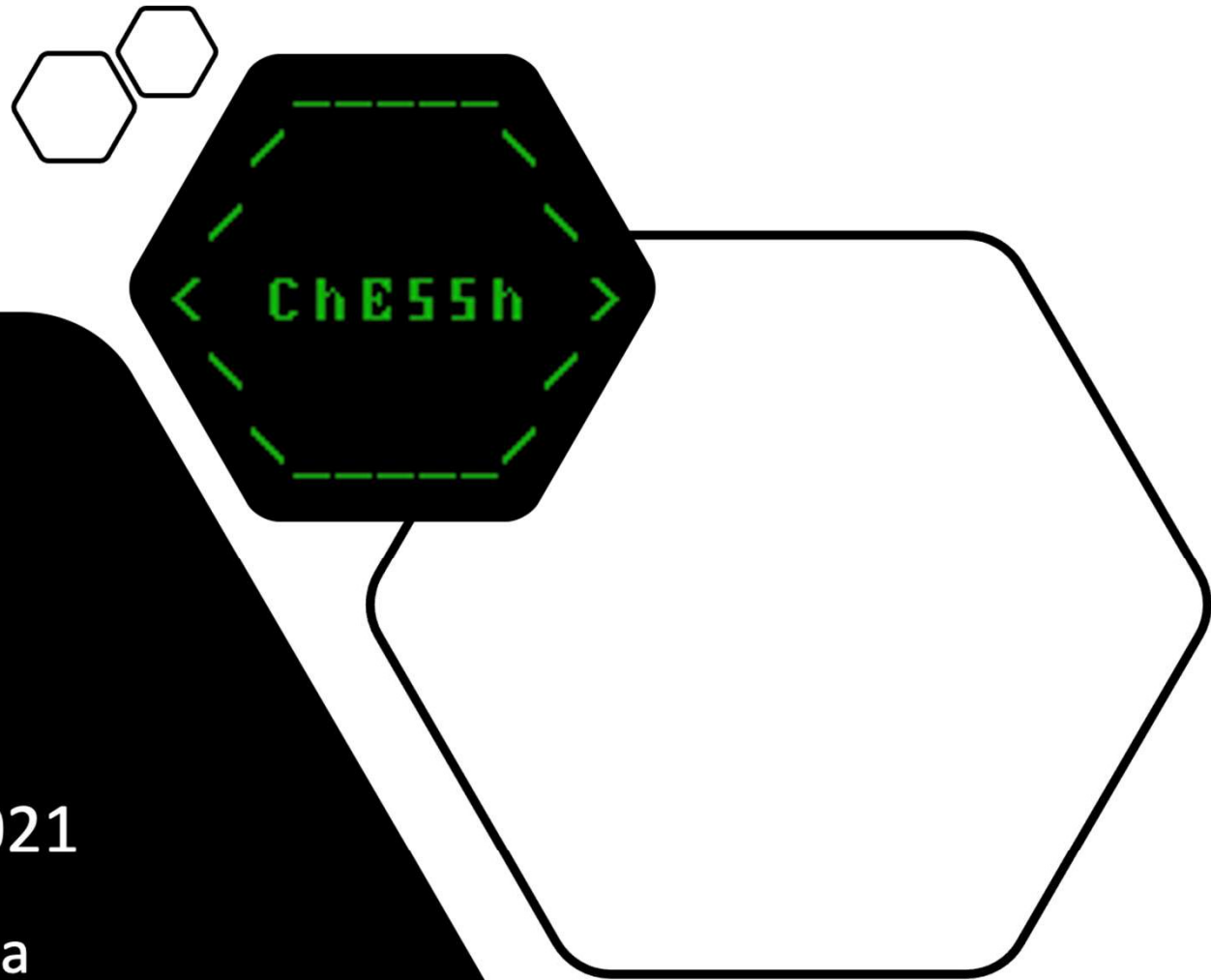


ChE55h

Meilenstein 5
Programmierprojekt 2021

Edi, Jonas, Raffael, Sascha

hexchess.bplaced.net





Auf dieser Website sind verschiedene Informationen zu unserem Spiel zu finden.

