**Game API Template**

Fill in values for the fields shown below in red (they are put automatically in headers & footers etc.).

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(1) Select **Normal** view (**View** menu), as opposed to Page Layout or any other type.  
(2) Display field **Values**, not field codes ( **{ }** toolbar button).  
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AG-PharaohTreasure Name of project  
ASHGAMING00011 Document reference (recorded in database)  
Pharaoh's Treasure Game Title  
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The following field code is constructed automatically and should not be modified:

|  |  |
| --- | --- |
| Monarch Sun API | |
| Project: | CJ-Monarch Sun |
| Title: | Monarch Sun API |
| Author: | Marco Torres |
| Version | 1.4 |
| Date: | 08/06/ 2014 |
| Leave this line blank to provide spacing above first line of text. | |

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# API

Monarch Sun is a multi-coin slot game in a 5 reel format. It uses the Power X Stream left to right and right to left evaluation method for the pay-outs, which features 768 ways of winning. The game also features replacement symbols which are replaced by a symbol pattern on every spin.

Power X Stream evaluates the award based on the number of symbols, in any position, that occur on adjacent reels, starting with the leftmost reel and moving right, or starting with the rightmost reel and moving left.

## Game Description

Game type: 5 reel slot

Number of rows: 4x4x3x4x4

Substitute symbol: RE

Scatter symbol: BN

***Main Game***

* All symbols pay Left to Right and Right to Left (Reel 1-5) only in consecutive order using the Power X Stream Evaluation.
* The five symbols winning only pay once from Left to Right.
* Payouts are made according to the *Paytable* and the number of matching symbols per reel.
* Wins are multiplied by the number of credits staked on the credit wager.
* RE will substitute for any symbol except Scatter.
* Bonus symbols appear only in reels 2, 3 and 4.
* Three Bonus symbols appearing anywhere will award 10 free spins if there’s only one Bonus symbol in the 3rd reel. If the 3rd reel has 2 scatter symbols will pay 15 free spins and 20 free spins if there are 3 Bonus on the 3rd reel.
* When the game is in free spin mode, if there’s any wild ONLY on the third reel, it is going to be fixed on that position during the entire free spin mode. If a wild symbol appears in another position on the 3rd reel, it will be fixed on that position, if there’s any wild symbol on the same position it doesn’t affect the current wild, but if there’s a wild symbol on a new position on the 3rd reel is going to add that wild to the sticky wilds array. When the free spin finishes and a NEW game starts the sticky wild will be remove for all plays.

The <stickyWilds> tag defines the positions in the third reel in which Sticky Wilds appear. For example in the following tag: <stickyWilds>0,2</stickyWilds> the game will show sticky wilds for the positions 0 and 2 in the third reel.

## Monarch Sun Reels and Symbol Mapping.

The events in the Monarch Sun API correspond to Reel Stops on the virtual reels for the game. A draw will produce five Reel Stops (which define the first position on the physical reels and the symbol to display at this position).

Each reel stop displays one of eleven possible symbols plus a placeholder for the replacement symbols. The events returned by the engine combine the stop position (numbered from 0) and symbol, allowing the game client to use an internal representation of the virtual reels to display the results, or simply use the results returned by the game engine.

**Table 1- Reel Symbols Mapping**

| **Symbol ID** | **Symbol Name** |
| --- | --- |
| 1 | SYMBOL\_WW |
| 2 | SYMBOL\_H1 |
| 3 | SYMBOL\_H2 |
| 4 | SYMBOL\_H3 |
| 5 | SYMBOL\_M1 |
| 6 | SYMBOL\_M2 |
| 7 | SYMBOL\_L1 |
| 8 | SYMBOL\_L2 |
| 9 | SYMBOL\_L3 |
| 10 | SYMBOL\_L4 |
| 11 | SYMBOL\_BN |
| 12 | SYMBOL\_RE |

## Prize Types

Wins are read both from left to right and from right to left, and must start on the first (left to right) of last (right to left) reels.

**Prize Types for base reel game**

Please refer maths Document (PAR)

**Scatter pays fixed wins**

Please refer maths Document (PAR)

## Example API Interaction

### Basic Init

Request:

<gameRequest>

<msgdata reqName=*"InitReq"*>

</msgdata>

</gameRequest>

Response:

The response includes the reels and the initial stops for the game.

