abc123\",\"message\":\"Check emails and respond to urgent items\",\"time\":\"09:00\",\"days\":[\"monday\",\"tuesday\",\"wednesday\",\"thursday\",\"friday\"],\"enabled\":true,\"oneTime\":false,\"createdAt\":\"2025-09-07T16:45:00.000Z\",\"nextOccurrence\":\"2025-09-08T09:00:00.000Z\"}"
      }
    ]
  }
}
```

UI Components

- **ConfirmOverlay:** Shows reminder creation confirmation with:
  - Message preview
  - Schedule visualization (daily/weekly pattern)
  - Next occurrence time
  - Frequency description
- **ToolCallDisplay:** Renders creation operation status
- **AdaptiveCardRenderer:** Displays created reminder card with:
  - Message text
  - Schedule badges (weekday chips)
  - Time display
  - Enabled/disabled status
  - One-time vs. recurring indicator

Schedule Visualization Examples

Weekday Schedule

```
📅 Weekdays at 9:00 AM
Mon Tue Wed Thu Fri
Next: Tomorrow at 9:00 AM
```

Weekend Schedule

```
📅 Weekends at 10:00 AM
Sat Sun
Next: Saturday at 10:00 AM
```

One-Time Schedule

```
⏰ One-time reminder
In 25 minutes (3:10 PM today)
```

Natural Language Processing

Common Patterns

- **Daily:** "every day at 8 AM" → All days
- **Weekdays:** "on weekdays at 9 AM" → Monday-Friday
- **Weekends:** "weekend mornings at 10 AM" → Saturday-Sunday
- **Specific Days:** "Monday and Wednesday at 2 PM" → ["monday", "wednesday"]
- **Relative:** "in 30 minutes" → One-time, calculated time

Time Formats Supported

- **24-hour:** "14:30", "09:00", "23:59"
- **12-hour:** "2:30 PM", "9:00 AM", "11:59 PM" (parsed by AI)
- **Relative:** "in X minutes", "in X hours"
- **Natural:** "at noon", "at midnight" (parsed by AI)

Validation Rules

Field	Validation
`message`	Required, non-empty string
`time`	Must be HH:MM format or valid relative time
`days`	Array of valid weekday strings
`enabled`	Boolean, defaults to true
`oneTime`	Boolean, auto-set for relative times

Error Handling

Error	Cause	Response
Missing message	`message` parameter not provided	`{"content": [{"type": "text", "text": "message is required"}], "isError": true}`
Invalid time format	Malformed time string	Time parsing error with details

Error	Cause	Response
Invalid days	Unknown weekday names	Validation error for day values
Empty days array	No days specified for recurring reminder	Warning but allows creation

Time Parser Integration

The system uses a smart time parser (`utils/time-parser.ts`) that handles:

Relative Time Parsing

- **Minutes:** "in 5 minutes", "in 30 minutes"
- **Hours:** "in 2 hours", "in 1 hour"
- **Mixed:** "in 1 hour 30 minutes"

Calculation Logic

```
const parseRelativeTime = (input: string) => {
  const now = new Date();
  const minutes = extractMinutes(input);
  const hours = extractHours(input);

  const targetTime = new Date(now.getTime() + (hours * 60 + minutes) * 60000);

  return {
    time: targetTime.toTimeString().slice(0, 5), // HH:MM
    date: targetTime.toISOString().slice(0, 10)   // YYYY-MM-DD
  };
};
```

Performance Considerations

- **Time Calculation:** Relative times calculated once at creation
- **Next Occurrence:** Computed for UI display
- **Schedule Validation:** Days validated against enum values
- **Database Efficiency:** Separate table for days to normalize data

Integration with Notification System

Created reminders integrate with the main Tasky application's notification system:

- **Electron Notifications:** Native system notifications
- **Schedule Management:** Background service checks for due reminders
- **Snooze Support:** Can be extended with snooze functionality
- **History Tracking:** Reminder execution history maintained

Related Components

- `tasky-mcp-agent/src/mcp-server.ts:197-242` - Tool definition and handler
- `tasky-mcp-agent/src/utils/reminder-bridge.ts` - Database operations
- `tasky-mcp-agent/src/utils/time-parser.ts` - Smart time parsing
- `src/components/chat/ConfirmOverlay.tsx` - Reminder creation confirmation
- `src/components/chat/AdaptiveCardRenderer.tsx` - Reminder card display

Best Practices

1. **Clear Messages:** Use descriptive reminder messages
2. **Appropriate Frequency:** Choose recurring vs. one-time based on need
3. **Reasonable Times:** Set reminders at actionable times
4. **Day Selection:** Be specific about which days need reminders
5. **Enable Management:** Use enabled flag for temporary disabling