Steuerung

- Tätigen eines Spielzuges
- Kommunikation unter Spielern

Technisches

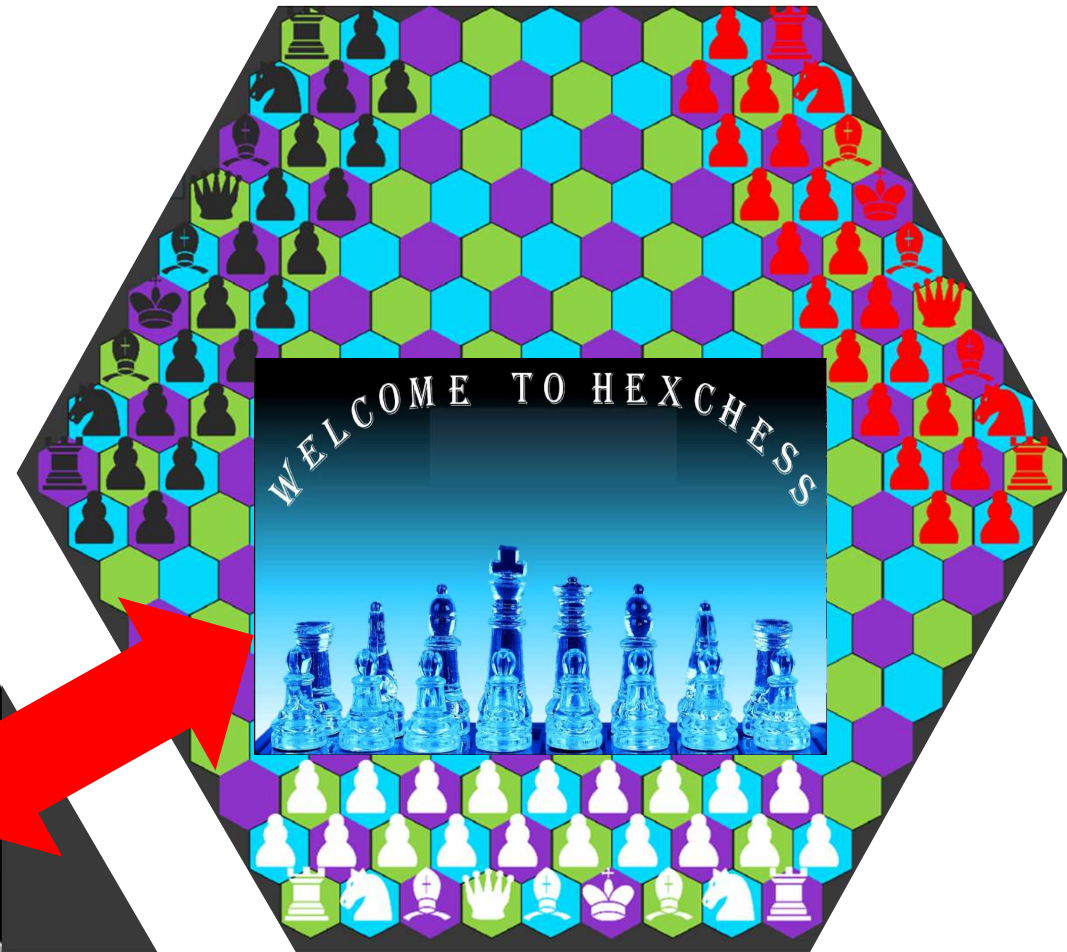
- Logo-Programm

[zurück zur Startseite](#)

Link:

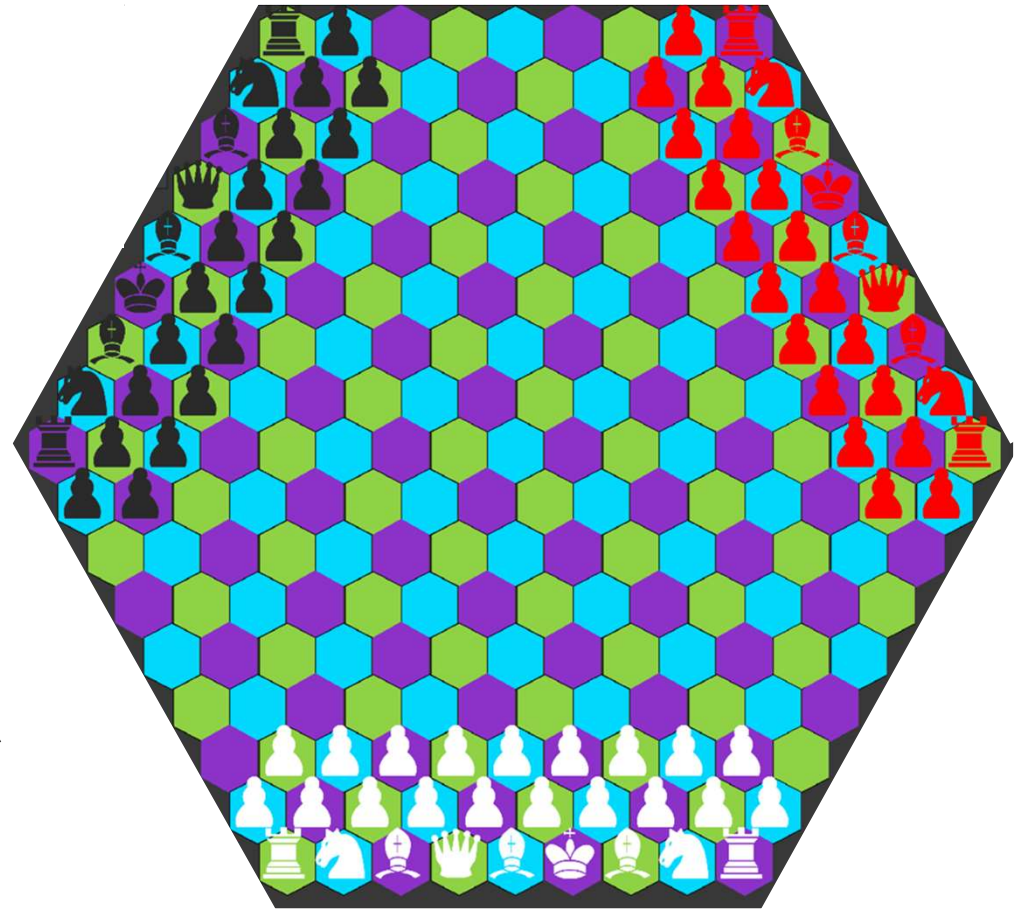
hexchess.bplaced.net

UNTERSCHIEDE



UNTERSCHIEDE

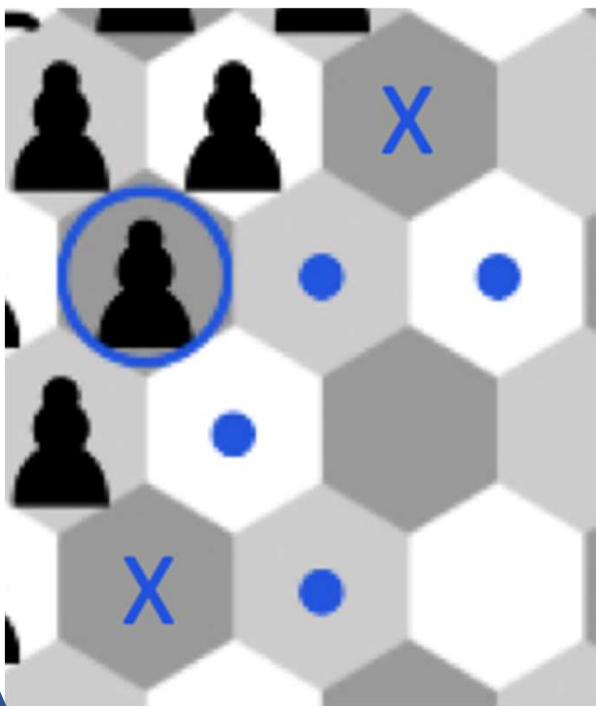
- 3 Personen
- 6-eckiges Spielfeld



Zugmöglichkeiten



Bauer