<gamemessage>

<msgheader>

<failed>false</failed>

<balance>9978.75</balance>

<playableBalance>0.00</playableBalance>

<withdrawableBalance>0.00</withdrawableBalance>

<totalWithdrawableBalance>9978.75</totalWithdrawableBalance>

<depositedFunds>9978.75</depositedFunds>

<pendingBalance>0.00</pendingBalance>

<couponBalance>0</couponBalance>

<playableLock>false</playableLock>

<seed>1693808351</seed>

<gameSession>1064S0000002557</gameSession>

<gamePlayId>-1</gamePlayId>

<lastMsgId>0</lastMsgId>

<timeStamp timeZoneOffset=*"0"*>1291247061529</timeStamp>

<processTime>32</processTime>

<responsiblegaming rctype=*"2"* time=*"0"*>

<rgrealitycheck display=*"false"* />

<rgplayersessionlimit display=*"false"* />

</responsiblegaming>

</msgheader>

<msgdata reqName=*"InitReq"*>

<mainReelsConfig>

<reel id=*"1"*>

*<<Reel #1 configuration as comma separated symbols>>* </reel>

<reel id=*"2"*>

*<<Reel #2 configuration as comma separated symbols>>* </reel>

<reel id=*"3"*>

*<<Reel #3 configuration as comma separated symbols>>* </reel>

<reel id=*"4"*>

*<<Reel #4 configuration as comma separated symbols>>* </reel>

<reel id=*"5"*>

*<<Reel #5 configuration as comma separated symbols>>* </reel>

</mainReelsConfig>

<freeSpinReelsConfig>

<reel id=*"1"*>

*<<Reel #1 configuration as comma separated symbols>>* </reel>

<reel id=*"2"*>

*<<Reel #2 configuration as comma separated symbols>>* </reel>

<reel id=*"3"*>

*<<Reel #3 configuration as comma separated symbols>>* </reel>

<reel id=*"4"*>

*<<Reel #4 configuration as comma separated symbols>>* </reel>

<reel id=*"5"*>

*<<Reel #5 configuration as comma separated symbols>>* </reel>

</freeSpinReelsConfig>

<initStops>100,100,100,100,100</initStops>

</msgdata>

</gamemessage>

### 1.4.2 Basic No Win

Request :

<gameRequest>

<msgdata reqName=*"SpinReq"*>

<coinValue>0.01</coinValue>

<creditWager>1</creditsWager>

</msgdata>

</gameRequest>

Response:

The response includes the replacement pattern for each spin; this in order to ensure the client uses the right symbols for the reel spin animations. The replacement pattern consists of 4 symbol ids, the first and second for the replacement of the symbols on the first and second reels, the third and fourth for the ones in the fourth and fifth reels.

<gamemessage>

<msgheader>

<failed>false</failed>

<balance>11984.05</balance>

<playableBalance>0.00</playableBalance>

<withdrawableBalance>0.00</withdrawableBalance>

<totalWithdrawableBalance>11984.05</totalWithdrawableBalance>

<depositedFunds>11984.05</depositedFunds>

<pendingBalance>0.00</pendingBalance>

<couponBalance>0</couponBalance>

<playableLock>false</playableLock>

<seed>1826812616</seed>

<gameSession>1064S0000002566</gameSession>

<gamePlayId>2753082</gamePlayId>

<lastMsgId>0</lastMsgId>

<timeStamp timeZoneOffset=*"0"*>1291278492616</timeStamp>

<processTime>295</processTime>

<responsiblegaming rctype=*"2"* time=*"57907"*>

<rgrealitycheck display=*"false"* />

<rgplayersessionlimit display=*"false"* />

</responsiblegaming>

</msgheader>

<msgdata reqName=*"SpinReq"*>

<reels>

<reel id=*"1"* pos=*"0"*>2,3,4,5</reel>

<reel id=*"2"* pos=*"123"*>10,10,5,7</reel>

<reel id=*"3"* pos=*"119"*>10,8,9</reel>

<reel id=*"4"* pos=*"111"*>9,9,4,11</reel>

<reel id=*"5"* pos=*"0"*>9,6,9,8</reel>

<rePattern>1,1,1,1</rePattern>

</reels>

<lines won=*"0"*>

</lines>

<creditResults wagered=*"50"* won=*"00"* />

<results wagered=*"0.50"* won=*"0.00"* net=*"-0.50"* />

<freeSpins total=*"0"* used=*"0"* won=*"0"* />

</msgdata>

</gamemessage>

The display in previous example is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2 | 10 | 10 | 9 | 9 |
| 3 | 10 | 8 | 9 | 6 |
| 4 | 5 | 9 | 4 | 9 |
| 5 | 7 |  | 11 | 8 |

### Basic Win

Request :

<gameRequest>

<msgdata reqName=*"SpinReq"*>

<coinValue>0.01</coinValue>

<creditWager>1</creditsWager>

</msgdata>

</gameRequest>

Response :

