**TASK 1 AND 2**

|  |  |
| --- | --- |
| **VALUE** | **DEFINITION** |
| **AccDay** | **Average Accuracy per Day**, defined as the percentage of green target squares (D4) touched within the allotted time (Treact) on a working day.  AccDay is obtained through the following procedure.  1) For each trial, calculate the percentage of green target squares (D4) touched within the allotted time Treact (AccTrial).  2) For each session, calculate the average AccTrial for all trials scheduled in the session (AccSession).  3) For each day, calculate the average AccSession for all sessions conducted (AccDay). |
| **ReactTimeDay** | **Average Reaction Time per Day**, defined as the reaction time to touch the green target squares (D4) within the allotted time (Treact) on a working day.  ReactTimeDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D4) within the allotted time Treact (ReactTimeTrial).  2) For each session, calculate the average ReactTimeTrial for all trials scheduled in the session (ReactTimeSession).  3) For each day, calculate the average ReactTimeSession for all sessions conducted (ReactTimeDay). |
| **Avg 7 days** | Indicates the average trend of the value over the previous 7 working days. |
| **Avg 30 days** | Indicates the average trend of the value over the previous 30 working days. |

**TASK 3**

|  |  |
| --- | --- |
| **VALUE** | **DEFINITION** |
| **AccNoAlertDay** | **Average Daily Accuracy for squares not preceded by an alert signal** (AccDay), defined as the percentage of green target squares D4 touched within the allotted time Treact **not preceded by an alert signal**, on a working day.  AccDay is obtained through the following procedure.  1) For each trial, calculate the percentage of green target squares D4 touched within the allotted time Treact (AccTrial).  2) For each session, calculate the average AccTrial for all trials scheduled in the session (AccSession).  3) For each day, calculate the average AccSession for all sessions conducted (AccDay). |
| **AccAlertDay** | **Average Daily Accuracy for squares preceded by an alert signal**, defined as the percentage of green target squares D4 touched within the allotted time Treact **preceded by an alert signal**, on a working day. Procedure as above for squares preceded by an alert signal. |
| **ReactTimeNoAlertDay** | **Average Reaction Time per Day for squares not preceded by an alert signal** (ReactTimeDay), defined as the reaction time to touch the green target squares D4 within the allotted time Treact **not** **preceded by an alert signal**, on a working day.  ReactTimeDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares D4 within the allotted time Treact (ReactTimeTrial).  2) For each session, calculate the average ReactTimeTrial for all trials scheduled in the session (ReactTimeSession).  3) For each day, calculate the average ReactTimeSession for all sessions conducted (ReactTimeDay). |
| **ReactTimeDay** | **Average Reaction Time per Day for squares preceded by an alert signal**, defined as the reaction time to touch the green target squares D4 within the allotted time Treact **preceded by an alert signal**, on a working day. Procedure as above for squares preceded by an alert signal. |
| **Avg 7 days** | Indicates the average trend of the value over the previous 7 working days |
| **Avg 30 days** | Indicates the average trend of the value over the previous 30 working days |