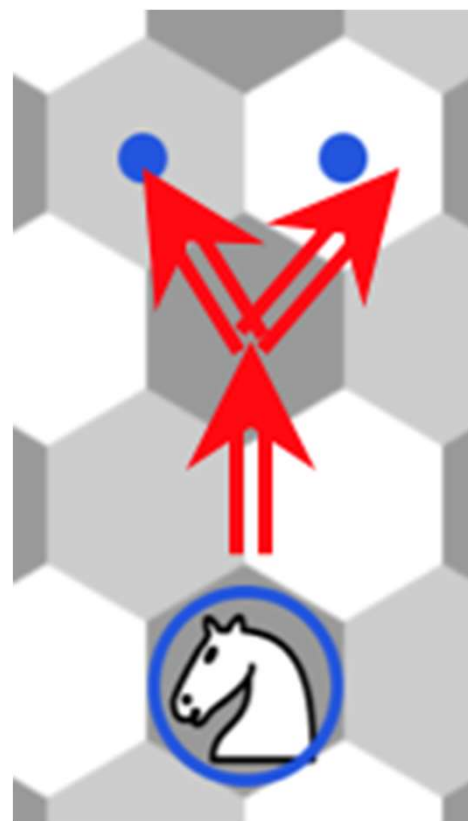


5

Ziel / Regeln



Springer



Zugmöglichkeiten

Ziel / Regeln

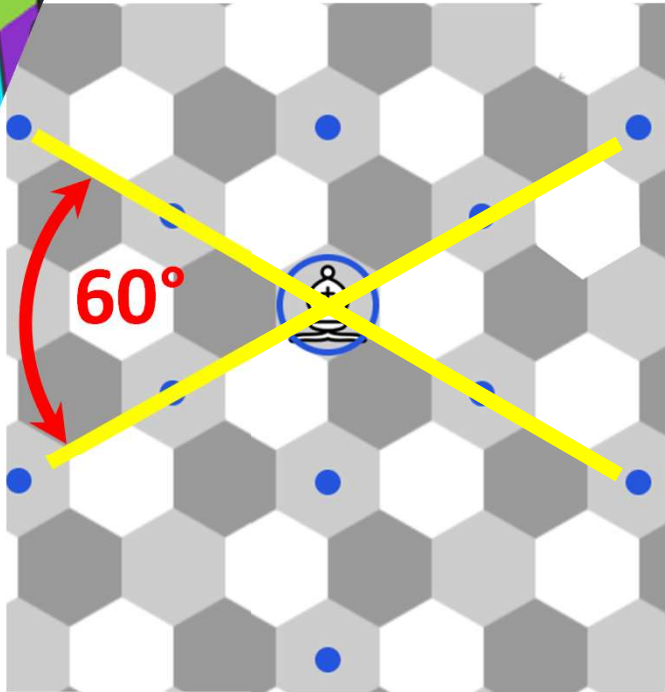
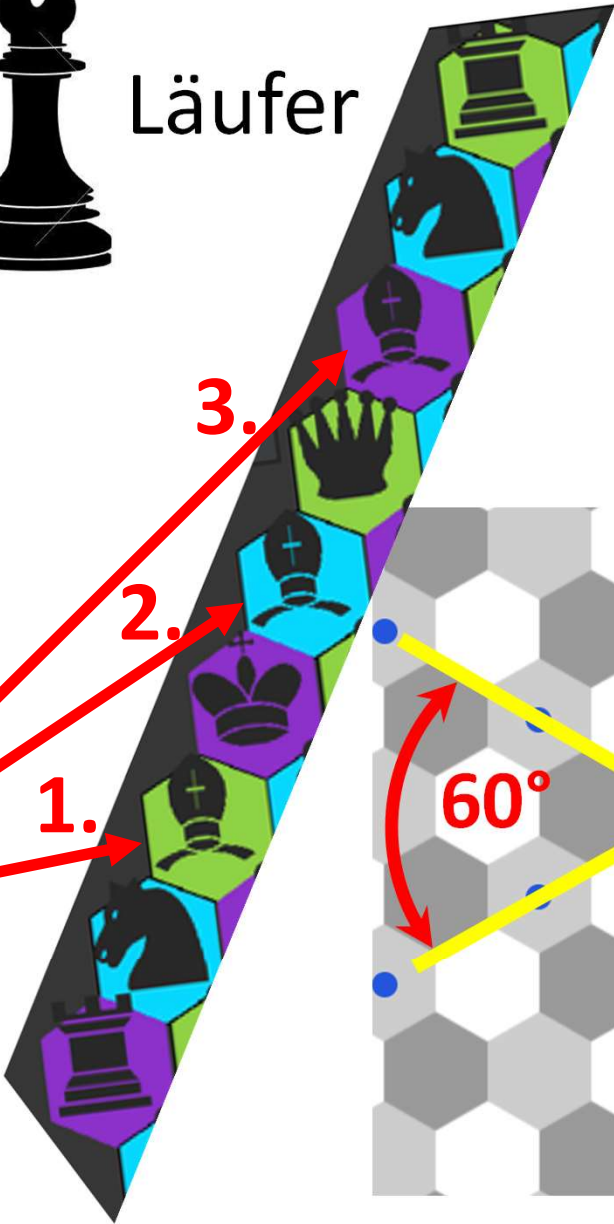
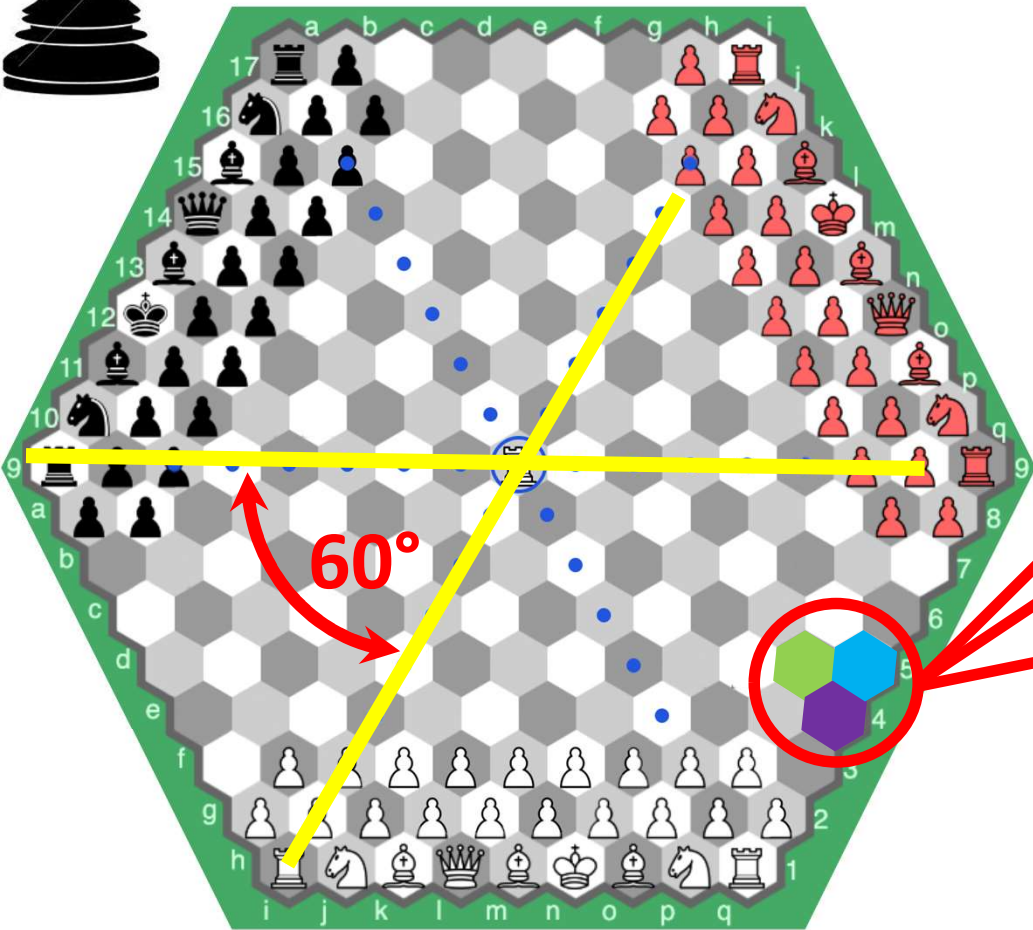