<gamemessage>

<msgheader>

<failed>false</failed>

<balance>11984.05</balance>

<playableBalance>0.00</playableBalance>

<withdrawableBalance>0.00</withdrawableBalance>

<totalWithdrawableBalance>11984.05</totalWithdrawableBalance>

<depositedFunds>11984.05</depositedFunds>

<pendingBalance>0.00</pendingBalance>

<couponBalance>0</couponBalance>

<playableLock>false</playableLock>

<seed>1826812616</seed>

<gameSession>1064S0000002566</gameSession>

<gamePlayId>2753082</gamePlayId>

<lastMsgId>0</lastMsgId>

<timeStamp timeZoneOffset=*"0"*>1291278492616</timeStamp>

<processTime>295</processTime>

<responsiblegaming rctype=*"2"* time=*"57907"*>

<rgrealitycheck display=*"false"* />

<rgplayersessionlimit display=*"false"* />

</responsiblegaming>

</msgheader>

<msgdata reqName=*"SpinReq"*>

<reels>

<reel id=*"1"* pos=*"107"*>10,3,6,4</reel>

<reel id=*"2"* pos=*"123"*>10,10,5,7</reel>

<reel id=*"3"* pos=*"119"*>10,9,8</reel>

<reel id=*"4"* pos=*"111"*>9,9,4,11</reel>

<reel id=*"5"* pos=*"111"*>9,6,9,4</reel>

<rePattern>1,1,1,1</rePattern>

</reels>

<lines won=*"50"*>

<line id=*"9"* won=*"10"* icon=*"10"* positions=*"1,1;2,1;2,2;3,1"* />

<line id=*"17"* won=*"40"* icon=*"9"* positions=*"3,2;3,4;4,1;4,2;5,1;5,3"* />

</lines>

<creditResults wagered=*"50"* won=*"50"* />

<results wagered=*"0.50"* won=*"0.50"* net=*"0.00"* />

<freeSpins total=*"0"* used=*"0"* won=*"0"* />

</msgdata>

</gamemessage>

The display in previous example is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 10 | 10 | 10 | 9 | 9 |
| 3 | 10 | 9 | 9 | 6 |
| 6 | 5 | 8 | 4 | 9 |
| 4 | 7 |  | 11 | 4 |

### Bonus Game

**Trigger Response :**

<gamemessage>

<msgdata reqName=*"SpinReq"*>

<reels>

<reel id=*"1"* pos=*"43"*>2,8,3,2</reel>

<reel id=*"2"* pos=*"103"*>11,6,8,5</reel>

<reel id=*"3"* pos=*"101"*>8,11,9</reel>

<reel id=*"4"* pos=*"100"*>11,5,4,11</reel>

<reel id=*"5"* pos=*"82"*>5,2,7,2</reel>

<rePattern>1,1,1,1</rePattern></reels>

<lines won=*"25"*>

<line id=*"7"* won=*"25"* icon=*"8"* positions=*"1,2;2,3;3,1"* />

<line id=*"0"* won=*"0"* icon=*"11"* positions=*"2,1;3,2;3,4;4,1;4,4"* /></lines>

<creditResults wagered=*"250"* won=*"25"* />

<freeSpins total=*"32"* used=*"0"* won=*"0"* />

</msgdata>

</gamemessage>

**Game Context (Example for sticky wild):**

<gameContext>

<currentPlayState state=*"NEW"*/>

<currentWager creditValue=*"0.01"* creditPerLine=*"5"* creditWager=*"5"* rtp=*"2"*/>

<currentResult creditWon=*"50"* />

<lines won=*"200"*>

<line id=*"4"* won=*"100"* icon=*"1"* positions=*"0,2;1,2;2,2;3,2;4,2"* />

<line id=*"5"* won=*"100"* icon=*"1"* positions=*"0,0;1,1;2,2;3,1;4,0"* />

</lines>

<reels>

<reel id=*"1"* pos=*"0"*>1,1,1,1</reel>

<reel id=*"2"* pos=*"0"*>1,1,1,1</reel>

<reel id=*"3"* pos=*"0"*>1,1,1</reel>

<reel id=*"4"* pos=*"0"*>1,1,1,1</reel>

<reel id=*"5"* pos=*"0"*>1,1,1,1</reel>

</reels>

<stickyWilds>0,2</stickyWilds>

</gameContext>

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Change Description |
| 1.0 | 27/7/2014 | Marco Torres | Initial version |
| 1.1 | 28/7/2014 | Manuel Rodriguez | Fixed document format  Removed Scatter references |
| 1.2 | 31/7/2014 | Marco Torres | Reels display change in XML |
| 1.3 | 4/8/2014 | Marco Torres | Extended explanation about sticky wilds and XML error fixed. |
| 1.4 | 07/08/2014 | Christopher Quesada | Document reviewed, corrected and approved. |
| 1.5 | 13/08/2014 | Marco Torres | Remove unused “symbol\_dummy” from server and docs. |