

# **CS383: Software Engineering**

**HW2: Use Cases  
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# 1 Use Cases

## 1.1 Magic

(Author: Tao Zhang)

### 1.1.1 Cast a Spell

Magic I	Cast a Spell
<i>Actors</i>	<ul style="list-style-type: none"><li>• Phasing player</li></ul>
<i>Goal</i>	Phasing player cast spells
<i>Preconditions</i>	<ul style="list-style-type: none"><li>• Phasing player is in one of the following phase<ol style="list-style-type: none"><li>1. Movement</li><li>2. Spell Segment</li><li>3. Combat</li></ol></li></ul>
<i>Summary</i>	Phasing player gonna cast enough spells he want during his turn
<i>Related Usecases</i>	<ul style="list-style-type: none"><li>• Movement</li><li>• Combat</li></ul>
<i>Steps</i>	

1. Phasing Player select a character with PL
2. Phasing player select an available spell
3. player selects a target for the spell
4. Player inform to cast this spell
5. repeat to cast enough spells

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*Alternative*

- Only in Movement and spell segment:
    1. Phasing player can choose a higher level spell with warning red background.
    2. Computer will computes the result if successfully cast the spell and whether the charater survive or not
  - Player click on the buttom "End of casting spells" which the bottom will always be displayed on side of the screen
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### 1.1.2 Cast a CounterSpell

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**Magic II**

**Cast a CounterSpell**

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*Actors*

- Non-phasing Player
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*Goal*

Non-phasing players cast counterspells

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*Preconditions*

- End of phasing player's spell segment
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*Summary*

All non-phasing player will do this at the same time, and once all of them have clicked the "end of counterspell" button. The server will then turn to let phasing player control

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*Steps*

1. Non-phasing player select a character with PL
2. Select an available counterspell
3. Select a target to cast this spell
4. Repeat to select enough counterspells

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*Alternative*

- Non-phasing player click the button "End of casting counterspells".
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## 1.2 Selection

(Author: Gabe Pearhill)

### 1.2.1 Unit Selection

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**Select Unit(s)**

**Select one or more units**

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*Summary*

Player clicks a unit on the game board.

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*Actors*

- Player
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*Preconditions*

- Phase requiring unit selection.
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*Steps*

1. Once a phase requiring unit selection begins, the computer highlights all available units.
  2. The user clicks one or more units.
  3. Computer saves the selection state.
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### 1.2.2 Hexagon Selection

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**Select Hexagon**

**Record the players hexagon selection.**

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<i>Summary</i>	The basic action of selecting a hexagon, be it for magic, movement, or attacking.
<i>Actors</i>	<ul style="list-style-type: none"> <li>• Player</li> </ul>
<i>Steps</i>	<ol style="list-style-type: none"> <li>1. Player clicks on a hex.</li> <li>2. Computer records the hex selection.</li> </ol>

## 1.3 Movement

(Author: Gabe Pearhill)

### 1.3.1 Move a Unit

<b>Move Unit(s)</b>	<b>Move unit(s) across the map!</b>
<i>Summary</i>	During the movement phase the player selects and moves units.
<i>Actors</i>	<ul style="list-style-type: none"> <li>• Player</li> </ul>
<i>Preconditions</i>	<ul style="list-style-type: none"> <li>• Movement Phase</li> </ul>
<i>Steps</i>	<ol style="list-style-type: none"> <li>1. Select unit(s). (See Unit Selection)</li> <li>2. Computer highlights hexagons within range of the selected units.</li> <li>3. Player selects an eligible hexagon.</li> <li>4. Computer checks if tile has special attributes (a portal for example) and takes action appropriately.</li> <li>5. Handle items relating to zone of control.</li> </ol>

### 1.3.2 Using a Portal

<b>Teleportation</b>	<b>Give the player the choice to use a portal hexagon.</b>
<i>Summary</i>	If a unit moves on top of a portal, and the player chooses to use it, the computer must move the selected units to another portal location on the map.
<i>Actors</i>	<ul style="list-style-type: none"> <li>• Player</li> </ul>
<i>Steps</i>	<ol style="list-style-type: none"> <li>1. Player moves on top of a portal hexagon.</li> <li>2. Player is provided a dialog giving them the option to use the portal.</li> <li>3. If the player chooses to use the portal the player must then choose to teleport his units individually or as a group.</li> <li>4. Perform appropriate teleportation.</li> <li>5. Should an enemy unit occupy an output portal, the teleported units should be retreated by one tile.</li> </ol>