Turm



Läufer

6



Zugmöglichkeiten

Ziel / Regeln

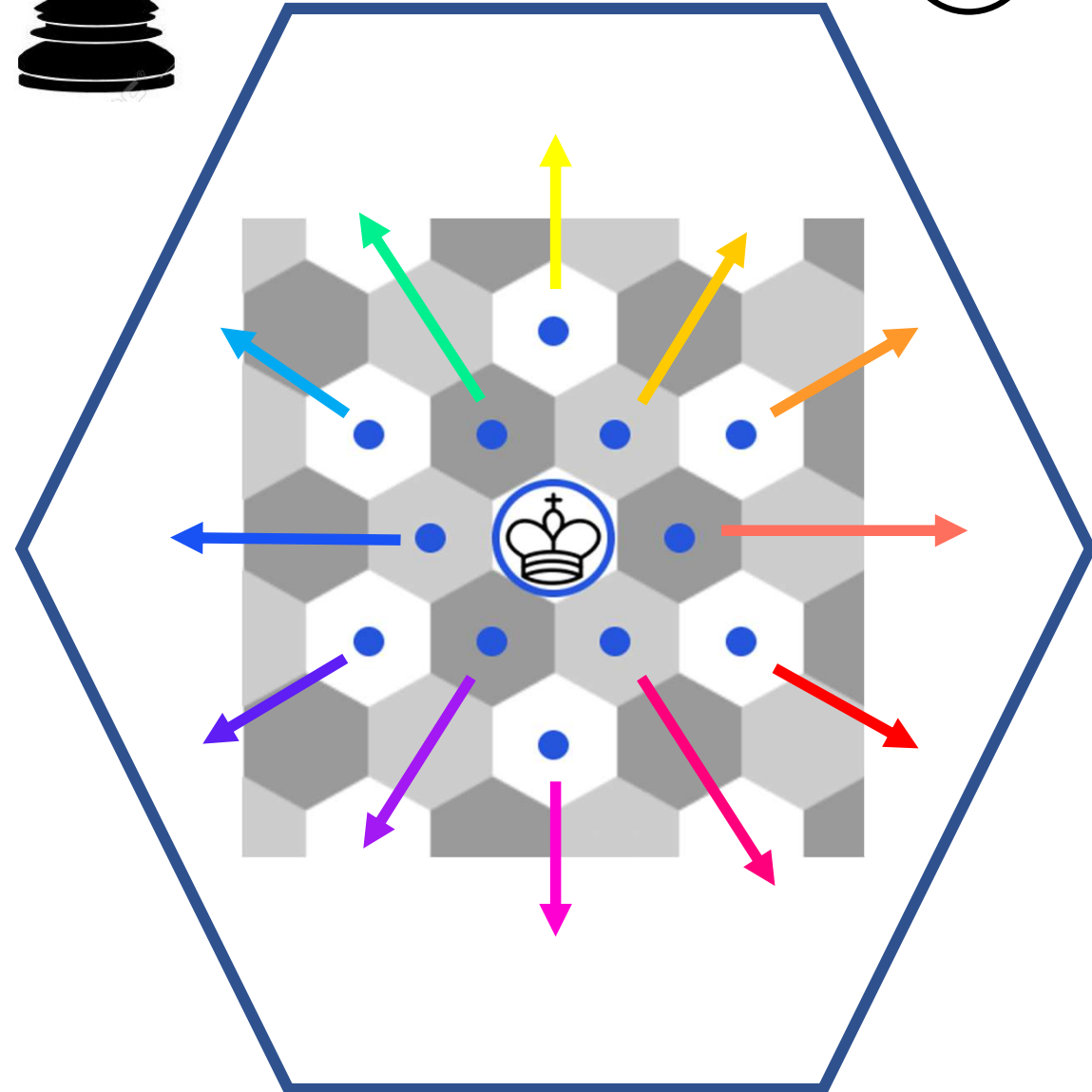
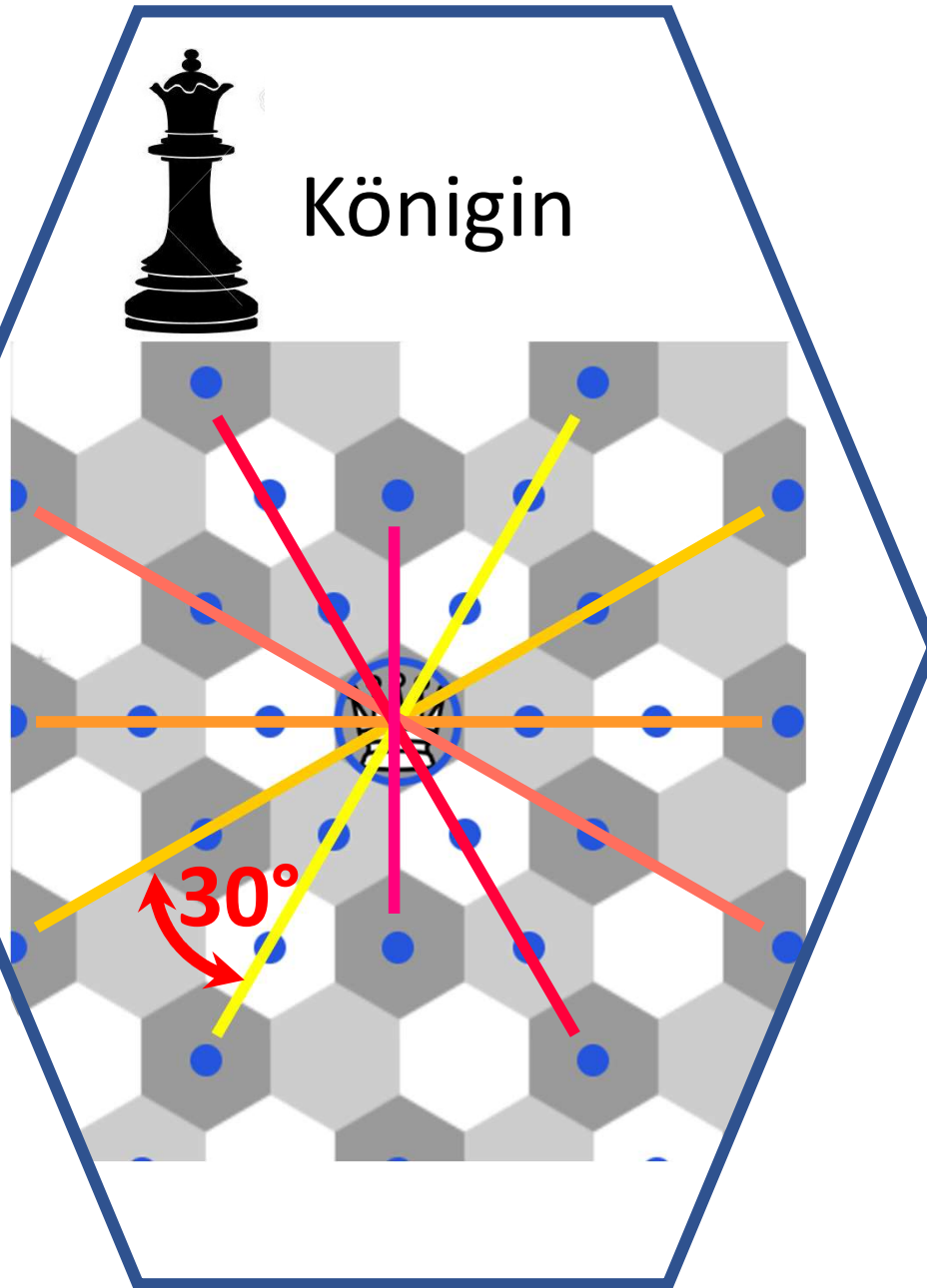