**TASK 4**

|  |  |
| --- | --- |
| **VALUE** | **DEFINITION** |
| **AccDay** | **Average daily accuracy for target squares not preceded by cue squares** (AccDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **not preceded by cue squares**, on a working day.  AccDay is obtained with the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact **not preceded by cue squares** (AccTrial).  2) For each session, calculate the average of AccTrial for all trials in the session (AccSession).  3) For each day, calculate the average of AccSession for all sessions conducted (AccDay). |
| **AccCueDay** | **Average daily accuracy for target squares preceded by cue squares** (AccCueDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **preceded by cue squares**, on a working day.  AccCueDay is obtained with the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact **preceded by cue squares** (AccCueTrial).  2) For each session, calculate the average of AccCueTrial for all trials in the session (AccCueSession).  3) For each day, calculate the average of AccCueSession for all sessions conducted (AccCueDay). |
| **AccStayDay** | **Average daily accuracy for stay target squares** (AccStayDay), defined as the percentage of green stay target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **regardless of whether they are followed by cue squares or not**, on a working day. **Stay target squares** are those preceded by a target square placed on the same side of the screen in the previous sequence: e.g., target square D2 preceded by a target square D2 or target square D6 preceded by a target square D6.  AccStayDay is obtained with the following procedure.  1) For each trial, calculate the percentage of stay target squares (D2 or D6) touched within the allotted time Treact (AccStayTrial).  2) For each session, calculate the average of AccStayTrial for all trials in the session (AccStaySession).  3) For each day, calculate the average of AccStaySession for all sessions conducted (AccStayDay). |
| **AccChangeDay** | **Average daily accuracy for change target squares** (AccChangeDay), defined as the percentage of green change target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **regardless of whether they are followed by cue squares or not**, on a working day. **Change target squares** are those preceded by a target square placed on the opposite side of the screen: target square D2 preceded by a target square D6 or target square D6 preceded by a target square D2.  AccChangeDay is obtained with the following procedure.  1) For each trial, calculate the percentage of change target squares (D2 or D6) touched within the allotted time Treact (AccChangeTrial).  2) For each session, calculate the average of AccChangeTrial for all trials in the session (AccChangeSession).  3) For each day, calculate the average of AccChangeSession for all sessions conducted (AccChangeDay). |
| **ReactTimeDay** | **Average daily reaction time for target squares not preceded by cue squares** (ReactTimeDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **not preceded by cue squares**, on a working day.  ReactTimeDay is obtained with the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeTrial) **not preceded by cue squares**.  2) For each session, calculate the average of ReactTimeTrial for all trials in the session (ReactTimeSession).  3) For each day, calculate the average of ReactTimeSession for all sessions conducted (ReactTimeDay). |
| **ReactTimeCueDay** | **Average daily reaction time for target squares preceded by cue squares** (ReactTimeCueDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **preceded by cue squares**, on a working day.  ReactTimeDay is obtained with the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeCueTrial) **preceded by cue squares**.  2) For each session, calculate the average of ReactTimeTrial for all trials in the session (ReactTimeCueSession).  3) For each day, calculate the average of ReactTimeSession for all sessions conducted (ReactTimeCueDay). |
| **ReactTimeStayDay** | **Average daily reaction time for stay target squares** (ReactTimeStayDay), defined as the reaction time to touch the green stay target squares (D2 or D6, collectively considered) within the allotted time (Treact) **regardless of whether they are followed by cue squares or not**, on a working day. As defined in a previous paragraph, **stay target squares** are those preceded by a target square placed on the same side of the screen: target square D2 preceded by a target square D2 or target square D6 preceded by a target square D6.  ReactTimeStayDay is obtained with the following procedure.  1) For each trial, calculate the reaction time to touch the stay target squares (D2 or D6) within the allotted time Treact (ReactTimeStayTrial).  2) For each session, calculate the average of ReactTimeStayTrial for all trials in the session (ReactTimeStaySession).  3) For each day, calculate the average of ReactTimeStaySession for all sessions conducted (ReactTimeStayDay). |
| **ReactTimeChangeDay** | **Average daily reaction time for change target squares** (ReactTimeChangeDay), defined as the reaction time to touch the green change target squares (D2 or D6, collectively considered) within the allotted time (Treact) **regardless of whether they are followed by cue squares or not**, on a working day. As defined in a previous paragraph, **change target squares** are those preceded by a target square placed on the opposite side of the screen: target square D2 preceded by a target square D6 or target square D6 preceded by a target square D2.  ReactTimeChangeDay is obtained with the following procedure.  1) For each trial, calculate the reaction time to touch the change target squares (D2 or D6) within the allotted time Treact (ReactTimeChangeTrial).  2) For each session, calculate the average of ReactTimeChangeTrial for all trials in the session (ReactTimeChangeSession).  3) For each day, calculate the average of ReactTimeChangeSession for all sessions conducted (ReactTimeChangeDay). |
| **Avg 7 days** | Indicates the average trend of the value over the previous 7 working days |
| **Avg 30 days** | Indicates the average trend of the value over the previous 30 working days |