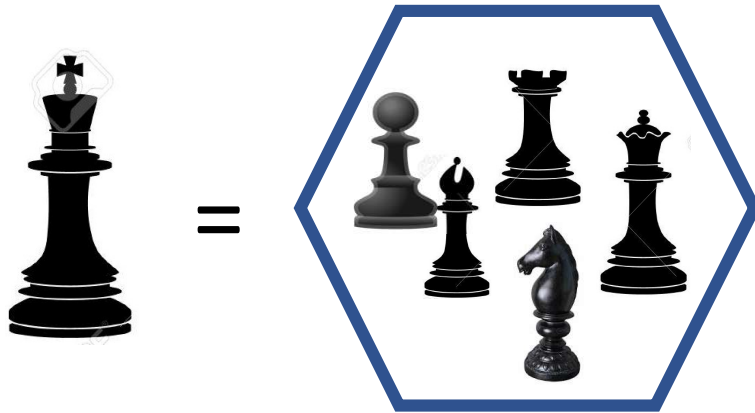
König

7



Königin





- König → direkt schlagen
→ Spieler verliert
- → dynamisch, schneller
- → Aufmerksamkeit wichtig
- unüberlegter Zug
→ Spiel verloren



Quality Assurance

Was wird gemessen?

- Code Coverage
- Metrics:
 - Anz. Zeilen Code pro Methode
 - Komplexität der Klassen
 - Anz. Kommentare pro Zeilen Code

Wie wird gemessen?

- Jacoco
- Metrics:
 - Metrics Reloaded
 - Javadoc



Quality Assurance



































Resultate

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
Field.new JPanel().{...}		0%		0%	125	125	179	179	3	3	1	1
GFX		0%		0%	51	51	149	149	12	12	1	1
Data		58%		38%	168	236	161	410	2	18	0	1
Field		0%		0%	25	25	111	111	9	9	1	1
ClientThread		22%		18%	48	56	107	149	6	11	0	1
LobbyGUI		0%		0%	10	10	105	105	4	4	1	1
Net		50%		44%	34	59	90	178	9	20	0	1
Lounge		0%		0%	5	5	47	47	4	4	1	1
EncodeNet		22%		16%	26	30	54	70	1	3	0	1
ManualGUI		0%		0%	11	11	41	41	5	5	1	1
Client		52%		43%	12	23	45	92	2	9	0	1
Tools		37%		29%	21	30	49	77	3	6	0	1
Main		0%		0%	10	10	31	31	3	3	1	1
Lobby		64%		44%	10	17	22	56	4	8	0	1
HighScore		51%		37%	7	14	24	53	1	6	0	1
Chat		53%		0%	2	4	16	37	1	3	0	1
ServerThread		73%		61%	6	12	12	38	0	3	0	1
ToolsGUI.new WindowAdapter().{...}		27%		0%	3	4	10	11	1	2	0	1
StartMenu		93%		0%	2	5	4	57	1	4	0	1
CallClient		0%		n/a	2	2	4	4	2	2	1	1
CallServer		0%		n/a	2	2	4	4	2	2	1	1
Server		88%		50%	1	3	5	21	0	2	0	1
ToolsGUI		87%		n/a	1	6	3	15	1	6	0	1
ToolsGUI.new JPanel().{...}		92%		n/a	0	3	2	11	0	3	0	1
Point		100%		n/a	0	3	0	10	0	3	0	1
Total	7'529 of 11'097	32%	879 of 1'145	23%	582	746	1'274	1'953	76	151	9	25

Quality Assurance

Resultate

Data

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
● move(int, int, int, int, char, String)		15%		6%	76	77	73	87	0	1
● moveTest(int, int, int, int, char, String)		59%		38%	61	76	38	81	0	1
● checkPawnCapturing(double, double, int, int, int, int, Point, Point, String, char)		0%		0%	5	5	14	14	1	1
● main(String[])		0%		0%	3	3	19	19	1	1
● checkCheck(String, char)		81%		73%	8	18	10	42	0	1
● changeColor()		83%		55%	6	10	4	21	0	1
● checkLimitedMove(double, double, int, int, int, int, Point, Point, String, char)		87%		50%	3	4	2	12	0	1
● checkPawnMove(double, int, int, int, int, String, char)		90%		50%	1	2	1	9	0	1
● checkArc30(double)		96%		83%	1	4	0	2	0	1
● Data(String, Lobby)		100%		100%	0	11	0	61	0	1
● checkMove(double, double, int, int, int, int, Point, Point, String, char)		100%		92%	1	8	0	25	0	1
● getFields(Point)		100%		100%	0	2	0	8	0	1
● getCoordinates(int, int)		100%		100%	0	2	0	6	0	1
● sendField(String, int, int, int, int)		100%		100%	0	3	0	9	0	1
● clearBoard(char)		100%		100%	0	4	0	5	0	1
● checkArc60(double)		100%		62%	3	5	0	2	0	1
● feedback(double, String, String)		100%	n/a	n/a	0	1	0	4	0	1
● static {...}		100%	n/a	n/a	0	1	0	3	0	1
Total	1'179 of 2'858	58%	260 of 421	38%	168	236	161	410	2	18



Quality Assurance

Resultate

class	▼	OCavg	OCmax	WMC
ch.unibas.dmi.dbis.cs108.project.EncodeNet		28.00	28	28
ch.unibas.dmi.dbis.cs108.project.Data		8.06	34	137
ch.unibas.dmi.dbis.cs108.project.Tools		7.25	19	29
ch.unibas.dmi.dbis.cs108.project.Main		7.00	7	7
ch.unibas.dmi.dbis.cs108.project.Field		6.78	38	61
ch.unibas.dmi.dbis.cs108.project.ClientThread		5.71	21	40
ch.unibas.dmi.dbis.cs108.project.GFX		4.50	19	45
ch.unibas.dmi.dbis.cs108.project.ServerThread		4.00	7	8
ch.unibas.dmi.dbis.cs108.project.Client		3.29	8	23
ch.unibas.dmi.dbis.cs108.project.Net		3.17	7	57
ch.unibas.dmi.dbis.cs108.project.Server		3.00	3	3
ch.unibas.dmi.dbis.cs108.project.HighScore		2.60	5	13
ch.unibas.dmi.dbis.cs108.project.LobbyGUI		2.50	6	10
ch.unibas.dmi.dbis.cs108.project.Lobby		2.29	7	16
ch.unibas.dmi.dbis.cs108.project.ManualGUI		2.25	4	9
ch.unibas.dmi.dbis.cs108.project.Chat		1.33	2	4
ch.unibas.dmi.dbis.cs108.project.Lounge		1.25	2	5
ch.unibas.dmi.dbis.cs108.project.StartMenu		1.25	2	5
ch.unibas.dmi.dbis.cs108.project.ToolsGUI		1.25	3	10
ch.unibas.dmi.dbis.cs108.tests.NetTest		1.12	2	9
ch.unibas.dmi.dbis.cs108.project.CallClient		1.00	1	1
ch.unibas.dmi.dbis.cs108.project.CallServer		1.00	1	1
ch.unibas.dmi.dbis.cs108.project.Point		1.00	1	3
ch.unibas.dmi.dbis.cs108.tests.DataTest		1.00	1	7
Total				531
Average		3.90	9.50	22.12

class	CLOC	JLOC ▼	LOC
ch.unibas.dmi.dbis.cs108.project.Data	184	159	836
ch.unibas.dmi.dbis.cs108.project.Field	80	48	467
ch.unibas.dmi.dbis.cs108.project.GFX	127	107	358
ch.unibas.dmi.dbis.cs108.project.Net	123	89	324
ch.unibas.dmi.dbis.cs108.project.ClientThread	95	35	245
ch.unibas.dmi.dbis.cs108.project.Client	85	48	193
ch.unibas.dmi.dbis.cs108.project.LobbyGUI	60	25	169
ch.unibas.dmi.dbis.cs108.project.Tools	47	36	155
ch.unibas.dmi.dbis.cs108.project.EncodeNet	45	11	150
ch.unibas.dmi.dbis.cs108.project.Lobby	37	27	109
ch.unibas.dmi.dbis.cs108.project.HighScore	49	27	108
ch.unibas.dmi.dbis.cs108.project.StartMenu	42	25	102
ch.unibas.dmi.dbis.cs108.project.Lounge	40	25	96
ch.unibas.dmi.dbis.cs108.project.ToolsGUI	41	38	96
ch.unibas.dmi.dbis.cs108.project.Chat	32	19	73
ch.unibas.dmi.dbis.cs108.project.ServerThread	21	14	67
ch.unibas.dmi.dbis.cs108.project.ManualGUI	17	12	65
ch.unibas.dmi.dbis.cs108.project.Main	16	9	51
ch.unibas.dmi.dbis.cs108.project.Point	22	22	42
ch.unibas.dmi.dbis.cs108.project.Server	16	14	42
ch.unibas.dmi.dbis.cs108.project.CallClient	3	3	9
ch.unibas.dmi.dbis.cs108.project.CallServer	3	3	9
Total	1'185	796	3'766
Average	53.86	36.18	171.18