**TASK 5**

|  |  |
| --- | --- |
| **VALUE** | **DEFINITION** |
| **AccValidDay** | **Average daily accuracy for "valid" target squares preceded by cues on the same side** (AccValidDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **preceded by cues on the same side**, on a working day.  AccValidDay is obtained through the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact preceded by cues on the same side (AccValidTrial).  2) For each session, calculate the average of AccValidTrial for all trials scheduled in the session (AccValidSession).  3) For each day, calculate the average of AccSession for all sessions conducted (AccValidDay). |
| **AccInvalidDay** | **Average daily accuracy for "invalid" target squares preceded by cues** **on the opposite side** (AccInvalidDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **preceded by cues on the opposite side**, on a working day.  AccInvalidDay is obtained through the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact preceded by cues on the opposite side (AccInvalidTrial).  2) For each session, calculate the average of AccTrial for all trials scheduled in the session (AccInvalidSession).  3) For each day, calculate the average of AccSession for all sessions conducted (AccInvalidDay). |
| **ReactTimeValidDay** | **Average daily reaction time** **for "valid" target squares preceded by cues on the same side** (ReactTimeValidDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **preceded by cues on the same side**, on a working day.  ReactTimeValidDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeValidTrial) preceded by cues on the same side.  2) For each session, calculate the average of ReactTimeInvalidTrial for all trials scheduled in the session (ReactTimeValidSession).  3) For each day, calculate the average of ReactTimeInvalidSession for all sessions conducted (ReactTimeValidDay). |
| **ReactTimeInvalidDay** | **Average daily reaction time** **for "invalid" target squares preceded by cues** **on the opposite side** (ReactTimeInvalidDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **preceded by cues on the opposite side**, on a working day.  ReactTimeInvalidDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeInvalidTrial) preceded by cues on the opposite side.  2) For each session, calculate the average of ReactTimeInvalidTrial for all trials scheduled in the session (ReactTimeInvalidSession).  3) For each day, calculate the average of ReactTimeInvalidSession for all sessions conducted (ReactTimeInvalidDay). |
| **Avg 7 days** | Indicates the average trend of the value over the past 7 working days |
| **Avg 30 days** | Indicates the average trend of the value over the past 30 working days |

**TASK 6**

|  |  |
| --- | --- |
| **VALUE** | **DEFINITION** |
| **AccTmaxDay** | **Average daily accuracy for target squares preceded by "cue" squares on the same side with max pre-trigger time** (AccTmaxDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **preceded by "cue" squares on the same side with max pre-trigger time**, on a working day.  AccTmaxDay is obtained through the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact preceded by "cue" squares on the same side with max pre-trigger time (AccTmaxTrial).  2) For each session, calculate the average of AccTmaxTrial for all trials scheduled in the session (AccTmaxSession).  3) For each day, calculate the average of AccTmaxSession for all sessions conducted (AccTmaxDay) |
| **AccTminDay** | **Average daily accuracy for target squares preceded by "cue" squares on the same side with min pre-trigger time** (AccTminDay), defined as the percentage of green target squares (D2 or D6, collectively considered) touched within the allotted time (Treact) **preceded by "cue" squares on the same side with min pre-trigger time**, on a working day.  AccTminDay is obtained through the following procedure.  1) For each trial, calculate the percentage of target squares (D2 or D6, collectively considered) touched within the allotted time Treact preceded by "cue" squares on the same side with min pre-trigger time (AccTminTrial).  2) For each session, calculate the average of AccTminTrial for all trials scheduled in the session (AccTminSession).  3) For each day, calculate the average of AccTminSession for all sessions conducted (AccTminDay). |
| **ReactTimeTmaxDay** | **Average daily reaction time for "cue" squares on the same side with max pre-trigger time** (ReactTimeTmaxDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **preceded by "cue" squares on the same side with max pre-trigger time**, on a working day.  ReactTimeTmaxDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeTmaxTrial) preceded by "cue" squares on the same side with max pre-trigger time.  2) For each session, calculate the average of ReactTimeTmaxTrial for all trials scheduled in the session (ReactTimeTmaxSession).  3) For each day, calculate the average of ReactTimeTmaxSession for all sessions conducted (ReactTimeTmaxDay). |
| **ReactTimeTminDay** | **Average daily reaction time for "cue" squares on the same side with min pre-trigger time** (ReactTimeTminDay), defined as the reaction time to touch the green target squares (D2 or D6, collectively considered) within the allotted time (Treact) **preceded by "cue" squares on the same side with min pre-trigger time**, on a working day.  ReactTimeTminDay is obtained through the following procedure.  1) For each trial, calculate the reaction time to touch the green target squares (D2 or D6) within the allotted time Treact (ReactTimeTminTrial) preceded by "cue" squares on the same side with min pre-trigger time.  2) For each session, calculate the average of ReactTimeTminTrial for all trials scheduled in the session (ReactTimeTminSession).  3) For each day, calculate the average of ReactTimeTminSession for all sessions conducted (ReactTimeTminDay). |
| **Avg 7 days** | Indicates the average trend of the value over the past 7 working days |
| **Avg 30 days** | Indicates the average trend of the value over the past 30 working days |