Quality Assurance

Diskussion

- Mit Unittests zufrieden (Essentielles)
- Nice to have: mehr Javadoc -> unterschiedliche Lesbarkeit
- Qualität litt aufgrund des Zeitdrucks.

TECHNOLOGY

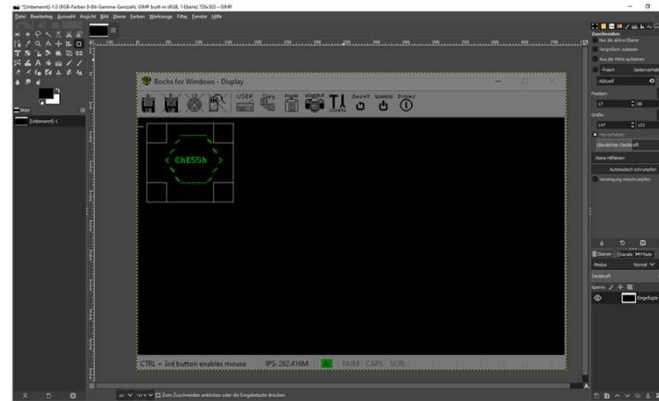
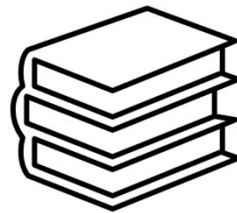
Logo:



- Netwide Assembler
- Bochs
- HxD
- GIMP

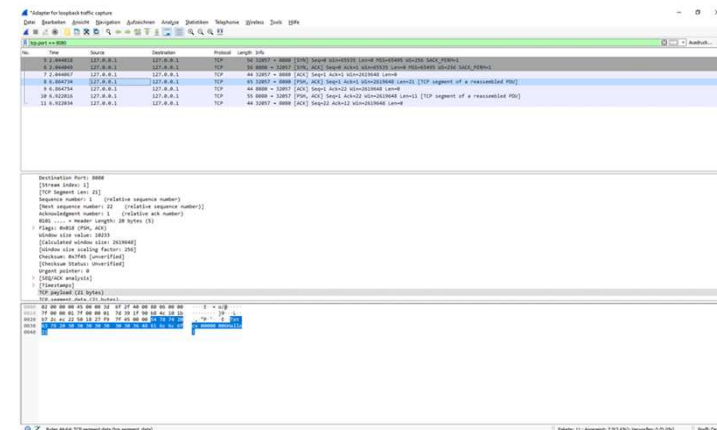
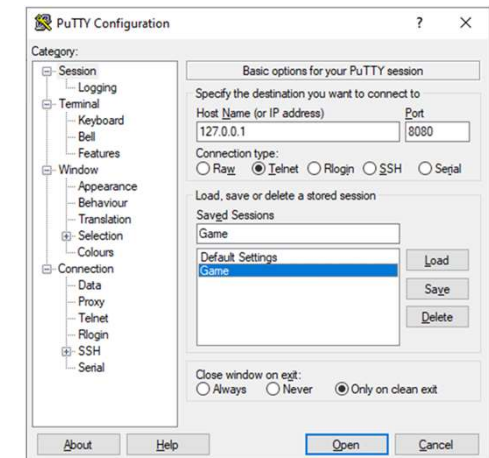
Libraries:

- Apache Common
- JUnit, Jacoco, Log4J



Kommunikation:

- Wireshark
- Putty

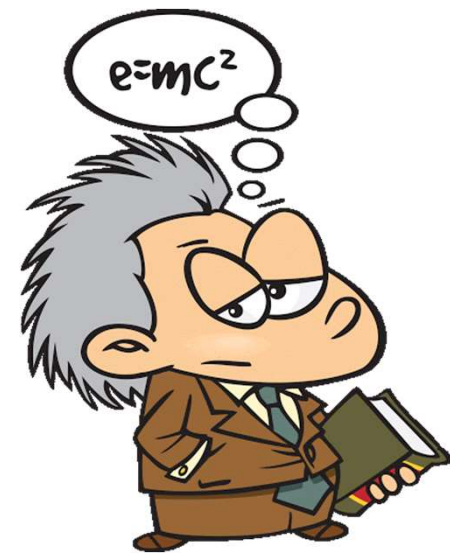


WE ARE SMARTER NOW



- Struktur des Programmes
- Kommentare
- Organisation

- Spiel funktioniert
- Unit-Tests, QA, Organisation
- GUI, Libraries



??? Fragen ???

